

**Marketing Channels and Transaction Cost Analysis:**

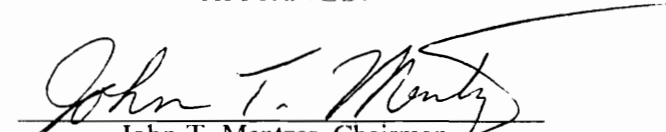
**The Role of Transaction Specific Investment**


by

Brenda Jeannette Ponsford

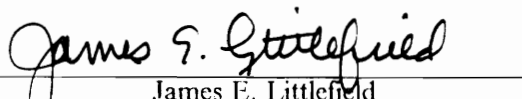
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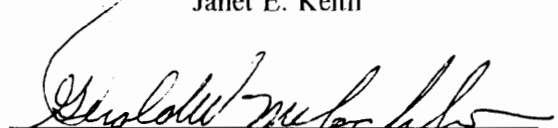
APPROVED:

  
John T. Mentzer, Chairman

  
James R. Brown

  
Janet E. Keith

  
James E. Littlefield

  
Gerald W. McLaughlin

July 27, 1993

Blacksburg, Virginia

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(ABSTRACT)

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Researchers have theorized that Transaction Cost Analysis paradigm draws a connection between transaction specific investment and opportunism with guile. This dissertation investigated this relationship during and after the negotiation process with a focus on contractual safeguarding.

It was hypothesized that the pattern of the level of anticipated investment in transaction specific investment was related to choice of governance clause (i.e., contractual safeguarding) in the final negotiated contract. Additionally, it was hypothesized that anticipated investment in transaction specific assets would be related to the amount of opportunism (operationalized as falsity) prevalent in the negotiation process. Also, it was hypothesized that after the contract was formed, the resultant investment in transaction specific assets was inversely related to opportunism (operationalized as a reduction in contract performance quality). Anticipated and resultant investment differ in that anticipated investment is proposed and not committed while resultant is not only committed investment but also includes the investment that would result with the enforcement of the negotiated contract clauses. These relationships were tested using a negotiation simulation utilizing working MBA students as subjects.

It was found that the pattern of the level of anticipated investment was related to final negotiated contract clause choice. The anticipated investment level patterns and final negotiated contract clauses were related as follows:

- 1) anticipated symmetric low investment was related to a market forces form of contractual safeguarding,
  - 2) anticipated symmetric high investment was related to a bilateral form of contractual safeguarding,
- and
- 3) anticipated asymmetric investment patterns were related to unilateral clauses favoring the high investor.

It was concluded that even in a climate of win-win negotiations and emphasis on trust building, that parties to a contract still desire contractually based safeguards appropriate to their anticipated investment in transaction specific investment.

No relationship between anticipated investment level and opportunism in the form of falsity in communications was found. Despite the rejection of this hypothesized relationship, it was concluded that one cannot depend on the anticipation of investment to serve as a disincentive to opportunism in the form of falsity in the negotiation process.

No relationship between resultant investment level and opportunism in the form of reduction of quality performance was found. Despite the rejection of this hypothesized relationship, it was concluded that one cannot depend on the presence of resultant investment to serve as a disincentive to opportunism in the form of reduction of quality of contract performance.

Contributions derived from this research included a disclosure/falsity scale survey items and a content analysis system for rating false communications ranging from bluffing to lying.

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## CHAPTER I: INTRODUCTION AND OVERVIEW

The purpose of this dissertation is to explore the role of transaction specific investment in the marketing channel with regard to the Transaction Cost Analysis paradigm. This study utilized a negotiation simulation. The nature of the investment was considered throughout the negotiation process and agreement formation. Therefore, the role of the investment was examined when it was on the table or *anticipated* and after the contractual agreement was formed. In cases where an agreement was formed, the nature of the investment also took into consideration the force of the applicable contract and hence is considered to be a *resultant investment*. The role of transaction specific investment was studied in the context of the marketing channel and with regard to the Transaction Cost Analysis paradigm. This chapter provides a brief overview of the concept of the marketing channel and an introduction to the extant theories of the marketing channel.

A marketing channel is a system of institutions and companies that is organized to provide products to final users. The organization of these systems has been the focus

of marketing research for some time. Traditionally, the evolution of channels has been thought to be the result of market forces and was explained by economic theory (Pandya 1987). For the past several decades, the relationships between channel members have been examined with a social science or behavioral orientation with the focus on the interdependencies among the members (Stern, El-Ansary and Brown 1989; Hunt, Ray and Wood 1985).

Traditional economic research has covered issues such as the relative efficiencies of different distribution choices, the trade-offs between costs and utilities and the role of resource dependence. The behavioral orientation has explored concepts important to the network of relationships among channel members. These concepts include coordination, competition, power, dependence, leadership and cooperation. Various paradigms have emerged from these two major research streams. The economic research was the precursor to the Physical Distribution paradigm and, in part, to the Transaction Cost Analysis paradigm (as explained in the following section). The behavioral research spawned the traditional Channels paradigm and the behaviorally oriented Political-Economy paradigm. However, in addition to being based in economic theory, the Transaction Cost Analysis paradigm has roots in organizational behavior as well (Mentzer, Murray and Gomes 1986).



## THE TRANSACTION COST ANALYSIS PARADIGM

The Transaction Cost Analysis (TCA) paradigm is a theoretical approach to the analysis of organizational structure and, ultimately, channel structure. The TCA paradigm is used to consider the relevant costs of conducting a business function and the relative efficiency of performing the business function within a company compared to purchasing the service or good on the market. Often, the cost of performing a business function is analyzed using a "make-or-buy" form of analysis. In a typical "make-or-buy" decision, direct labor and materials costs of making the product in-house are considered with the possible contribution to fixed costs. The resulting number is compared to the market cost of the product. A "make-or-buy" analysis may also be applied to services such as accounting, marketing and legal functions (Williamson 1985).

The TCA paradigm includes other costs such as the cost of vendor screening, the cost of negotiating and drafting the agreement and the cost of enforcing an agreement once the exchange relationship has been formed. Under normal competitive market forces, these relationship costs are kept in check. This is especially true concerning the enforcement of agreements. In perfectly competitive environments, dissatisfied businesses can easily find other suppliers or customers if the incumbent business arrangement is problematic, thus creating an incentive to follow through with agreements for fear of losing one's exchange partner. This market driven incentive reduces relationship governance costs. Likewise, substitutability of a homogeneous product allows for routinization of exchange processes that reduce transaction costs. For example, if a

product is sufficiently substitutable, agreements or contracts may be standardized. Thus, under perfectly competitive circumstances, the TCA paradigm does not deviate significantly from standard market models of business transactions. It is under conditions of imperfect competition that the TCA paradigm provides insight.

Transaction Cost Analysis deviates from classical economic theory in that it incorporates many concepts of imperfect competition and friction as well as a more realistic, if not cynical, view of the actors in a channel. Channel members are thought to have limits to their rationality and are apt to behave opportunistically when possible. The TCA paradigm can provide insight into market dynamics when circumstances of imperfect competition are present in the business environment. The circumstances of imperfect competition are: uncertainty, presence of high switching costs due to transaction specific investment and small numbers bargaining. The presence of uncertainty implies an uncertainty level that is sufficiently high such that a firm will prefer to exert more control over the business function (e.g., supply uncertainty, distribution unreliability, quality uncertainty, difficulty in monitoring, etc.). The human condition of bounded rationality also causes uncertainty as well (March and Simon 1958). High switching costs due to transaction specific investment refers to the situation in which a firm makes an investment in an asset that is only of value within a particular exchange relationship. Outside the relationship, the asset must either go through costly modifications or be scrapped (in which case it has a salvage value less disposal costs). Due to the switching costs, often the number of potential exchange partners is very small

and thus the competitive pressures are also reduced. Coupled with the propensity for humans to act opportunistically, the presence of switching costs creates vulnerability for the investing exchange partner to a non-investing exchange partner who would incur no costs if the relationship dissolved (Williamson 1985).

If these circumstances exist in sufficient degree, then a company may opt to integrate vertically and produce the product in-house. The levels of uncertainty, difficulties in monitoring, investment required that creates switching costs, bounded rationality and the propensity to behave opportunistically need not all be present. Two of these factors may be sufficient to create a situation in which vertical integration is the more efficient organizational and channel structure (Ouchi 1980). However, if these factors are at a low level, the company may decide to remain in the market. It is important to note that not all companies may have the resources to integrate vertically even if competitive conditions warrant it. Likewise, companies with sufficient resources may have strategic reasons not to integrate vertically.

Between the forms of vertical integration and market transaction is a large spectrum of channel relationships that allows organizations to modify the relationship aspects to create efficiencies. Not only are the efficiencies created in the areas of production and operations but also in preventive areas of relationship management. An appropriate relationship structure serves as a coordination mechanism not only for screening and *ex ante* concerns, but also serves as a coordination mechanism for ensuring quality performance, enforcement of the "rules" of the relationship and other *ex post*

concerns. A properly devised coordination mechanism works in this way to absorb uncertainty and thus provide a form of control (Leblebici 1985). The focus of this research was on relationships that are governed by contractual safeguarding.

The coordination mechanism of a franchise, for example, allows expertise and support to be sold to an investor who runs the business. The franchisor has developed a business plan and a trade name that has value. The investor has capital. The typical franchise agreement protects the trade name by allowing the franchisor to enforce standards while the investor prospers by benefiting from the expertise (Stern, El-Ansary and Brown 1989).

The franchise agreement is perhaps the archetypical form of a channel relationship governed by contract. However, there are other forms of contractually driven channel relationships. Other channel relationships operate by contractually safeguarding the relationships (Stern, El-Ansary and Brown 1989; Williamson 1985). Traditional contracts are agreements that contain mutually agreed upon terms by which the parties agree to be bound. The agreements are characterized by a division of the risks, the responsibilities and the benefits that accrue to the parties. Problems are anticipated with contingency clauses in which liquidated damages and other remedies are listed. Such "self-enforcing" clauses are often recognized by courts and court awards are usually based on a properly drafted liquidated damage clause. With both parties realizing at the beginning of the relationship what the possible and probable outcome would be if a lawsuit occurs, the parties have an incentive not to act opportunistically (MacNeil 1978).

Traditional contracts have been criticized for two basic reasons. First, it is impossible to anticipate every type of problem and to specify a remedy (likewise it is often an inefficient use of money and time to forecast and draft contracts for all types of problems). Second, when legalistic ploys are used in conflict management, channel member dissatisfaction often results. Resorting to a lawsuit often destroys the relationship (Stinchcombe 1985). Marketing channel scholars have begun to explore a different form of contractual safeguarding known as "relational contracting" for preserving the relationship by agreeing, ahead of time, how to work out problems. The nature and type of contractual safeguarding has optimal levels and forms as predicted by recent work in the TCA paradigm (Williamson 1985, Heide 1987). Note that contractual safeguarding has costs attached to it. However, under certain competitive circumstances, employing contractual safeguards may lead to the most efficient and effective means of managing a given channel relationship.

#### SCOPE OF THE DISSERTATION

The research undertaken in this dissertation assumed that the basic underlying assumptions of the TCA paradigm hold. The focus was on the nature of the negotiated contracts that are formed in anticipation of investment in transaction specific assets and the patterns of opportunism that emerge under different levels of resultant transaction specific investment. The fundamental model in this research was that the pattern of anticipated investment in transaction specific assets would lead to the negotiation of

certain appropriate contractual safeguards by the investing party or parties. The patterns of anticipated investment were related to the levels of opportunism as manifested by falsity in the contract negotiation process.

The model was then modified to reflect the *resultant investment* of the parties once the contract was formed. Not only was investment committed to and made, but the effect of the enforcement of the terms of the contract were also included. For example, if a non-investing party agreed to indemnify his/her bargaining partner, the non-investing party had a high resultant investment. The resultant investment would accrue should he/she breach the contract and be required to pay the indemnification.

The patterns of resultant investment were related to the incidence of accepting an opportunistic offer (IAOO). The opportunistic offer was in the form of acceptance of additional business transactions from a third company, despite the deleterious consequences on the quality of transactions with the incumbent exchange partners.

The independent variable employed was the pattern of investment (both *anticipated investment* in the first half of the experiment and *resultant investment* in the second half of the experiment). There were four distinct patterns of anticipated investment: (1) both buyer and seller would have low anticipated investment levels, (2) both buyer and seller would have high anticipated investment levels, (3) buyer would have a high anticipated investment level while seller would have a low anticipated investment level and (4) seller would have a high anticipated investment level while buyer would have a low anticipated investment level. The patterns of anticipated investment were related to two dependent

variables: (1) the final negotiated contract form and (2) opportunism as measured by falsity. The final negotiated contract form incorporated each dyad's choice of coordination mechanism/governance structure. Falsity was measured during the negotiation process using content analysis and self report post negotiation survey questions, which included a falsity scale.

The resultant investment was determined by considering the effect of the enforcement of the contract clauses. The patterns follow the same high/low combinations described above, but individual dyad members were reclassified to reflect their own resultant investments. The independent variable, resultant investment level, was then related to the dependent variable, the incidence of accepting the opportunistic offer, IA00.

The predicted relationships were based on expected motivations created by switching costs. The first relationship tested was the relationship between anticipated investment pattern and final negotiated contract clause choice. The second relationship tested was between anticipated investment level and falsity during the negotiation process. The third relationship tested was between resultant investment level and the incidence of accepting an opportunistic offer. The explanations of the underlying motivations are explained in the next paragraph using the context of the first half of the experiment when the subjects were anticipating investment.

In the first situation of symmetric low anticipated investment, the anticipated investment in transaction specific assets was sufficiently low such that the imperfect

competition situation would not likely emerge. In other words, the switching costs were insufficiently high to create a dependency between the exchange partners. Market forces would normally be sufficient to keep opportunism in check. It was expected that the members of this channel would find that inclusion of contractual safeguards would not be efficient and thus they would not initially specify nor negotiate to include them to any substantial degree in anticipation of symmetric investment (Williamson 1985).

In the second situation of symmetric high anticipated investment, both parties faced high switching costs that created a situation of mutual dependence. It was expected there would be a strong incentive to create safeguards that would be sufficiently flexible to allow the relationship to work through anticipated and unanticipated changes. The contractual safeguards selected in anticipation of symmetric investment were expected to simulate a joint business hierarchy. The concept of a hierarchy or a "relational contract" reflects the goal of problem resolution while preserving the relationship. The vulnerability to opportunism was modified in that the buyer and the seller each had a great deal to lose by a break down of the relationship. Thus, rather than creating contracts that would be characterized by a division of risk and responsibilities with damages clauses attached to contingency clauses, the contract would be more of a constitution for doing business. Consistent with the literature of TCA, in this dissertation, relational contracting is also called bilateral coordination.

The remaining two patterns are ones of asymmetric anticipated investment levels in transaction specific assets. In this pattern, one party would make a large investment



and thus faced large switching costs while the second party would not. This created asymmetrical dependency in that the high investing party would be vulnerable to opportunism by the low investing party, but the reverse would not be true. Thus, to protect itself, the high investing party was expected to wish to negotiate contractual safeguards to protect itself against opportunism. A contract that is characterized by one-sided safeguards of this form is called unilateral coordination.

Opportunism can occur in many ways: deliveries or payments may be "slowed," performance may be inferior, incorrect information may be transmitted or the entire contract itself may be reneged when the low investing party finds a better deal because the low investing party loses little or nothing. The incentives to act in good faith (by the low investing party) are reduced because the other exchange partner is "locked in" by the high investment. Thus, even if the high investing exchange partner is dissatisfied and may wish to leave the relationship, it faces large losses due to switching costs. Therefore, the range of tolerance of the high investing party is increased by the imminent loss of the transaction specific asset. Note that reputation effects are not as strong under imperfect competition because of the circumstances that reduce the number of available bargaining partners. That is, one must take what one can get.

It was expected that asymmetric investment would be related to the highest level of opportunistic behavior of all the investment patterns. Consistent with the above arguments, it was expected that the low investing party would be the one to engage in the highest level of opportunistic behavior. It was also expected that symmetric low

anticipated investment would be related to a moderate level of opportunism with symmetric high anticipated investment being related to the lowest level of opportunism.

Likewise, it was expected that the final negotiated contract type would follow the patterns of efficient governance as theorized by Williamson (1985). That is, symmetric high anticipated investment would be related to relational contracting or bilateral coordination, symmetric low anticipated investment would be related to "market forces" coordination and anticipated asymmetric investment would be related to unilateral coordination in favor of the higher investing party.

The IA00 was induced during the last half of the experiment. Individual subjects in the dyads that reached the agreement were presented with an opportunistic offer. Following the preceding explanation of the underlying motivations, the pattern of the switching costs was expected to result in the parties seeking to behave in a way that would minimize costs. The presence of high resultant investment would discourage a resultant high investor from being opportunistic because of the resultant loss. Conversely, low investment is expected to be related to a higher level of opportunism. Thus, level of investment was expected to be inversely related to level of opportunism, IA00.

## OVERVIEW OF THE METHODOLOGY

The methods used in this dissertation are reviewed in this section. The purpose of this research was to test the underlying theory of the TCA paradigm with regard to contractual safeguarding in anticipating varying levels of investment, as well as to

investigate the pattern of opportunistic behavior at different stages of the negotiation process. These proposals were tested using a negotiation simulation. Following the dictates of basic or theory-testing research, a simulation was selected to reduce, as much as possible, external sources of variation. With the enhancement of internal validity, certain limitations existed, primarily that of reducing external validity and generalizability. To generalize research results to the population of channel relationships at large, the "research setting must accurately reflect the real world" (Calder, Phillips and Tybout 1981, p. 198). However, the purpose of this research was to uncover basic principles and find theory "through the design of theory-based interventions that are viable in the real world" (Calder, Phillips and Tybout 1981, p. 198). Hence, to uncover basic theory, the test must be performed in a strong research context necessitating enhancement of internal validity.

To increase internal validity, the research questions were investigated using the experimental method. A negotiation experiment was conducted using Masters of Business Administration (MBA) students in a simulated channel environment. The relative inexperience of the students was offset by providing background information and a warm-up session. Granted, involvement of the subjects was not a precise replica of an ongoing channel relationship, but the experimental conditions provided a more pure test of the theory. Also, because the channel relationship was only simulated in the short-run, the forms of opportunism that could emerge and be tested were limited as well to intentional performance reduction and the incidence of false communications. This

limitation could not capture the richness and nuances of opportunism with *guile*, but it does indicate if opportunism does emerge under these circumstances (e.g., investment level in transaction specific assets coupled with selected safeguarding mechanisms).

The negotiation simulation proceeded as follows. The subjects were randomly placed in dyadic negotiation pairs in one of the four investment patterns. They negotiated a contract that included price, quantity and a performance clause (i.e., the contractual safeguard). The contract clauses were standard, available from a menu of different clauses reflecting either traditional (unilateral coordination) contract clauses, relational (bilateral coordination) contract clauses, or a minimally phrased clause reflecting the market form of governance. The subjects in dyads not reaching an agreement were given post experiment questionnaires. The subjects in dyads reaching agreements were given IA OO inductions in the form of memos conveying the opportunistic offers. After those subjects replied to the IA OO memos, they completed post experiment surveys.

Opportunism occurring during the negotiation process was measured through both self-report survey questions and a content analysis of the negotiation communications for false statements and the degree of falseness. Post negotiation opportunism was measured through the IA OO induction. A post experiment questionnaire was also used to inquire about sentiments of competitiveness/cooperation, Machiavellianism and opportunism. The data set was analyzed using appropriate statistical methods.

## CONTRIBUTIONS

This research provides several contributions to the field of marketing channels. First, it is a test of the TCA paradigm on the theoretical level. This research is but one step in a series of programmatic research on this paradigm in marketing channels. Future research should include tests that enhance external validity to determine the viability of the paradigm in application to actual circumstances. Second, a method of content analysis of marketing channel communications has been extended to include measures of falseness ranging from lies to bluffing to cleverly contrived uses of true statements (manipulated truth) (Angelmar and Stern 1978; Carson, Wokutch and Murrman 1982). The use of false communications has long been recognized in negotiation literature, but the development of content analysis systems has focused on other communication forces. Third, this research did not force agreement, unlike most previous channel simulations utilizing negotiations that have been in the form of bilateral monopolies. Although this research used a dyad, the negotiation scenario acknowledged the presence of alternative bargaining partners. This was one small step toward enhancing realism in negotiation simulation.

## OVERVIEW OF THE CHAPTERS

The purpose of Chapter II is to discuss the role of TCA and to review the relevant literature. The conceptual foundations of TCA may be found in organizational behavior, contract law and institutional economics. Several of the studies reviewed are from these areas rather than from the marketing channel literature. However, the studies use the

environment of the marketing channel and thus focus on channel issues. Other studies reviewed are from the marketing channel literature and hence are concerned more with variables of interest. The studies give historical foundations to the evolution of the TCA paradigm as well as theoretical and empirical support.

The purpose of Chapter III is to develop and explicate the hypotheses. The rationale underlying the hypotheses is explained and the statistical methodology is discussed. The hypotheses are also presented in statistical form with the decisions rules for rejection or acceptance (i.e., failure to reject). A short review of channel evaluation methodology is given with a discussion of the use of negotiation simulations in marketing research. The procedure of the research experiment is provided. The instruments for dependent measures are developed and discussed. The content analytic system is extended using Angelmar and Stern's (1978) system as a basis. The extension covers the analysis of communications for false statements.

The purpose of Chapter IV is to report, summarize and interpret the results obtained from the rating scales and tests of the hypotheses.

The purpose of Chapter V is to summarize the research and discuss directions for future research. Chapter V provides an interpretation of the findings and a discussion of both the contributions and limitations. The chapter focuses on the contributions of the research and closes with suggestions for future research.

## CHAPTER II: LITERATURE REVIEW AND CONCEPTUALIZATION

### INTRODUCTION

There has been considerable research on channel behavior and the interactions between channel members (Hunt, Ray, and Wood 1985). A number of paradigms have emerged to describe and model channel behavior (Mentzer, Murray, and Gomes 1986). Among these paradigms are the Physical Distribution paradigm, the Channels paradigm, the Political Economy paradigm, and the Market-Hierarchy paradigm, which is also known as the Transaction Cost Analysis (TCA) paradigm. Each paradigm tends to spawn a following of programmatic research to examine fully the approach, and eventually to lead to newer versions of the paradigm as knowledge is gathered (Laudan 1984). The purpose of this research was to test the theoretical framework of TCA in the form beginning to take shape from the research of MacNeil (1978), Williamson (1985), and Heide (1987). TCA has experienced relatively limited attention in marketing channels, but, insofar as it has been examined, it has been useful for modeling and explaining

several features of channel behavior. Though the TCA perspective seems to be promising for future applications, it has yet to be fully tested.

An overview of TCA as explicated by its foremost theorist, Oliver Williamson, and the extensions as posited by MacNeil (1978) are provided in the next section. This is followed by a broad discussion of how intrachannel relationships are coordinated with an emphasis on the use of governance structures. The governance structures discussed include hostage exchange, dependence balancing, and contractual safeguarding. An overview of several conceptual bases that assist in understanding the TCA paradigm is given in the next section. The conceptual bases include social exchange theory, power theory, and trust theory. A literature review is given covering the broad based studies in the TCA paradigm and the more specific work on contractual safeguarding and asset specificity. The chapter is concluded with a summary.

## TRANSACTION COST ANALYSIS PARADIGM OVERVIEW

The Transaction Cost Analysis paradigm is a blend of economic theory, organizational theory, and contract law. It emerged from the observation that markets do not always behave in ways that are the most efficient for a given company. Economists refer to this as "the failure of markets." Market failure occurs when the mechanisms of the market performance *fail* to give a company the highest levels of efficiency and utility. Classical economic models of the market make certain key assumptions in analyzing the path of a market to equilibrium. Unlike the models, the "real world" has many



uncertainties, and few assumptions can realistically be made. In a given channel environment, there may exist uncertainties that require cost-incurring monitoring.

The open market may not provide the best exchange environment, and so a company may choose to withdraw from the marketplace and provide a given function for itself. For example, a retail firm may be dissatisfied with obtaining a product on the open market because of supply fluctuation and, thus, may vertically integrate backwards to produce the product itself. A company also may be dissatisfied with how its products are distributed, in terms of coverage and control, and thus integrate forward by opening its own retail distribution outlets (Day 1984). This analysis is often called a "make-or-buy-decision," but the analysis is far more involved than a mere comparison of a product's purchase price with internal costing of labor and raw materials. The classic "make or buy" decision is essentially a simple price (external versus internal) comparison. However, an analysis of the overall costs of a transaction involves not only the purchase price, but control of supply in the face of uncertainty, the costs of initiating the exchange (e.g., vendor screening, negotiating, drafting a contract), the costs of monitoring any ongoing relations (e.g., monitoring performance, rectifying problems associated with nonperformance), and possible losses and switching costs if the relationship breaks down. Ordinarily, market forces would keep problems in check, but sometimes the market does not provide control, and the market fails. The costs of inefficient market transactions may exceed the costs of vertically integrating given uncertainties, investment costs, and scale

economies, thus rendering the decision to withdraw from the market and vertically integrate the more efficient choice.

This greater number of factors to analyze for a given transaction is explained by first examining why markets fail. There are several reasons that work together that would lead a company into deciding to withdraw from market exchanges. It is useful to begin the description of TCA by comparing its fundamental assumptions to the assumptions of classic economic theory and, in particular, pure competition. Differences are discussed in turn and summarized at the end of this section. The other two foundations of TCA, organizational theory and contract law, will be discussed subsequently. The basic assumptions of TCA often depart from the assumptions of classic economic theory. These include the assumptions of rationality, free movement of labor/goods, perfect information, and firms as price takers.

Classical economic theory is based on several assumptions: (1) rational man, (2) perfect information, (3) price taking, and (4) free movement of goods and labor. The first assumption is that people are perfectly rational (Becker 1976). Even contemporary analysis of the economics of law uses the rationality assumption for pedagogical exposition, even though the legal notion of the "reasonable man" recognizes and only requires a lower level of logic (Cooter and Ulen 1988). More modern thinking suggests that although people may desire, try, and often succeed to be rational, the rationality level achieved can best be described as "bounded." March and Simon's (1958) research supports the notion of rationality being limited. Williamson (1975) describes bounded

rationality as more-or-less rational. The two primary alternatives to rational thought are (1) non-rational or emotionally dominated thought and (2) irrational or clinically disturbed thought. Ignoring the possibility of any significant amount of irrational thought dominating economic decision-making, non-rational decision criteria are difficult for humans to ignore completely; that is, people may be unable to ignore their feelings while considering their rational thoughts. Thus, different people with the same information can and do draw different conclusions. Often in business decisions, subjectivity—the personal non-rational influences on choice—plays a large role, and perfect rationality is not achieved.

The rationality problem is further influenced by the fact that people do not possess perfect information. The second assumption of classical economic theory is that economic actors possess perfect information. Classical economic theory assumes that perfect information exists and is available to decision-makers. While this assumption is helpful for certain economic analytical purposes (Friedman 1962; Belante and Jackson 1979), this assumption is not made in TCA. Instead, along with more modern theories of the firm, the costs of information gathering are fully recognized. The types of information relevant to a firm's control of intrachannel relations are vendor (or customer) search and screening, bargaining and contracting costs (insofar as acquiring information about the opponent's preferences), and *ex post* agreement monitoring costs to learn if the agreement is being executed as expected. Even with a large amount of information about a given situation, performance monitoring can be complicated when there are ambiguities in performance

measurement (Leblebici 1985). Also, without perfect information, even a "rationally" drawn decision is subject to uncertainty. It is expected that business decisions are made with hedging built in (Brigham 1982).

Williamson deviates sharply from the perfect information assumption by identifying the problem of "information impactedness." He states (1975, p. 14) that information impactedness:

...exists in circumstances in which one of the parties to an exchange is much better informed than is the other regarding underlying conditions germane to the trade, and the second party cannot achieve information parity except at great cost--because he cannot rely on the first party to disclose the information in a fully candid manner.

This condition leaves companies in varying degrees of uncertainty and allows the more informed party the chance to use the information advantage opportunistically.

The third assumption in classical economic theory is the notion that companies are price takers. This means that no one company can exert sufficient influence to affect price (and by implication, other dimensions of the exchange environment) since so many companies are competing in the marketplace and all are producing essentially homogeneous goods. Consequently, firms accept the market price or are price takers rather than price setters. Inherent controls exist when there are many producers to choose from and no difficulties in identifying them nor trading with them. If there are many companies bidding for one firm's business, the availability of alternatives acts as a control (i.e., unhappy customers may go somewhere else). As the number of businesses diminish, the inherent control subsides as well (Williamson 1985). TCA recognizes that all

companies do not make homogeneous goods and are not forced to follow the market cues. Indeed, companies go through the purchasing process of seeking information to evaluate both goods and supplier companies (Webster and Wind 1972). When the number of candidate suppliers becomes small, the problems of imperfect competition may arise and thus bring about market failure because of the loss of the inherent control of the market. In the TCA paradigm, this problem is known as small numbers bargaining. Campbell (1985, p. 36) explains the importance of market controls on industrial structure:

Equity is assured in many exchanges by the market mechanism. A fair price is established by competitive market forces, and the price itself contains most of the information needed by the parties. Such relationships are independent. However where the exchange is contingent on uncertain future events, assessment of price is very difficult. Never-the-less, the requirement for equity remains and, for this reason, a bureaucratic, or hierarchical, relationship is preferred. The perception of equity depends on a social agreement that the bureaucratic system has the legitimate authority to decide what is fair.

Campbell's reasoning shows how a company may withdraw from using the market as a means of uncertainty absorption when the market no longer provides inherent control.

The fourth assumption of free movement of goods and labor does not address the problem in which switching costs exist. Free movement of goods and labor means "movement from one employment to another can be accomplished instantly and at no cost" (Belante and Jackson 1979, p. 144). The rapid entry and exit mechanism presupposes that a company experiences "no significant obstacles -- legal, technical, financial, or other" (McConnell 1981, p. 437). Conversely, the TCA paradigm recognizes the special problems of an exchange relationship in which an investment in

highly specialized assets is required. The level of specialization is such that the assets may not be redeployed into another alternative exchange relationship. This type of investment is also known as "transaction specific assets" or "nonredeployable assets" to indicate the fact that outside the particular exchange relationship their value is equivalent to the scrap value of the materials. Thus, to switch to another exchange partner would involve significant costs. The company with the transaction specific assets would find that to change exchange partners would require a major new investment as the old asset would be rendered valueless. The effect of such an investment is noted by Ruckert, Walker, and Roering (1985, p. 17):

When the task requires highly specialized assets, the number of interested suppliers is likely to be small (although there are other conditions such as large economies of scales, that might also lead to small numbers of suppliers), which makes the buyer vulnerable to opportunistic behavior by the supplier and leads to higher transaction costs.

Discussion of how a vulnerable firm may safeguard itself against the presence of such opportunism is given later in this chapter. This situation may give rise to opportunism because the buyer is now trying to function in a dysfunctional market. Since there are fewer exchange partners available, a company has fewer alternative exchange partners to turn to when dissatisfied with a current partner. Also, it is costly for a company to switch if transaction specific assets are involved. Consequently, a company may find that when switching costs are high, it will be tolerant of exchange partner behaviors which it may not tolerate in other situations of cheaper or easier switching.

The role of self-interest is fundamental to the idea of pure competition. McConnell (1981, p. 41) explains that self-interest, or the desire of firms and individuals to maximize profit while consumers desire to maximize utility, is the major source of motivation in a free enterprise system. Also, "the motive of self-interest gives direction and consistency to what might otherwise be an extremely chaotic economy." Milton Friedman (1962), a very strong advocate of free enterprise, explains that businesses should try to maximize profits as long as they do so within the rules of the game, that is, without deception or fraud (Steiner and Steiner 1980). However, under conditions outside of free competition, opportunistic behavior may surface due to the lack of market controls. Opportunism is becoming a major concept in TCA (Williamson 1979). Opportunism should not be confused with mere self interest. Opportunism is the unchecked immoral side of self interest. Where normal self interest is a motivating and positive, opportunism is corrosive.

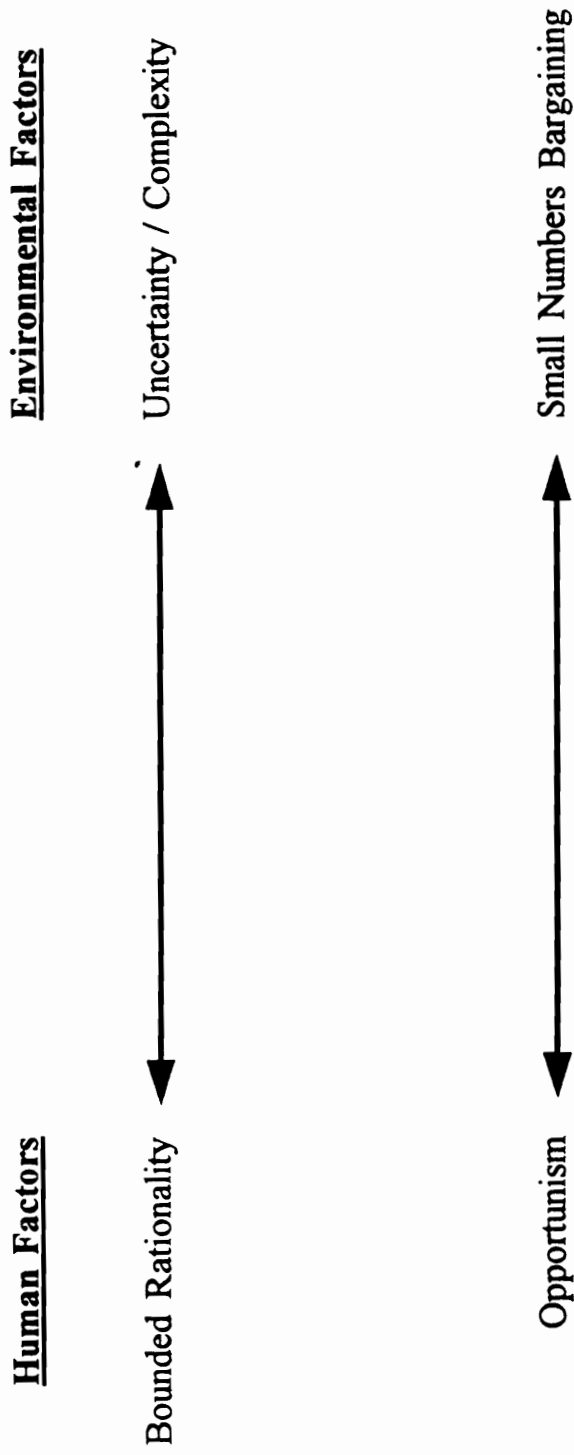
Williamson's (1985) notion of opportunism refers to the negative side of self interest, that is, including *guile*. "This includes but is scarcely limited to more blatant forms, such as lying, stealing, and cheating and often involves more subtle forms of deceit" (Williamson 1985, p. 47). Williamson borrowed Peter Diamond's observation to explain this departure from the classic notion of self interest. Diamond observed that "...standard economic models treat individuals as playing a game with fixed rules that they obey. They do not buy more than they can pay for, they do not embezzle funds, and they do not rob banks" (Williamson 1981, p. 554). Other forms of opportunism include

renegeing without cause, not fulfilling agreements in good faith, shirking, and carelessness (Fitzroy and Mueller 1984). The presence of opportunism with *guile* is a function of uncertainty coupled with the lack of information. With perfect knowledge of a situation, control is easy. This, however, is not always the case. Without perfect knowledge, opportunism can occur. Vulnerability to opportunism increases with switching costs (i.e., an investment in transaction specific assets) and the absence of an appropriate governance structure to insure adherence to the agreement.

To summarize, Transaction Cost Analysis (TCA) is a complex version of the "make-or-buy-decision." That is, a company analyzes an exchange environment and decides if it is better off purchasing on the open market or withdrawing from market exchanges and vertically integrating to perform the function itself. The exchange environment under conditions of imperfect competition is characterized by: (1) bounded rationality (2) uncertainty, (3) information impactedness, (4) small numbers bargaining, (5) switching costs or friction in exchange, and (6) opportunism with *guile*.

Ouchi (1980) adopted Williamson's framework into the "Market Failures Framework" which illustrates the connections between two major sets of factors, human and environmental (see Figure 1). The human factor of bounded rationality is connected to and increases the problem of environmental uncertainty. The "bounded" nature of rationality diminishes the ability to use even readily available information. Thus,





**Figure 1 The Organizational Failures Framework**

uncertainty remains a factor to be dealt with. Also, the human propensity to act opportunistically can more easily occur in the situation of only a few economic actors (small numbers bargaining). The small numbers situation does not enjoy the same presence of market forces that a large numbers situation does. Therefore, the market forces are not sufficiently present to check opportunistic behavior.

Additional dynamics of information impactedness and small numbers bargaining also should be considered. Uncertainty can result from information impactedness. The impactedness occurs when one exchange partner possesses, but does not share, information relevant to the exchange environment. The lowering of exchange partners to "small numbers" is often the result of the presence of switching costs that, in turn, create a situation in which one party is vulnerable to opportunism. Although all four factors are shown in Figure 1, "according to the paradigm, individually not one of the four conditions can produce market failure, but almost any pairing of them will do so" (Ouchi 1980, p. 133). Thus, only two of these factors need to be present for market failure to occur.

## ROLE OF GOVERNANCE STRUCTURES

The role of governance structures in organizational theory may be regarded as a choice between two means for obtaining cooperation. The primary two options are markets and hierarchies. The formation of an organization occurs when collective action results in a higher level of utility than individual action. However, goods and services may be purchased in the marketplace such that collective action can be obtained through

market based purchasing rather than by forming an organization. An example of this is the hiring of temporary workers (ranging from laborers to professional consultants) on the open market. This is the acquisition of collective action on the market. Collective action helps a firm reduce future uncertainties and increase control (Ouchi 1980). Duncan (1979) states the two fundamental objectives of a firm are uncertainty reduction by facilitating information flow and the coordination of effort toward a goal. Both processes are facilitated through management and rule making.

Using the notion of efficiency, organization theorists state that institutions are formed to achieve various goals. "The efficiency hypothesis holds that given the conditions that cause transaction costs, different organizational forms become more or less efficient under varying conditions" (Leblebici 1985, p. 100). That is, in response to the state of uncontrollable environmental variables, the organization takes shape to perform its functions in the most efficient way possible (supposedly, less efficient organizations do not survive). Likewise, as organizations take shape in response to uncontrollable environmental variables, so do channels.

In Williamson's (1975) earlier work, TCA was bipolar in nature: either a company continued with market transactions for a given exchange problem or vertically integrated. This bipolar limitation was a major criticism of the theory in that other structural patterns between firms exist (Boisot and Child 1988). In later works on TCA, Ian MacNeil's (1978) work on social contract exerted its influence. MacNeil (1978) identified the idea of a "relational" contract that provides a transactional form or instrument to enable

companies to cooperate closely. Williamson (1975) had previously discounted the role of contract as a way of controlling uncertainty by mitigating opportunism. The basic problem is that it is impossible to anticipate every contingency and to include a remedy for it in a contract. Telser (1980, p. 44) mathematically modeled the path of violations of self-enforcing contracts (that is, one in which contingencies are specified) and found that

...violations of a self-enforcing contract are the response to unexpected changes in the underlying factors that determine the terms of the agreement. Owing to these unexpected changes, there may be violations if the parties cannot find mutually acceptable terms appropriate for the new conditions...highly uncertain conditions are not conducive to self-enforcing agreements.

Under conditions of high uncertainty, agreements between companies are not always satisfactory. Thus, according to Williamson (1975), if the inherent controls of the market cannot prevent opportunism, then a company should vertically integrate.

These criticisms may be valid for agreements that are characterized by contingency planning but not all contracts have inherent problems about working with uncertainty. MacNeil (1978) categorized contracts in terms of ambiguity with regard to contingencies and suggested that even if all contingencies could not be anticipated, then the parties could agree, *ex ante*, to a form of governance that would settle any future problems. This prespecification of a means of conflict resolution could allow the relationship between companies to continue. The most obvious method would be to insert an arbitration clause that would allow the relationship to continue throughout dispute resolution.

Williamson (1985) recommended a set of optimally efficient governance structures based upon the investment characteristics and the frequency of exchanges. The frequency of exchanges concept denotes the number of exchanges and connotes the anticipated amount of future exchange. Depending upon the level of investment and the frequency of exchange, there are optimal governance structures according to Williamson (1985). The optimal governance structures matrix developed by Williamson is adapted and presented in Figure 2.

Following the theory discussed above, in situations of symmetric low investment regardless of exchange frequency, market forces are considered sufficient and the most economically efficient. When asymmetric investment in transaction specific assets is present such that one party is a high investor while the other is a low investor, frequency of exchange should be considered. With occasional frequency, unilateral coordination is optimal. However, with high frequency, bilateral coordination is preferred. This reflects the fact that the frequently trading firms have a relationship that should be preserved in a more flexible format. Please note that "... with high symmetric investment, the set-up costs of a transaction-specific governance structure cannot be recovered for occasional transactions. Given the limits of classical contract law for sustaining such transactions on the one hand and the prohibitive costs of...bilateral

**FREQUENCY OF EXCHANGE**

**PATTERN OF  
TRANSACTION  
SPECIFIC  
ASSETS**

**LOW**

**HIGH**

Symmetric  
Low

Market  
Forces

Market  
Forces

Asymmetric

Unilateral

Bilateral

Symmetric  
High

Trilateral or  
Vertical  
Integration

Vertical  
Integration  
or Bilateral

Symmetric High  
(without  
vertical  
integration  
option)

Trilateral

Bilateral

(Adapted from Williamson 1985)

Figure 2 Efficient Optimal Governance Forms

governance, on the other, an intermediate form is evidently needed" (Williamson 1985, p. 75).

"Trilateral coordination" is the term used to indicate this intermediate form in which third party intervention is planned to help coordinate the transaction (for simplicity in this research effort, trilateral coordination is subsumed within bilateral coordination because its coordination mechanism simulates a hierarchy as specified by Stinchcombe 1985. Vertical integration is also an optimal form with sufficient resources to so integrate. With high exchange frequency and high symmetric investment, it is worth spending the resources to create a bilateral coordination form or to vertically integrate. In this situation, a high exchange frequency may be best achieved under vertical integration. However, if vertical integration is not feasible, bilateral coordination is considered the most efficient form. Note that the TCA paradigm is normative, and a firm may not wish to integrate vertically or even have the means to.

When a firm is in the situation in which vertical integration is recommended but the firm does not opt to vertically integrate, there are several ways to govern the relationship. These are: (1) hostage exchange, (2) dependence balancing, and (3) contractual safeguarding.

## HOSTAGE EXCHANGE

Williamson (1985) discussed the industrial use of "hostage exchange." Hostage exchange gets its name from a very similar practice of old when royalty exchanged family

members with other nations to insure peace. The ideal hostage is one who has great value to the giver but insufficient value to the holder such that the holder does not prefer breaking the agreement to appropriate the hostage to the holder's own use. Williamson uses medieval logic in suggesting that the perfect hostage is an ugly princess who is well loved by her father, but valued only as a hostage by her "keeper." In the modern industrial sense, the assets that are exchanged by companies should have great value to the giver, but no value to the holder should the agreement break down.

In some industries, it is commonly recognized by exchange partners that one or both must invest in transaction specific assets. However, investment creates vulnerabilities. If the asset investment is useless outside the exchange relationship, the owner of the asset is at risk if the exchange relationship should break down. Due to the risk of such an investment becoming useless, it is common practice for the asset to be owned by the trade partner who can benefit from it, regardless of which partner actually uses the asset or where it might physically be located. For example, in the auto parts market, the automobile manufacturer often owns the dies that the parts maker uses to make parts for the manufacturer. Conversely, the parts maker owns the tooling the automobile manufacturer uses to put the parts into the car itself. Sometimes the hostage exchange is only one-sided if there is only one transaction specific asset involved. The arrangement not only shifts risk, but creates a disincentive for opportunism. Related to hostage exchange is a contractual safeguard in which one party agrees to indemnify a second party if the second party agrees to undertake a risk for the benefit of the first



party. An example of this would be if a buyer asks a supplier to carry a particular item that it could not sell to any other customer and/or poses risks of obsolescence such that the supplier would not wish to stock the item. In the contract, the buyer would agree to indemnify (or compensate) the supplier for any losses due to such risks.

## DEPENDENCE BALANCING

Dependence balancing is the practice of making investments in relationships with other channel members to offset the dependence on the dominant channel members (Heide and John 1988). Considering vulnerability to power as dependence, sometimes a lower power exchange partner is not able to use any of the safeguards discussed. The lower power partner may not have the capital to integrate vertically, a hostage exchange is not feasible, nor can the lower power exchange partner extract favorable contractual safeguards. Thus, the strategy is to attempt to increase power with another channel member. For example, consider the channel:

manufacturer → distributor → retailer.

If the manufacturer can easily leave an exchange relationship with a lower power distributor, the distributor may be able to balance this dependency situation with efforts to increase power with the retailer. Heide and John (1988) researched the situation of manufacturers' agents making offsetting investments in their relationships with client companies. The investment increases the client's loyalty toward the agent, thus out distancing the client's loyalty toward the manufacturer. This strategy could be used to

enhance reward, referent, and/or expert power of the middle member (agent). More discussion of Heide and John's (1988) research may be found in the literature review section of this chapter.

## CONTRACTUAL SAFEGUARDS

As discussed above, contracts may be used to simulate a hierarchy and are not confined to discrete spot market-type transactions. Contracts may be used to safeguard relationships by providing coordination of interfirm relationships. Because interfirm relations involve the use of contracts, background material on American contract law is included as well as a discussion of the role of contracts in channels. A theoretical argument is presented to support the idea that a contract may be used to simulate a hierarchy between two firms. Coordination between firms may be either in one direction (unilateral) or mutually in two directions (bilateral). These principles are covered within the discussion on the simulation of a hierarchy as explicated by Stinchcombe (1985).

### American Contract Law Principles

American contract law principles are briefly reviewed in this section. An expanded discussion is provided in Appendix A. In its essence, a contract is an agreement between two parties in which the first party has made an offer containing sufficiently certain terms with an intent to be bound and the second party accepts. The notion of accepting means an assenting to the terms. Traditionally, this implies a meeting

of the minds, that is, both parties agree to the terms. It does not mean that one party offers term X and the second party counter offers with term Y. Many contracts have sufficiently certain terms but need to be interpreted by a court to adjudicate a dispute. Evidence may be admitted to court to expand what was meant by a clause, to add consistent terms, or even to establish the customs and usages of an industry to help define terms.

Contracts may fail for several reasons, such as not meeting legal code requirements that certain contracts be in writing, lack of consideration, illegal contents, etc. Appendix A contains a brief overview of contract law and a discussion of how contracts are interpreted.

Williamson's earlier views (1975) on using contracts were strongly influenced by the notion that for a contract to govern the exchange, all contingencies must be accounted for in remedies clauses. An example of this would be a specification reading that if the contract is not performed by such and such a date, the party must pay damages of a given amount. What Williamson (1975) referred to is known as "hard contracting." Certainly, hard contracting is used and Williamson's (1975) criticisms are well taken. However, hard contracting is not the only effective means of contractual safeguarding. "Soft contracting" or flexible contracting was noted by Llewellyn (1931) as a viable way of safeguarding relationships.

Llewellyn (1931) argued that exchanges can utilize enforceable contracts that are not merely a listing of contingency clauses. MacNeil (1980) continued this idea in his

monograph "The New Social Contract" in which he developed the notion of a "relational" contract in "flexible form" that would provide the basis for resolving issues as they arise. If one defines a hierarchy in terms of the managerial problem-solving abilities of a firm, then one can achieve a hierarchy by either vertically integrating or specifying terms in the contract that simulate the mechanism. Thus, a contract can serve as a substitute hierarchy though both parties to the contract remain separate. Stinchcombe (1985, pp. 127-8) identified five elements of a hierarchy. These are (paraphrased): (1) subjection to authority, (2) a trust or fiduciary relationship, (3) the right to measure and reward performance, (4) governance of activity, and (5) meetings for internal dispute resolution.

These elements are easily recognizable in a vertically integrated firm. When applied to a contractual relationship, these elements are transformed. The first element, subjection to authority, may be viewed from the standpoint of how uncertainty affects that for which one is bargaining. Stinchcombe (1985) refers to subjection to authority in the contractual sense as a command structure. This may be formed by the parties agreeing on a set standard of quality that the supplier is to follow in providing a good or service and the receiver is to abide by in evaluating the good or service provided.

The second element, a trust or fiduciary relationship, would be formed when the good or service bargained for requires some expert knowledge on the part of the provider. An example of this occurring in a contract would be found in a pricing mechanism such as "cost-plus" which implies that the provider is trusted to include in the costs only what is necessary.

The third element, the ability to monitor and reward performance, may be easily found in "right to inspect" or "audit and payment" clauses for incremental completion. The ability to monitor may be combined with a fiduciary relationship in which a sufficiently disinterested party, such as an architect, may determine if the execution of an agreement is proceeding as planned and, if so, approve payment. Although one party may be paying the architect, an architect is also held to external professional scrutiny and may be assumed to be holding to the external professional standards. Another form of a monitoring/reward system is affected through incentive systems. A common incentive system is a fixed price clause in a contract in which one party agrees to buy an agreed quantity at an agreed price. The supplier may be able to reduce costs and yet still get the agreed price. Thus, there is a built in incentive to increase the efficiency of the production process (Stinchcombe 1985).

The fourth element, governance of activity, may be effected through standard operating procedures. Standard operating procedures may be specified in the contract such that the exchange activities may proceed as expected. Some contracts include very complete agreements on how an order is verified, shipped, inspected, and returned. Other contracts may contain formulas for price adjustments based on fluctuations in the open market. Another way to standardize operations is through the use of a schedule.

The fifth element, meeting for dispute resolution, may be achieved via the contract. Dispute resolution may be "internal" between two parties in that they do not resort, at least in the first instance, to judicial proceedings. Stinchcombe describes the

"hierarchical" version as apart from both the courts and the marketplace because a hierarchy can have its own internal procedures. An arbitration clause with protocols for selection of the arbiters as well as instructions on which party bears what costs is an example of this hierarchical element being included in a contract. Isolation from the market would imply that market forces would not always be able to provide disincentives to conflictual behavior. To summarize in Stinchcombe's (1985, p. 156) words,

...clearly a structure with relations of command, and incentive system partially isolated from the market, standard operating procedures, internal dispute resolution structures, and subunits whose 'price' is determined mainly by costs, is quite near to what can be described as a typical 'hierarchy.'

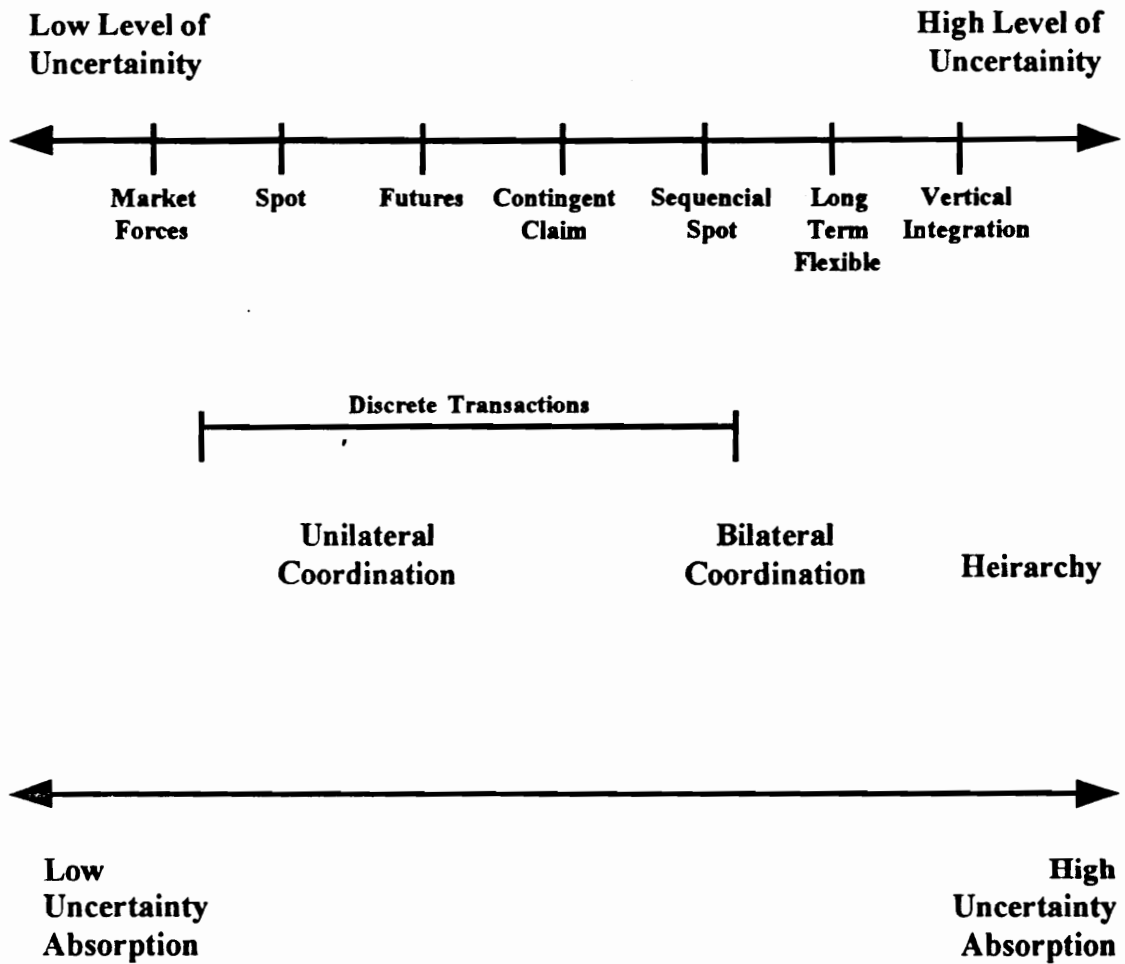
In summary, it is possible to create or simulate a hierarchy through a "relational" contract (i.e., bilateral coordination). Williamson (1985) moved from a simple markets and/or hierarchies dichotomy to expressing the forms of channel structures as a continuum bound by markets and hierarchies with a mixed center of "relational contracting." As Goldberg (1976) explained, "as the relational aspects of a contract become more significant, emphasis will shift from a detailed specification of the terms of the agreement to a more general statement of the process of adjusting terms of the agreement over time—the establishment, in effect, of a *constitution* governing the ongoing relationship" (emphasis added p. 428). Although MacNeil's (1978, 1980) work on relational contracting implied a strong sentiment of "integrative striving" between the two companies within a relationship, the continuum may include elements of both hard and soft contracting and mixed channel modes. Figure 3 (adapted from Leblebici 1985) depicts a continuum of

governance structures, spaced along by appropriateness, under conditions of low to high uncertainty. The different modes absorb differing degrees of uncertainty with vertical integration absorbing the most.

### The Role of Contracts in Channels

The role of contracts in marketing channels varies and sometimes is nonexistent. Macaulay (1963) researched the extent of non-contractual relations in business. Macaulay defined the terms "contractual" and "noncontractual" to denote high levels of formality and intended enforceability of the agreement in the former and an absence of such details in the latter. This terminology deviates somewhat from both the channel organization typology and the traditional legal usage. In channels literature, a "contractual channel" refers to one in which the functions that each channel member is to perform are covered in a written contract (Stern, El-Ansary, and Brown 1989). However, other channel arrangements utilize contracts (implied or expressed) but may not be called "contractual channels." The channel typology will not be used here, and the reference to contract usage is not meant to necessarily denote a "contractual channel."

Likewise, a contract, in the legal sense, means an acceptance of an offer that was made with an intent to be bound and a certainty of terms (see Appendix A for an



(Adapted From Leblebici 1985)

Figure 3 Uncertainty Level and Coordination Forms



overview of contract law). However, Macaulay's (1963) usage of "contractual" provides a useful continuum which describes the degree of involvement of the parties rather than merely designating if there is indeed an exchange relationship. Macaulay's (1963, p. 56) term, contractual, has

...two distinct elements: (a) rational planning of the transaction with careful provision for as many future contingencies as can be foreseen, and (b) the existence or use of actual or potential legal sanctions to induce performance of the exchange or to compensate for non-performance...The devices...may be used...in a more or less contractual manner (a) of creating an exchange relationship or (b) of solving problems arising during the course of such a relationship.

A relationship that is non-contractual would be formed without what could be described as rational planning or forethought. Providing for any anticipated problems would not be considered nor would sanctions be prescribed. Legally, the injured party to a breached enforceable contract may be compensated for damages even without a liquidated damages clause. Using Macaulay's term, such a weak "contract" would be "less-contractual" in nature.

A highly contractual contract would contain explicit and carefully drafted clauses addressing the definition of performance, the effect of contingencies, the effect of defective performance, and the legal sanctions (Macaulay 1963). Between the extremes of high and low, these issues may be covered by tacit agreement, unilateral assumption, or the parties may be unaware that such an issue exists. Of course, a party may be aware of an issue but opt not to address it for strategic reasons or lack of bargaining power. For this dissertation, Macaulay's terminology of "contractual" and "non-contractual" is useful

but awkward. Instead, the terms unilateral and bilateral are used here to describe the direction of term specifications. Unilateral has the connotation of "contractual" in that the tendency for unilateral specification is directed from one party to the other without mutuality of adjustment. Bilateral has a different connotation. It is more relational in that the specifications come from both parties, toward one another, but with an implication of mutual coordination. In this case, it will denote a contract that is more relational in character. Non-contractual seems to imply that market forces enforce the "agreement."

Stinchcombe (1985) added an extension to Macaulay's discussion of specifying contingency clauses in anticipation of defective performance. Considering Williamson's (1975) notion of bounded rationality, the TCA paradigm states it is not possible for the parties to be able to anticipate all contingencies that may arise. Indeed, it is not economical to write a fully encompassing contract in the extreme omniscient sense. Hence, the fundamental dictates of the TCA paradigm would be either to tolerate the "market" nature of an inadequate contract or to integrate vertically (Williamson 1975). Recall that Stinchcombe (1985) proposed that a dyad could enjoy the benefits of vertical integration or a hierarchical organization while remaining independent by including contractual clauses that simulated a "hierarchy." This would provide a framework for conflict resolution should it be needed. A simple example of such a structure would be an arbitration clause that also would specify protocols for selecting arbitrators, the forum, fee responsibilities, circumstances of binding decisions, and so forth. The simulated

hierarchy relates to the notion of mutuality and thus bilateral specification of how the relationship is to be ordered or coordinated.

The question also arises as to what extent companies use formal contracts in their business relationships. Using field interviews of sixty-eight business people and lawyers, Macaulay (1963) found that companies do not use high levels of contractual planning in all areas of contract drafting except in circumstances involving large dollar amounts. For major deals, companies often have "set" procedures in which their legal departments review the transactions. Companies routinize common transactions by the use of business documents. Preprinted forms used in routine transactions often have contract terms printed on the reverse sides. Under the Uniform Commercial Code (1978) companies using preprinted forms have enforceable contracts even when the forms they exchange have different terms (Section 2-207). The preprinted forms allow for smaller transactions and ongoing transactions to proceed without undue negotiation about contract clauses.

Often, companies act without forming legally enforceable binding contracts. Macaulay (1963) cited an in-house study performed by a large manufacturer in which four years of orders were reviewed on the basis of whether a legally binding contract had been formed or agreement on terms had been made. For the years 1953-1956, the percentages of orders without contractual protection varied from 56% to 75%. Macaulay (1963) noted that these lax procedures left the firm open to tremendous risk. Additional findings showed that the degree of "contractualness" varied within individual documents. Some aspects were very contractual (or unilateral), that is, tightly drafted, whereas other aspects

were not even mentioned. He also found that many businesses ran on trust, not even so much because they trust one another, but because requests to construct a contract are considered overly legalistic and offensive.

The importance of contract formation may be changing. Using data on the contract dispute filings in Federal Court as an indicator, the trend toward the importance of contract issues shows an increase. In the early 1960s, less than 10% of the cases filed were related to contract disputes (Macaulay 1963). However, more recent research suggests that the number of contract dispute filings has sharply increased over the past few years. Galanter and Rogers (1988) found a larger increase in the number of such cases filed each year. The gross number increased 257% from 1960 to 1986. In 1960, there were 13,268 filed; in 1986 there were 47,443. The percentage of civil cases involving contract disputes rose from under 10% in 1960 to 18.7% in 1986. This is despite a massive overall increase in the number of civil cases filed (an increase of 398% from 1960 to 1986). As a point of comparison, tort case filings (which are currently thought to be responsible for the litigation boom) make up only 16.5% of the cases filed. However, over 90% of the contract disputes filed are settled out of court (Barrett 1988). Likewise, there has been an increase in the number of disputes taken to other third-party dispute settling institutions (Galanter and Rogers 1988).

In evaluating Macaulay's earlier research (1963), several factors have surfaced that may explain his results. Galanter and Rogers (1988) observed that during the time of Macaulay's research the U.S. was in a time of strong economic health. The lower

environmental uncertainty may have allowed the firms to tolerate a lax orientation toward coordinating intrachannel relations. It also can be argued that the type of exchanges must be considered. Following Williamson (1985), if the transactions did not involve transaction specific investment, then market forces are sufficient. It is when a large investment is made in transaction specific assets that other forms of safeguards are needed. This is somewhat parallel with Macaulay (1963) noting that high levels of contractual planning seemed to occur mainly in contracts for large dollar amounts. Galanter and Rogers (1988) also hypothesized that the increase in product specialization has increased the need for specific performance. Specific performance is a legal remedy in which the defendant is ordered to do what he had promised to do rather than pay money damages. It is usually applied in cases in which the subject of the contract is unique (O'Connell 1985). The requirement of unique subject matter may imply a small numbers bargaining scenario. Galanter (1988b) has initiated a preliminary study to examine this idea.

A little more than twenty years after his initial research, Macaulay (1985) again examined the use, or rather non-use, of contracts in channel relations. He found several reasons behind the non-use of contracts. One important reason for non-use is the workings of the interorganizational culture among companies. Often, with regard to long-run expectations and reputations in a given industry, a company will tolerate an adverse exchange relationship. Sometimes, this is with the expectation of reciprocity. The exchange partner expects that the next deal will be favorable. Often, though, the

tolerance is not in expectation of reciprocity, but rather to preserve its own reputation in the industry. It does not want the reputation of being difficult to do business with (Macaulay 1985).

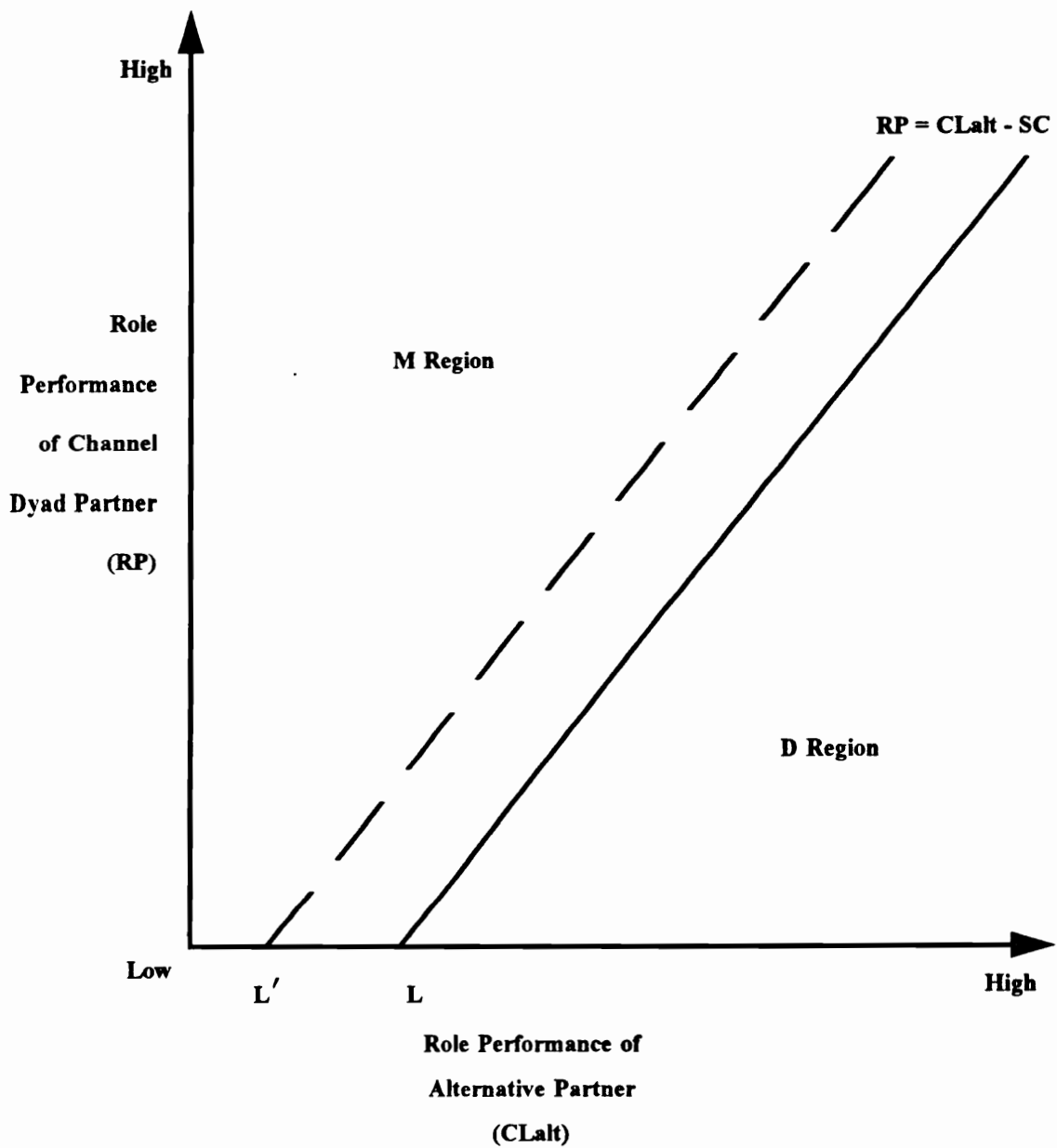
## CONCEPTUAL FOUNDATIONS RELATED TO TRANSACTION COST ANALYSIS

There are several theories that have been applied to channel behavior that are consistent with Transaction Cost Analysis (TCA). The TCA paradigm emphasizes the reduction of transaction cost and seeks to explain why firms choose to set their boundaries where they do. If a firm does not opt to vertically integrate when the TCA paradigm would so prescribe, then the inner workings of interorganizational behavior must be examined. Three conceptual theories that may enhance the understanding of TCA are Social Exchange theory, Power theory, and Trust theory. Social Exchange theory explores the comparisons a decision maker forms in choosing among alternatives. Power theory explores the role of various bases of power, their exercise, and the effect of relative interfirm dependencies on channel structure and behavior. Lastly, Trust theory explains some agreements and the mechanisms for reaching these agreements between channel members.

## SOCIAL EXCHANGE THEORY

Social Exchange theory is centered in the perceived comparisons made in a choice situation. Because the TCA paradigm involves making comparisons among different firm (hence channel) structures (namely, market, mixed, hierarchy, dual) by comparing cost inputs, Social Exchange theory may provide some insight into the choice processes. Social Exchange theory is a psychological model that involves creating a comparison level of the existing situation (CL) and a comparison level for the alternative (CL<sub>alt</sub>) of the exchange of rewards and costs (Thibaut and Kelley 1959). The use of this psychological model in the analysis of marketing channels has been well received. See Dant (1985) for an extensive listing of its application.

The comparison levels represent the outcomes of the present and alternative relationships. When the two comparison levels, CL and CL<sub>alt</sub>, are compared, the relative "attractiveness" for each of the given relationships is determined. Note that the levels are tied to average outcomes. Ping and Dwyer (1988) used Social Exchange theory to discuss relationship behavior with respect to switching costs. Figure 4 shows the relationship map devised by Ping and Dwyer (1988) to express the inclusion of switching costs in evaluating the role performance outcomes of a channel dyad partner. This map shows the perceptions of the evaluating member. In the M region, the perception of the partner's performance is higher than the CL<sub>alt</sub>. However, in the D region, the perception of the partner's performance is less than CL<sub>alt</sub>, and the relationship would likely be terminated. Line L' shows the boundary line. The L line



(Ping and Dwyer 1988, p. 246)

Figure 4 A Channel Member's Relationship Map



represents "where role performance is perceived to be the same as that available elsewhere" (Ping and Dwyer 1988, p. 246), that is, the role performance (RP) equals  $CL_{alt}$  less the switching costs. Line L' shows a lowering of switching costs in which the boundary line moves to the left. The relevance of the switching cost problem is that it widens the area of tolerance of lower role performance. Without switching costs, a channel member may decide to change channel members at a higher relative level of role performance. With switching costs, a channel member may tolerate much lower role performance because of the cost involved in terminating the relationship. In the market failure situation, the switching costs may be extremely high (i.e., the entire cost of transaction specific machinery less scrap value) and alternative exchange partners may be difficult to locate depending upon the nature of the small numbers bargaining situation.

Also, even if  $CL_{alt}$  exceeds  $CL$  in average outcomes, the decision maker may remain in the existing relationship because of other kinds of switching costs (social, legal, reputation, or emotional) are too high. This, of course, ultimately modifies the level of  $CL_{alt}$  with the switching costs decreasing the value of the outcome (Kelley and Thibaut 1978). In a channels context, the legal costs or the costs of losing the value of a transaction specific asset are evident from the previous discussion. However, the reputational aspect is important, in that it has been demonstrated that channel members may remain in a disadvantageous relationship to demonstrate to other potential partners that they honor agreements and are easy to do business with, and/or in the hope of some

realization on the part of their exchange partner that they are sacrificing and are deserving of a better deal in their next exchange (i.e., in hope of a reciprocal treatment).

Social Exchange theory helps to show the zone of vulnerability in which a firm may tolerate lowered performance from an exchange partner. Switching costs may be expressed in several ways (from emotional to transaction specific assets). Ping and Dwyer's (1988) relationship map shows where an exchange partner may act opportunistically when it is evident that a high level of switching costs hold a channel member to a relationship despite perceived dissatisfaction with role performance. Non-naive channel members, anticipating high switching costs and the propensity toward opportunistic behavior in a channel partner, may wish to create safeguards to mitigate the emergence of opportunism. Although Ping and Dwyer (1988) used Social Exchange theory in an exploratory article that has applications to the TCA paradigm, the costs used have not been directly quantified. Cost evaluations using actual costings from a TCA perspective have been very limited in channels research (Noordewier, John, and Nevin 1988). Mentzer and Hunt (1987, p. 217) discussed the evaluation process in the consideration of a channel alternative and list many costs to be considered:

In evaluating any potential channel alternative, the costs of changing channels must be considered. These costs include the cost of breaking existing contracts, inventory obsolescence, training, establishing management information system compatibility and any other channel structure factors which would hamper channel dissolution.

This listing includes both *ex ante* and *ex post* costs. Both sets may be managed in different ways, but need to be considered before entering into a relationship.

## POWER THEORY

Power is the ability to induce another party do something he or she would not ordinarily do (Dahl 1957; French and Raven 1959). When a firm must interact with another, the motivation behind the interaction is to obtain a goal or avoid a negative consequence. Firms have varying levels of power and the bases upon which power rests differ as well. Five power bases have been identified by French and Raven (1959). The five bases are referent, expert, reward, legitimate, and coercive. Referent power refers to the power derived from the desires of others to associate with the power holder. This may be due to a characteristic of the power holder such as likability or prestige, or in a business sense, some value of association such as credibility or fashion appeal. Expert power refers to the power obtained from expertise. The power holder, having expertise, may induce another to change a behavior because of the expertise. Reward power refers to the power to reward others. The power holder may induce another to do something in exchange for a reward. Legitimate power refers to power that stems from authority even if the ability to punish is not tied to it. Legitimate power may be only symbolic. Coercive power refers to the ability to punish. The power holder is able to induce others to behave in a certain way under a threat of penalty. The outcome of power is related to the level of dependency that others may have on the power holder and the level of countervailing power or resistance held by others.

The motivation behind a behavior is often to obtain a reward or avoid a punishment. With regard to organizations, Katz and Kahn (1978) noted there are three

distinct motivational patterns: "(1) compliance with rules, (2) responsiveness to economic returns and external rewards, and (3) value consensus and intrinsic rewards" (p. 287). The first motivational pattern, compliance with rules, suggests that the enforcement of the rules may be backed by not only coercive power but also by expert, legitimate, and even referent power. The second pattern clearly follows reward power and possibly referent power if the external rewards include such. The third pattern may be based not only on reward power, for here the reward is intrinsic, but also referent and legitimate.

Different power bases are effective in different situations, but a pattern of motivation can be identified. Again, the success of an influence attempt using power is based upon the dependence level of the target party. Much Power theory is based upon the dynamics within a dyadic relationship, but as Salancik (1986) noted, the availability of other dyad partners reduces the power of any given dyad partner. In a purely competitive market, the larger numbers bargaining situation gives protection to the individual. But when the numbers diminish, control does as well. Additionally, the perception of power is most important in a bargaining situation. The give and take of the bargaining process is closely related to reward power in the initial relationship. As the business situation develops, the other power types may be more important. In particular, any rights and/or responsibilities acquired in the relationship may provide "legal" legitimate power and even the power to punish. To describe the dynamics of power and dependence, Anderson, Lodish, and Weitz (1987, p. 87) noted that:

The amount of perceived power possessed by a channel member is a function of authority and dependence...Authority to specify how channel activities will be performed is granted channel members through business agreements. These agreements give a channel member the right to demand that another channel member undertake an action. Typically, the authority basis of power arises in contractual channels...However, in traditional channels, the primary basis of power is dependence rather than authority.

In channel relations, the exercising of different power bases has been found to correlate various levels of satisfaction with the agreement (Gaski and Nevin 1985). The usage of different power bases in influence attempts varies in practice and effect. Noncoercive power bases (e.g., in the form of information exchanges, recommendations, promises) are used more often and with higher levels of channel member satisfaction, than coercive power bases (i.e., in the form of threats and legalistic pleas) (Frazier and Summers 1984). Likewise, the use of coercive power bases has a negative effect on the channel relationship (Frazier and Summers 1984). John (1984) found that perceptions of coercive power reduce favorable attitudes in the target and lead to the target exhibiting opportunistic behavior.

Power theory is related to social exchange theory in that the exercise of power can affect the level of outcome in a relationship. Thibaut and Kelley (1959) found that the overuse of power can have opposite effects. Rather than controlling the target, the target seeks to avoid too much control. Channel research has borne this out (Frazier and Summers 1984; Anderson and Narus 1984).

In the TCA paradigm, the pattern of investment in transaction specific assets creates dependencies due to the barrier of switching costs. Salancik (1986, p. 200) noted:

...dependency is a joint function of one's preferences for resources and the control of those resources by others...For dependencies between individuals to arise, some portion of the resources they desire must be controlled to greater or lesser extent by others.

The significance of this observation in regard to the TCA paradigm is that although the investing party may own the asset, the non-investing party has control over the value of the asset when *the asset is transaction specific*. The non-investing party may sustain the value of the asset by maintaining the exchange relationship. However, the non-investing party may erode the value by acting opportunistically or even reduce the value to zero by altogether leaving the relationship. This control over the value of the asset by virtue of being party to the transaction when the asset is tied to the transaction within a small numbers bargaining situation gives the non-investing party coercive power. Therefore, the investing party becomes dependent on the non-investing party. Joint dependencies are created, however, when in a symmetric high investment scenario (Palay 1981, 1984; Heide 1987).

## TRUST THEORY

Trust theory assists in understanding relational contracting. Trust is defined as "the belief that a party's work or promise is reliable and that a party will fulfill his or her obligations in an exchange relationship" (Schurr and Ozanne 1985, p. 940). Trust is valuable in channel relationships because it fosters cooperation and thus problem solving. In channels research, when bargainers are told that the relationship between their own

company and that of their partners is characterized by trust, then the results tend to be integrative (Schurr and Ozanne 1985; Schulz and Pruitt 1978). In both experiments, the scenarios induced a trusting relationship by stating that the situation was already characterized by trust.

The building of a trusting relationship enables relational contracting to be established. Anderson, Lodish, and Weitz (1987, p. 87) observed:

Trust is of particular importance in conventional channels, where termination is a credible threat. Channel members will be motivated to allocate resources to a supplier if they believe the future stream of returns produced by these streams to be secure.

Stinchcombe (1985) included in the concept of a simulated hierarchy the notion of "norms of trust" which enables firms to work as a hierarchy. Channel management can minimize dysfunctional conflict if a "climate of trust, responsibility, and participation" (p. 30) can be fostered (Schul, Pride, and Little 1983). Dwyer, Schurr, and Oh (1987) investigated the process of developing channel interactions as relationships. Using the analogy of marriage (also used by Levitt 1983) and relationship theory, Dwyer, Schurr, and Oh (1987) traced the evolution of relationships. The process goes through five transitional stages: (1) awareness, (2) exploration, (3) expansion, (4) commitment, and (5) dissolution. Trust is needed to carry the relationship through the first four stages. It is of very high importance during the exploration stage when expectations are formed. As interdependence develops in later stages, trust helps to sustain the relationship. The fifth

stage, dissolution, occurs either when other relationships can grant greater rewards (see Social Exchange theory) or when the stress level in the present relationship is too high.

### SECTION SUMMARY

In this section, three theoretical bases were reviewed that contribute to an understanding of the TCA paradigm in marketing channels. Power theory, Social Exchange theory, and Trust theory, all contributed insight into the dynamics of TCA. Social Exchange theory was used to explain the comparison process among channel exchange partner alternatives. Power theory was used to explain the power-dependence behavior of channel members. Trust theory was used to explain the on-going expectations of exchange partners. This was related to the factors in TCA. Investment in transaction specific assets, small numbers bargaining, opportunism, and the appropriate governance structure choice were discussed. Social Exchange theory explained the comparison process that channel members use to evaluate present and potential exchange partners. Power theory explained the dependency problems that emerged under a variety of circumstances. Trust theory described the value of trust in the nature of relationships.

### LITERATURE REVIEW

The fundamental question of "does the Transaction Cost Analysis (TCA) paradigm approach describe how companies actually interact" has been investigated somewhat. Most of these studies were conducted in the form of correlating firm characteristics that



match the assumptions of the TCA paradigm with the predicted governance/structural arrangement of the firm. As Noordewier, John, and Nevin (1988, p. 14) stated "without exception, previous empirical studies involving the transaction cost framework have assumed that firms follow the transaction cost minimization rule, and then simply proceed to examine the correlation between the attributes of the transaction and the observed structure." Unfortunately, Noordewier *et al.*'s comments do reflect the state of much research. In fact, with the implicit assumption that the efficiency standard is being met, measures such as the quantification of costs (even in studies emphasizing performance) have been lacking.

An argument can be made linking the state of the observed companies and their survivorship to efficiency. As Winter (1988, p. 177) explained:

Transaction costs shape economic organization over time because organizational innovations occur that permit previously experienced transactional difficulties to be circumvented. Firms that make such innovations prosper and grow at the expense of their rivals, except perhaps those who are quick to imitate the innovation. This is the evolutionary view of how "cost minimization"—whether of transaction costs or production costs—really works. Something is tried, some problems are encountered; something else is tried and found to work better.

The evolutionary view is intuitively appealing, and thus the notion may be clung to that if a company is doing something successfully then that must be the more efficient way to do it. However, there may be rival explanations. Stuckey's (1983) analysis of the aluminum industry found many situations that may be explained using TCA. Yet, Stuckey (1983) found that despite some circumstances appearing to follow the paradigm,

other explanations may prevail. With regard to using the TCA paradigm to explain the occurrence of vertical integration, Stuckey's (1983) analysis of the aluminum industry uses the paradigm with mixed support. Stuckey (1983) found that in the aluminum industry, there are times when the TCA paradigm fits. There are circumstances when it appears as though the pattern fits, but with additional analysis, however, other explanations are found for the organizational structure. For example, the integration of the smelting and fabrication operations were more probably the outcome of "the desire of aluminum firms to engage in downstream price discrimination...than a consequence of transactions costs considerations" (Joskow 1988 on Stuckey p. 110). Joskow (1988) then cautioned researchers to consider other reasons than transaction costs for explanations, rather than supposing that if the pattern fits, then so must the rationales. With these cautions in mind, selected relevant literature in the broad areas of TCA will be discussed in the next section. The literature includes overall empirical research and the more focused studies in the area of specific assets and governance structures.

## MAJOR AREAS COVERED IN THE LITERATURE

The first part of Chapter II introduced and explained the Transaction Cost Analysis (TCA) paradigm. Many factors contribute to the conditions under which institutional choices may be made to improve efficiency. The choice of institutional or organizational structure is affected by exchange specific asset requirements and investment, economies

of scale, anticipated tenure or extent of exchange relationship, competitive factors, uncertainty, bounded rationality, ability to monitor, control, establishment of controls, and the efficiency of enforcement. Although several factors contribute to conditions under which different organizational structures are the most efficient, the most parsimonious model (Ouchi 1980, depicted in Figure 1) supplies a framework from which to discuss the relevant literature.

Four factors are included in Ouchi's Market Failure Framework model but only a combination of any two is needed in an economic situation to come under the purview of the TCA paradigm. In the literature reviewed, various combinations of factors are found in the circumstances studied. In general, however, the combination of factors does include at least two of the necessary factors in Ouchi's framework. The exception is the notion of "bounded rationality" which was not routinely isolated and studied per se, although it appears that the authors did consider, and even assumed, that the human rationality situation had limitations. Most of the authors tended to pull in various uncertainty or information flow factors. The reviewed studies on the TCA paradigm vary on which factors were included. The constructs were also operationalized in the contexts of the studied environments.

The literature reviewed in this chapter was analyzed in a coding sheet format. Appendix B contains both a summary chart and expanded coding sheets for the same literature. The summary chart is useful to compare the articles. However, the information is in a very abbreviated form. The constructs are listed under each study by either a "T,"

"P," or "C" designation. A "T" designation indicates that the construct was included in a tested hypothesis. A "P" designation indicates that the construct was included in a proposed but untested hypothesis. A "C" designation indicates that the construct was considered in the theory building aspects of the research endeavor, but was not included in either a proposed or tested hypothesis. The other abbreviations used in the chart are listed at the beginning of Appendix B. The second part of Appendix B contains the expanded coding sheets.

## OVERVIEW OF RELEVANT LITERATURE COVERAGE

Market characteristics were treated differently from study to study. This was mainly dependent on the industry factors. The uncertainty construct was operationalized in terms of general market dynamics (Etgar and Valency 1983; Anderson 1984; Walker and Weber 1984, Dwyer and Oh 1987; Achrol and Stern 1988; Anderson and Weitz 1988; Heide and John 1988; and John and Weitz 1988). Several authors used entry into an international market as the uncertainty factor (Anderson and Gatigon 1986; Gatigon and Anderson 1987; Anderson and Coughlan 1987; and Klein and Roth 1988). International market entry tends to contain more "unknowns" because the company often has less knowledge about a foreign market. Foreign governments also tend to put restrictions on foreign companies. The sociocultural distance between foreign companies and their host countries also creates uncertainties.

Monitoring problems contribute both to uncertainty and the free-riding potential (opportunism). The inability to monitor was examined by some authors (Etgar and Valency 1983; Anderson 1984; Joskow 1985; Ruekert, Walker and Roering 1985; Anderson and Gatigon 1986; Gatigon and Anderson 1987; and John and Weitz 1988). Opportunism or free-riding took form in different ways. Heide and John (1988) considered the manufacturer's abuse of its agent, whereas the Anderson and Gatigon studies (1986, 1987) looked at the agent benefiting from the manufacturer without bearing the fair share of costs. Palay (1981, 1984) and Joskow (1985, 1987) looked at the basic issue of keeping promises. Masten (1984) looked at procurement regulations to prevent defense contractor abuses of specialized tooling.

The issue of small numbers bargaining was most often treated by the relative size of transaction specific investment (e.g., Heide 1987) or the availability of other suitable exchange partners (e.g., Masten 1984). Imperfect competition may be induced by the investment in transaction specific assets. Investment in transaction specific assets may be in terms of nonredeployable assets. For example, Anderson and Gatigon (1986) and Gatigon and Anderson (1987) used the investment required to enter a market in a foreign country. Palay (1981, 1984) used specialized railroad cars. Masten (1984) looked at design specificity and complexity. Joskow (1985, 1987) used power generation equipment. The transaction specific assets may be allocated or site specific (Joskow 1985, 1987; Mulherin 1986). The asset may be in the form of human capital (Anderson and Gatigon 1986, Anderson and Gatigon 1987, Anderson and Coughlan 1987,

Monteverde and Teece 1982), or in the form of a dependence balancing investment (Heide and John 1988).

The choice of governance structure also varied. Anderson and Coughlan (1987) studied governance structures as a "Market or Hierarchy" dichotomy in their research on the use of direct and indirect sales forces. Some channel studies were ones in which contracts were the only way to manage the relationship of interest (Etgar and Valency 1983) or the only viable way, such as in a franchise arrangement (John 1984). Other studies had more latitude in organizational structure forms.

Competitive characteristics affect the nature of the organizational structures. Some industries studied were within competitive markets (Etgar and Valency 1983; Walker and Weber 1984; Anderson and Coughlan 1987; Achrol and Stern 1988; Anderson and Weitz 1988; Dwyer and Oh 1988; Heide and John 1988; John and Weitz 1988; Klein and Roth 1988; and Ping and Dwyer 1988). However, some environments were regulated. Palay's (1981, 1984) research was under railroad regulation, and Masten (1984) studied the aerospace industry (which is heavily influenced by government procurement laws).

Although cost issues are central to the TCA paradigm, it is difficult to quantify intangibles. Therefore, the majority of studies considered costs but in an indirect fashion or simply assumed that the structures used were the most economically efficient. Noordewier, John, and Nevin (1988) did use quantified costing numbers. Cost also may come under the notion of performance. Heide (1987) used a positive performance effect as a surrogate for costing.

The form in which the central constructs of the TCA paradigm take shape vary with the context of study. Therefore, it is more useful to consider each study separately. The next section presents the review of the studies and the hypotheses.

## THE TRANSACTION COST ANALYSIS PARADIGM

In this section, studies investigating the overall TCA paradigm are reviewed. Palay (1981) conducted a series of interviews with shippers and their respective rail carriers. The purpose was to investigate the overall buyer-seller relationship between railroads and their shipper-customers under regulation when "the drafting of formal contracts between the parties [was] illegal per se" (Palay 1981, p. 4). At the time of Palay's study, he suggested, "Rate tariffs may be viewed as long-term, incomplete offers to carry a particular commodity for a prescribed distance at a particular price. ...While one should be careful not to mistake a tariff for the classic concept of a contract at law, many rate sheets are contracts in the larger context..." (Palay 1981, p. 4). Palay's study is descriptive rather than a rigorous analysis of channel behavior. However, it gives a rich description in an almost case-like fashion.

The propositions in Palay's study directly followed Williamson. The first proposition (1981, p.5) was that "...associated with standardized shipper-carrier contracts are governance mechanisms that are best classified as nonspecific and market oriented." The first proposition describing market situations stands in contrast to the second proposition, which stated: "...as rail movements become more idiosyncratic and the

expectations for recurrence reach a certain minimum threshold, transaction-specific, unique governance mechanisms become apparent." The second and third propositions both described simulated hierarchies but with different dimensions. The third proposition stated (Palay 1981, pp. 6-7): "...an expectation for occasional recurrence, when combined with idiosyncratic investment, will lead to transaction-specific, non-unique governance mechanisms."

Overall, the three propositions were supported along with the TCA paradigm. However, the lack of rigor with which this study was performed created some limitations. The sample was a geographically convenient sample that affects generalizability. Since it was difficult to arrange interviews, Palay was the sole interviewer. However, the interview transcripts were sparse notes from only a few open-ended questions. Without a way to measure rater reliability, it is hard to determine how objective the interviews were (Bouchard 1976). However, this study was rich with description. Palay supplied lengthy pictures of the buyer-seller relationships that give the study merit as exploratory field research.

Masten (1984) studied the aerospace industry in the United States. The focus was on the "make-or-buy-decision" in an industry in which the level of asset specificity can be very high, and the market is also strongly affected by government regulation. A total of 1887 component specifications were analyzed on the basis of complexity and degree of specialization per item. The more complex and specialized an item, the more likely the company will select an internal institution to govern the acquisition of the item (that



is, make the item). This tendency supported the predictions made in accordance with the TCA paradigm. The complexity variable was a surrogate for uncertainty, in that the more complex an item is, the higher the likelihood of something going wrong in production. The other variables, co-location (a measure of ease of physically transplanting production as a measure of redeployability) and standardization of the item, also followed the expectations of the TCA paradigm in terms of direction of the sign, but were statistically insignificant.

Joskow (1987) analyzed 277 contracts formed between coal suppliers and electric utilities using Williamson's TCA paradigm. The industrial characteristics of coal suppliers and electric utilities provided an interesting context in which to study the problem of idiosyncratic assets and vertical channel structure. Electrical power generation equipment is designed specifically with the particular attributes of the fuel in mind. Although there exists a recently developed design for a burner that can handle coal, natural gas, and fuel oil, most equipment must specify not only the type of fuel, but the characteristics of the fuel (Konrad 1988). Coal is not standard. It varies in terms of sulfur, ash, and BTU content. These variances require different designs, and with the exception of the above-mentioned new design, the plants burning the coal were fitted with a particular set of characteristics in mind. In so much that the attributes of coal vary from mine to mine, only a few mines may supply a certain type of coal and be within a reasonable distance from the power station. Thus, the number of suppliers of coal becomes a small numbers bargaining scenario. Although there is a spot market for coal, most utilities prefer to

maintain a steady supply with long-term contracts. The investment burden is not solely on the electric utility, because some mines will expand capacity for the purposes of supplying a large customer, such as a utility. The capacity expansion and transportation considerations, as well as coal use specificity, tend to create switching problems for coal mines in terms of asset and site specificity. Terms for future price determinations are also typically found in coal supply contracts. A few utilities vertically integrate by owning their own mines. Some utilities actually built the power plant next to the mine. The overall findings of Joskow's analysis of the governance structures fit and supported the TCA paradigm in that the vertical integration patterns fit the asset specificity patterns.

Mulherin (1986) analyzed natural gas contracts between owners of the gas reserves (producers) and the owners of gas pipelines (pipelines). The natural gas industry has several characteristics that make it an interesting market to study in terms of transaction costs. The assets needed for both producers and pipelines are specific, and contractual safeguarding has become customary in some states depending upon the legal environment.

In order to serve a natural gas pipeline, a gathering line must be built. A gathering line represents a large investment in a site specific asset. Mulherin (1986) noted that producers have an incentive to invest in a gathering pipeline when there are numerous pipeline customers. Conversely, pipeline owners would be willing to invest in a gathering line when there are a number of producers from which a pipeline owner may buy. This observation reflects the market mechanism of protection available to an owner of a large asset when there are many trading partners available. If one behaves

opportunistically, other partners are easily available without large switching costs. If the number of trading partners is low and a large asset is needed in order to engage in exchange, then the investor is unable to rely on market forces for protection and must make other provisions for safeguarding.

The customary safeguard is a minimum payment provision. If such a provision is present, a pipeline owner agrees to pay a minimum amount for the gas even if less is actually taken from the well. At the end of the year, adjustments for excess purchases are made, but no reduction in payment is made if less is taken. These provisions are called "take-or-pay" provisions (Mulherin 1986). The reason for a minimum is that a reserve of natural gas can be tapped by more than one well (and of course by more than one well owner) because natural gas permeates and travels through the ground in which it is found. Mulherin found that the salient factors of the TCA paradigm, in terms of existing governance structure patterns in this industry, follow the predictions of the theory.

Klein and Roth (1988) applied the TCA paradigm to the question of what affects the degree of forward integration and found it to apply in explaining channel structure. Three hypotheses were tested via a mail survey of Canadian exporters of unprocessed goods (response rate of 55%). The first proposed "the greater the volume of goods carried in a channel, the greater will be the degree of forward integration" (Klein and Roth 1988, p. 10). (Note: this hypothesis related higher costs due to volume with forms of control.) The second hypothesis proposed "the greater the transaction specificity of assets, the greater will be the degree of forward integration" (p. 11). To test the

uncertainty component, Klein and Roth (1988) defined uncertainty in two ways: (a) as the volatility of the channel environment, and (b) as the diversity of the channel environment. The third hypothesis began with the general proposal, "the effect of uncertainty on forward integration varies with the particular type of uncertainty under consideration" (p. 12). Subdividing with the two above definitions of uncertainty, Klein and Roth (1988, p. 12) proposed "the greater the volatility of the environment surrounding a transaction, the greater will be the degree of forward integration" which reflects the use of vertical integration to absorb uncertainty. The second uncertainty definition was tested with the proposal "the greater the diversity of the environment surrounding a transaction, the lesser will be the degree of forward integration" (Klein and Roth 1988, p. 12). The last part of the third hypothesis reflected the notion that diversity necessitates flexibility. This departure from TCA is rooted in organizational behavior literature and contingency theory that argues for flexibility. An international setting was selected to increase potential uncertainty faced by the firms in the sample set. Klein and Roth (1988) reconciled the apparent contradiction that the subdivision in the third hypothesis presents by explaining that uncertainty is "too broad a concept and that different facets of it lead to both a desire for flexibility and a motivation to reduce transaction costs" (pp. 14-15). The authors found support for all their hypotheses and concluded that their study supports the TCA paradigm and moves a step forward by "unbundling the uncertainty construct" in support of contingency theory.

Anderson and Coughlan (1987) also used the problem of international marketing entry mode and the attendant environmental uncertainty to test the tenets of the TCA paradigm. The researchers found support in terms of entry mode choice that supported the TCA paradigm. The question of entry mode was cast in the Williamson (1975) dichotomy of either vertical integration or market transaction. Market contracting in terms of entry mode selection was defined as the usage of an outside manufacturer's agent. Asset specificity was defined in terms of the specialized knowledge and working relationship that a sales representative would need to develop to sell the good. Anderson and Coughlan (1987) selected the semiconductor market, as selling such a good required specialized technical knowledge. Switching costs were represented by investment made in "an experience based" specialized asset and the time needed for a replacement sales representative to duplicate the experience. Opportunism may occur in such relationships when an outside sales agent abuses the relationship. Anderson and Coughlan (1987) commented that due to the investment and time involved, a manufacturer would not be inclined to sever the relationship even with a degree of this abuse.

Anderson and Coughlan (1987) hypothesized that companies would vertically integrate when there is a high level of transaction specific assets in the sales force (i.e., experience based assets). The researchers found that as the level of transaction specific assets increased, the companies vertically integrated their sales forces. Anderson and Coughlan (1987, p. 80) concluded that "...presumably, [the companies vertically integrate] because employee status facilitates the monitoring of these difficult-to-replace agents.

Further, [the companies] then can use legitimate authority and a broad range of subtle incentives to influence their agents' behavior."

Recall that in international marketing, entry mode is a very complicated problem because of the risk of commitment in a foreign country as well as the greater possibility of a lack of knowledge of how to market successfully in a new environment. Vertical integration is costly and, as with any channel decision, is difficult to change. Thus, the generally easier strategy of minimizing commitment, and thus risk, by entering with external agents tends to be rejected by companies that recognize the vulnerability that dedicated assets (and attendant switching costs) bring (Anderson and Gatigon 1986). Again, Anderson and Coughlan's (1987) work is in the context of the Williamson (1975) Markets/Hierarchy dichotomy and does not explore the ways of mitigating opportunism while remaining in "the market."

In a similar study, Gatigon and Anderson (1987) explored the TCA paradigm in terms of explaining the behavior of multinational corporations' selection of entry mode with regard to entry mode as a governance structure. Going beyond the simple Markets/Hierarchy dichotomy, governance structures ranged from the high control form of a wholly owned subsidiary, to dominant partnership, to balanced (50%-50%) partnership, to the low control form of minority partnership. Again, the pattern of behavior exhibited by the multinational corporations followed TCA paradigm predictions, but in this case accounting for the varying degrees of control by the corporation rather than a test of either vertical integration or market contracting.

## GOVERNANCE STRUCTURES AND SPECIFIC ASSETS

A channel member uses a governance structure to ensure the fulfillment of contract performance. According to Williamson (1985), the importance of specifying a governance structure increases with market failure brought on by increased investment in transaction specific assets. This section covers empirical research in the antecedents of contract usage and choice of governance structure.

Etgar and Valency (1983) explored the antecedents or determinants of contract usage in marketing channels. They focused on the situation in the management of intrachannel relationships when the only viable control mechanism available is a legal contract. That is, the firm lacks power to influence others strongly, lacks resources to develop its own internal hierarchy, or is prohibited from vertical integration (i.e., due to Israeli antitrust laws). In this situation, the contract is a mechanism for risk absorption. Etgar and Valency (1983, p. 84) tested three hypotheses that proposed that a channel member is more likely to use contracts (i.) the "higher the channel members' preference is for risk reduction,... (ii.) the more they perceive channel environment to be uncertain, [and]...(iii.) the higher the degree of interdependence is in their channels."

These hypotheses focused on relational contracting as a governance structure. The propositions concerning risk reduction and perception of uncertainty in the channel environment followed Williamson's discussion of the forces behind seeking a governance structure. The third proposition stated the likelihood of contract usage increases with higher levels of interdependence within the channel. This speaks to the notion of

maintaining a relational form of channel interaction, rather than using discrete spot transactions or vertical integration. The character of the relationship found tended to be relational (after the MacNeil 1978, 1980 theory of social contract).

Palay's (1984) open-ended interviews with rail freight shippers and carriers revealed some interesting patterns in governance structures. As discussed above, the nature of rail contracts during the data collection precluded contracts in the traditional sense of the word, but the mechanism existed within the constraints of regulation. From the interviews, Palay identified patterns in the relationships between shippers and carriers with regard to investment characteristics. He divided investment characteristics into three groupings: nonspecific investment, moderately idiosyncratic, and high idiosyncratic (or non-redeployable) investment. The governance structures could be divided into three groups as well: market, mixed, and relational. A market governance structure referred to one in which there were classic market protections such as the "existence of potential or readily available substitutes" (Palay 1984, p. 271). A relational governance structure was one in which protections exist due to "realized mutuality of interest, manifested in the parties' apparent reluctance to exploit short-term advantages to the detriment of long-run relations...[or] realized mutuality of interest ...with vertical integration" (Palay 1984, pp. 275-8). Mixed governance structures occupied the gray middle ground between market and relational.

Palay found that shipper/carrier relationships with nonspecific investment tended to use market governance structures. However, with highly idiosyncratic investment, the



popular form of governance structure shifted to relational. As expected, in the middle ground of moderately idiosyncratic investment, mixed governance structures were most popular. It is interesting to note that whenever any form of idiosyncratic investment was present, the parties withdrew from market only controls and used at least some degree of relational contracting.

Bilateral coordination or "relational contracting" may be achieved by the development of norms that allow the parties to work through problems. These norms are mutuality, flexibility, and information exchange (Heide 1987). The norm of flexibility was explored by Palay (1981, 1984) as an indicator of "relationalness." Flexibility was operationalized as the attitude held by the parties toward adjustment of the terms of the contract when circumstances changed. Palay (1984) dichotomized the responses of the shipper/carrier dyads into two modes or attitudes: (1) held to original terms and (2) willingness to be flexible. Palay (1981, 1984) found that in the majority of transactions when the investment was nonspecific, the parties were not willing to adjust the terms but rather wished to hold to the original terms of the contract. However, when idiosyncratic investment was involved, flexibility was the dominant attitude. The results indicated that relationships under the idiosyncratic investment situation were characterized by a desire to preserve the relationship by working out issues and problems. These relationships were typically built with a realization of mutual benefit.

Gatigon and Anderson (1987) examined uncertainty and governance structures in their work on entry mode choice by multinational corporations. Governance structures

were defined in terms of the multinational corporation's share of interest. These entry forms involve integration in the sense of the parent company having an interest in the joint venture, but the influence level varied. Gatignon and Anderson (1987) found that multinationals used high control modes when the products had strong proprietary content. Apparently, this is due to the higher vulnerability to opportunism. Less control is used as risk increases due to the nature of the host country, low experience on the part of the entrant, and the higher the sociocultural distance. Uncertainty and inexperience may lead an entrant to exchange control for expertise, but the threat of opportunism is still countered with the use of high control modes.

In an interesting extension of the TCA paradigm, Heide and John (1988) explored a variation on governance called dependence balancing in which the governance structure used was the presence of off-setting investments. The channel relationship studied was one in which traditional TCA safeguards were not present, nor were the standard contracts capable of providing protection. Without these safeguards being available, the population researched tended to balance the dependency by offsetting investments. The population of interest was manufacturers' agents. It is not feasible for a small manufacturer's agent to integrate backward into manufacturing as a safeguard. Nor, considering the custom and practice of manufacturers' agents, is it possible to create safeguards via contracts. Traditionally, the typical agent's contract contains a 30-day cancellation clause. Considering the power imbalance that can occur between agents and principals, a manufacturer's agent is typically unable to bargain for better terms. Thus, the safeguard

Heide and John (1988) examined is an investment made by the agent to create exit barriers for the manufacturers. The agent invests in equipment or human capital to bond with the customers. Therefore, should the manufacturer sever the business relationship with the agent, the customers for the manufacturer's product would have a greater bond to the agent and remain loyal to the agent. That is, the agent would take the customers with him. The customers would find a future supply for the good from the new principal represented by the agent. Thus, the strong possibility of losing a customer base would mitigate opportunistic behavior on the part of the manufacturer. Also, the fact that the agent has invested in nurturing the bond between the agent and the customers, and that a new agent would have to make a similar investment creates the exit barrier with regard to the manufacturer.

The first hypothesis described the process, "when specific assets are at risk in an interfirm relationship and vertical integration is infeasible, the party at risk will utilize offsetting specific investments...to balance its dependence" (Heide and John 1988, p. 24). This hypothesis was supported by the survey data. A significant number of agents made the offsetting investment in terms of investing in a bond with the customers. The outcome of this behavior was tested in the following two hypotheses. Hypothesis two read "offsetting investments made by a firm...reduce its dependence by increasing the replaceability of the incumbent exchange partner" and hypothesis three read "the positive effect of replaceability on performance is contingent on high levels of specific assets being invested by the agency" (Heide and John 1988, p. 25). Both hypotheses were

supported. Taken together, the study supported the incorporation of dependency theory into TCA. The relevance here, with a focus on governance structures, is the very practice of firms attempting to control the relationship and mitigate opportunism with the creation of governance structures. As Stinchcombe (1985) explained, the investment served as a substitute for the traditional forms of governance structures: vertical integration or safeguarding contractual clauses. However, the TCA paradigm explained this behavior and predicted its outcome in terms of the dependency relationship.

In most of the studies of TCA, the industries used were generally in a free trade situation with the exception of Palay's (1981, 1984) rail contract study and Masten's (1984) aerospace government contract study. Thus, governance structure in the other studies were typically a vertical integration or a form of relational contracting. However, the structures do have permutations when the exchange environment deviates from the "free market." As discussed above, Palay's subjects were under rail regulation that prohibited contracting in the technically legal sense of the word. However, a spectrum of "agreements" emerged. Under other regulatory environments, safeguards may be specified by law. Masten (1984) points out that under United States government procurement regulations a variation of governance structure against a common form of opportunistic behavior on the part of contractors, "buying in," is specified by law. "Buying in" refers to contractors underbidding to receive a contract "with the expectation of either (i.) increasing contract price or estimated cost during the period of performance through change orders or other means, or (ii.) receiving future 'follow-on' contracts at

prices high enough to recover any losses on the original 'buy-in' contract" (p. 414). The U.S. government has a policy of "acquisition of special tooling." Under this policy, the government takes possession of the specialized assets developed to carry-out the project so the government can mitigate some opportunism through mobility. The government can then use these assets by transferring them to another contractor rather than being forced to remain with the original opportunistic contractor. This is similar to what Monteverde and Teece (1982) called quasi-integration in which the ownership of the transaction specific assets is vertically integrated as much as possible, though another channel member may use them.

Noordewier, John, and Nevin (1988) also examined the nature of the relationship/governance structure in marketing channels within the TCA paradigm. Using surveys of 140 Original Equipment Manufacturers (OEM) purchasers of bearings, the researchers investigated the relationship between level of uncertainty and whether the exchanges were discrete or relational (note: the authors used a 2 x 2 design). Uncertainty was operationalized in terms of the uncertainty "surrounding the exchange." The survey items reflecting uncertainty included statements on the forecasted supply of bearings, the complexity of the bearing market, price volatility, etc. The nature of the relationship (relational or discrete) was comprised of five elements, each with multiple measures. The five elements were flexibility, sharing of benefits and burdens, exchange of information, operating controls (e.g., monitoring, training, formal evaluations, etc.), and extendedness

(e.g., expectation of future trading relationship tenure). When the items were tested through cluster analysis, they grouped into three clusters as follows:

Cluster 1: Highly Uncertain; Discrete Exchanges (42 firms)

Cluster 2: Highly Uncertain; Relational Exchanges (62 firms)

Cluster 3: Low Uncertainty; Discrete Exchanges (36 firms)(p. 31)

Noordewier, John and Nevin (1988) found that the results did not strictly follow the predictions of the TCA paradigm. "The Cluster 2 firms react in the optimal fashion suggested by TCA by becoming more relational...In contrast, Cluster 1 firms do not exhibit much relational contracting" (p. 32). However, more firms responded as TCA predicted with regard to preferred governance structure. The complete study by Noordewier, John and Nevin (1988) included some other models, and the overall endeavor supported the TCA paradigm. It should be noted that this study was the first one in the channels studies on TCA in which transaction costing employed actual cost figures.

Heide (1987) tested the basic TCA concept that the most efficient governance or ordering of interorganizational exchanges depends on the levels of transaction specific investment made by each exchange partner. This is given uncertainty and adequate frequency of transaction levels to support required investments. Different levels of transaction specific investments create different dependency arrangements especially with regard to the symmetry/asymmetry in these arrangements. Heide's major research focus was in explaining the effects of dependency arrangements on the degree of closeness in industrial purchasing relationships.

As Williamson (1985) predicted, symmetric low levels of specific assets would be most efficiently ordered in market exchange. This is because the relative levels of dependence would not be affected by transaction specific investment (because the levels are low). As an exchange relationship requires the investment of specific assets, the market safeguards greatly lessen, and, thus, firms seek to protect themselves from *ex post* opportunism. Short of vertical integration, the safeguards may be in the form of either bilateral or unilateral contracts. Heide hypothesized that asymmetric investment, and, hence, asymmetric dependence, would lead to a specification of unilateral ordering of the arrangement. Consistent with the discussion on power/dependency, the party specifying the arrangement becomes the dependent party because the exchange partner now has coercive power. The non-investing exchange partner can "punish" the investor because the investor is tied to the arrangement due to the risk of losing the value of the asset. The unilateral ordering measured was in the form of centralization of the authority structure, formalization of the operating procedures between the exchange partners, and surveillance of conformity to agreements. Authority structure, in terms of centralization, means that the specifying party tends unilaterally to decide the terms of the agreements (pricing, delivery schedules, payment, etc.). The specifying partner often establishes clauses in its own favor. The formalization dimension refers to procedures such as routines not to deviate from, rules that are followed, and the degree of preplanning involved in meetings with the exchange partner.

Likewise with symmetric investment, and hence symmetric dependence, the preferred coordination form on the above dimensions is bilateral due to the mutual desire to safeguard the high transaction specific investments made on the part of both parties. The bilateral ordering was defined in terms of high levels of flexibility, mutuality, and information exchange. Thus, Heide (1987) hypothesized that the characteristic of symmetric dependence would lead to bilateral coordination. The bilateral form is mutual in nature. Thus, the dimensions of flexibility, mutuality, and information exchange would facilitate this form of coordination. Continuing with Williamson's (1985) prediction that these organizational orderings are the most efficient for each set of circumstances, Heide predicted that the prescribed ordering preferences would be accompanied by a positive effect on relationship performance.

Heide's (1987) findings were generally supportive of the TCA paradigm for the conditions of symmetric low levels of investment and for symmetric high levels of investment. However, in the asymmetric high levels of investment the preference for contractual safeguards was mixed with some unilateral coordination patterns and some bilateral coordination patterns. Considering the high dependence brought upon by making a large investment that creates vulnerability due to high switching costs, Heide supported his hypothesis by reasoning that large investors would have an incentive to protect their investment by specifying unilateral terms. However, in his field survey, he did not find this to be the constant case. The sets of dimensions consistent with both unilateral and bilateral orderings were the highest for the high symmetric investment/dependence dyads.



Considering that the TCA paradigm is a normative theory, Heide reasoned that the predictions may still hold for what a company would like to do. However, the companies surveyed may have been constrained from specifying the ordering or coordination procedures. Heide believed that the reason for this result is based in power-dependence theory. A company needs a certain amount of power to specify terms, and, in the case of small numbers bargaining coupled with the dependence created by making a large investment, the power of the non-investing party is enhanced. Consequently, the investing party (that is the dependent party) may not have the power to specify the terms.

TCA also speaks to efficiency. "The Transaction Cost theory explicitly states matching a governance structure to the characteristics of the exchange context economizes on transaction costs" (Heide 1987, p. 203). Heide (1987) addressed this issue by hypothesizing that those companies in each respective "appropriate" governance structure would enjoy a positive influence on performance. Performance was defined "with respect to what each individual party gets out of the relationship" (p. 204). Buyer perceptions were measured by asking buyers about the performance levels of the current supplier compared to some other supplier in terms of quality, adherence to specifications, delivery performance, training, achieved price reductions, technical and sales support, and responsiveness to requests. Supplier perceptions were tested with a single item of profitability relative to expected profitability of another buyer.

The overall performance measures were supportive of Heide's general propositions. However, when performance was tied to specific governance structure, the findings were

mixed. The significant results included the use of centralization by buyers in an asymmetric investment pattern, and the use of information exchange and mutuality in the symmetric investment dyads. The other measures of performance were not significant. In the discussion of the results, Heide pointed to both a relatively small sample size (60 firms) and single item performance measure on the part of supplier performance as limitations. An additional problem with the measurement of the supplier's side of the relationship was that perhaps the measures did not reflect the salient features from a supplier's view. Also, the normative nature of Williamson's (1985) TCA may not reflect a field situation in which other factors are involved. Companies do not always behave in the most efficient fashion. However, those that did behave as Williamson would prescribe, did enjoy a positive effect on the relationship.

In a telephone interview with Heide (1989), the process of coordination specification was discussed. In particular, the problem of specifying unilateral coordination was discussed due to the more complex problem of initiating and using this governance form compared with the more affable and less confrontational bilateral form. Previous research on the use of legalistic strategies between exchange partners was emphasized by Heide. Macaulay (1963) found that business people were reluctant to insist on strict contractual safeguarding (roughly similar to unilateral coordination) because of costs and the adverse effect it had on the negotiations. Not "pushing" was considered better for business. These findings are consistent with Frazier and Summers's (1984) findings that channel dissatisfaction is increased with the use of legalistic strategies

except for cases in which the other party perceives the agreement to be "fair," in which satisfaction is not adversely affected. Heide felt that this explanation for a higher incidence of unilateral coordination in the high symmetric mode indicated a need to explore further the effect these other factors had on the relationship.

### LITERATURE REVIEW SUMMARY

In this section, the relevant literature was reviewed. The literature on the TCA paradigm is varied in its approach and treatment of the important variables. Most authors considered only a few of the major factors described by Williamson (1975, 1985) in the TCA paradigm. However, Ouchi's (1980) "Market Failures Framework" reduced the TCA paradigm to four factors (namely, bounded rationality, opportunism, uncertainty, and small numbers bargaining) and stated only a combination of any two is needed to produce failure of the marketplace. Using Ouchi's framework, it was found that although most authors considered only a subset of the variables in the TCA paradigm, the number of variables included was sufficient to test the theoretical underpinnings.

The general form of the tests of the TCA paradigm used in the literature reviewed was correlational in nature. A marketing situation was described, and the pattern of channel relationships was compared to the optimal governance structures prescribed by Williamson (1985). If the pattern fits, then the test was considered to support the predictions of the TCA paradigm. The majority of studies did not consider actual monetary costs of the channel structure alternatives (the exception was Noordewier, John

and Nevin 1988). Rather, there was an implicit assumption that the structure was used because it was more efficient than the alternatives. Accepting this assumption, the literature reviewed supported the overall predictions of the TCA paradigm.

#### CHAPTER SUMMARY

In this chapter, the TCA paradigm was presented with its conceptual foundations. Channel relationship coordination or governance was introduced with information on contract usage within U.S. channels. The role of market forces in governance was discussed as well as hostage exchange, dependence balancing, and contractual safeguarding. Three theoretical bases were discussed that assist in understanding the dynamics of the TCA paradigm. These included social exchange theory, power theory, and trust theory.

A literature review was included. The marketing channels literature utilizing the TCA paradigm tends to be quite broad in its approach. Therefore, relevant literature on asset specificity and contractual safeguarding was also reviewed.

In the next chapter, the research design and materials are documented to test further the TCA paradigm.

## CHAPTER III: RESEARCH DESIGN AND METHODOLOGY

### INTRODUCTION

Chapter II presented the TCA paradigm and explained its relationship to marketing channel behavior. Other related theories contributed to the explanation of why market mechanisms do not safeguard channel relationships during certain imperfect competition circumstances. Studies using the TCA paradigm were reviewed. The purpose of this chapter is to present the hypotheses that tested the relationship between specific anticipated investment patterns, choice of governance structure and the emergence of opportunism in the marketing channel.

The objectives of this chapter are to present: (1) the hypotheses and the underlying rationale; (2) a summary of methods used to evaluate the TCA paradigm in the marketing channel; (3) the reasoning for using the selected methodology for testing the hypotheses; (4) a description of the experimental procedures; and (5) a review of the data collection plan.

## HYPOTHESES AND RATIONALE

As indicated in the literature review section in Chapter II, the TCA paradigm has not been fully tested. The primary focuses of this research were (1) the examination of whether the most efficient/optimal governance structures reduce transaction costs, (2) the examination of the relationship between anticipated investment in transaction specific investment and opportunism and (3) the examination of the relationship between resultant investment in transaction specific investment and opportunism. Therefore, the behavior of firms desiring to protect both anticipated and resultant investment was studied. In this dissertation, the governance structures of interest were those devised by the parties to the transaction. Thus, consideration of the ability to integrate vertically was excluded from this study of intrachannel coordination. The governance structure was in the form of negotiated contracts between the members in four patterns of anticipation of investment in transaction specific assets. Opportunism was in the forms of falsity and performance reduction.

The fundamental purpose of a governance structure is to absorb uncertainty. The most inclusive form of uncertainty absorption is vertical integration. If vertical integration is not possible, then the other methods range from using contracts to allowing market forces to relieve uncertainty. When market situations are "competitive," these conditions allow enforcement of agreements and uncertainty is reduced through the presence of other, readily available trading partners. However, under circumstances of imperfect competition brought on by transaction specific investment, safeguards must be created. These can

range from one party specifying contract terms to both parties working out a more relational contract.

The research questions were expressed in a model depicting the relationships among the constructs. The model is illustrated in Figure 5. The variables indicated by a, b, c and d, are, respectively, pattern of investment, governance structure, incidence of opportunism (false communications) and IAEO (incidence of accepting an opportunistic offer). The relationships between the variables are indicated by the numerals 1, 2 and 3. The dynamics of the relationships were hypothesized based on the assumptions of the TCA paradigm. That is, it was assumed that the environment is characterized by the presence of bounded rationality, uncertainty, small numbers bargaining and the potential for opportunistic free-riding behavior. The first relationship tested (1) is the relationship between the pattern of anticipated investment (a) and choice of governance structure and states the pattern of anticipated investment is related to the selection of certain types of governance structures (b). The second relationship tested (2) is the relationship between the pattern of anticipated investment and the manifestation of opportunistic behaviors in the form of false communications. The third relationship tested (3) is the relationship between resultant investment and the incidence of accepting an opportunistic offer to reduce the quality of contract performance (d). Discussion of the first two relationships and the hypotheses used to test them is presented first. The discussion of the third relationship and the hypothesis used to test it is then provided.

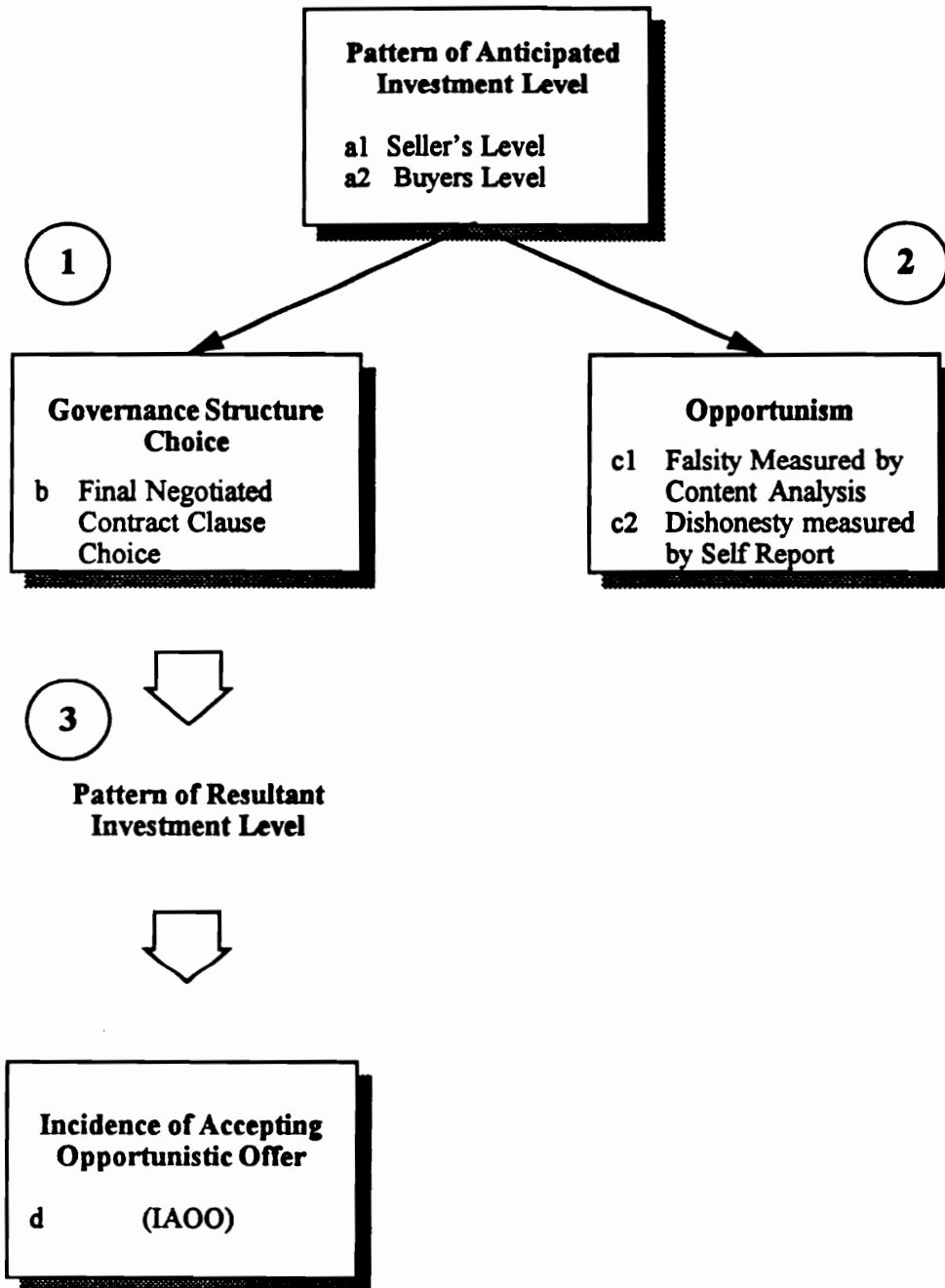


Figure 5 Model of Relationships to be Tested



The pattern of anticipated investment construct (a), was created by the anticipated investments to be made by both the seller (a1) and buyer (a2). The anticipated investment level referred to the level of transaction specific investment that was either low (trivial) or high (creating significant switching costs and hence dependence on the non-investing party).

The basic anticipated investment patterns are illustrated in Figure 6. Each cell represents a different anticipated investment pattern. The seller's anticipated investment levels are illustrated on the columns and the buyer's anticipated investment levels are illustrated on the rows. The low level of anticipated investment represents an anticipated investment in transaction specific assets that was very low or trivial, with essentially no switching costs. The high level of anticipated investment represents sufficiently high investment that would create switching costs and hence dependency on low investing parties. Cell 1 represents symmetric low anticipated investment. Cell 2 represents asymmetric anticipated investment in which the seller was the high investor and the buyer was the low investor. Cell 3 is the opposite situation of Cell 2 with the buyer as the high investor and the seller as the low investor. Cell 4 represents symmetric high anticipated investment.

When the two parties negotiated a governance structure using a contract clause, the parties were proposing the clause choices in the offers and counteroffers of the negotiation session. When the parties established a coordination form, they negotiated and agreed upon a final set of conditions. Thus, the coordination form may be found in

		<b>SELLER</b>	
		<b>A<sub>1</sub></b>	
		<b>Low</b>	<b>High</b>
<b>BUYER</b>	<b>A<sub>2</sub></b>	<b>Cell 1</b> Symmetric Anticipated Low Investment  H1a, H2b	<b>Cell 2</b> Asymmetric Anticipated Investment (Seller High)  H1b, H2c
	<b>High</b>	<b>Cell 3</b> Asymmetric Anticipated Investment (Buyer High)  H1c, H2c, H2e	<b>Cell 4</b> Symmetric Anticipated High Investment  H1d, H2a

Figure 6 Basic Patterns of Level of Anticipated Investments in Transaction Specific Investments

the final agreement or contract. These normative predictions were tested with regard to the final negotiated contract. The governance structures (b) are all in the form of final negotiated contracts.

In the experiment, the parties negotiated the performance clause to complete the contract. There were six forms of the performance clause from which to choose: (a) "market forces oriented," (b) unilateral in favor of the buyer, (c) strongly unilateral in favor of the buyer, (d) unilateral in favor of the seller, (e) strongly unilateral in favor of the seller and (f) bilateral or relational. Note that a contract clause could be "market-oriented" in that it could remain silent on issues, specify terms that reflect market mechanism, or be the least binding of the forms available. The hypotheses reflected the theme that depending on the pattern of anticipated investment, the TCA paradigm asserts there were governance structures that were more efficient than other types. This research focused on studying which governance structures the subjects actually selected under the different patterns of anticipated investment.

To review the theory of the TCA paradigm, the most vulnerable investment patterns are the asymmetric patterns in which one party makes a high investment in transaction specific investments while the other party makes a low or negligible investment. This creates a dependency by the high investor on the willingness of the low investor to honor the contract. The high investor would lose the value of the asset if the low investor decided to leave the exchange relationship. Other than reputation and vulnerability to a law suit, the low investor does not have the exit barrier of high

switching costs. However, if the high investor wished to leave the relationship, the investment in transaction specific assets would be lost. In so much as the assets are idiosyncratic, finding a substitute exchange partner is virtually impossible without incurring large switching costs. The vulnerability created by the asymmetric investment leaves the high investor at risk to opportunistic behavior by the low investor.

The first hypothesis, H1null, states there is no relationship between the buyer's and seller's anticipated investment patterns (a1 and a2) and the final negotiated contract (b). The alternative hypothesis, H1alt, states there is a relationship among these variables. The analysis is illustrated in Figure 7. Thus:

H1null: There is **no** relationship between the pattern of anticipated investment in transaction specific assets (a1 and a2) and the final negotiated contract (b).

H1alt: There is a relationship between the pattern of anticipated investment in transaction specific assets (a1 and a2) and the final negotiated contract (b).

If the null hypothesis was rejected, then the alternative hypothesis would be interpreted with the following expectations derived from the theory:

H1a: Anticipation of symmetric low investment is related to both parties establishing a final contractual form that is characterized by "market forces" governance.

H1b: Anticipation of asymmetric investment (i.e., seller has high investment and buyer has low investment) is related to establishing unilateral coordination in favor of the high investing party by the high investing party (i.e., the seller).

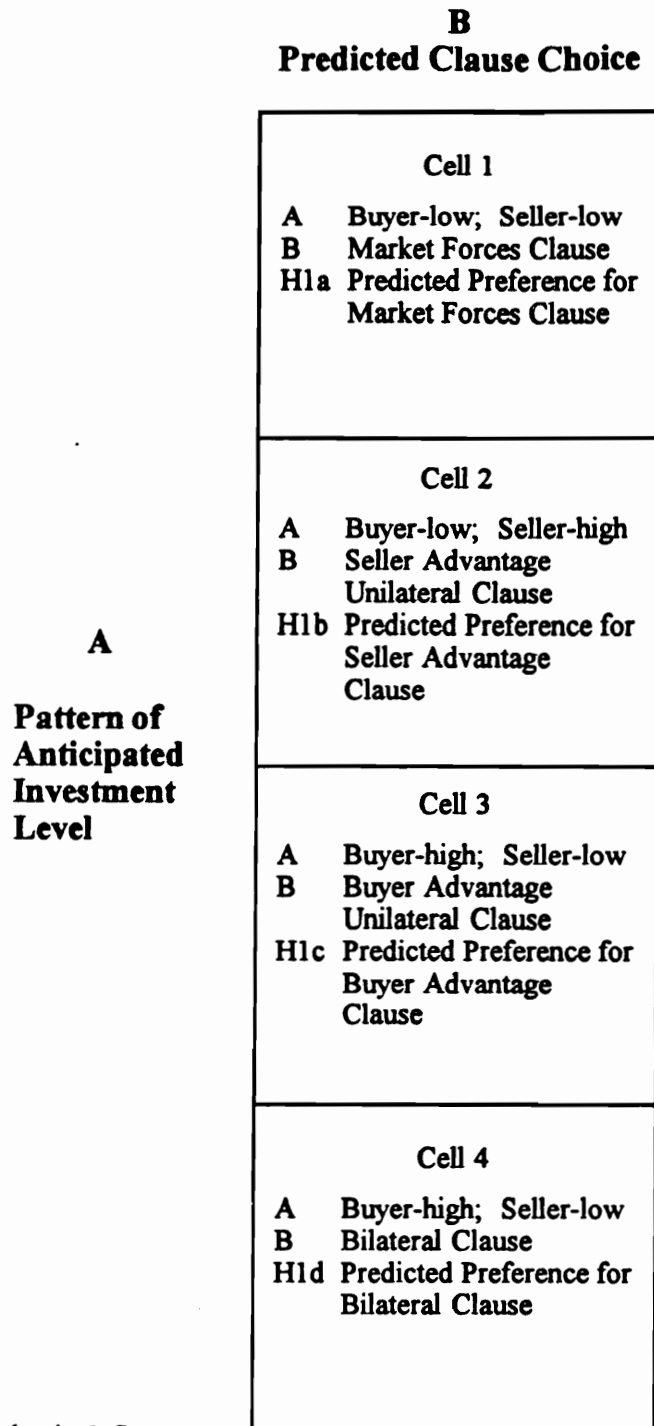


Figure 7 Hypothesis 1 Set

H1c: Anticipation of asymmetric investment (i.e., buyer had high investment and seller had low investment) is related to establishing unilateral coordination in favor of the high investing party by the high investing party (i.e., the buyer).

H1d: Anticipation of symmetric high investment is related to establishing bilateral coordination by both parties.

The expectations of the research (H1a-H1d) are consistent with the theory of the TCA paradigm. The investment pattern of symmetric low anticipated investment (cell 1 in Figure 6) is a pattern in which an imperfect competition environment is not present. The TCA paradigm states these parties could economize on transaction costs by allowing market forces to govern the relationship. They are not vulnerable to opportunism brought on by high levels of transaction specific investment. Consequently, they are not *in need* of contractual safeguards of any material extent. Rather, spending resources to obtain contracts with additional explication of transaction details would be an inefficient use of resources considering the security of market forces as "governance" (Williamson 1985). Thus, it was expected that both parties would initially choose the least binding of the contractual types available in anticipation of negligibly low transaction specific investment.

When one or both parties invest in a high level of transaction specific assets (cells 2, 3 and 4), market forces are no longer sufficient to safeguard (and absorb uncertainty). It was expected that the parties would negotiate a governance structure suited to their situations. There are three other ways of safeguarding a relationship (besides market

forces): vertical integration, non-contractual safeguarding and contractual safeguarding. Vertical integration is a long-range, permanent strategy and has been extensively researched. The non-contractual forms, dependence balancing and hostage exchange, are suitable for very specialized circumstances and were not important to this study. It was the purpose of this dissertation to investigate the shorter range, more flexible and less researched strategy of contractual safeguarding. Therefore, the simulation "forced" a choice of contract clause terms.

The available options for governance structures included a choice among: market-based governance, unilateral coordination and bilateral coordination. Unilateral coordination is similar to hard contracting in which the parties were expected to follow through with contingencies specified in the contract. A unilateral contract could be specified by either party and it was expected that the selected clauses would be in favor of the specifying party. The party specifying the clauses would be motivated to use them to absorb uncertainty on its behalf. The investing party would be the one that would be motivated to specify such safeguards to protect the investment made. It would be efficient for the investing party to use resources to prevent *ex post* opportunism.

Bilateral coordination is similar to relational contracting in which risk sharing is mutual and achieved through flexibility and coordination. It was expected that the parties involved in symmetric high anticipated investment (cell 4) would be motivated to preserve the relationship and thus desire bilateral coordination. Conversely, when the anticipated investment levels were asymmetric, the investing party would be motivated to build

safeguards such as liquidated damage remedies into the contract. Additionally, the non-investing party would not have a high level of motivation to preserve the relationship nor necessarily wish to safeguard the other party's investment. This would be even more the case when the low investing party considers other, more profitable exchange relationships. The low investing party would bear trivial switching costs to move on to another potentially "better" exchange relationship. Additionally, with low investment, there would be no inherent reason to share burdens.

The next relationship analyzed was between the anticipated investment pattern (a1 and a2) and opportunistic behavior (c1 and c2). The analysis is illustrated in Figure 8. A party engaging in opportunistic behavior would be most likely to be the one who enjoyed the power of forcing the more vulnerable party to tolerate demands for concessions. Thus, overall, opportunistic behavior would be more likely engaged in by the low investing party in an asymmetrical anticipated investment situation. During the negotiation stage, the opportunistic behavior was measured in the form of false communications (c1). The post negotiation survey contained self-report questions to measure the use of false communications (c2). After the agreement was formed, opportunistic behavior was measured in terms of accepting an opportunistic offer (d). The opportunistic offer was in the form of a stage in the parasimulation in which one member of each dyad was tempted to accept a very profitable offer to do business with a third company (i.e., incidence of acceptance of an opportunistic offer or IA00). However, the offer was large enough that the capacity of the dyad member's company



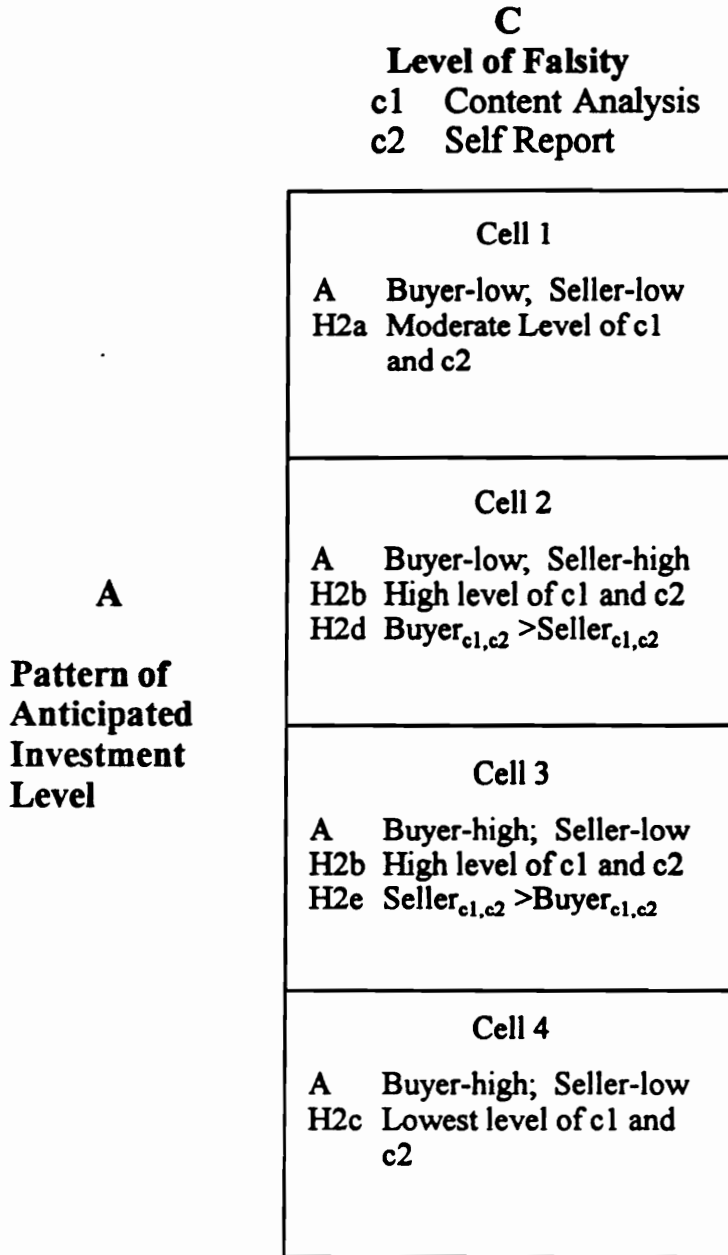


Figure 8 Hypothesis 2 Set

was strained and quality projected to suffer. The quality reduction suffered by the other dyad member was the manifestation of opportunism, IA00 (d).

The relationship between the anticipated investment pattern (a1 and a2) and level of falsity was tested with the following hypothesis. The hypothesis set was analyzed twice with data from both c1 and c2.

- H2null: There is **no** relationship between the pattern of anticipated investment in transaction specific assets (a1 and a2) and the level of falsity.
- H2alt: There is a relationship between the pattern of anticipated investment in transaction specific assets (a1 and a2) and the level of falsity.

If the null hypothesis was reported as rejected, then the alternative hypothesis was interpreted with the following expectations derived from the theory:

- H2a: During the negotiation stage, falsity is the lowest among dyads in the symmetric anticipated high investment situation.
- H2b: During the negotiation stage, falsity is at a moderate level among dyads in the anticipated symmetric low investment situation.
- H2c: During the negotiation stage, falsity is at the highest level among dyads in the anticipated asymmetric investment situation.
- H2d: During negotiation, in the anticipated asymmetric investment situation in which the high investing party is the seller, the low investing buyer will demonstrate more opportunistic behavior in terms of falsity than the high investing seller.
- H2e: During negotiation, in the anticipated asymmetric investment situation in which the high investing party is the buyer, the low investing seller will demonstrate more opportunistic behavior in terms of falsity than the high investing buyer.

Also in relationship 2 (see Figure 5), opportunism could manifest itself *ex post* or after the agreement was formed. In the simulation, an opportunistic offer was made to

each of the dyad members. For the same reasons discussed concerning the second set of hypotheses, the relationship between the resultant investment pattern (a1 and a2 are reclassified to reflect both investment and the impact of the enforced contract clause) and incidence of opportunism in terms of accepting the offer that would result in performance quality reduction (d) was tested with the following hypothesis, H3.

H3: There is an inverse relationship between opportunism, IA00 and the resultant investment in transaction specific assets.

That is, the higher the resultant investment, it is expected that the individual will be more likely to reject the opportunistic offer. Following the same reasoning explicated above, an individual would have an incentive to preserve the business relationship to avoid losing the value of the transaction specific investment. A low investing individual would not have as great an incentive to preserve the relationship and would be more likely to accept the opportunistic offer.

For this analysis, *resultant* investment is used as the independent variable. Resultant investment is a function not only of the investment made by the individual upon entering the contract (as explained for the relationships examined in hypothesis sets one and two), but also a function of the effect of the enforcement of the final negotiated contract clause. This is relevant in cases in which a low investor agrees to indemnify a high investor. In these cases, the low investor has the incentive not to accept the opportunistic offer because the enforcement of the clause would force the low investor to take on the high investment.

The analysis involves the reclassification of low investors who contract to indemnify their high investing bargaining partners as high investors. Also, due to the inability to predict the outcome of arbitration, individuals with final negotiated bilateral clauses were not included in this analysis.

### METHODS USED TO EVALUATE THE TRANSACTION COST ANALYSIS PARADIGM

In the literature reviewed in Chapter II, a number of methods were employed to study the marketing channel with regard to the TCA paradigm. The most common method used was the field survey using a mail survey. Field interviews and content analyses of contracts were also performed. Some studies yielded almost "case-like" analyses of the practices of a particular industry. In other marketing channels studies that are germane to issues surrounding the TCA paradigm, negotiation simulations were used. In the following section, the methods used to evaluate these channels issues are discussed.

### SAMPLE SURVEYS

Surveys are the most commonly used method in marketing channels research. Field surveys were also the most frequently used method in the literature reviewed in Chapter II. A field survey is a survey performed in naturalistic settings. For the purposes of this research, practical considerations (cost, convenience) required that a sample be drawn from the population of interest. When a sample was taken, it was important that

the sample represent the population. It would have been desirable to use random sampling techniques to avoid bias in the sample, but a convenience sample was used, as is common in studies of this nature.

The sampling procedures affect generalizability of the conclusions. Sampling procedures must follow the aims of the researcher. If applications research is desired, then a heterogeneous sample within the context of the channel is preferred to enhance generalizability. If theory testing research is desired, then a homogeneous sample is desired to reduce sources of variation that may obscure the results.

A sample also should be large enough to ensure statistical conclusion validity. As the number of subjects is increased, variations in the data tend to "wash out." Therefore, it is desirable to have as large a sample as practical. In a sample survey, some control is possible because information may be obtained about each respondent. Also, a sample survey "attempts to be representative of some known universe, both in terms of the number of cases included and the manner of the selection" (Churchill 1987, p. 91). However, the control of a sample survey is not as "tight" as an experiment in which the variables are controlled and manipulated.

Surveys may be performed over time (e.g., cohort analysis) or given at one point in time (i.e., cross-sectional) (Churchill, 1987). Cross-sectional surveys are much easier and cheaper to conduct in general. However, because the phenomena of interest in this research were being measured at a single point in time it was not possible to track a given

phenomenon throughout the course of events. In the literature review, all of the surveys were cross-sectional in nature.

Surveys also may be performed as part of an experiment such as a post-experiment survey. Surveys also may be performed in "field" or naturalistic settings. Generally, a naturalistic setting is one that was not set up solely for the use of a research study (note: there are some gray areas in terms of how some settings are formed, see Locke 1986). Although a field setting lacks the control of an experimental setting, the richness of the setting allows the results to be generalized to a richer set of environmental variables rather than being "restricted" to only a few variables that may be in a laboratory experiment. Often a marketing channels survey will limit its sampling frame to a single industry. However, some studies have sampled across industries in an attempt to improve generalizability (Rinehart, 1986).

## EXPERIMENTAL METHODS

An experiment is a study in which the investigator manipulates at least one independent variable and "observes the dependent variable for variation concomitant to the manipulations of the independent variables" (Churchill 1987, p. 888). The essential characteristic of an experiment is the control of the variables. The experimental method is a well received method because effects may be studied in a more "isolated" sense due to the ability to control. Experiments are broadly divided into two groups by the setting in which they are performed. The settings are either natural (field) or laboratory. A

naturalistic or field setting experiment is performed in a realistic setting that the respondents do not perceive as contrived for the experiment. A laboratory experiment is performed in a setting in which the experimenter has control over the conditions and such that some variables may be manipulated by the experimenter. There has been a trend toward increasing ecological realism in the laboratory so the responses are more realistic, but control over the variables of interest is still present.

In the study of the TCA paradigm in the marketing channel, experiments have not been utilized. However, some negotiation experiments that have been conducted in the area of marketing channels did involve some important variables that are common to the TCA paradigm. Trust in the marketing channel has been studied by Schurr and Ozanne (1985). Schulz and Pruitt (1978) studied the effect of mutual concern in a channel environment. Both studies are relevant to the notion of relational norms in which trust and joint concern are central characteristics of the relationship.

## FIELD STUDIES

Field studies differ from field surveys in that a field study tends to examine only a few cases rather than attempting to gather data from numerous sources. Also, the examination tends to be in greater depth than is possible in a field survey. Some earlier work in the TCA paradigm was done using field studies.

Interviewing was used by Palay (1981) in his field study of railroads during deregulation. He used four open-ended questions in the interviews of both shippers and

rail carriers. In his analysis, Palay matched the shippers and carriers to be able to build a profile of each relationship. Although the techniques lacked rigor, his description of the settings and interrelationships is rich with description and most useful for exploratory study. Joskow (1985, 1987) used field study techniques in his review of the practices of coal mines and power generation station industry practices. In a similar fashion, Masten (1984) studied the natural gas industry and Mulherin (1986) examined the aerospace industry.

Case studies are a form of field study in which the depth of analysis is the most intense. The use of case studies in channels research has diminished greatly in response to the strong criticism of the method by Campbell and Stanley (1963). Campbell and Stanley's (1963) remarks on the method focused on the weaknesses of small sample size and lack of control. The central criticism is the difficulty of generalization from a sample of one unit (or a few). Also problematic is the lack of scientific control in a case study. However, Dwyer and Krieger (1983) defended the use of case studies, reviewed several classic marketing case studies (Palamountain 1955; Ridgeway 1957) and found them to be meritorious in that they provided insights that led to the further development of channel theory. Dwyer and Krieger (1983) emphasized that the value of the studies came *from* the method, not *in spite* of the method. Thus, the benefits of the case study method lie in the inherent richness of the setting and the observations that may be drawn from the setting. Stuckey (1983) performed an in-depth study on the trends of vertical integration and joint venture formation in the global aluminum industry. Many of the circumstances



examined in the study gave insight into the TCA paradigm. An important contribution from this study was that, even if the transaction cost patterns were present in the institutional forms, other reasons may exist for the patterns than those predicted by the TCA paradigm. Stuckey's (1983) deeper inquiry enabled him to uncover these other explanations. Joskow (1988) drew from Stuckey (1983) in pointing out the value of deeper inquiry (even at the expense of sample size) for determining the root causes for institutional structure. A criticism of the current state of research into the TCA paradigm has been the lack of depth in inquiry. Noordewier, John and Nevin (1988) fault the tendency to match the patterns of a channel with those of the TCA paradigm without the deeper level of inquiry.

#### SECTION CONCLUSION

The methods used in the study of the TCA paradigm in the marketing channel have been limited, thus far, to field studies and field surveys. The advantages of experimental methods have not yet been used in this area. In the literature review section, the problems of confounds due to the research methods were discussed. Although field research enhances generalizability, it is apparent that a tightly controlled study of the TCA paradigm is needed. Theory testing necessitates more tightly controlled settings than have been used thus far.

## RESEARCH METHODOLOGY

The rationale behind the choice of research methodology for this research is discussed here with regard to the extant literature. The literature reviewed on studies of marketing channels and the TCA paradigm utilized field settings. As discussed above, although the previous studies gave insight into intrachannel behavior, the nature of methods used allowed confounding. This suggested that a tighter test of the theory was needed. A laboratory setting provided a more tightly controlled methodology and the tighter controls allowed assessment of cause-and-effect relationships. This allowed a more pure test of the constructs of interest (Fromkin and Streufert 1976). Channel settings have been studied using negotiation simulations. To simulate intrachannel interactions, a negotiation simulation was used in which different levels of anticipated investment were manipulated to determine the effect on governance structure choices. The objectives of this section are to: (1) explain the reasoning of using a negotiation simulation to test the hypotheses; (2) describe the experimental design; and (3) discuss the operationalization and measurement of the constructs.

## EXPERIMENTAL DESIGN

The basic research question of "do optimal governance structures (as expressed by the TCA paradigm) actually reduce the incidence of opportunism, thus acting to absorb uncertainty and thus reduce transaction costs?" was tested. The purpose of this research was to provide a more rigorous test of these hypotheses.

## OVERVIEW OF EXPERIMENT AND RATIONALE

The purpose of this research was to test the theoretical underpinnings of the TCA paradigm. To increase the ability of a method to test theory, internal validity had to be enhanced. To enhance internal validity, tight controls of the variables had to be implemented. A laboratory was the easiest situation in which to tightly control the test. A tighter control of the variables was made at the expense of external validity and the ability to generalize the results to other settings (Calder, Phillips and Tybout 1981). In the research stream of the TCA paradigm, rigorous theory testing is lacking. Hence, this research endeavored to test theory rather than applications.

In addition to the above reasons, a simulation experiment was selected because a simulation would allow the subjects to respond to conditions similar to the actual environment. The simulation was designed to be as realistic as possible with regard to experimental and mundane realism. Experimental realism "refers to [the] psychological impact on the participants and...mundane realism [refers] to the extent that the laboratory events are likely to occur in a naturalistic setting" (Rosenthal and Rosnow 1984, p. 67). The events were designed to be realistic and to telescope the events of channel interaction to enable the study of them.

The hypotheses were tested using a multiphased negotiation experiment. Schurr and Lessne (1983) listed seven characteristics needed in a properly designed negotiation simulation. These are:

1. Negotiations are between two opponents.

2. There is a motivation present to negotiate. The assumption is there exists some perceived increase in utility that may be derived from the negotiation.
3. The individual negotiators may have different or competing interests.
4. Uncertainty exists, usually in the form of lack of information.
5. Communication in the form of offers and counter offers must occur. Other information may be communicated.
6. The dyad must have a variety of alternative agreements from which to choose.
7. Either individual may withdraw from the negotiation.

Each of these requirements was addressed in the discussion of the inductions.

To simulate the conditions under which the TCA paradigm is relevant, it was necessary to induce certain competitive factors, uncertainty, small numbers bargaining and the potential for opportunism. The test utilized a dyadic negotiation experiment. To induce the different competitive situations, the dyads were placed in one of the four investment pattern scenarios depicted in Figure 6. Each dyad was given information packets (one for the buyer and one for the seller) containing an outline of the investment situation (contents of the packets appear in Appendix C). In accordance with each investment pattern, the dyads received information that described a small numbers bargaining situation and stated there were other companies to do business with. Price-quantity transaction cost tables were included that created competing interests between the dyad members. The scenarios were written describing a situation that would induce uncertainty. The subjects were given one warm-up exercise with their bargaining partners. Although the primary purpose of the warm-up exercises was to help the subjects

to learn to use the tables, a secondary benefit was the chance to build rapport with one another. Also, the subjects were told that this exercise could be multi-phased, in which there could be future dealings with their current partner or with another partner from a different company.

The subjects negotiated price, quantity and a contract clause to complete the contract. At the end of the session, the dyads in cells that came to an agreement received a "chance-to-accept-a-profitable-but-opportunistic-offer" or IA OO treatment. The IA OO treatment allowed for the potential to engage in opportunism. The subjects were given a memo from their superiors stating another company had offered a much more attractive offer. The offer, however, was so large that the company could not accept it and fulfill the agreement it just made with the incumbent bargaining partner with the same level of performance quality. The memo stated it was up to the subject to decide what to do. Of interest in this research was the decision of whether or not to act opportunistically based on resultant investment level. Therefore, the analysis concerning the IA OO induction focused on the individual's resultant investment, taking into account the effect of the final contract.

Note that the inductions and procedures allowed for the seven characteristics that Schurr and Lessne listed to be fulfilled. The subjects negotiated in a dyadic situation (1) in which there was a motivation to negotiate as outlined by the scenarios they received (2). The scenarios created competing interests, uncertainty, alternative agreement forms and the ability not to come to an agreement (3, 4, 6, 7). The simulation allowed for

offers to be communicated (5). The laboratory settings allowed for easier and more tightly controlled manipulation of relevant variables of interest. To reduce the artificial nature of the laboratory, important background factors were incorporated into the setting (Locke 1986). Some inductions and measures were administered via "memos" from the respondents' "superiors" to induce the idea of a business organization. Although no subjects portrayed the superior, the memos were written as though they came from one. Although the student was not at risk nor had the same "stakes" as an employee in a business, accountability was induced during the chance to IA00 treatment by asking the students for a decision. A well constructed simulation often induces a feeling of realism and the negotiation simulation was designed to enhance realism (Fromkin and Streufert 1976).

The negotiation session necessitated keeping a written record of the communications. It was somewhat artificial to have students negotiate in a face-to-face situation by passing memos back and forth without speaking, but some business negotiations occur without oral communication. Interactive written communications are becoming more popular with computer networking and facsimile machines.

### EXPERIMENTAL PROCEDURE

The experimental procedure employed is outlined below. Copies of all information packets, memos and instruments may be found in Appendix C.

1. The experimenter gave a brief explanation of the task.

2. The subjects were given the first information packet which contained the necessary information to conduct a warm-up exercise.
3. The subjects participated in a two part warm-up exercise. The first part concentrated on using abbreviated price-quantity transaction cost tables and the second part concentrated on how to use standard contract clauses to form a contract. The subjects bargained during the warm-up exercise. The warm-up exercise gave the subjects the opportunity to learn how to do the task and to ask questions. The warm-up exercise reflected the actual task.
4. The subjects were given a second information packet containing the actual price-quantity transaction cost tables, a menu of clauses and a description of the business situation (differs for each investment pattern cell). The different business situations referred to the investment pattern the dyad was placed in. The subjects were given twenty minutes to study their packets.
5. A manipulation check was administered to ensure proper understanding of the information supplied each subject. This consisted of a short quiz to check the subjects' understanding.
6. The subjects were given forty-five minutes to bargain with their opponents.
7. The subjects in cells 2, 3 and 4 received memos from the investing companies, indicating that the requisite investments had been made.
8. Subjects in dyads reaching an agreement were given IA00 memo treatments.
9. IA00 subjects replied to their superiors concerning whether they choose to accept the offer.
10. All subjects filled out a post-negotiation questionnaire.
11. Students were thanked and informed that a debriefing session would be held at a later date.

## SAMPLING PROCEDURE

A convenience sample of students was drawn from MBA courses and were encouraged to participate in exchange for class credit in the course grading. It is assumed that because they were enrolled in a graduate business course, they have an interest and basic understanding of business environments. Although the instruments were written in plain everyday language, the students needed to have sufficient knowledge to understand the circumstances presented in the experiment. The statistical methods used for the analysis of the effects for both the dyads' behavior and the individuals' behavior both required a minimum of eighty-five subjects. A single dyad, counting as one "subject" required two participants. With a desired sample size of eighty-five dyads, a minimum of 170 students was needed (utilizing Rosenthal and Rosnow 1984, p. 360, table for medium effects, alpha at .05 and power equaling .70). The quantity of 170 students exceeded the needed eighty-five students for the individual effects (such as a buyer versus a seller reneging). Additional students were needed for pretesting.

Theory testing requires the use of theory falsification procedure. One falsification procedure is to use a homogeneous group of respondents. Homogeneous samples increase statistical conclusion validity (Calder, Phillips and Tybout 1981). The homogeneous nature of the sample applies to nontheoretical variables. Due to cost and other practical factors, undergraduates were used to a limited extent in developing the instruments used in this research. Whether or not students are an appropriate group to use centers on the dimensions of the experiment. Khera and Benson (1970) concluded that students may be



successfully used in place of business people when the students are given sufficient background information to perform the task. The experiment designed for this research used a multi-phased warm-up exercise built in before the simulation began to familiarize the students with the skills, information and tasks needed. Manipulation checks were performed to determine the level of the students' understanding of the tasks. The tasks were also designed to enhance ecological validity and decrease the subjects' awareness of being a part of an experiment (Fromkin and Streufert 1976). Also, demographic and psychographic measures were taken on the composition of the student subjects to check for possible confounds.

### INDUCTIONS

The conditions of uncertainty and small numbers bargaining (through the investment in transaction specific assets) were induced through the explanations of the business situation in the packet material given to each subject. The tendency to behave opportunistically was allowed to emerge in two ways: (1) falsity in communication and (2) acceptance of an opportunistic offer (IAOO). The transmissions of false information could occur as the subjects exchanged messages. The students were encouraged to write any message they wished to their bargaining partners so if they wished to convey false information, they had a conduit for it. Also, a treatment giving subjects the chance to behave opportunistically was administered.

## MEASURES

The measures taken were opportunistic behavior (falsity and IA00), the resulting negotiated governance structure, the price/quantity outcomes and a post-negotiation self-report survey containing questions on strategy and affective orientation toward one's opponent. Several other measures were taken to serve as control variables to explain possible confounds through post negotiation instruments. Included in the post negotiation self-report were questions on risk and trust orientation, gender, age, year in college, work experience, major and whether courses in business law and ethics had been completed.

### Selection of Governance Structures

Selection of governance structure is a key issue in TCA. Since the focus of this research was establishing contractual safeguards, alternative governance structures were not available to the subjects as they sought to protect their investments. Therefore, the experiment did not include the options of vertical integration, hostage exchange, or dependence balancing. This limited the test to studying the preference for types of contract safeguards.

As discussed in the literature review, there are two major categories of the nature of contractual safeguards: relational and contingency contracting. Relational contracting refers to contracts that have a spirit of building a "constitution" by which the exchange partners may work out problems as encountered while avoiding destroying the relationship. These types of contracts are characterized by terms in which the benefits

and burdens are borne mutually (Noordewier, John and Nevin 1988). For simplicity, the concept of relational contracting is compressed from MacNeil's (1978) usage (which encompasses the entire relationship) and is operationalized in terms of the choice of written contracts available in the negotiation experiment. The relational contracting construct then is referred to as *bilateral coordination*.

Contingency contracting, which is also referred to as "contractual" contracting after the usage by Macaulay (1963), is the type in which the nature is typified by an arm's length orientation. The responsibilities of the parties are strictly defined as well as the burdens. The benefits and burdens are not shared but rather allocated and clauses to mitigate non-performance are expressed in terms of liquidated damages. The "contractual" governance structure is referred to as *unilateral coordination*.

The subjects received a menu of typical contract clauses that were used to complete the contract. Under each subject area was a choice of several clauses representing the different coordination forms. The subjects used the menu of clauses to construct a contract. The menu is included in Appendix C. Although the type of contract is classified by one clause, Mulherin (1986) used the presence of a single clause covering a certain subject area as a means for classifying a contract.

## Opportunism

Opportunism refers to behaviors that are self-interest seeking with dishonesty and disregard for how the consequences affect others. Opportunism includes breaching of contracts, lying, deceiving and giving misinformation. In this study, opportunism was operationalized in terms of the falsity level of communications exchanged during the negotiation exercise, the acceptance of the IA00 treatment and agreement with opportunism questions in the post negotiation self-report. The bargaining exercise was multiphased such that contracts could be formed and the opportunity for accepting the IA00 treatment was available. Falsity ranged from bluffing to misrepresenting subjective material to misrepresenting objective material. The content analysis format is discussed in Appendix D.

The IA00 treatment proceeded after the contract was agreed upon. The IA00 treatment was in the form of a memo from the treatment subject's superior. The memo explained that a third company had made a highly attractive offer to buy (or sell, whichever was appropriate) at a much more profitable price level. However, it was impossible to accept this new order from the third company and fulfill the old contract with the same performance level (with the incumbent bargaining partner) because the combined quantities well exceeded capacity (either production for the selling companies or demand for the buying companies). The superior informed the subject (by memo) that the subject should decide "what to do" about the new offer.

The communications exchanged by the dyad members and the final memo were content analyzed to measure opportunism. False statements are often made during negotiations to obscure the actual positions of the parties (Raiffa 1982). Raiffa calls this tactic "strategic misrepresentations" and even discusses bargaining situations in which a person can lose credibility by accurately disclosing situational factors such as the reservation price. However, opportunistic behavior manifests itself in the making of self-disbelieved statements. It was expected that "strategic misrepresentations" would be made by all dyads, regardless of the level of investment required in the exchange. The level of misrepresentation usage was expected to be the lowest in dyads consisting of parties that both had high anticipated investment levels in transaction specific investment (high symmetric anticipated investment--Cell 4). The lower incidence would be a precursor to the selection of more relational contractual types in which there was a spirit of shared benefits and burdens.

A third measure of opportunism was conducted through the administration of post-experiment self-report scales. The questions were Likert type in which the respondent indicated the level of agreement with the statement. A set of questions was administered to the subjects regarding the use of disclosures as a strategy and the level of honesty of the disclosures. The subjects were also asked how often each strategy was used and to rate the effectiveness of each. Additionally, a set of questions adapted from John's (1984) opportunism scale were also included. The post negotiation survey question numbers are provided next to each question.

### **Questions measuring falsity level from full honest disclosure to fabrication**

22. When you gave information to your bargaining partner, how many times did you use the strategy of fully disclosing all relevant information.
24. When you gave information to your bargaining partner, how many times did you use the strategy of disclosing correct information in a way that did not give a complete and accurate picture of your situation.
26. When you gave information to your bargaining partner, how many times did you use the strategy of using arguments that were designed to sound logical and beneficial to your partner but were designed to actually only benefit yourself.
28. When you gave information to your bargaining partner, how many times did you use the strategy of using arguments to accurately point out how you both could benefit.
30. When you disclosed information about your situation, how many times did you use the strategy of only giving out as little as was needed.
32. When you gave information to your bargaining partner about your situation, how many times did you use the strategy of including information that would help your bargaining partner.
34. When you gave information about your situation to your bargaining partner, how many times did you use the strategy of exaggeration about your situation, but not saying anything that was actually false.
36. When you gave information to your bargaining partner, how many times did you use the strategy of exaggeration in order to leave the wrong impression but not saying anything that was actually false.
38. When you gave information to your bargaining partner, how many times did you use the strategy of giving opinions that were false, but communicating what could only be construed to be an opinion.

### **Questions measuring opportunism**

50. On occasion, I had to lie to my bargaining partner in order to protect my interests.
51. Sometimes I had to exaggerate my needs in order to get what I really needed from my bargaining partner.

52. Complete honesty does not pay when dealing with my negotiating partner.
53. I always provided my bargaining partner a completely truthful picture of my business. (reversed)
54. Sometimes, I had to alter the facts slightly in order to get what I needed.
55. My bargaining partner was not always truthful with me, so I was not always truthful candid in return.
56. I feel that it is OK to do anything within my means that will help further my own interests.

It is important to note that opportunism is not to be confused with hard bargaining or competitiveness (John 1984). The crucial indicator of opportunism is *guile* or dishonesty. However, feigned cooperativeness is an aspect of opportunism. This may be indicated by perceived cooperation coupled with hidden opportunism. Using Murray's (1987) cooperative-competitive behavior scales with a few questions developed for this research, the level of cooperative-competitive behavior was indicated in this research by self-report as well as content analysis.

#### **Questions measuring cooperative-competitive behavior**

1. My bargaining partner seemed to hinder the process of reaching a fair agreement. (reversed)
2. My bargaining partner seemed stubborn during negotiations. (reversed)
3. My bargaining partner showed a willingness to give and take during the negotiations.
4. My bargaining partner seemed inflexible during negotiations. (reversed)
5. During negotiations, my bargaining partner and I seemed to stand in opposition to one another. (reversed)

6. My bargaining partner tried to be fair during negotiations.
7. My bargaining partner seemed willing to compromise during negotiations.
8. During negotiations, it seemed as though my bargaining partner and I worked against one another. (reversed)
9. My bargaining partner seemed open to my offers during negotiations.
10. My bargaining partner seemed generally supportive during negotiations.
11. During negotiations, the interests of my bargaining partner and I seemed to clash. (reversed)
12. The negotiation process was filled with tension. (reversed)
13. My bargaining partner seemed generally flexible during negotiations.
14. During the negotiations process, my bargaining partner and I seemed to work together.
15. I felt distressed during the negotiation process. (reversed)
16. During negotiations, my bargaining partner seemed willing to yield so that an agreement could be reached.
17. I felt antagonistic toward my partner during the negotiation process. (reversed)
18. My bargaining partner seemed helpful during negotiations.

These survey questions comprised the competitiveness scale and were used as control variables.

In sum, opportunism was measured through several means. Acceptance of IA00 behavior, content analysis and post-experimental measures have been used to explain patterns of opportunism, which are reported in subsequent chapters.



## Other Measures

It was important to incorporate additional demographic and psychographic measures to explore possible confounds. The personalities of the subjects could be related to negotiation behavior (Rubin and Brown 1975). Rubin and Brown (1975) found that certain personality characteristics were related to a propensity to negotiate in either an integrative or distributive fashion. Because opportunism is closely related to Machiavellianism (Christie and Geis 1970), it could have been that the Machiavellian subjects had a higher propensity to engage in opportunistic behavior. Hunt and Chonko (1984) used these questions to measure Machiavellianism in marketing professionals. The Likert questions measuring the level of the Machiavellianism personality are as follows:

### **Questions measuring Machiavellianism**

73. The best way to handle people is to tell them what they want to hear.
74. When you ask someone to do something for you, it is best to give the real reasons for wanting it, rather than reasons that might carry more weight.
75. Anyone who completely trusts anyone else is asking for trouble.
76. Honesty is the best policy in all cases. (reversed)
77. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
78. Never tell anyone the real reason you did something unless it is useful to do so.
79. One should take action only when sure it is morally right. (reversed).
80. It is wise to flatter important people.

81. All in all, it is better to be humble and honest than important and dishonest. (reversed)
82. Barnum was very wrong when he said there's a sucker born every minute. (reversed)
83. People suffering from incurable diseases should have the choice of being put painlessly to death.
84. It is possible to be good in all respects. (reversed)
85. There is no excuse for lying to someone else. (reversed)
86. Most people forget more easily the death of their father than the loss of their property.
87. Most people who get ahead in the world lead clean, moral lives. (reversed)
88. Generally speaking, people won't work hard unless they're forced to do so.
89. The biggest difference between most people and criminals is that criminals are stupid enough to get caught.
90. Most people are brave. (reversed)

Also, it has been observed in the negotiation literature that members of different cultural backgrounds often have different negotiation styles. Therefore, several questions on cultural and ethnic background were included in the questionnaire. The subjects also indicated their majors, gender, age, racial/ethnic background, experience and interest in negotiation and experience with contracts. Also, whether or not an agreement was reached was asked as well as the nature of the agreement in terms of governance structure (question 73). The choices were:

Overall, the terms we agreed on are so typical of the economic forces of the market place that we really didn't need to write out a formal contract.

Overall, I feel that the contract is biased in favor of my negotiation partner's company.

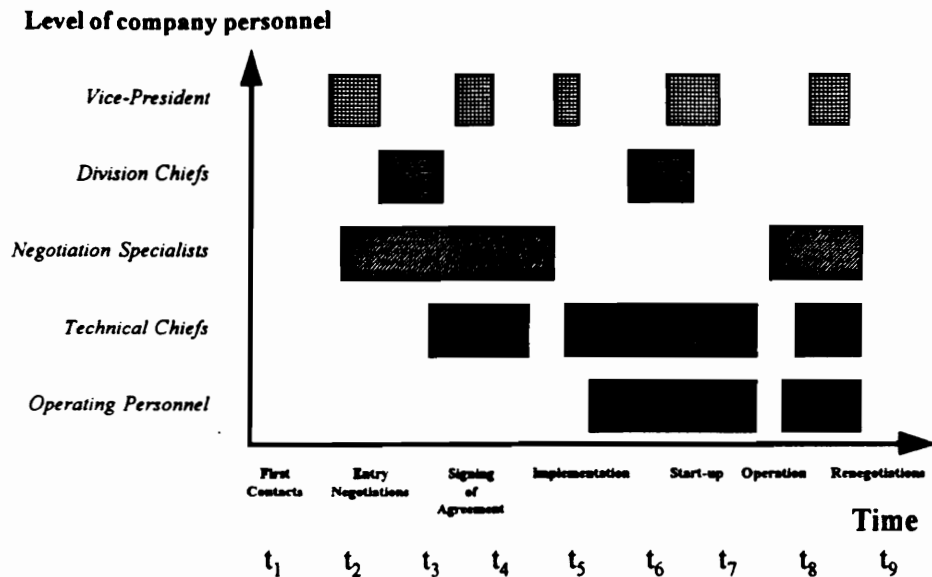
Overall, I feel that the contract is biased in favor of my company.

Overall, the terms we agreed on do not favor one side or the other. Rather, they allow the two companies to work issues out cooperatively.

Not applicable because my partner and I did not come to an agreement.

### Limitations of the Experimental Design

There were certain limitations inherent in this simulation experiment. The role of the subject within an industrial organization was somewhat bundled. In large organizations, a buying center, involving many people, is typical for purchases of this kind (Webster and Wind 1972). However, in this simulation the only other colleague associated with the subject was a "superior" who communicated solely by memo. Also, the superior was merely a means to collect responses while lessening the subjects' awareness of being involved in an experiment. The superior provided little input into the buying decision other than to convey or explain information. An additional limitation is in the narrow and telescoped interfirm relationship. Stoever (1981) diagrammed the normal progression of interfirm negotiations (shown in Figure 9). Stoever's (1981) diagram shows how different members of an organization become involved in negotiations at different stages and time intervals as conditions merit. Stoever's (1981) example is of a very involved situation, but does serve to show possible complexities. Even in less involved negotiations, it is sometimes prudent to use a negotiation team to



**Participation of different levels of personnel at times  $t_1-t_9$**

- $t_1$  First contacts may be made at any of several levels: vice-president, division chiefs, negotiators.
- $t_2$  Once negotiations get under way, the personnel most likely to be continuously involved are the negotiations specialists for both sides: economists, lawyers, financial analysts, technical experts, appropriate line managers.
- $t_3$  Division chiefs may be involved in negotiation continuously or intermittently, depending on the importance of the project, how new and unfamiliar it is to the parties, and how difficult the negotiation issues are to resolve.
- $t_4$  Top-level personnel (vice-presidents) may be called in by the negotiating team for either side when particularly difficult points or impasses are reached.
- $t_5$  Technical chiefs may be called in for consultation before the agreement is completed.
- $t_6$  When the agreement is near completion, vice-presidents may be involved again in order to work out final compromises or sign the agreement.
- $t_7$  After signing, the personnel involved on both sides typically change considerably. Technical, construction, and operating personnel take over responsibility for carrying out the project (or supervising it, on the government side) according to the terms agreed on by the now-departed negotiators.
- $t_8$  High-level personnel or perhaps negotiation specialists may become temporarily involved to resolve disputes going beyond the competence or discretion of the technical and operating personnel constructing and starting up the project.
- $t_9$  Renegotiation: The cycle of personnel usage may start again as negotiation specialists are called on when a new agreement of substantial modification of an existing agreement is required.

(Adapted from Stoeber 1981, p. 20-21)

Figure 9 Negotiations Participation by Various Company Personnel

increase effectiveness (Barlow and Eisen 1983). Subsequent renegotiations can restart the negotiation cycle. In the research for this dissertation, the simulation was telescoped such that these dynamics occurred in a compressed time frame. Other limitations are discussed in Chapter V where the results of this research are presented.

## STATISTICAL METHODS

The selection of statistical methods was based upon both the aims of the research and the characteristics of the data. The data collected in this research are mixed, in that some data are continuous and some are categorical/dichotomous. It was necessary to consider the different data types in the selection of statistical methods. Figure 10 depicts the variable types and appropriate statistical technique. The variables themselves were either continuous or categorical/dichotomous. Refer to both Figures 5 and 10 in the following discussion. In the model, the independent variables: seller's level of investment (a1) and buyer's level of investment (a2), were dichotomous variables. In the first relationship tested, 1, the investment type was *anticipated* investment. The level of investment was either high or low with no intermediate values allowed and was analyzed by creating four patterns of investment from the 2 x 2 basic pattern matrix. The dependent variable, final negotiated governance structure/contract (b), was also categorical. When both the independent and dependent variables are categorical, as in the first relationship, the appropriate statistical technique is Log linear analysis.

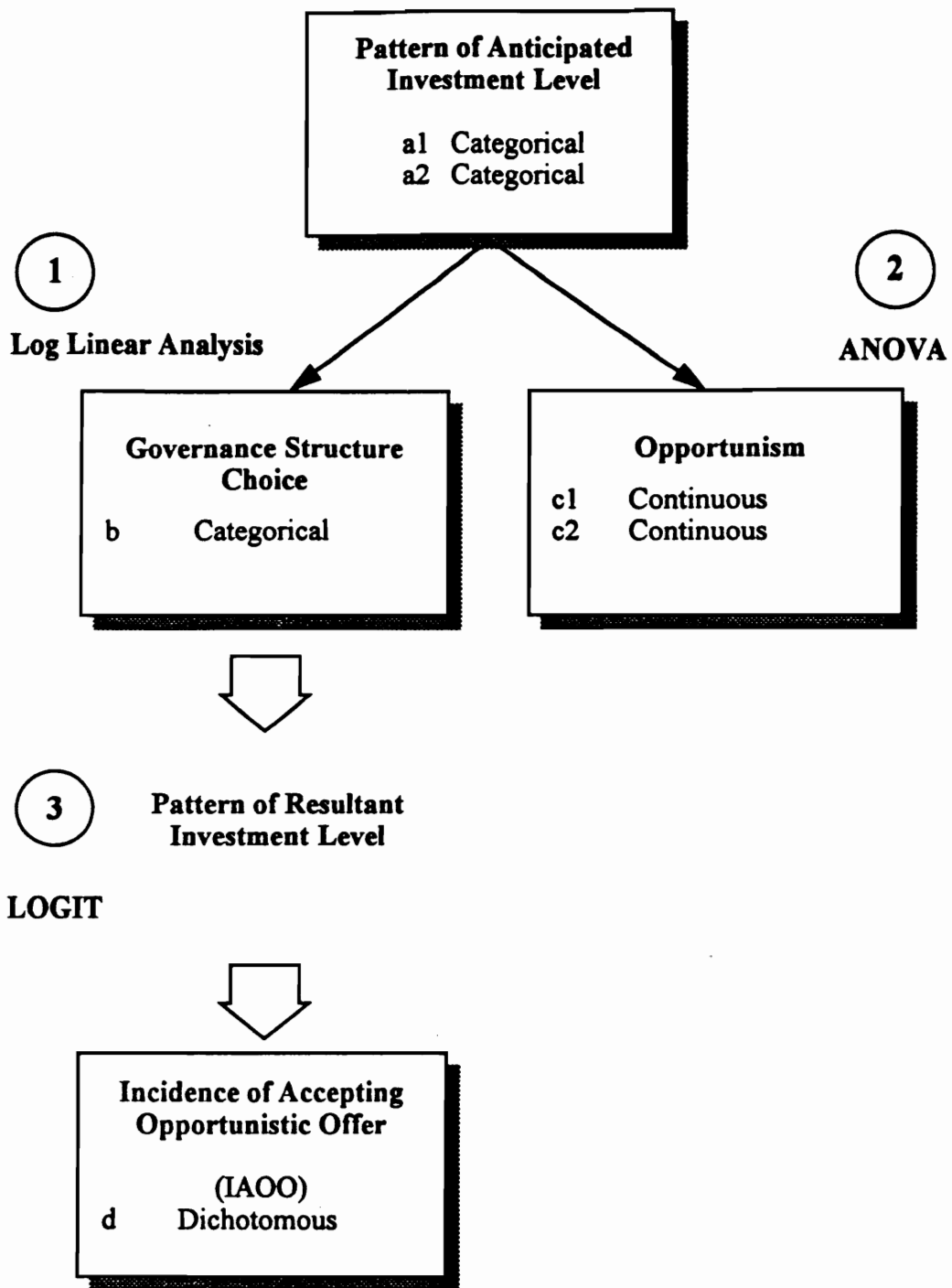


Figure 10 Variable Types and Appropriate Statistical Techniques

In the second relationship tested, 2, the pattern of anticipated investment was, as above, a categorical variable. The dependent variable was falsity of communications. Both measures used to assess falsity of communication were continuous. The content analysis method (c1) resulted in a continuous variable as did the scale comprised of self-report survey questions (c2). When the dependent variable is continuous, ANOVA may be used.

In the third relationship tested, 3, the independent variable was investment, but with the progression of the events of the simulation, this was *resultant* investment. As explained earlier in this chapter with the list of hypotheses, *resultant* investment refers to the investment made and any undertaking of indemnification. For this analysis, the subjects were reclassified to reflect the overall effect of actual investment and the effect of the contract clause. This variable remained dichotomous. The dependent variable, IA00 (d), was also dichotomous as it was a yes/no response. Although Log linear analysis is appropriate to use to analyze the data, a more parsimonious form, LOGIT, may also be used. LOGIT was used to take advantage of parsimony.

## STATISTICAL ANALYSIS

The objective of the following section is to discuss the statistical techniques used to analyze the research hypotheses. The relationships tested are discussed with the selected technique, a presentation of the model and statistical equations. The statistical equations are summarized in Figure 11.

<u>Relationship</u>	<u>Hypothesis</u>	<u>Statistical Model</u>
$a - b$	H1a, H1b, H1c, H1d	Log-Linear Analysis $LN F_{ijk} = \mu + \lambda_a^A + \lambda_b^B + \lambda_{ab}^{AB} + e$
$a - \left\{ \begin{matrix} c1 \\ c2 \end{matrix} \right\}$	H2a, H2b, H2c, H2d, H2e	ANOVA $\mu_{ijk} = \mu + \alpha_i + \beta_{j(i)} + \gamma_k + \gamma_{ik} + \beta\gamma_{jk(i)}$
$\left\{ \begin{matrix} a1 \\ a2 \end{matrix} \right\} - d$	H3	LOGIT $LN \left( \frac{F_{i11}}{F_{i12}} \right) = 2 (\lambda_1^d + \lambda_{i1})$

Figure 11 Statistical Formulas for Testing the Proposed Relationships



## Hypotheses H1a-d

The first set of hypotheses tested the relationship between anticipated investment pattern and governance structure choice. The anticipated investment pattern (a) comprised two independent variables: level of seller's anticipated investment in transaction specific assets and the buyer's level of anticipated investment in transaction specific assets. The diagram of the four basic patterns is illustrated in Figure 6. There was one measure of the governance structure variable, the final negotiated contract agreed upon at the end of the negotiation session (b). The governance structure was the dependent variable in the first set of hypotheses. Both the anticipated investment pattern variable and the governance structure variable was categorical. The appropriate statistical technique to analyze the data was Log linear analysis. Log linear analysis allowed the consideration of more information than performing a series of chi-square tests. For hypotheses 1a-1d, the model was as follows:

$$LN F_{ijk} = \mu + \lambda_a^A + \lambda_b^B + \lambda_{ab}^{AB} + e$$

Where:

**LN  $F_{ijk}$  = frequency (natural log frequency) of the subjects in the category of seller and buyer investment levels i and j with governance structure type k = overall mean response.**

**$\lambda_a^A$  = the main effect of the pattern of anticipated investment on the frequency (a: cells 1-4).**

**$\lambda_b^B$  = the main effect of the final contract on the frequency (k = 1 market forces, k = 2 unilateral seller advantage, k = 3 unilateral buyer's advantage and k = 4 bilateral).**

$\lambda_{ab}^{AB} =$  **the interactive effect between the pattern of anticipated investment and final contract on the frequency.**

The four sub-hypotheses, H1a, H1b, H1c and H1d, were concerned with the interactive effects between anticipated investment and final contract on the frequency. In terms of the theoretical model above, the statistical hypotheses are stated below. The first effect examined was the 2-way interaction.

*H1 null: all  $\lambda_{ab}^{AB} = 0$*

*H1 alt: some  $\lambda_{ab}^{AB} \neq 0$*

The null hypothesis should have been accepted if the pattern of anticipated investment in transaction specific assets is not needed in assessing whether the frequencies differed among the specifications of final contract type. If level of anticipated investment is needed in assessing whether the frequencies differed among the specifications of final contract type, then the alternative hypothesis should have been accepted.

The sub-hypotheses H1a-H1d were analyzed using Log linear analysis and contingency table analysis. The first sub-hypothesis, H1a, was modeled as follows:

$$LNF_{ab} = \mu + \lambda_a^A + \lambda_b^B + \lambda_{ab}^{AB}$$

Where

A = Cell 1 vs. others

B = Clause 1 vs. others

The null and alternative hypotheses were:

$$H1a \text{ null: } \textit{all } \lambda_{ab}^{AB} = 0$$

$$H1a \text{ alt: } \textit{some } \lambda_{ab}^{AB} \neq 0$$

The alternative hypothesis should have been accepted if the cell 1 anticipated investment pattern (symmetric low) was needed in assessing whether the frequency differed from the predicted clause 1 versus other clauses. The null should have been accepted if the anticipated investment pattern is not needed in this assessment.

The sub-hypothesis H1b was modeled as follows:

$$LNF_{ab} = \mu + \lambda_a^A + \lambda_b^B + \lambda_{ab}^{AB}$$

Where

A = Cell 2 vs. others

B = Clause 3 vs. others

The null and alternative hypotheses were:

$$H1b \text{ null: } \textit{all } \lambda_{ab}^{AB} = 0$$

$$H1b \text{ alt: } \textit{some } \lambda_{ab}^{AB} \neq 0$$

The alternative hypothesis should have been accepted if the cell 2 anticipated investment pattern (seller high; buyer low) was needed in assessing whether the frequency differed

from the predicted clause 3 versus other clauses. The null should have been accepted if the anticipated investment pattern was not needed in this assessment.

Sub-hypothesis H1c was modeled as follows:

$$LNF_{ab} = \mu + \lambda_a^A + \lambda_b^B + \lambda_{ab}^{AB}$$

Where:

A = All 3 vs. others

B = Clause 2 vs. others

The null and alternative hypotheses were:

$$H1c \text{ null: } all \lambda_{ab}^{AB} = 0$$

$$H1c \text{ alt: } some \lambda_{ab}^{AB} \neq 0$$

The alternative hypothesis should have been accepted if the cell 3 anticipated investment pattern (seller low; buyer high) was needed in assessing whether the frequency differed from the predicted clause 2 versus other clauses. The null should have been accepted if the anticipated investment pattern was not needed in this assessment.

Sub-hypotheses H1d was modeled as follows:

$$LNF_{ab} = \mu + \lambda_a^A + \lambda_b^B + \lambda_{ab}^{AB}$$

Where:

A = Cell 4 vs. others

B = Clause 4 vs. others

The null and alternative hypotheses were:

$$H1d \text{ null: } \textit{all } \lambda_{ab}^{AB} = 0$$

$$H1d \text{ alt: } \textit{all } \lambda_{ab}^{AB} \neq 0$$

The alternative hypothesis should have been accepted if the cell 4 anticipated investment pattern (symmetric high) was needed in assessing whether the frequency differed from the predicted clause 1 versus other clauses. The null should have been accepted if the anticipated investment pattern was not needed in this assessment.

#### Hypotheses 2a-2e

Hypotheses 2a-2e tested whether investment levels were related to the incidence of opportunism and, if so, whether the patterns followed the predictions of the TCA paradigm. In the relationship of the pattern of anticipated investment and opportunism, the independent variable was the anticipated investment pattern and the dependent variables were the measures of opportunism. The opportunism variables were in two forms. Intensity of false communications, falsity, (c1) was a continuous variable derived from content analysis of the communications. The rated falsity score, (c2), was also a continuous variable based on post negotiation survey questions. Both c1 and c2 were analyzed using ANOVA.

The method used to test the relationship (a) → c1 was a two-way ANOVA utilizing the full factorial structure. The theoretical model was:

$$Y_{ijk} = \mu + \alpha_i + \beta_{j(i)} + \gamma_k + \alpha\gamma_{ik} + \beta\gamma_{jk(i)}$$

Where:

$Y_{ijk}$  = the observed data point

$\mu_{ij}$  = the grand mean

$\alpha_i$  = the main effect of anticipated investment level pattern (i = cells 1-4)

$\beta_{j(i)}$  = the main effect of the dyad with i investment level cells

$\gamma_k$  = the main effect of role (buyer or seller)

$\alpha\gamma_{ik}$  = the interactive effect of pattern of anticipated investment and role

$\beta\gamma_{jk(i)}$  = the interactive effect of the dyad within the investment level and role.

The cell main effect was tested in terms of whether the intensity of false communications differed as a function of buyer's and seller's anticipated investments. The main effect could be tested using the statistical hypotheses:

**H<sub>0</sub>:  $\alpha_i = 0$  for all i**

**H<sub>a</sub>:  $\alpha_i \neq 0$  for some i**

The null hypothesis should have been rejected if the intensity of false communications differed as a function of level of anticipated investment in transaction specific assets.

For sub-hypothesis H2a, the null and alternative hypotheses were:

$$H2a \text{ null: } \alpha_4 = \frac{(\alpha_1 + \alpha_2 + \alpha_3)}{3}$$

$$H2a \text{ alt: } \alpha_4 \neq \frac{(\alpha_1 + \alpha_2 + \alpha_3)}{3}$$

The alternative hypothesis was accepted if the cell 4 pattern of anticipated investment (symmetric high) was needed to assess if the intensity of false communication differed from that of members of other investment pattern cells (1, 2 and 3). If there was no difference, then the null hypothesis was accepted.

For sub-hypothesis H2b, a two-part analysis was used. The analysis required two parts to determine whether the predicted effect was moderate. The null and alternative hypotheses for part one were:

$$H2b1 \text{ null: } \alpha_1 = \alpha_4$$

$$H2b1 \text{ alt: } \alpha_1 \neq \alpha_4$$

The first part of the analysis for sub-hypothesis H2b proceeded as follows. The alternative hypothesis should have been accepted if the cell 1 pattern of anticipated investment (symmetric low) was needed to assess if the intensity of false communication differed from that of cell 4. If there was no difference, then the null hypothesis was accepted.

The second part of the analysis of sub-hypothesis H2b compared  $\alpha_1$  with ( $\alpha_2$  and  $\alpha_3$ ). The null and alternative hypotheses were:

$$H2b2 \text{ null: } \alpha_1 = \frac{(\alpha_2 + \alpha_3)}{2}$$

$$H2b2 \text{ alt: } \alpha_1 \neq \frac{(\alpha_2 + \alpha_3)}{2}$$

The second part of the analysis compared the cell 1 results against those of cells 2 and 3. The alternative hypothesis should have been accepted if the cell 1 pattern of anticipated investment (symmetric low) was needed to assess if the intensity of false communication differed from that of members of the investment pattern cells 2 and 3. If there was no difference, then the null hypothesis should have been accepted.

For sub-hypothesis H2c, the null and alternative hypotheses were:

$$H2c \text{ null: } \alpha_2 + \alpha_3 = \alpha_1 + \alpha_4$$

$$H2c \text{ alt: } \alpha_2 + \alpha_3 \neq \alpha_1 + \alpha_4$$

The alternative hypothesis should have been accepted if the cell 2 and 3 patterns of anticipated investment (the asymmetric patterns) were needed to assess if the intensity of false communication differed from that of members of other investment pattern cells (1 and 4). If there was no difference, then the null hypothesis should have been accepted.



Sub-hypotheses H2d and H2e were components of the interaction of cell with role (buyer vs. seller) intensity of false communications. The two-way interaction has been tested using the statistical hypotheses as follows:

$$\mathbf{H_0: } (\alpha, \beta)_{ij} = 0 \text{ for all } i, j$$

$$\mathbf{H_a: } (\alpha, \beta)_{ij} \neq 0 \text{ for some } i, j$$

This hypothesis tested if the interaction of the pattern of level of anticipated investment and role was needed in assessing the intensity of false communications.

If the interaction was not needed, then the alternative hypothesis should have been rejected. If it was needed, then the null hypothesis should have been rejected.

For sub-hypothesis H2d, the null and alternative hypotheses were:

$$\mathbf{H2d \text{ null: } } \alpha_2\gamma_1 = \alpha_2\gamma_2$$

$$\mathbf{H2d \text{ alt: } } \alpha_2\gamma_1 \neq \alpha_2\gamma_2$$

For sub-hypothesis H2e, the null and alternative hypotheses were:

$$\mathbf{H2e \text{ null: } } \alpha_3\gamma_1 = \alpha_3\gamma_2$$

$$\mathbf{H2e \text{ alt: } } \alpha_3\gamma_1 \neq \alpha_3\gamma_2$$

### Hypothesis 3

Incidence of accepting the opportunistic offer, IA00, (d) was reported as a categorical yes or no. The method used to test the relationship (a) → d was LOGIT which is derived from the Log linear analysis model.

With a categorical dependent variable that is dichotomous, LOGIT analysis is the preferred technique. Log linear analysis could be used, but considering the dichotomous nature of variable d, LOGIT is *more parsimonious*. This is evident when the Log linear model needed to test these relationships is compared with the LOGIT model. The Log linear model is as follows:

$$LN F_{ijk} = \mu + \lambda_i^a + \lambda_l^d + \lambda_{il}^{ad}$$

Whereas the LOGIT model is:

$$LN \left[ \frac{F_{i11}}{F_{i12}} \right] = 2 \left[ \lambda_1^d + \lambda_{i1}^{ad} \right]$$

(Note: The LOGIT model is derived from the Log linear model.)

Where:

This set of tests considered the relationship of resultant investment level (a → d) with the incidence of opportunism in terms of IA00. The 2-way interaction was tested with the following statistical hypotheses:

$LN \left( \frac{F_{ij1}}{F_{ij2}} \right)$  = the natural log of the ratio of those subjects

$\lambda_1^a$  = the main effect of resultant investment level on the frequency

$\lambda_l^d$  = the main effect of the IA00 behavior on the frequency

$\lambda_{il}^{ad}$  = the interactive effect of the level of resultant investment

and the IA00 behavior on the frequency-

*H<sub>0</sub>*:  $\lambda_{il}^{ad} = 0$  for all  $il$

*H<sub>a</sub>*:  $\lambda_{il}^{ad} \neq 0$  for some  $il$

The alternative hypothesis should have been accepted if the relationship was found to exist. That is, should the pattern of resultant investment be related to the IA00 behavior, then the alternative hypothesis should have been accepted. The expected direction was that as investment increases, rejection of IA00 behavior increases. Thus, with lower investment, acceptance of the opportunistic behavior was expected to increase.

The IA00 data set was analyzed with expectations consistent with the discussion of the theory set forth in the first part of this chapter.

## SECTION SUMMARY

In this section, the statistical methods and statistical hypotheses were presented to test the research questions. The statistical methods have been reviewed in preparation for

analysis of the data, reported in Chapter IV. The patterns of investment consisted of both the buyer's and the seller's level of investment in transaction specific assets. The governance structure has been measured in terms of the final negotiated form. Opportunism has been measured as the degree of falsity in the communications between bargaining partners and the incidence of accepting an opportunistic offer. The relationship between the investment pattern in transaction specific assets and the final negotiated contract/governance structure has been tested using Log linear analysis. Analysis of Variance has been used to analyze the relationship between investment pattern and intensity of falsity. LOGIT has been used to test the relationship between investment pattern and the incidence of accepting an opportunistic offer.

## CHAPTER SUMMARY

In this chapter, the hypotheses were presented. A review of the research techniques used in previous studies coupled with the literature review in Chapter II demonstrated a need for testing the hypotheses with a tightly controlled methodology to minimize confounding. The experimental design for a negotiation simulation was presented. The statistical methods and hypotheses were selected and constructed. The statistical formulas are summarized in Figure 11.

## CHAPTER IV: RESULTS

### INTRODUCTION

The purpose of this chapter is to present the results obtained from the negotiation simulation. The chapter is organized into two sections: pretesting results and data analyses.

Pretesting is discussed in terms of three broad phases. The initial stages involved modifying the Wholesale Hospital Supply simulation used successfully by several previous researchers (Stern, Sternthal and Craig 1973, Dant 1985, Murray 1987). The first phase focused on comprehension improvement. The next phase involved reworking the scenarios and instructions to refine the inductions. The final stage of pretesting involved switching subject populations from marketing undergraduates to more sophisticated MBA students.

## PRETESTING

A total of 220 undergraduate students and 60 MBA students participated in pretesting. These students were drawn from Virginia Polytechnic Institute and State University, Radford University, Seton Hall University, Hofstra University, the University of Southern California and the University of San Diego. All were volunteers and encouraged to participate for extra credit points.

### PHASE ONE

The pretesting for this project was extensive due to several comprehension problems. The first problem involved drafting contractual safeguarding instruments that were easy to understand. Legal language is often difficult to understand and it was imperative that this not be an impediment. The second problem involved writing the scenarios to create four different patterns of transaction specific investment such that the cell group subjects understood the meaning of non-redeployability of the capital assets. This was coupled with inducing an appreciation for negotiating, not only transaction cost economizing price and quantity combinations, but also an appropriate contract. Additionally, the subjects needed to be motivated, not only to work with their bargaining partners, but also in the best interests of their companies.

In the most elementary stages ensuring comprehension was the primary goal. The simulation used in this research was also used by Murray (1987). Murray (1987) worked to refine the simulation so undergraduates could use it with ease and understanding.

Murray's (1987) modifications of the simulation created an interesting situation that undergraduates could understand and relate to allowing this researcher to proceed to working on inductions. Therefore, the contractual safeguarding material was approached first. Twenty undergraduate students were asked to read proposed contract menu sections and highlight areas that they identified as hard to comprehend for a lower division business student. By asking them to project outside of themselves, comprehension problems could be more easily identified. The highlighting was followed by a discussion, line-by-line, of interpretation of the wording and suggestions for clarity. From the suggestions, the initial contract clause menus were developed.

## PHASE TWO

Undergraduates were also used in the second phase of pretesting. With each session of actual play, the contract formation task was modified to a single issue contract completion task for reasons of both time and measurement of contract characteristics. The scenarios were also modified, but not as greatly. Additional instructions were added to the experimenter's script for oral instructions to guide the subjects through the simulation tasks and to reinforce the dual motivations of economizing on transaction costs (also phrased in terms of corporate profitability) and managing risk through the use of a prudently negotiated contract.

Numerous wording changes were made after each play session. In all, there were twelve rewordings using undergraduates in sixteen sessions during the second phase of

pretesting. Manipulation checks were scrutinized by inspection. The basic trends of comprehension, with the researcher's notes on questions asked, were discussed in consultations with advisors experienced in negotiation based research. Modifications were tried in subsequent sessions, many with apparent success. Several formal debriefing sessions were held during the modification process. Extensive modifications were made and it was determined that, although the students understood the concepts and wordings expressed, they lacked an appreciation for the importance of the contract. Also, the students lacked an appreciation for the importance of working, not only with their negotiation partners, but also in the best interests of their respective companies. Motivational instructions were added to both the written instructions and the oral instructions given by the researcher. The next play sessions showed more realism in the results. It was, however, decided that the sophistication level of the task required a more sophisticated group of subjects than business undergraduates. Two sessions were scheduled using MBA students. The results showed a better understanding of the simulation and a higher interest level.

### PHASE THREE

The objectives of the pretests using the MBA students were to: (1) assess the subjects' comprehension of the contract clauses and scenarios and (2) evaluate the reliability of the Competitiveness/Cooperativeness scale, the Machiavellianism scale and the Opportunism scale. The pretesting, using 60 MBA students, was split into two



sessions with modifications occurring in between the sessions. The first session used the longer five section clause contract menu. The second session used the condensed contract menu that concentrated on a single contract clause issue with six choices of clauses.

Table 1 summarizes the subjects' self-reports of their understanding of the contract clauses. A five-point modified Likert scale was used to obtain their evaluations of the contract clauses in terms of their perceptions of the relative advantage of the contract clauses. The subjects rated the clauses in terms of the clause favoring the buyer, the seller, or neither. The five-point scale allowed the subjects to indicate the strength or degree of favoring in the clause. The data indicated a strong comprehension of the contract clauses. The first part of Table 1 shows the comprehension level of the MBA students using the initial five section contract menu. The second part of Table 1 shows the comprehension level of the MBA students using the modified contract clause menu that was simplified and shortened to one contract clause issue. This second modified contract menu is included in Appendix C.

In Table 1, the distribution of answers is shown with the correct answer shaded. The correct answer is defined as the one the researcher intended as correct. However, because the rating reflected not only the perceived direction of the contract clauses (i.e., favor the buyer, favor the seller, favor neither) but also the degree of favoring, expected answers are also given to consider the fact that not all subjects rate the degree of direction the same.

Unfortunately, despite good comprehension, the five section contract clause menu was determined to be too time consuming for a simulation. Additionally, agreement on the nature of a complex contract (indicating governance structure type) would make the analysis of the data for hypothesis testing unduly complex. It was decided that a shorter instrument was needed and the modified condensed version was created.

The condensed version of the contract was tested with the second group of MBA students. The results are also presented in Table 1. The understanding level was sufficient as shown by the frequency of responses in the range of the correct or expected answers.

It also should be noted that during the pretesting both the contract clause evaluation sheet and the manipulation check are completed before the negotiation play begins (pre-play). During all phases of the pretests, any remaining questions and requests for clarification were addressed by the experimenter and/or "figured out" through the process of play. Accordingly, the subjects had a "handle" on the simulation either at the beginning of play or shortly into play. Therefore, the comprehension level during the midst of play appeared to be higher than the measured level at the pre-play stage. However, due to time constraints, a second round of comprehension checks was not feasible.

**TABLE 1**  
**General Understanding of the Contract Clauses--MBA Pretest**

CLAUSE	RESPONSES				
	1	2	3	4	5
Initial 5 Section Contract Clause Menu N = 22					
1a	0	4	16	2	0
1b	18	4	0	0	0
1c	0	0	2	10	10
1d	1	9	10	2	0
2a	0	1	16	3	2
2b	10	12	0	0	0
2c	0	1	2	10	9
2d	0	0	18	4	0
3a	0	5	15	2	0
3b	20	2	0	0	0
3c	0	0	0	9	13
3d	0	4	14	3	1
4a	1	1	16	3	1
4b	16	5	0	0	1
4c	0	1	0	5	16
4d	1	0	21	0	0
5a	18	3	0	0	1
5b	1	0	0	2	19
5c	0	1	21	0	0
5d	0	0	22	0	0
Condensed One Section Contract Clause Menu N = 24					
A.	1	2	15	3	3
B.	9	14	1	0	0
C.	19	3	1	1	0
D.	0	0	1	15	8
E.	0	0	0	4	20
F.	0	2	20	2	0

NOTE: Correct answers are shaded

Table 2 summarizes the answers to the manipulation check to test the understanding of the scenarios by role and cell. Recall that each cell had a different scenario or fact pattern to induce the different levels of transaction specific assets. Comprehension of the fact pattern was central to appropriate handling of the negotiation task. No changes were made in these questions between the two MBA sessions, so the results are aggregated together. The understanding level was sufficient as indicated by the frequency of correct answers selected. However, final changes were made to the instrument for actual data analysis. Several questions were changed from a yes/no/non-applicable format to a Likert scale to create a continuous scale for ease of analysis. Also, to reduce further the time demands on the subjects, a question about a secondary issue was dropped because it was not vital.

TABLE 2  
Comprehension of Scenario Fact Patterns---MBA Pretest

BUYER	Cell 1					Cell 2					Cell 3					Cell 4					
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	4	1	1			4	3		2		3	2		2		1	2	1	2		
2	6					10					7					5	1				
3	4	1	1			6	2	1					1	3	3	1	2		2	1	
4	2		4			7	3					7				1	3	2			
5		2	4			6		4			7					3	1	2			
6	3	2	1						5	5	3	2	1	1				1	3	2	
7	2	1	3			10					4	2	1			4	2				
8	1	4	1			5	1	1	3		2	5				2	1	1	1	1	
	n=6					n=10					n=7					n=6					
SELLER	Cell 1					Cell 2					Cell 3					Cell 4					
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	3	2	1			4	4	1	2		1	5				2	2				
5	7					9	2				7					5					
3	2	3	1					2	1	3	4	2	4		1			3		1	1
4	6		1					11			1	5	0				5				
5		6	1			11					4	2	1			5					
6	0	3	3	4		8	1	2				1		4	2	1	1		3	0	
7	3	1	3			1	4	6			7					5					
8	0	4	3			2	0	6			5			2	0	2			2	1	
	n=7					n=11					n=7					n=5					
Contract Price and Quantity Cells 1-4																					
BUYER	Price					Quantity															
	500	525	550	575	600	40	41	42	43	44	45										
9	28					13	2	10	1	1	1										
10					28	3	1	1			24										
11	6	9	13				2	13	6	5											
SELLER	Price					Quantity															
	500	525	550	575	600	40	41	42	43	44	45										
9	3				27	1		2			27										
10	28				2	27		1													
11	2	1	18	7	1	1	4	16	4	4											

NOTES: All missing cases are shown by a frequency not adding to the n. Correct answers are shaded. Shaded zeros show no correct response.

Table 3 summarizes the reliabilities of the three scales used in the post-experimental survey. Reliability is measured here using Cronbach's coefficient alpha. For the early stages of basic research in the social sciences, lower reliabilities are acceptable.

Cronbach's alpha was used to test the reliability of the Opportunism, Competitiveness and Machiavellianism scales. The magnitude of the alpha value measures the internal consistency of the scale being evaluated. Nunnally (1978) gives a minimum acceptable alpha level of .70 for basic research, while Mehrens and Lehman (1978) have a more relaxed value of .65. Mehrens and Lehman (1978, pp. 107-8) comment on this process, "There are no absolutes... It may be helpful to test with low reliability rather than none at all." Their sentiment is that a test with low reliability may still have some validity and can therefore be useful.

The first two scales are sufficiently reliable for basic research (Nunnally 1978). The opportunism scale had a reliability of .8515. The competitiveness scale had a reliability of .9400. The Machiavellianism scale had a reliability of .6357. The reliability of the Machiavellianism scale is marginal but the scale is included for use in the analysis of the control variables and is not crucial to hypothesis testing. Scale development in the area of Machiavellianism has been a difficult path. The marginal reliability should be considered when the results are interpreted during the analysis of the control variables.

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**TABLE 3**  
**Scale Reliability**

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<b>SCALE</b>	<b>N = 46</b>	<b>NO. OF QUESTIONS</b>	<b>COEFFICIENT ALPHA</b>
Opportunism		7	.8515
Competitiveness		18	.9400
Machiavellianism		18	.6357

---

## SECTION SUMMARY

During the pretesting phases, numerous changes were made to the instruments to improve comprehension, streamline the instrument to facilitate analysis and reduce the time demands on the subjects. Nineteen iterations were performed. The first one was with undergraduates to evaluate the comprehension level. Sixteen negotiation sessions were conducted with undergraduates, resulting in switching subject populations to MBA students. Two sessions were conducted with MBA students, resulting in the final refinements to the instruments and a determination of the reliabilities of the opportunism, competitiveness and Machiavellianism scales.

## HYPOTHESIS TESTING AND RESULTS

This section presents the results of the dyadic negotiation simulation that was conducted to test the hypotheses. The first part of this section discusses the characteristics of the participants, the reliabilities of the scales used in the analysis and the results of the manipulation check. The next part discusses the tests of the hypotheses. The final part discusses the analysis of potential confounds.

## CHARACTERISTICS OF SIMULATION PARTICIPANTS

For the hypotheses analysis, data were collected from 262 (131 dyads) graduate students enrolled in MBA courses. Students from Virginia Polytechnic Institute, VPI Northern Virginia Campus, University of Richmond, Marymount University, Radford



University and Clemson University were used. Only 254 data sets were determined to be usable due to missing pieces or extensive omission of answers. Even so, there were some missing answers on the questionnaires.

This section contains the characteristics of the subjects broken out by cell membership and role (please see Table 4). Of the buyers, 33.1% were female and 63.8% were male (3.1% declined to answer) and of the sellers, these percentages were 34.6% and 62.2%, respectively, (3.1% declined to answer). The mean age for the buyers was 29.2 from an age range of 21 to 55. The sellers had a mean age of 27.6 with an age range of 21 to 49. The subjects were mostly white. Of the buyers, 81.1% were white, 4.7% were black, 6.3% were Asian and 7.9% did not respond to this question. For the sellers, 79.7% were white, 6.3% were black, 4.7% were Asian, 4.8% were other minority groups and 5.5% did not answer. Most of the students had previous work experience; however, 17 students (6.6%) had none. Buyers had an average of 7.01 years of work experience with a range of 0 to 31 years (18 missing cases). The sellers had an average of 5.74 years of work experience with a range of 0 to 30 years (20 missing cases).

**TABLE 4**  
**Characteristics of Simulation Participants**

<u>MEASURE</u>	<u>BUYERS</u>		<u>SELLERS</u>	
	<u>NO.</u>	<u>PCT.</u>	<u>NO.</u>	<u>PCT.</u>
<u>GENDER</u>				
Female	42	33.1%	44	34.6%
Male	81	63.8%	79	62.2%
Missing Cases	4	3.1%	4	3.1%
<u>AGE*</u>				
Mean Age	29.2 years		27.6 years	
Age Range	21-55 years		21-49 years	
Missing Cases	4	3.1%	4	3.1%
<u>RACE</u>				
White	103	81.1%	100	76.7%
Black	6	4.7%	8	6.3%
Asian	8	6.3%	6	4.7%
Other Minority	0	0%	6	4.7%
Missing Cases	10	7.9%	7	5.5%
<u>WORK EXPERIENCE*</u>				
Mean Number of Years	7.01 years		5.74 years	
Range	0-31 years		0-30 years	
Missing Cases	18	14.2%	20	15.7%

\* Calculations excluded missing cases

## EVALUATION OF THE MANIPULATION CHECK

The method of analysis used to evaluate the manipulation check is based on the following ideas: (1) treatment of non-applicable responses when a question is applicable and (2) applicability of questions as a function of cell/role combination. This section is organized as follows. First, the fundamental ideas underlying the analysis approach are discussed. Then the statistical analysis of the question responses is organized by method used. The survey used to conduct the manipulation check is included in Appendix C.

The manipulation check was not in the form of a scale. Rather, the questions were posed to test the understanding of certain key facts related to the scenarios. The manipulation checks are presented in Appendix C. Although the questions were written so that they were similar across the variations of the scenarios, not all questions were applicable in each case. Since the pattern of applicable questions and correct answers varied as a function of cell and role from question to question, these questions did not form a scale. Thus, the questions must be evaluated independently.

Because not all questions applied to all cell/role combinations, a non-applicable option was provided. These non-applicable questions were left as empty cells on Table 5. These questions are discussed in a separate analysis at the end of this section. In cells in which the questions were applicable, it was problematic when a subject selected the non-applicable response because this precluded relevant information. Therefore, the non-applicable responses were treated as missing cases in these circumstances. The

**TABLE 5**  
**Response Means for Manipulation Check Data Set**

QUESTION	BUYER CELLS					SELLER CELLS				
	1	2	3	4	ALL	1	2	3	4	ALL
1	4.40	4.36	4.31	3.65	4.18	4.52	3.97	4.59	3.90	4.24
2	2.03	1.73	4.53	4.45	3.18	1.77	4.12	2.47	3.90	3.08
3	--	--	1.74	1.37	1.56	--	1.26	--	1.70	1.46
4	--	--	4.53	4.55	4.54	--	4.75	--	4.74	4.75
5	2.75	4.26	2.26	4.52	3.51	1.86	1.56	4.00	3.87	3.00
6	--	1.52	--	1.44	1.48	--	--	1.82	1.50	1.70
7	--	4.55	--	4.61	4.58	--	--	4.62	4.48	4.56
8 PRICE	504	502	501	501	502	586	599	596	600	595
8 QUAN	41.0	40.9	40.8	40.6	40.8	44.0	44.9	44.9	45.0	44.7
9 PRICE	597	598	598	600	598	503	500	503	501	502
9 QUAN	44.6	44.6	44.6	44.7	44.6	40.3	40.0	40.0	40.2	40.1
10 PRICE	534	536	536	541	537	551	554	557	553	554
10 QUAN	42.1	42.5	42.1	42.1	42.2	42.3	43.0	42.8	43.1	42.8

-- = question non-applicable to scenario

responses in Table 5 reflected a recoding performed to treat the inappropriate non-applicable responses as missing values.

The technique of analysis varied as a function of correct responses across cell/role combinations. The manipulation check questions are included in Appendix C. The analyses were performed question-by-question. Questions in the manipulation checks are grouped together by the statistical technique employed. Also, questions that were non-applicable for certain cells are analyzed for the applicable cells only. These are as follows: Questions 3 and 4 were non-applicable for buyers in cells 1 and 2 and for sellers in cells 1 and 3. Questions 6 and 7 were non-applicable for buyers in cells 1 and 3 and for sellers in cells 1 and 2. The analyses in these cases are for buyers and sellers not in the aforementioned non-applicable cells.

The first set of questions analyzed were those in which the correct answer was the same for all applicable cells. A one-sample t-test was performed against a theoretical mean. Where the pattern differed by cell, a one-way ANOVA was used including post hoc Tukey tests. Where the pattern differed only between buyers and sellers, a one-way repeated measures ANOVA was performed on the dyads.

Questions 1, 4 and 7 for both the buyer and seller, were ones in which the correct answer was expected to be high on the five-point scale. Question 1 pertained to the fact that if the subject could not reach an agreement with the bargaining partner, the subject's company may still do business with other companies. It was expected that the subject would agree with this statement and reply with an answer of "agree" (=4) or "strongly

agree" (=5), which were high values on the five-point Likert scale. Questions 4 and 7 pertained to anticipated investment in custom-made equipment by Wholesale Hospital Supply (Question 4) and Surgical Manufacturing (Question 5). In cells in which this was an applicable question, the respondents were expected to be in agreement with the answers that would be on the high range. A one-sample t-test for the data from all applicable cells combined was performed against a theoretical mean of 3.0. If the result was significant, it was concluded that the manipulation was successful since the answers were significantly higher than the mid-point. All six questions were highly significant with p values less than .0001. Therefore, the manipulations were successful for these questions. The results are presented in Table 6.

Questions 3 and 6 for both the buyer and seller, were ones in which the correct answers were expected to be low on the five-point scale. Questions 3 and 6 asked if the investment would be in standardized equipment. The anticipated investments in transaction specific assets were all customized assets, therefore, the subjects were expected to disagree (low scores) with the statements. A one-sample t-test for the data from all applicable cells was performed combined against a theoretical mean of 3.0. All the results were highly significant with p values less than .0001. Therefore, the manipulations were successful for these questions. The results are presented in Table 6.

Question 10, for both buyers and sellers, asked which combination of price and quantity represented a reasonable compromise. Therefore, for this question a one-sample

**TABLE 6**  
**Significance of Means of Responses of Manipulation Check Data Set - t-tests**

One sample t-tests for answers expected to be higher than the mid-point

	<u>QUESTION</u>	<u>t</u>	<u>df</u>	<u>p</u>
Buyer	1	11.80	125	<.0001**
Buyer	4	15.40	62	<.0001**
Buyer	7	22.57	61	<.0001**
Seller	1	13.78	126	<.0001**
Seller	4	29.17	58	<.0001**
Seller	7	17.33	53	<.0001**

One sample t-tests for answers expected to be lower than the mid-point

	<u>QUESTION</u>	<u>t</u>	<u>df</u>	<u>p</u>
Buyer	3	-13.09	53	<.0001**
Buyer	6	-15.20	55	<.0001**
Buyer	11	-4.00	61	.0002**
Buyer	13	-2.79	12	.0163*
Seller	3	-14.00	49	<.0001**
Seller	6	-9.29	45	<.0001**

One sample t-tests against both extreme values

	<u>QUESTION</u>	<u>EXPECTED RESPONSE</u>	<u>t</u>	<u>df</u>	<u>p</u>
Buyer	10 price	500	22.92	123	<.0001**
Buyer	10 price	600	-39.19	123	<.0001**
Buyer	10 quan	40	27.88	123	<.0001**
Buyer	10 quan	45	-34.63	123	<.0001**
Seller	10 price	500	39.29	123	<.0001**
Seller	10 price	600	-33.70	123	<.0001**
Seller	10 quan	40	28.20	124	<.0001**
Seller	10 quan	45	-21.80	124	<.0001**

\* Significant at .05 level.

\*\* Significant at .01 level.

t-test was performed against both extreme values on the five-point scale. If both tests are significant, then it was concluded that the subjects correctly identified values representing a compromise position. Prices and quantities were evaluated separately. Also, the buyer and seller responses were evaluated separately, totalling eight t-tests (summarized in Table 6). All eight tests were highly significant with p values less than .0001. Therefore, the manipulations were successful for this question.

For questions 8 and 9 price and quantity issues were also posed. Question 8 asked which price and quantity were best for the subject, question 9 asked which were the worst. With a mixed motive price quantity table, the expected responses were in opposition. That is, the best price for a seller would be the highest price and greatest quantity. The reverse was true for the buyer. The buyer would want the lowest price at the lowest quantity. The answers were reversed for the worst price question. The worst price/quantity for the seller would be the lowest price and lowest quantity while the worst price/quantity for the buyer would be the highest price and the greatest quantity. Therefore, for these questions, the correct answers were expected to show a difference between the buyers and sellers. A repeated measures (within dyads) ANOVA was performed on each with highly significant results (all p values less than .0001). The results are summarized in Table 7.

For each of the following questions, there was a predicted pattern among the means for the cells involved. For each question, an ANOVA was performed.



**TABLE 7**  
**Significance of Means of Responses of Manipulation Check Data Set - ANOVA**

Repeated measures (within dyads) ANOVA for answers with an expected difference between buyers and sellers

QUESTION	F	df	p
8 price	2354.41	1,125	<.0001
8 quan	734.70	1,125	<.0001
9 price	3368.21	1,123	<.0001
9 quan	1157.58	1,125	<.0001

ANOVA and post hoc Tukey tests for questions for which there is a predicted pattern among the means for the cells involved

QUESTION	F	df	p	TUKEY p
Buyer 2	84.17	3,122	<.0001**	<.05*
Seller 2	32.46	3,123	<.0001**	<.05*
Buyer 5	29.22	3,109	<.0001**	<.05*
Seller 5	35.62	3,99	<.0001**	<.05*

\* Significant at .05 level  
 \*\* Significant at .01 level

Significant results were followed by a post hoc Tukey test. If these were also significant and if the pattern of means was as predicted, then it may be concluded that the manipulation was successful.

The results of the analysis for question 2 are presented in Table 7. Question 2 asked if Surgical Manufacturing must invest money in order to do business with Wholesale Hospital Supply. For buyer question 2, it was expected that cells 1 and 2 would have lower correct answers than cells 3 and 4. The ANOVA was significant ( $F = 84.17$ ,  $df = 3,122$ ,  $p < .0001$ ). Post hoc Tukey tests showed 1 and 2 were significantly lower than both 3 and 4 ( $p < .05$  for Tukey), as predicted. For seller question 2, it was expected that cells 1 and 3 would have lower correct answers than the answers for cells 2 and 4. Omnibus significance was found ( $F = 32.46$ ,  $df = 3,123$ ,  $p < .0001$ ) and the Tukey tests were significant as well.

The results of the analysis for question 5 are presented in Table 7. Question 5 asked if Wholesale Hospital Supply must invest money in order to do business with Surgical Manufacturing Supply. For buyer question 5, it was expected that cells 1 and 3 would have lower expected answers than for cells 2 and 4. Significant results were obtained ( $F = 29.22$ ,  $df = 3, 109$ ,  $p < .0001$ ) with significant Tukey tests as well. For seller question 5, it was expected that cells 1 and 2 would be lower than for cells 3 and 4. Significant results were obtained ( $F = 35.62$ ,  $df = 3,99$ ,  $p < .0001$ ) with significant Tukey tests as well.

Questions 11, 12 and 13 asked the subject to identify the best, worst and compromise choice contract clauses. The correct or expected answers were based on the pattern for final negotiated contract clauses according to the pattern predicted in Hypothesis 1 set. Note that using the theoretically predicted expected answers as correct answers reflected the TCA theory for final negotiated governance structure and did not consider the effects of the negotiation process. The questions essentially asked if the subjects could identify appropriate clauses. Binomial expansion was used to test the question if the subjects could identify appropriate choices in excess of 50% of the time. For ease of discussion, the patterns of selection will be expressed in the number of subjects giving a predicted answer and the number giving non-predicted responses. Mixed results were obtained.

Question 11 asked if the subjects knew what was the best clause for their given situations. The first analysis discussed is for the buyers (please see Table 8). For cell 1, not a single subject gave the expected answer of clause A (0 predicted; 30 non-predicted) with a non-significant result of a p value of .99999999. This manipulation did not yield the expected result. For cells 2 and 3, it was expected that the buyers would select either clause B or C. Most did (118 predicted; 7 non-predicted), giving a significant p value of .00000000. For cell 4, it was expected that the buyers would select clause F. Most did not (1 predicted; 31 non-predicted) with a non-significant p value of 1.0. Similar results were found with the sellers (please refer to Table 9). It was expected that cell 1 sellers would prefer clause A. Not a single one did (0 predicted;

**TABLE 8**

**Analysis of Manipulation Check: Buyer Frequencies of Clause Choice Evaluated with Binomial Expansion for Question 11**

CLAUSE CHOICE	CELL			
	1	2	3	4
1	0	2	0	0
2	11	7	4	4
3	18	23	25	26
4	0	0	0	0
5	1	0	0	0
6	0	1	2	1

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
1	0	30	.9999
2 & 3	118	7	.0000**
4	1	31	1.0000

\*\* Significant at .01 level

TABLE 9

Analysis of Manipulation Check: Seller Frequencies of Clause Choice Evaluated with Binomial Expansion for Question 11

CLAUSE CHOICE	CELL			
	1	2	3	4
1	0	2	2	1
2	1	0	1	0
3	0	0	0	1
4	6	6	10	3
5	23	25	18	24
6	0	0	1	1

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
1	0	30	1.0000
2 & 3	115	10	.0000**
4	1	29	.9999

\*\* Significant at .01 level

30 non-predicted) with a non-significant p value of 1.0. For cells 2 and 3, it was expected that the sellers would select clauses D and E. Most did (115 predicted, 10 not predicted) with a significant p value of .00000000. For cell 4, it was expected that the sellers would select clause F. Only one did (1 predicted; 29 non-predicted) with a non-significant result of .99999730.

Question 12 asked the subjects to identify the worst clause for their situations. For all the cells, it was expected that the buyers would identify clauses D and E. Most did (108 predicted, 17 non-predicted) with a significant p value of .00000000 (refer to Table 10). The same question was asked of the sellers. For all the cells, it was expected that the sellers would identify clauses B and C as the worst for them. Most did (112 predicted; 12 non-predicted) with a significant p value of .00000000 (please see Table 11).

In question 13, the subjects were asked to select the clause representing a reasonable compromise. Because clause F was the most cooperative, allowing for investment protection and it most closely fits the TCA paradigm for *allowing* compromise, the first analysis tested the selection of clause F for cells 2, 3 and 4 (cells in which investment was present). For the buyers, selection of clause F (58 predicted; 36 non-predicted) yielded significant results with a p value of .0149. Because the subjects were only instructed to find a compromise, the second analysis was for selection of either F or A in which neither party received an advantage. With this expected answer (91 predicted; 33 non-predicted), significant results were also obtained with a p

TABLE 10

Analysis of Manipulation Check: Buyer Frequencies of Clause Choice Evaluated with Binomial Expansion for Question 12

CLAUSE CHOICE	CELL			
	1	2	3	4
1	1	3	5	4
2	0	0	0	0
3	0	0	0	0
4	9	4	3	4
5	16	26	23	23
6	4	0	0	0

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
1, 2, 3, 4	108	17	.0000**

\*\* Significant at .01 level

**TABLE 11**  
**Analysis of Manipulation Check: Seller Frequencies of Clause Choice Evaluated with Binomial Expansion for Question 12**

CLAUSE CHOICE	CELL			
	1	2	3	4
1	0	1	2	3
2	6	8	6	4
3	22	24	22	20
4	1	0	0	1
5	1	0	0	0
6	0	0	2	1

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
1, 2, 3, 4	112	12	.0000**

\*\* Significant at .01 level



value of .00000009 (please see Table 12). The same analysis was performed for the sellers. For clause F selection by sellers in cells 2, 3 and 4, a non-significant result was found (40 predicted; 52 non-predicted). For clause F or A selection by sellers in all cells (99 predicted; 23 non-predicted), a significant result was found with a p value of .00000000 (refer to Table 13).

Apparently, with such highly significant results in most of the contract clause selection questions there was a good level of understanding. The poor results obtained for question 11 may reflect the fact that some tended to prefer clauses that gave themselves advantages whether or not asset protection was needed.

The last set of analysis was an inspection of the responses given by subjects for questions that were non-applicable for their given situations. These questions did not lend themselves to a straightforward analysis. First, recognition of the lack of applicability of a question was subject to creating confusion. Subjects may have wondered why, without a required investment, they were not only asked if they must invest in an asset, but if the investment was for custom or standard equipment. Some subjects may not have known how to approach such questions. Additionally, some subjects have responded to Likert style questionnaires in the past in which non-applicable responses were handled by disagreement or indicating a neutral point. Therefore, it was useful to count the number of responses in the agreement range given by subjects facing non-applicable questions. This was used as a crude indicator of lack of understanding.

TABLE 12

Analysis of Manipulation Check: Buyer Frequencies of Clause Choice Evaluated with Binomial Expansion for Question 13

CLAUSE CHOICE	CELL			
	1	2	3	4
1	13	5	2	5
2	6	5	8	5
3	1	0	1	2
4	2	3	0	0
5	0	0	0	0
6	8	19	20	19

Selection of Clause 6

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
2, 3, & 4	58	36	.0149*

Selection of Clauses 1 & 6

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
1, 2, 3, 4	91	33	.0000**

\* Significant at .05 level

\*\* Significant at .01 level

TABLE 13

Analysis of Manipulation Check: Seller Frequencies of Clause Choice Evaluated with Binomial Expansion for Question 13

CLAUSE CHOICE	CELL			
	1	2	3	4
1	12	9	7	6
2	0	0	0	0
3	0	1	2	1
4	4	4	3	1
5	1	4	2	0
6	13	15	18	19

Selection of Clause 6

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
2, 3, & 4	40	52	.1257

Selection of Clauses 1 & 6

CELL	EXPECTED CHOICE	UNEXPECTED CHOICE	p
1, 2, 3, 4	99	23	.0000**

\*\* Significant at .01 level

An analysis of the number of respondents indicating agreement to non-applicable questions showed mixed understanding levels. In the preceding analysis, respondents in cells for which a question was non-applicable were left out of the analysis. However, it is useful to examine the responses of these subjects. For cell 1 buyers, 1 out of 30 respondents answered strongly agree or agree to question 3 and 3 gave this response to question 4. Again with cell 1 buyers, no respondents gave an 'agree' answer to question 6 and only 3 agreed with question 7. At most, only 10% of the respondents agreed to a non-applicable question. In cell 2, almost half the buyers, 16 out of 33, gave an answer of agree or strongly agree to question 3, but only 1 gave an agreement answer to question 4. It is odd that so many would do so. Cell 3 buyers also agreed in large numbers to question 6 (10 out of 32), but only 4 gave answers agreeing with question 7. Apparently, non-applicable questions created confusion even in situations in which the respondents overwhelmingly gave correct answers to other questions.

Seller respondents also had difficulties with the non-applicable questions. Cell 1 sellers gave the least agreement answers. For question 3, 1 out of 31 respondents gave answers in the agreement range; for question 4, 5 out of 31; for question 6, 1 out of 31; and for question 7, 5 out of 31. Nine out of 33 cell 2 sellers gave agreement range answers to question 6, whereas no agreement range answers were given to question 7. Over half of cell 3 sellers (18 out of 32) gave agreement range answers to question 3, while none of the respondents gave agreement range answers to question 4. Again, it appears that these questions were problematic for the sellers as well as for the buyers.

Overall, the results of the statistical analyses indicated a very high level of understanding of the manipulations.

## RELIABILITY

This section contains the reliability analyses for the scales used. The scales used to test the hypotheses included the falsity scale and the content analysis for the dyadic negotiations. Also, for the purposes of assessing the effect of control variables, a Machiavellianism scale, a prior negotiation experience scale, an opportunism scale and a competitiveness scale were used. Most of scales were drawn from previous research, but the falsity scale, prior negotiation experience scale and content analysis system were developed, with mixed success, for this study.

## FALSITY SCALE

For the purposes of evaluating the second hypothesis, two measures of false communications were developed. The first is a post negotiation survey called the falsity scale. The second is the content analysis system described in Appendix D.

### Falsity Scale Using Survey Questions

The falsity scale consists of a number of self report questions on the post negotiation survey. The falsity scale is a subset of a larger disclosure scale (even numbered post negotiation survey questions 22-48). Table 14 lists the question and

TABLE 14  
Reliabilities of the Disclosure Scale and the Falsity Scale

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DISCLOSURE SCALE

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<u>Question</u>	<u>Brief Description</u>
S22*	full disclosure of relevant information
<b>S24</b>	<b>manipulating the truth</b>
<b>S26</b>	<b>using phony arguments</b>
S28	accurately pointing out mutual benefits
S30	giving only minimal information
S32	giving helpful information to partner
<b>S34</b>	<b>exaggeration</b>
<b>S36</b>	<b>exaggeration to leave false impression</b>
<b>S38</b>	<b>puffery</b>
<b>S40</b>	<b>lying</b>
S42	threats
S44	warnings
S46	promises
S48	ask for more to enable trade-offs

---

DISCLOSURE SCALE CRONBACH ALPHA

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Buyers	= .7500
Sellers	= .8086

---

FALSITY SCALE CRONBACH ALPHA

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All respondents	= .6677
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NOTE: Boldfaced questions are on the Falsity Scale

\* All questions are from the post negotiation survey

question number of the larger disclosure scale. The reliability of this larger disclosure scale was determined using Cronbach's alpha and was found to be sufficient for basic research, with alpha equalling .75 for buyers and .8086 for sellers. The falsity scale, also summarized in Table 14, consisted of six questions developed from Carson, Wokutch and Murrman's (1982) work on good faith negotiation. Its overall reliability of alpha equal to .6677 was sufficient under Mehrens and Lehman's (1978) minimum alpha of .65. This was a difficult scale to develop and a problematic one for analysis with regard to eliciting honest results. These were self-report questions subject to respondent's hesitation to evaluate oneself consistently on potentially incriminating areas or to even recognize any inconsistency in self-evaluation in a sensitive area. Also, the nature of what was misleading and not misleading was controversial and complex. Topics exploring these issues are legion in philosophy and law (Bailey 1991; Kerr 1990; Bok 1978; Eck 1970). The lack of agreement as to the nature of misleading communications was reflected in the fact that jurisdictions vary on what was allowable in commercial speech reflecting the mores of the constituent culture. For example, though puffery is allowed in the U.S., it is not in most other legal systems (Catoera 1990), so it was included in the falsity scale for completeness.

The entire disclosure scale (even numbered post negotiation survey questions 22-48) was analyzed with factor analysis. The procedure consisted of a principle components extraction followed by a varimax rotation. The varimax rotation converged in five iterations. The resulting two factors are shown in Table 15. Both factors met the

TABLE 15  
Factor Analysis of the Disclosure Scale

FACTORS AND EIGENVALUES			
FACTOR	EIGENVALUE	PCT. OF VAR.	CUM. PCT.
1	3.09	22.1	22.1
2	1.83	13.0	35.1
3	1.44	10.3	45.4
4	1.21	8.6	54.0

VARIMAX ROTATED FACTOR MATRIX				
QUESTION	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
S34	<b>.73802</b>	.00474	.09186	.23401
S38	<b>.67180</b>	-.00124	-.05542	.14111
S36	<b>.65394</b>	.08221	.11083	.11718
S40	<b>.61793</b>	.03693	.00003	.05855
S26	<b>.51099</b>	.30971	.33068	.14041
S24	<b>.48673</b>	.12623	-.06717	.43263
S32	.05435	<b>.72908</b>	.00085	.15814
S38	.11812	<b>.72647</b>	.05757	.02406
S22	-.03688	<b>.63749</b>	.09254	-.39300
S46	.05316	<b>.52669</b>	.02956	.09495
S44	.02396	.16702	<b>.87806</b>	-.04348
S42	.08306	-.04604	<b>.86161</b>	.10752
S30	.04151	-.02452	-.01540	<b>.84308</b>
S48	.14564	.13068	.13702	<b>.62829</b>

NOTE: Boldfaced numbers show the pattern of factor loadings



Guttman 1.0 eigenvalue criterion. The first factor consisted of the six falsity scale questions capturing the use of misleading statements ranging from exaggeration to fabrication of information (post negotiation survey questions 24, 26, 34, 36, 38, 40). This first factor was called "misleading statements." The second factor consisted of four questions (post negotiation survey questions 22, 28, 32, 46). These questions were characterized by the giving of helpful, correct information and this factor consisted of "helpful disclosures." The last four questions were not part of the falsity scale nor related to giving helpful information.

#### Falsity Measured by Content Analysis

The content analysis system developed in Appendix D was used by two trained coders to evaluate written transcripts of the dyadic negotiation communications. The unit of analysis was the sentence. Frequency counts were used as the system of enumeration with equal weighing given to all units (Murray 1987; Angelmar and Stern 1978). Each coder independently categorized each sentence and any disagreements were discussed to determine whether the different categorizations would hold. Table 16 presents the final categorizations with totals of the agreements and disagreements. The two systems of calculating reliabilities are also tabulated here.

The interrater reliability of this system was evaluated in two ways. The first method, proportion of agreements,  $p_o$ , was calculated based on occurrence agreements (Suen and Ary 1989). The equation is:

**TABLE 16**  
**Bargaining Category Frequencies and Reliabilities**

Categories	Coder 1	Coder 2	FREQUENCIES		Proportion Agreement of Occurrence Agreement Reliability*	Spearman-Brown Reliability*
			Total Agreement	Total Dis-agreement		
Bluff[ing]	32	47	38	41	.48	.68
Puffery	17	24	16	26	.38	.67
Manipulated Truthful Argument	31	26	38	19	.67	.70
Phony Argument	54	53	74	32	.70	.84
Lie	140	130	232	39	.86	.95
Non-misleading [Statements]	1715	1708	3382	41	.99	Not Available

\* Calculated using Spearman-Brown Prophecy Formula (Anastasi 1968)

$$\text{reliability} = \frac{2r_{11}}{1+r_{11}}$$

\*\* Calculated using (Suen and Ary 1989)

$$\frac{\text{occurrence agreements}}{\text{occurrence agreements} + \text{occurrence disagreements}}$$

$$p_o = \frac{\text{Number of Agreements}}{\text{Number of Agreements} + \text{Number of Disagreements}}$$

The scale items had  $p_o$  of Bluffing = .48, Puffery = .38, Manipulated Truthful Arguments = .67, Phony Arguments = .70, Lying = .86 and Non-misleading Statements = .99. The first two categories had unacceptably low reliabilities when calculated in this fashion.

The second method of reliability calculation was to evaluate the internal consistency by a calculation of the interrater correlations obtaining Pearson Product Moment Correlations. Because Pearson's  $r$  tends to underestimate test reliability (Suen and Ary 1989),  $r$  was corrected using the Spearman-Brown Prophecy Formula (Anastasi 1968). The equation for the Spearman-Brown Prophecy Formula is:

$$\text{reliability} = \frac{2r_{II}}{1 + r_{II}}$$

The reliabilities were higher using this method and all met the Mehrens and Lehman (1978) criteria: Bluffing = .68, Puffery = .67, Manipulated Truth = .70, Phony Arguments = .84 and Lying = .95.

Depending on the method of calculation, reliability numbers differ. This is a weakness of reliability calculation (Suen and Ary 1989; Hughes and Garrett 1990).

It is encouraging that the definitely misleading categories had acceptable reliabilities. For the first two categories, bluffing and puffery, both are extremely hard to detect, even with knowledge of the scenarios and cost tables as in this simulation. The whole role of falsity in negotiation is a peculiar one. Interestingly, Raiffa (1982) notes

that without some evasiveness and what he calls *strategic misrepresentation*, negotiators lose credibility!

Another way to evaluate the usefulness of the content analysis system was to determine how far off the coders were from each other. This is a determination of relative reliability versus the stricter standard of absolute reliability (Hughes and Garrett 1990). This is performed by creating a simple matrix of coder categorizations (Figure 12). The diagonal represents the number of agreements, while the off-diagonals represent the disagreements and show how the coders classified the particular unit. By inspection of Figure 12, note that the lack of agreement is not as dramatic when expressed relatively rather than absolutely.

#### OPPORTUNISM SCALE

The opportunism scale consisted of seven questions on the post negotiation survey (questions 50-56). As explained in Chapter III, the scale questions were drawn from John (1981). Cronbach's alpha was calculated to determine the reliability. The results were .8469 for all respondents, .8349 for buyers and .8565 for sellers; all were well in the range acceptable for research purposes. These results are presented in Table 17 with the other following scale reliabilities (described below).

## Coder 1

		Bluffing	Puffery	Manipulated Truth	Phony Arguments	Lying	Non-misleading
Coder 2	Bluffing	<b><u>19</u></b>	3	1	0	10	12
	Puffery	8	<b><u>8</u></b>	1	3	3	3
	Manipulated Truth	1	0	<b><u>17</u></b>	3	2	1
	Phony Arguments	3	0	3	<b><u>40</u></b>	7	3
	Lying	0	3	4	4	<b><u>115</u></b>	2
	Non-misleading	0	3	3	7	3	<b><u>1691</u></b>

Note: Frequencies of agreements shown on the diagonal are underlined and boldfaced. Frequencies of disagreements are shown on the off-diagonals.

Figure 12 Relative Disagreement per the Sentence Unit of Coders

---

TABLE 17  
Scale Reliability Using Data From Hypotheses Testing

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SCALE	N = 254	NO. OF QUESTIONS	COEFFICIENT ALPHA
Opportunism		7	.8469
Competitiveness		18	.9462
Machiavellianism		18	.6455
Prior Negotiation Experience		6	.9462

---

The Opportunism scale was tested for unidimensionality using principal components extraction factor analysis. Table 18 contains the results of the factor analysis showing that the questions loaded on one factor. Factor 1 accounted for 53% of the variance with an Eigenvalue of 3.71. Eigenvalue drop off was immediate after a single factor.

#### COMPETITIVENESS SCALE

The Competitiveness scale (post negotiation survey questions 1-18) was included to use in analyzing possible confounds. It was drawn from the work of Murray (1987). Murray (1987) developed two separate scales: cooperation and conflict. For this research, the questions from both scales were combined with the measures reversed, as needed, to derive a competitiveness scale. A high score indicated a more competitive person whereas a low score indicated a more cooperative person. The reliabilities were evaluated using Cronbach's alpha with an overall score of .9462, a buyers score of .9371 and a sellers score of .9511. The high alpha values indicated a very high level of reliability (please refer to Table 17).

The Competitiveness scale was tested for unidimensionality using principal components extraction factor analysis. Table 19 shows that the first factor accounted for 53.7 % of the variance with a large Eigenvalue of 9.66. The next two factors have Eigenvalues greater than one. However, note on Table 20 how only one question (FS15) loads on the third factor with no items loading on the second factor. The final statistics

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TABLE 18  
Factor Analysis of the Opportunism Scale

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FACTORS AND EIGENVALUES

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FACTOR	EIGENVALUE	PCT. OF VAR.	CUM. PCT.
1	3.71	53.0	53.0
2	.84	12.1	65.1
3	.63	8.9	74.0
4	.59	8.4	82.4
5	.48	6.8	89.2
6	.42	6.0	95.2
7	.34	4.8	100.0

---

FACTOR MATRIX

---

QUESTION FACTOR 1

FS50	.79892
FS51	.71164
FS52	.74685
FS53	.67980
FS54	.82167
FS55	.74762
FS56	.55772

---



**TABLE 19**  
**Factor Analysis of the Competitiveness Scale**

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**FACTORS AND EIGENVALUES**

---

FACTOR	EIGENVALUE	PCT. OF VAR.	CUM. PCT
1	9.66	53.7	53.7
2	1.37	7.6	61.3
3	1.06	5.9	67.1
4	.71	3.9	71.0
5	.64	3.5	74.6
6	.56	3.1	77.7
7	.54	3.0	80.7
8	.47	2.6	83.3
9	.43	2.4	85.6
10	.38	2.1	87.8
11	.36	2.0	89.7
12	.35	1.9	91.7
13	.34	1.9	93.6
14	.30	1.7	95.3
15	.26	1.5	96.7
16	.22	1.2	98.0
17	.21	1.1	99.1
18	.16	.9	100.0

---

---

TABLE 20

Factor Analysis of the Competitiveness Scale - Extracted - Three Factors

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FACTOR MATRIX

---

QUESTION	FACTOR 1	FACTOR 2	FACTOR 3
FS13	<b>.84357</b>	-.17314	-.00161
FS1	<b>.83885</b>	-.05526	.06759
FS6	<b>.81325</b>	-.16403	.18414
FS7	<b>.80237</b>	-.29024	.20412
FS3	<b>.80030</b>	-.24248	.18737
FS10	<b>.79422</b>	-.04960	-.16399
FS2	<b>.79021</b>	-.05965	-.12583
FS14	<b>.77446</b>	.09023	-.10832
FS9	<b>.76393</b>	-.24289	.05164
FS8	<b>.75067</b>	.16476	-.27920
FS4	<b>.74511</b>	-.12427	.08898
FS18	<b>.71540</b>	-.06879	-.12283
FS5	<b>.69014</b>	.22040	-.40474
FS11	<b>.65886</b>	-.25902	-.48178
FS16	<b>.63938</b>	-.33147	.16288
FS12	<b>.59193</b>	.54670	.10001
FS17	<b>.55141</b>	.52749	.29236
FS15	.50359	.49203	<b>.51362</b>

---

NOTE: Boldface numbers show the pattern of factor loadings

on the Competitiveness Scale show that in terms of cumulative percentages (see Table 21). Factor 1 accounts for a substantial portion of the variance. It is concluded that the Competitiveness scale, with its strong alpha and Eigenvalue, is unidimensional.

#### MACHIAVELLIANISM SCALE

The literature on Machiavellianism is a study on scale reliability itself. Christie and Geiss (1970), well known researchers in psychology and Machiavellianism, have worked for many years trying to develop a reliable scale while clinging to the wordings used in Machiavelli's *The Prince*. The task has been difficult and indeed numerous scales have been used. The eighteen questions (post negotiation survey questions 73-90) were used for this research with Cronbach's alpha's of .6455 for all respondents, .6736 for buyers and .6121 for sellers. This scale was included in the research to use in evaluating possible confounds. These results are summarized in Table 17.

The Machiavellianism scale was tested for unidimensionality with principal components extraction factor analysis. Table 22 shows that although Factor 1 enjoys a strong Eigenvalue of 3.59, the percentage of variance for it is a mere 20%. None of the factors account for very much of the variance and Factors 2 through 5 had Eigenvalues greater than one. A rotation was performed (Table 23) with four factors loading. With its poor coefficient alpha value and its multiple factors, it is concluded that the Machiavellianism scale is neither reliable nor unidimensional. Because of

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**TABLE 21**  
**Final Statistics of the Competitiveness Scale**

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**FACTORS AND EIGENVALUES**

---

<b>FACTOR</b>	<b>EIGENVALUE</b>	<b>PCT. OF VAR.</b>	<b>CUM. PCT</b>
1	9.66	53.7	53.7
2	1.37	7.6	61.3
3	1.06	5.9	67.1

---

---

TABLE 22  
Factor Analysis of the Machevellianism Scale

---

FACTORS AND EIGENVALUES

---

FACTOR	EIGENVALUE	PCT. OF VAR.	CUM. PCT
1	3.59	20.0	20.0
2	1.91	10.6	30.6
3	1.34	7.4	38.0
4	1.16	6.5	44.5
5	1.09	6.1	50.6
6	.99	5.5	56.1
7	.96	5.3	61.4
8	.87	4.8	66.2
9	.83	4.6	70.8
10	.79	4.4	75.2
11	.73	4.1	79.3
12	.70	3.9	83.2
13	.64	3.5	86.7
14	.59	3.3	90.0
15	.53	3.0	92.9
16	.46	2.5	95.5
17	.44	2.5	97.9
18	.37	2.1	100.0

---

**TABLE 23**  
**Factor Analysis of the Machevillianism Scale - Rotations**

**ROTATED FACTOR MATRIX**

QUESTION	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
FS76	<b>.74686</b>	.23425	.09360	-.02840	-.14759
FS85	<b>.70682</b>	.05298	.06062	.14066	.13199
FS79	<b>.59674</b>	-.21252	-.05511	-.00176	.44700
FS81	<b>.51188</b>	.14925	.14024	.32524	.02394
FS83	<b>.49196</b>	.11508	.02221	-.32668	-.19014
FS75	.20423	<b>.65305</b>	.25414	.01624	-.04727
FS87	.09408	<b>.63083</b>	-.18510	.26266	.01566
FS77	-.13224	<b>.58681</b>	.41299	.30587	.12776
FS90	.16044	<b>.55323</b>	-.16140	.05333	.29940
FS80	.04380	.04063	<b>.59642</b>	.05729	.02648
FS73	.14354	.02200	<b>.55400</b>	.39530	-.01365
FS86	.04673	-.07641	<b>.54643</b>	.09968	.20733
FS78	.05013	.46541	<b>.52665</b>	.07287	-.32102
FS89	.05272	.15814	.15599	<b>.71039</b>	.02953
FS88	-.04022	.11558	.21311	<b>.66174</b>	-.10535
FS84	.25801	.14602	-.35438	<b>.41650</b>	-.01425
FS82	-.03627	.19526	.18913	-.06663	<b>.76147</b>
FS74	-.34511	-.33017	-.45011	-.00939	<b>.06803</b>

calculating nature of the behavioral trait, it is retained for analysis of confounds purposes. The inferior nature of this scale must be taken into account when it is interpreted.

#### PRIOR NEGOTIATION EXPERIENCE SCALE

The Prior Negotiation Experience scale was also included for the use in analyzing possible confounds. This scale was developed for this study. The six-question scale (post negotiation survey questions 91-96) was evaluated using Cronbach's alpha, resulting in acceptable scores of .8481 for all respondents, .8561 for buyers and .8385 for sellers. The results are summarized in Table 17.

The unidimensionality of the Prior Negotiation Experience scale was tested with principal components extraction factor analysis (see Table 24). One factor loaded with a strong Eigenvalue (3.54) and high percentage of variance (59.1%). No other Eigenvalues were equal or greater to one and the Eigenvalues dropped off sharply after the first factor. With a strong first factor Eigenvalue and the high percentage of variance, it is concluded that the scale is unidimensional.

#### HYPOTHESIS TESTING

The hypotheses were explicated in Chapter III using terminology couched in the descriptions of the relationships being tested. Unfortunately, in this substantive area, the terms used are lengthy and thus created awkwardness of expression. To help alleviate some of this burden of terminology, a few shorthand methods are used in this section.

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TABLE 24

Factor Analysis of the Prior Negotiation Experience Scale

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FACTORS AND EIGENVALUES

---

FACTOR	EIGENVALUE	PCT. OF VAR.	CUM. PCT
1	3.54	59.1	59.1
2	.86	14.4	73.4
3	.53	8.8	82.2
4	.49	8.2	90.4
5	.32	5.3	95.7
6	.26	4.3	100.0

---

FINAL STATISTICS

---

FACTOR	EIGENVALUE	PCT. OF VAR.	CUM. PCT
1	3.54	59.1	59.1

---



Investment level has been expressed in terms of a full description of the level of buyer's anticipated and/or actual investment with the same for the seller. As shown in Chapter III, these investment levels are given and assigned to particular cells (please refer to Figure 6). For brevity, the cell numbers will be used to indicate the combination of investment levels as a function of cell membership. The construct of opportunism, as measured by falsity and of interest in the second hypothesis set, was measured in two ways. One way was with the self-report questions on the post negotiation questionnaire. These are referred to as the questionnaire or survey questions and results. The second way falsity was measured was through content analysis of transcripts of the negotiation encounters. All of the results derived in this manner are referred to using the term content analysis in the discussion.

The construct of opportunism, as measured by performance reduction and of interest in the third hypothesis set, was measured by replies to an opportunistic offer posed to each subject after an agreement had been made with the dyadic bargaining partner. As established in Chapter III, this was the **Incidence of Accepting an Opportunistic Offer** or **IAOO**. The opportunism scale derived from John (1981) was used in the analysis of possible confounds.

Lastly, there was no significant difference between the cells in which agreement was found and those that reached a stalemate ( $X^2 = .1242$ ,  $p = .988$ ,  $df = 3$ ) indicating that being able to reach an agreement was not a function of cell membership.

## HYPOTHESIS ONE

The Hypothesis 1 set examined the relationship between anticipated investment level (i.e., cell membership) and the choice of final liquidated damages clause. Recall that in the final instrument there were six choices of liquidated damage clauses. To add realism, the one-sided contract clauses were written in two versions, a moderately worded and a harshly worded version, for each of the roles (see Appendix C). For the analysis, the one-sided clauses were collapsed by role. The buyer advantage clauses B and C were combined and were referred to as clause 2. The seller advantage clauses, originally D and E, were combined and were referred to as clause 3. The market-based clause A remained and was referred to as clause 1, while the cooperative clause F also remained uncombined and was referred to as clause 4. The enumerating, in summary is: market = 1, buyer advantage = 2, seller advantage = 3 and cooperative = 4.

Hypothesis 1 posed a question that was omnibus in nature and did not indicate if the choice was consistent with the TCA paradigm. The question posed was whether or not a relationship existed and did not address the direction of the relationship. Based on the requirement that the hypothesis specify a *final* clause choice, dyads that did not reach an agreement were not included in the analysis. Using Log linear analysis, the alternative hypothesis may be accepted with a significant p value of .0035. Thus, H1alt was supported: a relationship existed between anticipated investment level and choice of final liquidated damages clause. The results are presented in Table 25.

The sub-hypotheses explored the directions of the relationship. The proposed patterns were in H1a that cell 1 dyads would prefer clause 1 more than the dyads in the other cells. Symbolically, this was stated, for clause 1:  $cell\ 1_{clause\ 1} > cells\ 2, 3, 4_{clause\ 1}$ . For H1b, cell 2 dyads would prefer clause 3 more than the dyads in the other cells. Symbolically, this was stated, for clause 3:  $cell\ 2_{clause\ 3} > cells\ 1, 3, 4_{clause\ 3}$ . For H1c, cell 3 dyads would prefer clause 2 more than dyads in other cells. Symbolically, this was stated, for clause 2:  $cell\ 3_{clause\ 2} > cells\ 1, 2, 4_{clause\ 2}$ . The last sub-hypothesis H1d, proposed that cell 4 dyads would prefer clause 4 than the dyads in other cells. Symbolically, this was stated, for clause 4:  $cell\ 4_{clause\ 4} > cells\ 1, 2, 3_{clause\ 4}$ .

TABLE 25  
Analysis of Hypothesis 1

Contingency Table for Hypothesis 1

CELL	DYAD CLAUSE CHOICE			
	1	2	3	4
1	12	3	2	9
2	6	2	7	12
3	2	6	2	16
4	2	1	4	19

LOG LINEAR ANALYSIS TEST FOR H1 ALT

<u>K</u>	<u>df</u>	<u>L.R.X<sup>2</sup></u>	<u>p</u>
2	9	24.596	.0035**

H1 null not supported

H1 alt supported

\*\* Significant at .01 level

Inspection of Table 25 reveals a weak pattern of liquidated damage clause selection as a function of cell membership. To analyze the patterns as explicated in the sub-hypotheses, planned comparisons using contingency table analysis were employed. The contingency tables were constructed to compare the liquidated damage clause choice of the cell of interest against the choices made by the other cells.

In the 2 x 2 matrix in Table 26, the first sub-hypothesis, H1a, predicted that cell 1 dyads would select liquidated damage clause 1 the most often of all the cells. The matrix shows the clause choices in the columns and the cells indicating the pattern of anticipated investment, in the rows. The top row for cell 1 shows the frequency, 12, for the predicted preferred clause choice on the left, with the frequency, 14, for the other clauses on the right. The second row shows the frequencies for all the other cells, (2, 3 and 4) combined, with the frequency, 10, for the predicted liquidated damage clause on the left and the frequency for all the other clauses, 69, on the right. The "observed" matrix is then compared to the "expected" matrix for a resulting Chi-square value of  $p = .0003$  and with the Yates correction for continuity, the result is  $p = .0008$ . The logistic regression  $X^2$  was 11.89 with a p value of .0006. Therefore, sub-hypothesis H1a was supported at the .01 criterion level (see Table 26).

Sub-hypothesis H1b predicted that cell 2 dyads would select clause 3 more often than the other cell dyads. The planned comparisons yielded a Chi-square value of  $p = .0449$ , which is significant at the .05 level. The Yates correction for continuity result was a higher  $p = .0917$ , but is acceptable under a .1 criterion level. This more liberal

TABLE 26  
Analysis of Sub-hypothesis H1a

CELL OBSERVED	DYAD CLAUSE CHOICE	
	PREDICTED	NOT PREDICTED
1	12	14
2, 3, 4	10	69
Expected		
1	5.45	20.55
2, 3, 4	16.55	62.45
Results:		
Chi-square	$X^2 = 13.2515$ , $df = 1$ , $p = .0003^{**}$	Supported
Yates Correction	$X^2 = 11.3063$ , $df = 1$ , $p = .0008^{**}$	Supported
Logistic Regression	$X^2 = 11.894$ , $df = 1$ , $p = .0006^{**}$	Supported

\*\* Significant at .01 level

standard is acceptable for exploratory research and is still being used in TCA related research (Anderson and Weitz 1992). The logistic regression  $X^2$  was 3.635 with a p value of .0566. Thus, H1b was supported at the .1 criterion level (see Table 27).

Sub-hypothesis H1c predicted that cell 3 dyads would select clause 2 more often than other cells. The planned comparisons yielded a Chi-square value of  $p = .0314$ . Yet, the Yates correction for continuity was higher with  $p = .0723$ . However, the logistic regression  $X^2$  was significant at the .01 criterion level with  $p = .0435$  (see Table 28). Therefore, sub-hypothesis H1c was supported at the .1 criterion level.

Sub-hypothesis H1d predicted that cell 4 dyads would select clause 4 more often than the other cells. The planned comparisons yielded a Chi-square value of  $p = .0200$ . The Yates correction for continuity was  $p = .0357$  and the logistic regression  $X^2 = .0172$ . Thus, sub-hypothesis H1d was supported at the .05 level (see Table 29).

Taken together, there was a pattern in which 44 cases or 41.9% of the clause selections were correct as predicted. By chance alone, the expected number of correct selections is 24.9%. Using Binomial Expansion (Hayes 1975), the Binomial Probability of observed pattern occurring is a highly significant with  $p = .00010007$ . Thus, the predictions provided in Hypothesis 1 set are substantially greater than chance.

## HYPOTHESIS TWO

Hypothesis Two examined the relationship between anticipated investment in Transaction Specific Assets and opportunism as measured by falsity of communication.

**TABLE 27**  
**Analysis of Sub-hypothesis H1b**

CELL OBSERVED	DYAD CLAUSE CHOICE	
	PREDICTED	NOT PREDICTED
2	7	20
1, 3, 4	8	70
Expected		
2	3.86	23.14
1, 3, 4	11.14	66.86
Results:		
Chi-square	$X^2 = 4.0218, df = 1, p = .0449^*$	Supported
Yates Correction	$X^2 = 2.8440, df = 1, p = .0917^{***}$	Supported
Logistic Regression	$X^2 = 3.635, df = 1, p = .0566^{***}$	Supported

\* Significant at .05 level

\*\*\* Significant at .1 level liberal standard acceptable for exploratory research



**TABLE 28**  
**Analysis of Sub-hypothesis H1c**

<b>Planned Comparison</b>		
<b>CELL</b>	<b>DYAD CLAUSE CHOICE</b>	
<b>OBSERVED</b>	<b>PREDICTED</b>	<b>NOT PREDICTED</b>
3	6	20
1, 2, 4	6	73
<b>Expected</b>		
3	2.97	23.03
1, 2, 4	9.03	69.97
<b>Results:</b>		
Chi-square	$X^2 = 4.6321, df = 1, p = .0314^*$	Supported
Yates Correction	$X^2 = 3.2289, df = 1, p = .0723^{***}$	Supported
Logistic Regression	$X^2 = 4.075, df = 1, p = .0435^*$	Supported

\* Significant at .05 level

\*\*\* Significant at .1 level liberal standard acceptable for exploratory research

**TABLE 29**  
**Analysis of Sub-hypothesis H1d**

Planned Comparison		
CELL OBSERVED	DYAD CLAUSE CHOICE	
	PREDICTED	NOT PREDICTED
4	19	7
1, 2, 3	37	42
Expected		
4	13.87	12.13
1, 2, 3	42.13	36.87
Results:		
Chi-square	$X^2 = 5.4123, df = 1, p = .0200*$ Supported	
Yates Correction	$X^2 = 4.4093, df = 1, p = .0357*$ Supported	
Logistic Regression	$X^2 = 5.604, df = 1, p = .0179*$ Supported	

\* Significant at .05 level

Because the focus was on *anticipated* investment, the transcripts of the negotiations of *all* the dyads were considered as well as the survey responses of *all* the subjects, regardless of whether or not an agreement was ultimately reached. Note that for the other two hypothesis sets, the questions posed precluded those dyads that did *not* reach an agreement.

The design used to test the Hypothesis 2 set was a split-plot factorial design (also known as a mixed design) (Keppel 1982). The independent variable was the pattern of anticipated investment. However, the role of the subject was taken into account in this type of analysis (i.e., roles are buyer and seller). Thus, there were three effects tested in the ANOVA table (see Table 30).

The three effects were: 1) cell membership main effect, 2) role main effect and 3) cell membership by role interaction effect. The cell membership effect tested for differences among the four cells, averaging the buyer and seller together. Sub-hypotheses H2a, H2b and H2c are part of this main effect. The role main effect tested for differences between buyer and seller roles, combining all cells together. There were no hypotheses related to this effect. The interaction of cell membership by role tested for differences among cells in the buyer versus seller difference. Sub-hypotheses H2d and H2e were a part of this interaction but were not directly tested by it.

To directly address the sub-hypotheses, the following methods were employed. Sub-hypotheses H2a, H2b and H2c were tested with planned comparisons within the cell

TABLE 30

Analysis of Hypothesis 2--Summary of Analysis of Variance for the Mixed Design of Falsity Scores c2

CELL MEANS AND STANDARD DEVIATIONS					
FALSITY SCORES c1	BUYERS		SELLERS		
CELL	MEAN	STD. DEV.	MEAN	STD. DEV.	
1	51.400	9.857	50.960	12.140	
2	52.080	10.801	51.000	9.323	
3	48.000	11.155	48.759	11.936	
4	49.320	10.246	50.600	11.927	
SV	SS	DF	MS	F	P
<b>Between Groups</b>					
Cell	332.93	3	110.98	.68	.564
Cell 4 v. Cells 1, 2, 3	6.27	1	6.27	.04	.844
Cell 1 v. Cell 4	37.21	1	37.21	.23	.633
Cell 1 v. Cells 2, 3	50.81	1	50.81	.31	.577
Cells 2, 3 v. Cells 1, 4	19.29	1	19.29	.12	.731
Error	16222.38	100	162.22		
<b>Within Groups</b>					
Role	.87	1	.87	.01	.917
Cell X Role	44.59	3	14.86	.19	.905
Role @ Cell 2	14.58	1	14.58	.18	.669
Role @ Cell 3	8.34	1	8.34	.11	.747
Error	7939.18	100	79.39		

membership main effect. Sub-hypotheses H2d and H2e were tested with tests of simple effects.

The results of the analyses indicated that the entire hypothesis two set was not supported. Both the falsity scale survey questions and the content analysis yielded nonsignificant results. The means and standard deviations for the falsity scale scores are presented in Table 30. The assumption of homogeneity of variance was evaluated utilizing Cochran's C tests, which were not significant for either the buyer ( $k = 4$ ,  $df = 25$ ,  $C = .281$ ) or the seller ( $k = 4$ ,  $df = 25$ ,  $C = .284$ ) roles.

An analysis of variance (ANOVA) for the mixed design was utilized to evaluate the data. The independent variables were cell membership (4 levels, between groups) and role (2 levels, repeated measures). The dependent variable was the falsity scale score. The ANOVA results are summarized in Table 30.

The cell membership main effect was not significant, indicating that no overall difference among the four cells was found. Therefore, Hypothesis 2 was not supported. In addition, the role main effect and the cell by role interaction were also not significant. Therefore, falsity did not vary as a function of role, cell membership, or a combination of these two independent variables. Although this failure to support the omnibus hypothesis 2alt precluded exploration of the sub-hypotheses with post hoc tests, the tests were computed for completeness.

The sub-hypotheses proposed that the degree of false communications varied as a function of investment pattern. To facilitate discussion, investment pattern is referred

to by cell membership. The sub-hypotheses essentially proposed that cell 4 would have the lowest level of false communication, cell 1 would have a moderate level and cells 2 and 3 would have the highest levels. Symbolically, by descending level of falsity, the first three sub-hypotheses may be expressed as:  $2, 3 > 1 > 4$ . The last two sub-hypotheses, H2d and H2e were components within the interaction. These two sub-hypotheses proposed that within the asymmetric investment pattern cells (i.e., cells 2 and 3), the low investor would exhibit a higher level of false communication than the high investor. Symbolically for sub-hypothesis H2d, for cell 2,  $Buyer_{low} > Seller_{high}$ . For sub-hypothesis H2e, for cell 3,  $Seller_{low} > Buyer_{high}$ .

For sub-hypothesis H2a, the mean for cell 4 was compared to the combination of cells 1, 2 and 3. The planned comparison was not significant ( $F=.04$ ,  $df=1,100$ ,  $p=.844$ ). Therefore, sub-hypothesis H2a was not supported. These results as well as the other planned comparisons are summarized in Table 30.

For sub-hypothesis H2b, two comparisons were required. First, cell 1 was compared with cell 4. The difference was not significant ( $F=.23$ ,  $df=1,100$ ,  $p=.633$ ). Second, cell 1 was compared to the combination of cells 2 and 3 and again the result was not significant ( $F=.31$ ,  $df=1,100$ ,  $p=.577$ ). Therefore, sub-hypothesis H2b was not supported. The results are summarized in Table 30.

For sub-hypothesis H2c, cells 2 and 3 combined were compared to cells 1 and 4 combined. Again, the result was not significant ( $F=.12$ ,  $df=1,100$ ,  $p=.731$ ). Therefore, sub-hypothesis H2c was not supported. The results are summarized in Table 30.

For sub-hypothesis H2d, cell 2 buyers were compared with cell 2 sellers with a simple main effects test. The result was not significant ( $F=.18$ ,  $df=1,100$ ,  $p=.669$ ). Therefore, sub-hypothesis H2d was not supported. The results are summarized in Table 30.

For sub-hypothesis H2e, cell 3 buyers were compared with cell 3 sellers and again the result was not significant ( $F=.11$ ,  $df=1,100$ ,  $p=.747$ ) with lack of support for sub-hypothesis H2e. The results are summarized in Table 30.

The Hypothesis 2 set was also evaluated using the results from the content analysis method (see Appendix D). Misleading statements were categorized into the five categories by two coders. The results were combined into a variable called "Rated" for rated falsity. Discussion of the reliability of the content analysis system was presented earlier in this chapter.

An analysis similar to the falsity scale results was performed with the "Rated" content analysis results. The means and standard deviations using "Rated" data are summarized in Table 31. The assumption of homogeneity of variance was evaluated using Cochran's C tests, which were not significant for buyer ( $k=4$ ,  $df=30$ ,  $C=.306$ ) or for seller ( $k=4$ ,  $df=30$ ,  $C=.301$ ). This indicated that the assumption was satisfied.

The split plot factorial ANOVA was used to evaluate the data. The independent variables were cell membership and role with the dependent variable of "Rated" (from

TABLE 31

Analysis of Hypothesis 2--Summary of Analysis of Variance for the Mixed Design of Rated Falsity Scores

CELL MEANS AND STANDARD DEVIATIONS					
RATED FALSITY SCORES c2	BUYERS		SELLERS		
	CELL	MEAN	STD. DEV.	MEAN	STD. DEV.
1	1.194	1.745	2.500	2.176	
2	1.455	1.688	1.833	1.614	
3	1.167	1.410	2.033	2.059	
4	1.433	1.437	2.250	2.235	
SV	SS	DF	MS	F	P
<b>Between Groups</b>					
Cell	3.10	3	1.03	.24	.867
Cell 4 v. Cells 1, 2, 3	.95	1	.95	.22	.638
Cell 1 v. Cell 4	.00	1	.00	.00	.989
Cell 1 v. Cells 2, 3	2.10	1	2.10	.49	.485
Cells 2, 3 v. Cells 1, 4	3.06	1	3.06	.72	.399
Error	512.70	120	4.27		
<b>Within Groups</b>					
Role	43.90	1	43.90	18.78	.000**
Cell X Role	6.90	3	2.30	.98	.403
Role @ Cell 2	2.37	1	2.37	1.01	.316
Role @ Cell 3	11.27	1	11.27	5.09	.032*
Error	280.53	120	2.34		

\* Significant at .05 level

\*\* Significant at .01 level



the content analysis data). This was very similar to the above analysis for Hypothesis 2 using the falsity scale. The cell main effects were not significant ( $F = .24$ ,  $df = 3$ ,  $p = .867$ ). Thus, Hypothesis 2 was not supported. However, role main effect was significant ( $F = 18.78$ ,  $df = 1$ ,  $p = .000$ ). Inspection of the means indicated that the sellers were given higher scores than the buyers. The omega squared for this effect was .125, indicating that role accounted for about 12.5% of the variance of the difference in dishonesty between partners. This was a moderate effect according to Cohen (1988). Since the role main effect was significant, but the interaction term was not ( $F = .98$ ,  $df = 3$ ,  $p = .403$ ), the implication was that there was a difference between buyers and sellers and that this did *not* depend on which cell the dyad pair was in. The lack of a significant interaction suggested that this effect applied equally well in all cells.

Sub-hypotheses H2a, H2b and H2c were evaluated using planned comparisons. The results are summarized in Table 31. For sub-hypothesis H2a, the mean for cell 4 was compared with the combination of cells 1, 2 and 3. The planned comparison was not significant ( $F=.22$ ,  $df=1,120$ ,  $p=.638$ ) and thus, sub-hypothesis H2a was not supported.

For sub-hypothesis H2b, two comparisons were performed. Cell 1 was compared with cell 4. The difference was not significant ( $F=.00$ ,  $df=1,120$ ,  $p=.989$ ). Then, cell 1 was compared to the combination of cells 2 and 3, again with nonsignificant results ( $F=.49$ ,  $df=1,120$ ,  $p=.485$ ). Thus, sub-hypothesis H2b was not supported. These results are summarized in Table 31.

For sub-hypothesis H2c, cells 2 and 3 combined were compared to cells 1 and 4 combined. The results were not significant ( $F=.72$ ,  $df=1,120$ ,  $p=.399$ ) and thus, sub-hypothesis H2c was not supported. These results are summarized in Table 31.

For sub-hypothesis H2d, cell 2 buyers were compared with cell 2 sellers with a simple main effects test. The result was not significant ( $F= 1.0128$ ,  $df=1,120$ ,  $p=.3163$ ). Therefore, sub-hypothesis H2d was not supported. These results are summarized in Table 31.

For sub-hypothesis H2e, cell 3 buyers were compared with cell 3 sellers ( $F=5.09$ ,  $df=1,120$ ,  $p=.032$ ) and the result was significant at a .05 criterion level. Therefore, sub-hypothesis H2e was supported at the .05 criterion level. These results are summarized in Table 31.

### HYPOTHESIS THREE

Hypothesis Three examined the relationship between resultant investment level and the **Incidence of Accepting an Opportunistic Offer (IAOO)**. The reader will recall that at this stage of the negotiation simulation, the dyads would have progressed to closing a deal and therefore, only dyads that have come to an agreement were of interest. Note that IAOO behavior was an individual behavior and thus the unit of analysis was the individual.

The relationship to be tested used *resultant* investment. Resultant investment takes into account the effects of the enforcement of the negotiated contract. Therefore, in cases

in which a low investing subject agreed to indemnify his bargaining partner, the low investing subject undertook any high investment made by his bargaining partner. This pertained to the asymmetric conditions. Therefore, the indemnifying subjects were reclassified as high investors for the purpose of this analysis. Additionally, because the outcome of arbitration was difficult to predict, subjects in all investment patterns who agreed to the bilateral coordination clause (which involved arbitration) were not included in this analysis. With the removal of dyads agreeing to the bilateral coordination clause, the number of subjects was less than in the other two hypothesis sets analyses.

The reclassification yielded a 2 x 2 matrix each for both buyers and sellers based on high/low resultant investment versus acceptance/rejection of the IA00. Chi-square analyses were performed with non-significant results: for buyers,  $X^2 = 1.18$  with  $p = .27$ ; for sellers,  $X^2 = .00$  with  $p = 1.0$ . The LOGIT analysis was also not significant. For the buyers, a Wald value of 1.1659 was obtained. It was not significant with a  $p$  value of .2802. For the sellers, a Wald value of .0000 was obtained that was not significant with a  $p$  value of 1.0. These results are presented in Table 32.

A supplementary analysis was performed utilizing the reclassification for resultant investment, but keeping the four investment pattern formats similar to those used in the analysis for the first two hypothesis sets. The analysis is illustrated in Figure 13. If the supplementary analysis results had been significant, exploration of some of the expectations of the pattern of IA00 related to the context of resultant investment may have been addressed. It was, however, also not significant. The overall Chi-square

**TABLE 32**

**Summary of Analysis for Hypothesis 3 Using Cell Membership Collapsed by Investment Level**

CELL OBSERVED	BUYER IA00		SELLER IA00	
	ACCEPT	REJECT	ACCEPT	REJECT
Low	13	16	6	18
High	11	7	6	18
Results	$X^2 = 1.1859$ $df = 1$ $p = .2761$ H3 = Not Supported		$X^2 = .0000$ $df = 1$ $p = 1.000$ H3 = Not Supported	

**H3alt - BUYER**

LOGIT	B	S.E.	Wald	df	Sig.	R	Exp(B)
Inv. Level	-.6596	.6109	1.1659	1	.2802	.0000	.5170
Constant	.2076	.3734	.3092	1	.5782		

**H3alt - SELLER**

LOGIT	B	S.E.	Wald	df	Sig.	R	Exp(B)
Inv. Level	1.82E-17	.6667	.0000	1	1.000	.0000	1.000
Constant	1.0986	.4714	5.4313	1	.0198		

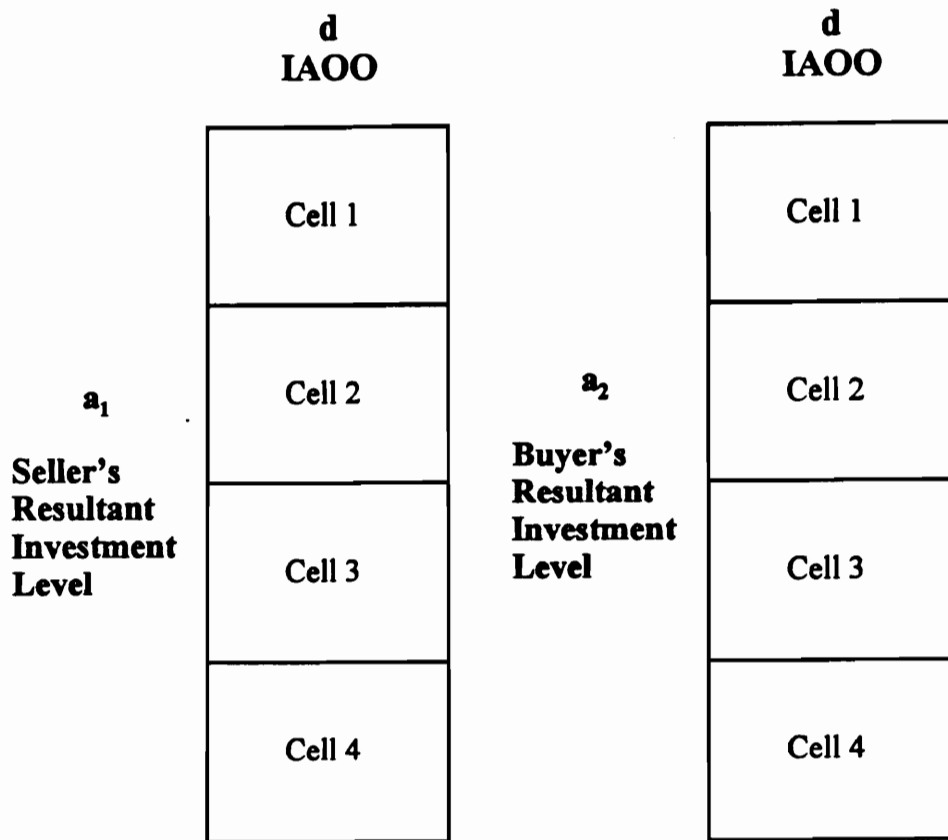


Figure 13 Supplemental Analysis of Hypothesis 3 to Retain Cell Membership

analyses yielded non-significant results: for buyers,  $X^2 = 1.53$  with  $p = .67$ ; for sellers,  $X^2 = 2.29$  with  $p = .52$ . The LOGIT analysis was also not significant. For the buyers, all of the obtained Wald values of the cells were not significant: cell 1, 1.1098,  $p = .29$ ; cell 2, .4434,  $p = .51$ ; and cell 3, .1163,  $p = .73$ . For the sellers, all the obtained Wald values of the cells were not significant: cell 1, .3986,  $p = .53$ ; cell 2, 1.5881,  $p = .21$ ; cell 3, 1.2921,  $p = .26$ . Thus, even with context preserved, Hypothesis 3 was not supported. These results are presented in Table 33.

#### ANALYSIS OF POTENTIALLY CONFOUNDING VARIABLES

Analysis of potentially confounding variables started with an overview of the data. Several variables were omitted at this point and deemed unsuitable for further analysis. The previous work experience field proved difficult to code, with cryptic job titles given in many cases (i.e., to which field does a "consultant" belong?) so only the amount of work experience was analyzed. The survey question on graduate degree course of study found that 196 subjects were in MBA programs, with the others in a number of related areas (e.g., economics, industrial engineering), creating numerous small categories. The question asking the number of semesters of course work completed was misinterpreted by many. The survey instructed the respondents to count twelve credit hours for each semester and to report the number of semesters of study completed. The results showed obvious misinterpretation by respondents who wrote in large numbers that more logically could have been credit hours. This category was deemed meaningless.

**TABLE 33**  
**Summary of Analysis for Hypothesis 3 Using 4 Cell Reclassification**

CELL OBSERVED	BUYER IA00		SELLER IA00	
	ACCEPT	REJECT	ACCEPT	REJECT
1	7	10	5	12
2	6	6	3	14
3	7	5	1	6
4	4	2	3	4
Results	$X^2 = 1.5254$ df = 3 p = .6764 H3 = Not Supported		$X^2 = 2.2857$ df = 3 p = .5239 H3 = Not Supported	

**H3alt - BUYER**

LOGIT	B	S.E.	Wald	df	Sig.	R	Exp(B)
Cell 1	1.0497	.9964	1.1098	1	.2921	.0000	2.8568
Cell 2	.6930	1.0408	.4434	1	.5055	.0000	1.9998
Cell 3	.3566	1.0454	.1163	1	.7330	.0000	1.4284
Constant	-.6930	.8660	.6404	1	.4236		

**H3alt - SELLER**

LOGIT	B	S.E.	Wald	df	Sig.	R	Exp(B)
Cell 1	.5878	.9309	.3986	1	.5278	.0000	1.8000
Cell 2	1.2527	.9940	1.5881	1	.2076	.0000	3.4997
Cell 3	1.5035	1.3227	1.2921	1	.2557	.0000	4.4975
Constant	.2877	.7638	.1419	1	.7064		

A number of other variables were analyzed for possible confounds. However, it must be recognized that some variables were not extraneous to the negotiation experience and thus, the responses could have been affected by the negotiation simulation. These were: competitiveness, opportunism (the survey scale not IA00), all the falsity scales and if an agreement was reached. These variables all measured aspects of the negotiation, which were not logically distinct and extraneous to the dependent variables.

Variables that were logically distinct and extraneous to the dependent variables were the Machiavellianism scale (because it related to the subject and not to the negotiation), prior negotiation experience, have taken/am taking business law, have taken/am taking business ethics, age, years of prior working experience and gender.

When a variable was identified as significant, the hypothesis test was rerun controlling for the control variable. The results were then evaluated to see if controlling for the control variable changed the outcome of the hypothesis test.

#### HYPOTHESIS ONE

The variables listed above (with the exception of agreement being reached) were evaluated for potential confounds. The method used required converting the variables from continuous interval data to categorical data using a median split. The variables were evaluated using Chi-square tests. Seller negotiation experience was significant (see Table 34). The model was recomputed controlling for seller negotiation experience yielding a



$X^2$  of 23.49 that was significant with a p value of .0052. Thus, the results did not change for Hypothesis 1.

## HYPOTHESIS TWO

The analysis was performed using ANOVA and correlational analysis. ANOVAs showed significant differences for the following: 1) the falsity scale, by have taken/am taking business ethics for buyers (F prob. = .0151), 2) the falsity scale, by gender for sellers (F prob. = .0154) and 3) the content analysis for false communications by gender for sellers (F prob. = .0492). Correlational analysis showed three weak relationships for sellers: 1) the falsity scale by prior negotiation experience ( $r^2 = .2983$ ,  $p = .005$ ); 2) the content analysis for false communications by prior negotiation experience ( $r^2 = .2002$ ,  $p = .028$ ); and 3) the content analysis for false communication by age ( $r^2 = .18$ ,  $p = .046$ ). Overall, the control variables to be included were: prior negotiation experience, age, have taken/am taking business ethics and gender (see Table 35).

The above variables were evaluated with ANOVAs for Hypothesis 2 using each of these control variables. In each case, the cell main effect, the role main effect and the cell by role interaction were not significant, with the exception that the role main effect was significant for the content analysis for false communication. Therefore, even

**TABLE 34**  
**Summary of Control Variable Analysis for Hypothesis 1**

MEASURE	BUYER			SELLER		
	$X^2$	df	p	$X^2$	df	p
Law Course	.7814	3	.8539	2.0123	3	.5699
Ethics Course	6.4365	6	.3761	8.5985	6	.1975
Gender	2.1480	3	.5424	1.5844	3	.6629
Age	1.9103	3	.5912	4.0334	3	.2612
Race	4.3659	6	.6273	4.3034	9	.8903
Work Experience	1.5539	3	.6699	5.2903	3	.1517
Neg. Experience	.5088	3	.9170	8.2842	3	.0405*
Machiavellianism	4.4214	3	.2194	2.555	3	.4655
Opportunism	2.8464	3	.4159	2.5470	3	.4669
Competitiveness	4.1350	3	.2473	2.5470	3	.4669

Difference  $X^2 = 22.1901$ ,  $df = 9$ ,  $p = .0083$

\* Significant at .05 level

LOGIT RECOMPUTED FOR SELLER CONTROLLING FOR SELLER  
NEGOTIATION EXPERIENCE

Partial  $X^2 = 23.49$ ,  $df = 9$ ,  $p = .0052$

TABLE 35  
 Analysis of Control Variables for Hypothesis 2

Correlations of Control Variables to Dependent Variables in Hypothesis 2					
CONTROL VARIABLE		BUYERS		SELLERS	
		FALSITY SCALE	RATED	FALSITY SCALE	RATED
Competitiveness	coeff.	.0886	.1108	.2762	.2997
	p =	.353	.223	.003**	.001**
Opportunism	coeff.	.3662	.2364	.3715	.2780
	p =	.000**	.008**	.000**	.002**
Machiavellianism	coeff.	.0775	.0563	.1063	-.1296
	p =	.432	.548	.271	.169
Neg. Experience	coeff.	.1780	.1434	.2983	.2002
	p =	.064	.118	.005**	.028*
Work Experience	coeff.	-.0952	-.0781	.0784	.1478
	p =	.349	.421	.441	.132
Age	coeff.	-.0783	-.0061	.0839	.1824
	p =	.419	.947	.373	.046*

\* Significant at .05 level

\*\* Significant at .01 level

with adjustments for these variables, the Hypothesis 2 set was not supported (see Table 36).

### HYPOTHESIS THREE

The variables listed above (with the exception of agreement being reached) were evaluated for potential confounds. The method used required converting the variables from continuous interval data to categorical data using a median split. The variables were evaluated using Chi-square tests (see Table 37).

Buyer Machiavellianism proved to be related (significance of Chi-square was .0308). The logistic regression was recomputed for the buyers, adding in the buyer Machiavellianism. Examining each variable showed that only buyer Machiavellianism was significant for predicting buyer IA00 ( $p = .0304$ ). The relationship of cell membership to IA00 was still not significant ( $p = .8210$ ) and thus the result did not change. Therefore, the uncontrolled analysis finding was confirmed. It is important to note that the Machiavellianism scale had a low reliability measure and should not be considered a reliable scale.

### SECTION SUMMARY

The scales used in this study were evaluated for reliability and the manipulation check was scrutinized to determine whether the subjects had sufficient understanding of

TABLE 36  
ANOVA Tests for Dependent Variables in Hypothesis 2

CONTROL VARIABLE		BUYERS		SELLERS	
		FALSITY SCALE	RATED	FALSITY SCALE	RATED
Race	F ratio	.5840	.5527	2.1832	.9118
	F prob	.5594	.5769	.0943	.4378
Agr. Rchd.	F ratio	.0518	4.588	3.4325	6.6952
	F prob	.8204	.0342*	.0665	.0108**
Law Course	F ratio	1.7816	.0899	3.0569	2.6710
	F prob	.1848	.7648	.0831	.1048
Ethics Course	F ratio	4.3602	.9289	.2004	.2837
	F prob	.0151*	.3979	.8187	.7535
Gender	F ratio	.0348	2.4818	6.0544	3.9319
	F prob	.8525	.1178	.0154*	.0498*

\* Significant at .05 level

\*\* Significant at .01 level

TABLE 37  
 Summary of Control Variable Analysis for Hypothesis 3

MEASURE	BUYER			SELLER		
	$X^2$	df	p	$X^2$	df	p
Law Course	.0105	1	.9185	1.6906	1	.1935
Ethics Course	2.9731	2	.2262	1.4422	2	.4862
Gender	.0094	1	.9229	1.2135	1	.2707
Age	.1770	1	.6740	1.0328	1	.3095
Race	4.3659	6	.6930	4.3034	9	.8904
Work Experience	.1577	1	.6913	.7388	1	.3901
Neg. Experience	2.0867	1	.1486	.6372	1	.4247
Machiavellianism	4.6877	1	.0304*	1.0668	1	.3017
Opportunism	1.6791	1	.1950	3.7075	1	.0542
Competitiveness	.0481	1	.8264	3.9340	4	.4150

\* Significant at .05 level

the simulation scenarios. The hypotheses were tested with support of the omnibus hypothesis H1alt. All the sub-hypotheses were supported in hypotheses set 1. Hypotheses 2 and 3 were rejected. Control variables were identified for each hypothesis set, but none affected the outcome of the hypothesis tests.

## CHAPTER SUMMARY

In this chapter, the entire analysis process and results were discussed. The pretesting procedures and analysis were discussed. Pretesting was extensive and resulted in manipulations and scales that were acceptable. The instruments were evaluated for understanding that proved to be highly significant. The hypotheses were tested resulting in finding support for Hypothesis 1. All the sub-hypotheses were accepted in the Hypotheses 1 set. The Hypothesis 2 set and Hypothesis 3 were not supported. The analysis for potentially confounding variables indicated several significant variables. When the appropriate analyses were recalculated controlling for the variables, the results of the initial analyses were unchanged.

## CHAPTER V: SUMMARY, LIMITATIONS AND FUTURE RESEARCH

### INTRODUCTION

In this chapter, the results of the dissertation research are summarized and discussed in the context of research in the area of Transaction Cost Analysis (TCA). The limitations of this research are reviewed during both the discussion of the results and the evaluation of the negotiation simulation. In addition, directions for future research are discussed.

### RESULTS

This research effort was performed to explore some of the fundamental contexts into which the TCA paradigm may give insight, that is, the dynamics of investment level in transaction specific assets. A negotiation simulation was used as the experimental basis to observe selection of governance structures negotiated in the final contract of dyads placed in one of four patterns of anticipated asset investment. Opportunistic behavior



during the negotiation process by subjects anticipating investment in transaction specific assets was observed. The observed opportunistic behavior was in the form of falsity in communications. For those dyads agreeing on a contract, the relationship between resultant investment and opportunistic behavior in the form of accepting an offer by a third company was observed. The offer was considered to be opportunistic because acceptance would adversely affect full performance of the incumbent contract. This opportunistic behavior was termed Incidence of Accepting an Opportunistic Offer (IAOO). The negotiation simulation used MBA students as substitutes for business people in a channel setting. The trade-offs of this practice, as well as other experimental contrivances, were discussed at length in Chapter III.

#### HYPOTHESIS ONE

The Hypothesis 1 set tested proposed that there is a relationship between the pattern of anticipated investment in transaction specific assets and the final negotiated governance structure in the contract. This hypothesis was supported. The implications are that governance structure choice is affected by the pattern (levels) of anticipated transaction specific assets. The extent of organizations indeed following the behaviors as explicated in the TCA paradigm gained support in this research. All the sub-hypotheses reflecting the pattern of appropriate governance structure based on the particular pattern of anticipated investment were supported.

The notion that investors anticipating investment in transaction specific investment seek to protect their investments with appropriate measures was supported. Thus, we see overall trends, in the four anticipated investment patterns, of the desire of investors to contract for and obtain contractual safeguards to protect their anticipated investments. In the asymmetric anticipated investment patterns, these clauses were ones in which the investor would receive liquidated damages to offset losses.

In the symmetric high anticipated investment patterns, the preference was for the bilateral clause in which arbitration could be used to resolve conflicts. Despite the "unknown" nature of arbitration findings, most of the subjects regarded it as a method that did not give advantage to one party over the other. Indeed, it was often chosen by subjects in the other three anticipated investment pattern scenarios.

In the symmetric low anticipated investment patterns, subjects tended to choose the market forces clause. According to the TCA paradigm, this would reflect an economizing on effort put to the contract when there were no assets to protect.

The pattern of choices did not show the predicted choice as the majority choice for the given pattern of anticipated investment except in sub-hypothesis H1d (symmetric high anticipated investment selection of the bilateral clause by 19 out of 26 dyads). A discussion of direction by simple comparison of choice patterns of the cell of interest compared with the choice pattern of the other three cells was given in Chapter IV. The sub-hypotheses were supported because the tendency of choice was supported. However,

it should be noted that the bilateral coordination clause choice was quite popular with all the patterns of anticipated investment subjects.

Several concerns should be addressed with relation to the Hypothesis 1 set. These are the restrictive form of the simulation and contract, the possible roots of the popularity of the bilateral clause and the categorical dependent variables.

The first concern is the form of the simulation. Only four patterns of investment were given with only four basic forms of governance structure from which to choose (note: unilateral clauses were given two forms each but then collapsed for this analysis). Subjects were required to stay within the confines of not only the cost tables but the wording and purview of the contract clause wording. Almost every data collection session yielded requests to rewrite or combine contract clauses. Several debriefing sessions yielded comments by dyads wanting to change the contracts. The requests were varied from wanting to combine two unilateral clauses to give each party hard contractual safeguards, dyads wanting to provide other sanctions, or dyads wanting sanctions then recourse to arbitration. In this simulation, the richness of a more creative or complex contract was lost. The restrictions were made to make data collection and analysis easier. Experience with the early pretesting session (using a five clause contract) suggested that a simple contracting task was necessary for this research. The restrictions on the contract construction does reflect the realistic nature of channels in which standard or "boilerplate" contracts are the norm as well as channels in which customary practices are established.

This concern contains both methodological and theoretical elements. The restrictive nature of the simulation resulted from making necessary practical trade-offs. Conversely, the restrictive setting inhibits the generalizability of the conclusions to channels that share similar restrictiveness in contracting.

A second concern is the popularity of the bilateral clause among Cells 1-3. Although neither work experience nor negotiation experience level resulted in confounds, the tendency of dyads in all four patterns to choose the bilateral clause may be rooted in good will that has not been soured by bitter experiences in contractual relationships. Following the old adage of "once burnt; twice shy," it would be interesting to survey seasoned executives on their preferences for contractual safeguards and previous dispute resolution experiences. It would be even more enlightening to do so under varying conditions of economic munificence.

Another concern with the structure of the simulation is an interpretation problem that occurs in the analyses of both the first and third hypotheses. In both sets, the dependent variables are categorical. This precludes the ability to explore incremental or marginal effects of the variables. Other issues surrounding the use of this simulation will be discussed in the section on evaluating the simulation.

The implications of the supported Hypothesis 1 set provide insight for managers seeking to form relational contracts. Currently, the trend toward win-win negotiation, strategic alliances and other relational based coordination mechanisms is gaining momentum but has not replaced contractual safeguarding. In all the anticipated

investment patterns, there was acceptance of a bilateral or relational contract form. However, the practice of hard contracting as manifested by negotiating appropriate contractual safeguards still exists. The contracting for appropriate safeguards shows that firms still desire asset safeguarding. Managers should not be surprised when bargaining partners insist on protections. Following theoretical work on industry maturity, commitment and norms, managers should patiently allow the relationship to mature before expecting to rely on relational contracting rather than hard contracting.

## HYPOTHESIS TWO

Hypothesis 2 proposed that the pattern of anticipated investment was related to the occurrence of false communications (falsity). Falsity was measured in two ways. The first way, c1, employed a content analysis system to analyze the transcripts of the written negotiation producing a falsity score. The second way, c2, consisted of a *rated* falsity score derived from self-report post negotiation survey questions comprising the falsity scale. Hypothesis 2 set was not supported using either rating system.

Several concerns should be addressed with respect to the Hypothesis 2 set. The first concern was deficient scale reliability. The second concern was with the difficulties with norm development in the context of short simulation duration and deficient stakeholding.

The implications of the unsupported Hypothesis 2 set provide indirect insight for managers. In this research, no relationship between anticipated investment in transaction

specific assets and the opportunistic behavior (in the form of falsity in communications) was found. However, opportunism was very prevalent. Therefore, it was concluded that managers should not depend upon anticipated transaction specific investment to act as a disincentive to opportunism in this form. Managers should not rely on the fact that a bargaining partner is anticipating investment to act as a deterrent to opportunistic behavior.

An initial criticism of this part of the research process was that neither scale had very high Cronbach alpha levels. The content analysis system scale item demonstrated alphas ranging from .38 to .86 for falsity items and .99 for non-misleading statements. Both raters had no problem recognizing statements that were false, but had trouble categorizing false statements. The falsity scale included items that not all ethicists would agree to be lying (in particular, bluffing and puffery) and, thus, the scale is weak. However, for truly misleading statements, the reliabilities were sufficient for basic research with phony arguments having an alpha level of .70 and lying .86. When calculated with the Spearman-Brown reliability, however, all categories fared much better. Needless to say, further work needs to be done on refining the content analysis system before it is useful for additional negotiation research.

Likewise, the rated falsity scale derived from the disclosure scale has, at best, adequate reliability. The overall disclosure scale had an alpha of .75 for buyers and .81 for sellers, but when the falsity items are measured without the other items, the alpha level for all respondents dropped to .6677. The disclosure scale was subjected to factor

analysis and the rated falsity scale items did load together. As with the content analysis system, the rated falsity scale must be refined. In defense of the rated falsity scale, it is well known to researchers that socially sanctioned behavior tends to be under-reported on surveys. This may have been an impediment and refinement of the scale should be conducted with this issue in mind. Additionally, American negotiation style tends to include *strategic misrepresentation* as a typical posturing mechanism (Raiffa 1982). It is expected and accepted. With this in mind, it may be that negotiators felt they were not behaving deceitfully but warily.

Another problem with using these measures of falsity was the short duration of the simulation with no real stakeholding on the part of the subjects. Perhaps the short duration and the non-serious nature of the simulation precluded the formation of norms that would prevent opportunism in situations in which falsity would be counter productive as indicated by the TCA paradigm. Formation of norms requires time which was not available in a short simulation such as this one (Bendor and Mookherjee 1990, Heide and John 1992). Also, no measurement of norm formation was undertaken in this research to determine if norms emerged as part of the experience.

Negotiation theory needs to develop further to form the basis of a sound content analysis methodology. The standards used to develop the content analysis system were denotative and were not culturally based (e.g., ethical status of puffery in a social/legal system). The content analysis system did not account for strategic maneuvering either and thus resulted in rigid classification of the message units. The discrete analysis of message

units did not assess the overall effect of the entire set of communications either and so it lost overall context.

The effect of stakeholding has been shown to influence negotiation behavior, however, the students seemed to be involved. In one pretesting session, an MBA student who had a number of years with IBM sales, commented that the materials were similar to that used in IBM training and he pronounced the simulation to be "very good and realistic."

### HYPOTHESIS THREE

Hypothesis 3 proposed that resultant investment has an inverse relationship with IA00. Resultant investment is the expected investment *taking into account the effect of the enforced clause* and, of course, the knowledge that the contract has been signed and any anticipated investment has been made. Thus, a low investor who signed an indemnification clause, has a resultant *high* investment should he breach the contract. No adjustments were made for the other party's breach so each subject acted independently.

This hypothesis was analyzed in two ways. The first analysis utilized a subject reclassification (when necessary) that categorized subjects as simply high or low resultant investors. The dichotomy did not allow for preservation of investment pattern between buyer and seller. Thus the analysis examined the individual subject's behavior in terms of resultant investment level (low or high) without regard for the context of the cell scenario. A supplementary analysis was within the context of the resultant cell as per the



contract clause's enforced effect. Each subject was reclassified (when necessary) and then categorized into one of four cells with regard to the context of their bargaining partner's investment. The analysis with regard to context followed the interactive theoretical view that context can influence individual's behavior (Heide and Miner 1992). Neither analysis found support for the hypothesis. However, the direction of the effect was consistent with the TCA theory. That is, the higher the investment, the more likely one is to reject a chance to be opportunistic.

Two concerns must be addressed with regard to Hypothesis 3. The first concern was methodological with regard to the loss of subjects and related statistical problems of a smaller sample. The second concern involved the operationalization of the dependent opportunism variable IA00 creating both theoretical and methodological concerns.

The implications of the unsupported Hypothesis 3 provide indirect insight for managers. In this research, no relationship between resultant investment and the incidence of accepting an opportunistic offer was found. However, opportunism was very prevalent. Therefore, it was concluded that managers should not depend upon resultant transaction specific investment to act as a disincentive to opportunism in this form. Managers should not rely on the fact that a bargaining partner has committed to resultant investment to act as a deterrent to opportunistic behavior.

The fact that the results were not significant may be due to the small numbers involved. The omission of dyads contracting for the bilateral clause caused a large loss of subjects. The number of buyers dropped from 100 to 47 and the number of sellers

dropped from 104 to 48 (the difference of 100 buyers to 104 sellers is due to useable data sets).

Additionally, the theoretical operationalization of opportunism used to test the Hypothesis 3 set, that is, IA00, is but only one way opportunism can manifest itself. Interpretation of the IA00 may also have varied. Subjects may have rationalized that a lowered performance was still performance per se of the contract and not realized it was an opportunistic behavior. Conversely, it may have been too opportunistic for some subjects who still may have behaved opportunistically if the range for behaviors had been broader. As discussed in the evaluation of statistical methods used, the dichotomous nature of the IA00 precluded the methodological examination of incremental effects. It would be interesting to evaluate an IA00 behavior over a range of gains available to the opportunist. Perceptions of the values of the contract may have differed as well as perceptions of the gain involved in accepting an opportunistic offer.

#### FURTHER EVALUATION OF THE SIMULATION

A number of issues were addressed with discussion of the results of each hypothesis set. Several more issues are also important to consider when evaluating the results of the simulation.

Many limitations are present when a simulation is used in an experiment. The nature of the simulation must be critiqued. As discussed in Chapter III, the simulation is, at best, a simplified version of industrial negotiation and may not be representative of

channel member interaction. The use of student subjects, some with no work experience, also poses limitations due to the inexperience of the subjects and the lack of real consequences affecting real careers and businesses. Students may feel a cooperative ethic, thus favoring the bilateral contract clause. The short duration of the simulation inhibits the development of norms characteristic in industrial marketing settings. Therefore, the behaviors and responses of the subjects in this setting may not have been representative of members of an organization.

Heide and John (1992) argued that norms may be supportive of a cooperative environment and that, in addition to the norms that develop, there are norms that are part of the culture of an industry. The simulation used in this research had intentional aspects that were determined to be unfamiliar to the subjects. To avoid confounds related to specific industry experiences, the hospital supply context was developed by many researchers with the intent to be unfamiliar (Murray 1987).

The research setting itself, which consisted of an intensive experiment conducted in a university classroom with interaction confined to written memorandums, also contributed to the contrived nature of the simulation and may have affected the generalizability of the results. Body language and the lack of inflection to add meaning to word choices were not recorded and not available for interpretation.

The levels of the constructs did not represent the continuum of behaviors found in intraorganizational negotiation and channels of distribution. The contract itself was limiting. Although the terms were all developed from actual contracts and form books,

evaluated by attorneys and are considered typical of channel contracting norms (Narus and Anderson 1988), they were offered to the subjects in a very limited form.

### TRANSACTION COST ANALYSIS: REVISITED

Refinements and challenges are part of the evolution of theories and paradigms. Currently, the results of many studies exploring various aspects of industrial structure give more and more insights on the applicability of the TCA paradigm. This continued research allows marketers to develop judgment in the application of TCA to guide business situations. Several of these studies have been mentioned as the results were explained or will be explained in the directions for future research section of this chapter.

Several studies have challenged the basic assumptions of the theory. Heide and John (1992) questioned the assumption of the norm of opportunism as part of the norms of all industrial cultures. Note, however, that the sampling frame used in their research had maturity. Perhaps opportunistic short run oriented firms had already dropped from that context. This differs from this research in which the buyers and sellers interacted for a relatively short period of time and the "industry" had no tenure. Perhaps this is one reason why the incidence of opportunistic behavior in the form of IA00 was so very high for all resultant investment levels in the dissertation research.

Heide and John (1992, p. 40) also noted that TCA theory does not "specify the mechanisms that provide the ability to implement the desired structures." This dissertation research did not uncover such mechanisms nor was it able to satisfy a further

deficiency noted by Heide and John. They commented that TCA does not "account for complex nonmarket governance modes between nominally independent firms" (p. 41). Although this research did not result in further theoretical developments, an important contribution is that it did explore contractual governance structures between nominally independent firms.

Governance structure choice may differ across cultures. Mixed support was presented by Hennart (1991) in a study of international joint ventures. Hennart found that high transaction costs were related to a higher rate of joint venturing by Japanese companies yet, in his U.S. case, full control of subsidiaries resulted. Interestingly, Japanese investment in research and development and advertising were not found to have significance in company structure.

Walker and Poppo (1991) studied the role of asset specificity with regard to industrial structure. They found that company decentralization and relational contracting in the market reduce the necessity of structuring based on asset specificity, thus reducing TCA as a predictor of corporate structure.

Support for TCA is still forthcoming. Noordewier, John and Nevin (1990) found that the normative predictions of TCA hold true with regard to performance enhancement via relational elements of the contract.

Contractual safeguarding, especially with regard to bilateral coordination, is related to conflict resolution. Schul and Dant (1992) analyzed conflict resolution style in relation to a number of factors. One of these factors was potential loss risk. The stakes or risk

of an issue, defined here as the potential financial implications, were found to be related to the conflict resolution style. The relationship varied depending on the size of the stakes. Political and bargaining resolution styles were used more often when the stakes were high whereas problem solving and persuasion approaches were used for lower stake issues. In this simulation, arbitration was the only alternative conflict resolution style used.

Anderson and Weitz (1992) developed a complex model of the role of commitment and pledges. The results of the testing of the model generally supported TCA theory. Primarily, idiosyncratic (i.e., transaction specific) asset investment had a strong effect on dyadic commitment. Perceived commitment also affected commitment. Idiosyncratic investment was defined by Anderson and Weitz (1992) to be a form of pledge. A firm may demonstrate its commitment to the relationship by making the commitment of an idiosyncratic investment. This pledge making affected the perceptions of perceived commitment. The notion of giving pledges to spur commitment in a business relationship is related to the notion that relational contracting goes beyond a written contract. The pledge is manifested by the action of investing in a non-redeployable asset. This is an important step in TCA research and shows the importance of theory testing in field research.

In relating Anderson and Weitz's findings to the results of this dissertation, one could argue that the contractual safeguarding research undertaken in this dissertation is

akin to a relational safeguard. However, the resultant investment was not related to the IAIO behavior.

### DIRECTIONS FOR FUTURE RESEARCH

A number of directions for future research may be taken. These include:

- 1) additional investigation of the use of a contract to identify relational and non-relational aspects of the intrachannel relationship, 2) additional use of simulation research using larger groups of MBAs with consideration given to the suggestions for simulation improvement, 3) comparison of the results of simulation research using MBAs and practitioners, 4) inclusion of additional variables such as wariness brought on by a subject having been previously hurt by unfulfilled contracts, familiarity and attitudes toward a variety of conflict resolution methods, 5) exploring TCA and the concept of the efficient breaching of contracts, 6) increasing the range of investment levels and IAIO behaviors, 7) controlling for power/vulnerability of relative companies 8) conducting simulation research in which the dyads start from the point of already working with a contract and the measurement of contractual safeguarding effectiveness, 9) the inclusion of self-report survey questions regarding relational aspects of the relationship in simulation research, 10) the use of the demographic and psychographics variables (used in confound analysis) in additional research and (11) the use of several more advanced statistical techniques. These issues are discussed in the following paragraphs in the order listed above.

The additional investigation of the use of a contract to identify relational and non-relational contracting creates an area for further research. Theoretically, relational aspects of a channel relationship go beyond the written contract. If these concepts are extra-contractual, then how may they be identified by the tenor of a contract? Additionally, how may a contract be so classified? Characterizing a contract may best be achieved by an assessment of joint effects of the legal impact, taken as a whole (and thus evaluated by a lawyer) and the impression it gives to business people in a given trade (does it lead to dissatisfaction or is it viewed as acceptable?). If, for sake of argument, a panel of lawyers and business people may successfully categorize the nature and tone of a contract, may we then use the content of a contract to identify relational and non-relational characteristics?

Although not a hypothesis tested in this study, an interesting trend has been identified relating to the above issue. Comparing clause choices made in the manipulation check stage with the final negotiated contract clause, it is evident that the negotiation process brought about a shift in position from the clause initially identified as being to a player's advantage. No statistically supported claims are made at this point, but the shift toward following the prescriptions of the TCA theory can be observed (directionality). Thus, this may be taken as a crude indicator of an attitude present in the relationship and it may be an interesting path to take with this research.

Additionally, it is notable that practitioners may be wary in the face of involvement in a strategic alliance. Strategic alliances typically are relational. However,



practitioner literature explores some very legalistic avenues. A recent article in *CFO*, a professional journal for Chief Financial Officers, warns that "anyone negotiating strategic partnerships must also be an expert at anticipating problems and resolving conflicts before a deal is ever signed" (Henry 1991, p. 33). The article continues with a quote from Thomas Collins, co-author of *Teaming Up for the '90s*, who warns:

The agreement should accommodate a whole host of issues, such as: Who will lead the joint effort? Who will be responsible for maintaining open lines of communication? When should marketing people be brought in? What financial return should the partnership aim for? What limits should there be on collaborating with other partners? What prohibitions on recruitment should exist?...Make no bones...about insisting on an arbitration clause, or some other mechanism for coping with disagreement...[B]e sure your partner can deliver on its promises.

The litany given above shows valid concerns but is within the Stinchcombe (1985) ideal of interorganizational coordination. Are the warnings merely prudent? Are they indicative of American business evolution? They do not meet the Deming ideal of a one page contract (Gitlow and Gitlow 1987). Yet one could argue that Deming's manufacturing environment provides adequate evidence of additional contractual terms via usage of parol evidence. These issues are not merely addressing conflict resolution methods as in Schul and Dant (1992), since the advice addresses inclusion of *contractual* provisions to handle these problems. Exploration of the use of pledges following Anderson and Weitz (1992) would also be appropriate here. These issues provide directions for future channel research.

Using larger groups of MBAs may be helpful in simulation study due to the limitations found in this study with a minimally adequate sample size. Also, comparing the results of an MBA subject pool with that of actual business people would help answer the question of the adequacy of MBAs as substitutes for business people. Of course, the trade-off was made for this research due to budget, time and access constraints.

Including additional variables such as specific previous contractual disappointments would add to the richness of research. Anderson and Weitz (1992) recently developed a very rich channel model that explores many aspects of pledges in determining the building and duration of commitment in distribution channels.

Economists working with the TCA concept have proposed the idea of efficient breach (Chung 1992). Although it may be viewed as unethical, the idea that a party may be better off to breach a contract to the extent that it may be viewed more economically efficient than to fulfill the contract gives an interesting path for the study of intrachannel research. It also may give clarity to the reasons motivating opportunism with *guile*.

Increasing the range of IA OO behaviors would enable the simulation to avoid the methodological limitations encountered in this study. As explained above, the use of binary variables analyzed by LOGIT precludes the examination of incremental effects. Also, the point at which a subject will behave opportunistically is difficult to determine in this study. In other words, are small gains more tempting due to their petty natures as well as large gains being tempting due to the tremendous pay-off? Do we see small offenses occurring because they are too small to be worth policing? Do we see only mid-

range offenses being avoided as being large enough to create trouble but not large enough to be worth the risk?

Power theory may help sort out when opportunism is likely to occur as it may have implications in the notion of when free-riding is possible. Heide and Miner (1992) explain:

In an asymmetrical relationship, the dependency may not be reciprocal, so that one partner has power over the other but not vice versa. In that case, exploitation rather than cooperation may result (p. 270).

In relating this to customization of assets, Heide and Miner (1992) continue to explain that customization may have a negative effect on cooperation due to the power/dependency vulnerability. Although the absence of cooperation does not necessarily lead to opportunism, a nomological network to link these related concepts needs to be constructed to give clarity to the role of TCA in explaining inter-organizational behavior. Additionally, the effects of power and firm adaptation to each other is an area explored by Johanson, Hallen and Seyed-Mohamed (1991). The customization of goods in the adaptation process ties power/dependence with TCA theory.

A logical extension of the simulation would be to have a variety of business contracts given to the subjects under a variety of investment patterns to further study the emergence and mitigation of opportunism. This may require a simulation of longer duration and higher complexity. Additionally, problem resolution may be explored in this context along the lines of relational and non-relational modes as proposed by Schul and Dant (1992).

Lastly, despite the lengthy nature of the post negotiation survey used in this research, exploration of relational aspects may be facilitated by the use of self report survey questions. To further explore the reason for dyad preferences for bilateral coordination, measures of relationalness should have been included in this negotiation research. Theoretically, opportunism is not the same as competitiveness nor is relationalism necessarily the same as cooperativeness. A scale needs to be developed to help measure this construct.

Analysis for potential confounds is technically not necessary when subjects were randomly assigned to groups, as in this research. However, demographic and psychographic variable have been explored in relation to negotiation behavior and should be explored in relation to opportunistic behavior.

More advanced statistical techniques could be used to analyze the data gathered for this research. Hypothesis 1 could be tested with a log linear analysis on the complete contingency table to derive a studentized t for each cell on the contingency table. With this technique, governance structure choice may be analyzed together rather than necessitating the collapsing of cells for comparison purposes. An alternative technique for the analysis of Hypothesis 2 would be a 2x2x4 Manova. This technique would be a more sophisticated approach than the one employed in this dissertation.

## CHAPTER SUMMARY

The results were discussed in this chapter. Hypothesis 1 set was supported and it can be concluded that the pattern of anticipated investment is related to the final negotiated contract clause. The nature of the coordination mechanism is consistent with the expectations of the Transaction Cost Analysis paradigm. This provides a contribution to the body of TCA research by examining the contractual governance structures between nominally independent firms.

Neither of the other two hypothesis sets were supported. An analysis of the weaknesses of the research was presented. A discussion of selected recent research was provided. Future directions for research were proposed.

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**APPENDIX A: AMERICAN CONTRACT LAW PRINCIPLES**

## APPENDIX A: AMERICAN CONTRACT LAW PRINCIPLES

### INTRODUCTION

A contract is formed between two parties when a valid offer is made, accepted, and there is something (called "consideration") exchanged for the promise. This "offer-acceptance-consideration" trilogy is basic to the theory of contracts and the subsequent liability formed (Schaber and Rohwer 1975). Consideration refers to whatever is given in return for the promise. A promise that is made without something given in return for it is viewed as merely gratuitous and does not form an enforceable contract (Farnsworth 1982). A contract need not be written and signed unless the content is under the purview of a codified law that requires such a writing (e.g., The Statute of Frauds). Also, a contract may be formed merely by the conduct of the parties without express oral communication (i.e., an implied-in-fact contract).

In most states, commercial contracts are under the purview of the Uniform Commercial Code, and the courts follow the interpretations of the Restatement of the Law. The Restatement Second, section 1, gives the following definition of a contract:

...a promise or a set of promises for the breach of which the law gives a remedy, or the performance of which the law in some way recognizes as a duty.

The Restatement follows traditional or common law, whereas the Uniform Commercial Code follows modern interpretations and standard code law. Hence the definition of a contract given in the Uniform Commercial Code (1978), section 1-201-(11) reads:

..."Contract" means the total legal obligation that results from the parties' agreement as affected by this Act and any other applicable rules of law.

Due to the differences in legal theory over what is a contract and the ramifications thereby, accompanying explanations are needed as the literature is discussed. Consequently, in the discussions of contractual obligations in the body of this dissertation, points of law may be covered as they emerge. The major issues to be covered in this appendix are contract formation and enforcement, specification of remedies, the parol evidence rule, custom and usage of language.

#### ISSUES RELATING TO CONTRACT FORMATION

Selected issues related to contract formation discussed in this section are: expressions of acceptance with differing terms, remedies, custom and usage of language, and parol evidence. This discussion is provided to give the reader a background on contractual issues.

#### EXPRESSION OF ACCEPTANCE WITH DIFFERING TERMS

Business people typically use preprinted forms to routinize the ordering of goods and customer billing. Because this practice brings into the agreement two different preprinted forms or 'standardized' contracts, there could be ambiguity in the terms. With the above explanation of what a contract is, the question arises of whether the parties do in fact have a contract when there is no certainty of terms. The use of similar but not

exact forms is allowed in the formation of a valid enforceable contract under the Uniform Commercial Code (1978), section 2-207. As Farnsworth (1982) explains:

...the drafters [of the UCC] intended this provision to reduce the number of situations in which a party can seize upon a discrepancy in the forms as an excuse for not performing [the contract]...such a discrepancy does not prevent...creating a contract unless the offeree takes pains expressly to say that it does (p. 160).

Business practices are often careless, and transactions occur without the slightest shred of an enforceable contract (Macaulay 1963). Under common law, there would not be a contract in the situation of two differing standardized forms, because the different terms on the offeree's standard form would constitute a counteroffer, and there has not been a *meeting of the minds*. Since most states operate under the Uniform Commercial Code, the usage of two forms would not preclude the formation of an enforceable contract.

## REMEDIES

A remedy is:

[1]...the means by which a right is enforced or the violation of a right is prevented, redressed, or compensated...[2]...any remedial right to which an aggrieved party is entitled with or without resort to a tribunal (Black, Nolan, and Connolly 1979 p. 1163).

Note from the definition that a remedy specifies something that may be enforced or used in a preventive way. This refers not only to what may be awarded in a court but also to a contract clause that is set up to assure liquidated damages and/or to serve a preventive role. Even if a contract does not state a remedy for nonperformance, a court,

finding on behalf of the injured party, can specify a judgment that would restore the injured party to the position he or she would be in if the contract had been fulfilled. Likewise, a remedy may be used not only in situations of nonperformance, but also in situations of nonpayment. Note however that the party is to be put in the same position he or she would be in had the contract been fulfilled. The purpose of a remedy is not punitive. Therefore, there is no additional penalty (except for appropriate interest or possible additional expenses depending upon the nature of the remedy). A remedy clause also must be drafted considering the reasonable expectations of the parties at the time of entering into the contract.

The parties to a contract have the right to specify clauses in anticipation of breach. That is, in the anticipation of various contingencies, the parties determine what the value of the damage reasonably would be, and then specify a liquidated amount in the contract. American courts have only enforced liquidated damages based on a reasonable expectation at the time of formation. They have not allowed additional monies as a punitive measure against the defaulting party. A typical form of a liquidated damage clause is often found in construction contracts. A completion date is set and the contractor agrees to pay a certain dollar amount for each day the building is not completed (sometimes a bond is posted as well). Usually a third party, often an architect, is specified to judge if the building is completed. The third party "judge" is often a professional who is trusted to uphold a degree of professional standards regardless of which party is paying the fee. Some contracts of this kind carry a bonus if the building is completed prior to the

completion date. The daily penalty for noncompletion must be based on some reasonable value of the use of the building (O'Connell 1985). For example, it may be based on how much it would cost to rent similar facilities. A remedy clause for a sales contract may be based on the market value of the goods in question because non-delivery may force the buyer to obtain them on the open market instead (Cooter and Ulen 1988).

Other forms of remedies are restitution, reformation, and specific performance. The purpose of restitution (which includes rescission) is to put the parties in the position they were in prior to the formation of the contract. The reason it is called only restitution rather than restitution and rescission, is that, though the parties are in the position that they would be in if the contract had never been formed, the injured party may be entitled to additional damages. Of course, restitution may not be fully or even partially possible in some cases. Reformation is a remedy that recognizes that the original contract was not a reflection of what the parties had intended (e.g., there was a mutual mistake). However, because the parties intended to have a contract, the court is asked to "reform" the contract by including a provision that reflects the intent of the parties. Specific performance is a remedy in which the court can order a party to do a particular action, such as convey land, if there was a valid contract. This way, the prevailing party can obtain the subject of the contract rather than mere money damages (O'Connell 1985). These remedies are ordered by a court of law as opposed to being specified in a contract at its formation.

There are, of course, legal excuses to the performance of the contract, but they are beyond the scope of this appendix. However, if the contract is legally enforceable, a



remedy has been specified that is satisfactory in the eyes of the court, and the contract is breached, then the breaching party can expect to have a judgment entered against him or her as specified in the contingency clause. Business people who are not naive know that this would be the logical progression of events and may cut their losses by performing the contract. Or, if they do breach, satisfy the damage clause instead of incurring the cost of a lawsuit they are likely to lose.

The expectation of the progression of a lawsuit has prompted drafters to include other mechanisms for conflict resolution. Arbitration clauses give the parties a less expensive conduit for disputes. Also, an arbitration panel may form judgments that are more equitable to both parties. Arbitrators are not bound to the win-lose format of court decision. Arbitrators may construct judgments that are more tailored to the situation at hand. Likewise, using arbitration does not necessarily sever the relationship in the way that an adversarial court battle may and, in most cases, is a much less expensive route as well (Whipple 1988).

If an arbitration clause states the decision of the arbitrator(s) is binding, then a court usually supports the decision. The reason for the court's desire to uphold the decision is that the parties contracted to have binding arbitration. Courts rarely reverse decisions unless the plaintiff can show gross disregard for evidence such that the arbitration decision was arbitrary and capricious. Thus, many arbitration clauses also stipulate careful processes for selecting arbitrators. Another problem in disputing an arbitration decision is that the findings of a typical arbitration panel tend to be a one

sentence rendering of which party prevails. The reasoning behind the decision is absent (unlike court decisions). Thus, it is difficult to find a basis for appeal without a stated rationale (Whipple 1988).

The contingency clause is useful as a preventive measure and as a means to preserve the relationship. Not only does the prudent use of such clauses prevent dispute, but also may serve to keep the relationship intact. Other forms of avoiding court battles may include clauses that invite modification or renegotiation with mutual consent.

Lastly, the law has an expectation that the parties will act in good faith. The Uniform Commercial Code (1978), section 2-103 (1) (b) defines "...'good faith'...[as] honesty in fact and the observance of reasonable commercial standards of fair dealing in the trade." Black's Law Dictionary includes in its definition of good faith the following:

...an honest intention to abstain from taking any unconscientious advantage of another, even through technicalities of law, together with absence of all information, notice, or benefit or belief of facts which render [the] transaction unconscientious (p. 623).

## PAROL EVIDENCE RULE

Evidence may be admitted into court in order to make additions to the contract that may add consistent terms to the contract. This may be done when the court decides that a writing was not to be a final and complete statement of the contract. This would include items such as promises that were made between parties that were not included in the writings. The inclusion of this mention of the parol evidence rule is to give the reader

an appreciation that incomplete contracts can be interpreted by the court and additional terms may be added under certain rules. The rules are not intended to mislead with superfluous external evidence.

## CUSTOM AND USAGE OF LANGUAGE

Lastly, the courts will take into consideration the traditional custom and usage of the language in a contract in order to interpret the instrument more accurately. Custom and usage refers to the specialized way a group (e.g., tradesmen, an industry, people in a geographical region) uses a word. A common example of this is the usage of the term "two-by-four" in the lumber trade. Once a board is dried, it rarely measures the full two by four inches that it was when cut, however, it is known as a two-by-four. The shrinkage of the board is not considered to be *cheating*.

## SUMMARY

In this appendix, basic contract principles were covered along with selected issues relevant to contract formation in order to give the reader a basic understanding of contract law in America.

## APPENDIX B: LITERATURE REVIEW SUMMARY

## APPENDIX B: LITERATURE REVIEW SUMMARY

In the following four pages, the literature reviewed is summarized in chart format in terms of which variables were tested, proposed, or implicitly considered. However, this chart is useful for comparison purposes. Expanded versions of the summarized coding sheets are in the second half of this appendix. For reference purposes, each article was assigned a number. Below the numbers, the author's initials and date of publication are listed. For complete references, see the expanded coding sheets in the second part of this appendix. The articles are arranged by either subject area or by the progress made by a particular author (e.g., Erin Anderson). The symbols used in the chart are summarized below in the legend. A blank space indicates that the information was unavailable or irrelevant.

### LEGEND

#### Issues

- T = issue was subject of tested hypothesis
- P = issue was subject of theoretical proposal
- C = issue was considered in article
- F = firms

#### Research Design

- EL = experimental-laboratory
- EF = experimental-field
- IF = interview-field
- S = survey
- CA = content analysis

#### Method of Analysis

- A = ANOVA/MANOVA
- AC = ANCOVA
- C = Chi-square
- CL = cluster analysis
- D = discriminant analysis
- F = factor analysis
- L = LISREL
- LL = Log linear analysis
- LP = LOGIT or PROBIT
- LR = logistic regression
- R = regression

	1 M&T 1982	2 E&V 1983	3 M 1984	4 P 1984	5 J 1985	6 J 1987
I. Market Characteristics		C	C			
A. Uncertainty		T	T	T	C	C
B. Inability to Monitor			T	T	C	C
1. control problems						
2. bounded rationality						
C. Competitive Characteristics		C	C	T	T	C
1. 'perfect' competition						
2. imperfect competition						
a. economies of scale			T			
b. idiosyncratic assets	T		T	T	T	T
D. Free-riding Potential				T	C	C
1. monitoring problems						
2. opportunism	T				T	
E. Extendedness		C	C	C	C	C
II. Choice of Channel Structure (i.e. governance structure)		C				
A. Market	T		T			
B. Contractual Form			T			
1. type				T		
a. contract (not b.)		T			T	T
b. franchise						
2. nature						
a. unilateral						
b. bilateral						
C. Vertical Integration	T		T			
III. Relationship Dynamics						
A. Power-dependence		T		T		
B. Trust				T		
C. Relatedness		T		T	C	T
D. Bureaucratic			T			
IV. Cost Issues			T			
A. Ex Ante				T		T
B. Ex Post				T		
C. Performance/Efficiency						C
V. Unit of Analysis	F	F	F	F	F	F
VI. Sample						
A. Sample Frame					300	
B. Sample Size	133	219	1887		277	87
1. returned						
2. usable		195		70		
VII. Research Design	CA	IF,S	S	IF	CA	S
VIII. Method of Analysis	LP	D	A	T	R	R,LP

	7 M 1986	8 K&R 1988	9 BM&D 1988	10 A&S 1988	11 RR&W 1985	12 A 1984
I. Market Characteristics					P	
A. Uncertainty	C	T	T	T	P	T
B. Inability to Monitor	T	C	C			C
1. control problems					P	
2. bounded rationality						C
C. Competitive Characteristics		C				C
1. "perfect" competition						
2. imperfect competition	T					
a. economies of scale	T					
b. idiosyncratic assets	T	T				T
D. Free-riding Potential	T	T				C
1. monitoring problems						
2. opportunism	T					
E. Extendedness		C	T	C	T	
II. Choice of Channel Structure (i.e. governance structure)	T	T			P	T
A. Market		T				
B. Contractual Form		T				
1. type						T
a. contract (not b.)	T					
b. franchise						
2. nature						
a. unilateral						
b. bilateral						
C. Vertical Integration		T				
III. Relationship Dynamics						
A. Power-dependence				T		
B. Trust						
C. Relatedness						
D. Bureaucratic				T	C	C
IV. Cost Issues	C	C				
A. Ex Ante						
B. Ex Post	T					
C. Performance/Efficiency			T		P	
V. Unit of Analysis	F	F	F	F	F	F
VI. Sample						
A. Sample Frame						
B. Sample Size	3818	927	668	1000		
1. returned		510				172
2. usable		340	380	269		159
VII. Research Design	CA	S	S	S		S
VIII. Method of Analysis	C,R	F,LP	C	L		LR,D

	13 A&G 1986	14 A&C 1987	15 G&A 1987	16 A&W 1988	17 D&O 1987	18 D&O 1988
I. Market Characteristics	P					
A. Uncertainty	P	T	T		C	
B. Inability to Monitor		C			C	C
1. control problems	P					
2. bounded rationality						
C. Competitive Characteristics	P	C			T	
1. "perfect" competition						
2. imperfect competition		T				
a. economies of scale			T			
b. idiosyncratic assets				T	T	
D. Free-riding Potential		C				
1. monitoring problems	P					
2. opportunism	P				T	
E. Extendedness	C	C	C	C		C
II. Choice of Channel Structure (i.e. governance structure)			T			T
A. Market	P	C	T			
B. Contractual Form	P		T			
1. type					T	
a. contract (not b.)		T				
b. franchise						
2. nature						
a. unilateral				4		
b. bilateral				4		
C. Vertical Integration	P	C	T			
III. Relationship Dynamics						
A. Power-dependence				T		
B. Trust				T	T	C
C. Relatedness		T		T	T	P
D. Bureaucratic	P			C	T	
IV. Cost Issues	C	C	T			
A. Ex Ante						
B. Ex Post						
C. Performance/Efficiency						
V. Unit of Analysis	F	F	F	F	F	F
VI. Sample						
A. Sample Frame						
B. Sample Size			1267	690	185	212
1. returned					133	186
2. usable		94				133
VII. Research Design		IF	CA	S	S	S
VIII. Method of Analysis		LR	LP	R	C,L	C



	19 P&D 1988	20 J 1984	21 NJN 1988	22 H 1988	23 H&J 1988	24 J&W 1988
I. Market Characteristics					T	
A. Uncertainty		C	T	T	T	T
B. Inability to Monitor		C			C	C
1. control problems						
2. bounded rationality						
C. Competitive Characteristics	P	C			C	C
1. "perfect" competition						
2. imperfect competition						
a. economies of scale						
b. idiosyncratic assets	P			T		T
D. Free-riding Potential		C		T		
1. monitoring problems		T			C	
2. opportunism		T			C	
E. Extendedness	C		T	C	C	C
II. Choice of Channel Structure (i.e. governance structure)	P			T	C	
A. Market						
B. Contractual Form			T			C
1. type	P					
a. contract (not b.)					T	
b. franchise						
2. nature						
a. unilateral				T	T	
b. bilateral				T		
C. Vertical Integration					C	T
III. Relationship Dynamics						C
A. Power-dependence		T			T	
B. Trust					C	
C. Relatedness	P			T		
D. Bureaucratic		T	T	T		
IV. Cost Issues	P		T			
A. Ex Ante						
B. Ex Post						
C. Performance/Efficiency	P			T	T	
V. Unit of Analysis	F	F	F	F	F	F
VI. Sample						
A. Sample Frame						
B. Sample Size		1000	483	155	800	
1. returned		151			199	
2. usable		147	140			87
VII. Research Design		S	S	S	S	S
VIII. Method of Analysis		L	F	R,AC	F,R	R,LP

**REFERENCE**

Monteverde, Kirk and David J. Teece, (1982), "Supplier Switching Costs and Vertical Integration in the Automobile Industry," *The Bell Journal of Economics*, 13 (Spring), 206-13.

**EMPIRICAL SETTING**

Automobile industry

**SAMPLE**

133 components

**CONSTRUCTS**

- (1) Vertical integration: in house component production
- (2) Market transaction: external sourcing of components
- (3) Specific to one supplier: if part was specific to a supplier
- (4) Quasi-rents: opportunistic gain
- (5) Specific assets: engineering effort needed
- (6) Technical interrelatedness

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

To test the TCA paradigm the authors proposed "that assemblers will vertically integrate when the production process, broadly defined, generates specialized, nonpatentable know-how...When production processes are of this kind, both assembler and supplier are exposed to the possibility of opportunistic recontracting" (p. 206). The authors formally explicate: H1: "The greater is the applications engineering effort associated with the development of any given automobile component, the higher are the expected appropriable quasi rents and, therefore, the greater is the likelihood of vertical integration of production for that component" (p.207).

**VALIDITY AND RELIABILITY**

Misspecifications avoided by control variables

**STATISTICAL ANALYSIS**

PROBIT

**OUTCOME**

H1 supported at .05 level

## **REFERENCE**

Etgar, Michael and Aharon Valency (1983), "Determinants of the Use of Contracts in Conventional Marketing Channels," *Journal of Retailing*, 59 (Winter), 81-92.

## **SAMPLE**

Field survey/interview of 217 distributors from 14 different distributive channels in Israel in 1979...taken randomly from Tel-Aviv yellow pages. Distributors were small, independently owned firms. Respondents were owner-managers/managers (one informant per firm). 195 surveys were usable.

## **THEORETICAL DEFINITION OF CONSTRUCTS**

- (1) Contract use: extent to which a formal agreement was signed
- (2) Uncertainty: included environmental stability, turbulence, and capacity
- (3) Interdependence: extent to which distributors and suppliers are committed to mutual exchanges
- (4) Risk aversion: extent of preference for low-risk business strategies over more risky ones (pp. 86-87)

## **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

"It is proposed...that the degree to which channel members will tend to use contracts to govern intrachannel dyadic transactions in conventional channel is higher:

H1: The higher the channel members' preference is for risk reduction

H2: The more they perceive channel environment to be uncertain

H3: The higher the degree of interdependence in their channels" (p.84).

## **VALIDITY AND RELIABILITY**

Panel of 20 distributors described constructs in free form style, descriptions were content analyzed, pretest showed 75% of respondents identified variables correctly.

## **STATISTICAL ANALYSIS**

Discriminant analysis performed using split-half

## **OUTCOME**

Discriminant Analysis: standardized coefficient

Interdependence:  $p = .0793$

Uncertainty:  $p = .0562$

Risk Aversion:  $p = .021$

\*significant at  $p < .05$

**Results of split-half**

**Correct classification 67.3%**

**Contractual channels 58.3%**

**Noncontractual channels 68.4%**

**Conclusion:** "Use of contracts is linked to uncertainty reduction. Use of contracts is more prevalent when channel members perceive themselves to be more dependent on the particular channel--a dependence which enhances such uncertainty" (p.90).

## **REFERENCE**

Masten, Scott E. (1984), "The Organization of Production: Evidence From The Aerospace Industry," *The Journal of Law and Economics*, XXVII (October), 403-17.

## **EMPIRICAL SETTING**

Field survey, market environment highly regulated (defense contracting).

## **SAMPLE**

Use of "choice based sample" resulting in 34 observations regarding the 1,887 component specifications.

## **CONSTRUCTS**

(1) Complexity: also used as a "proxy for the degree of uncertainty on the production side...more can go wrong" (p. 409).

(2) Design specificity: "whether an item was identified as used exclusively by this company (highly specialized), used or easily adaptable for use by other aerospace firms (somewhat specialized), or used in other industries (relatively standard)" (p. 408). This variable was divided for analysis purposes into "specialized" (yes = 1 or no = 0) and "standard" (yes = 1 or no = 0).

(3) Site specificity: "whether co-location or grouping of facilities or processes was considered to be an important factor in production" (p. 408). This refers to economies derived from production placement and possible costs in relocating equipment such as to reduce value considerably.

## **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

To simplify the mathematical modeling in the article (see p. 407) the following verbal hypotheses were paraphrased here.

P1: The institution chosen by the producer to govern the acquisition of product or process "i" will be an internal organization of that activity if the cost of maintaining production internally is less than the cost of market-mediated exchange as a function of product/process specificity and complexity of the transaction.

P2: The institution chosen by the producer to govern the acquisition of product or process "i" will be an external organization or "market" procurement of that activity if the cost of maintaining production internally is greater than the cost of market-mediated exchange as a function of product/process specificity and complexity of the transaction. The cost of internally maintaining a transaction is determined by the sum of administrative burden and organizing production within the firm. The cost of external

organization is the sum of contracting costs and the potential for greater opportunistic behavior.

### **STATISTICAL ANALYSIS**

t-test, F-test

### **OUTCOME**

"The coefficients on both high complexity and degree of item specialization are highly significant and positive as expected, indicating that the probability of internalization is higher for complex and highly specialized inputs" (p. 411). The results for collocation and standardization were in the direction expected but statistically insignificant. "Degree of specialization is...the most important determinant of organizational form in [the aerospace] system" (p. 411).

## Article Reference Number 4

### REFERENCE

Palay, Thomas M. (1984), "Comparative Institutional Economics: The Governance of Rail Freight Contracting," *Journal of Legal Studies*, XIII (June), 265-87. (NOTE: taken from Palay 1981 dissertation)

### RESEARCH DESIGN

Field interviews. The data gathered were tabulated and frequencies were reported. Thick description of comments included. Interviews flowed from four questions:

- (1) What, if anything, keeps [the other party] from backing out of commitments to you?
- (2) What ultimately protects you from his not keeping his promises and his side of the understanding?
- (3) What permits you to rely on his promises and representations? That is, how can you afford to make commitments or do things in reliance upon the agreement that you have with him?
- (4) If he does fail to live up to his side of the understanding, do you have viable alternatives?

NOTES: The author recognized the limitation on precision this format has. The author's analysis did not have statistical rigor. The author only concentrated on relative redeployability of assets and did not moderate for dollar investment level. Also, all conclusions appeared to be post hoc.

### EMPIRICAL SETTING

Interviews were conducted in the marketing and sales departments of three railroads near Washington, D.C., during the transitional time period of deregulation (October-December 1979).

### SAMPLE

35 shippers and carriers of 7 commodity groups: finished cars, car parts, aluminum, paper, steel, scrap, and chemicals. The shippers and carriers were matched. The unit of analysis was each specific ongoing transaction (n=51).

### CONSTRUCTS

- (1) Investment characteristics
- (2) Governance structures in the agreements between the parties

## **THEORETICAL DEFINITIONS OF CONSTRUCTS**

Governance structures were subdivided into five elements:

(1) Type of enforcement of the agreement

e2 = "a combination of actual alternatives and the implicit threat to withdrawal at any future service or volume" (p. 273).

e3 = "e1 and e4 or e5...existence of alternatives and...that the parties with whom they dealt had a reputation for fair dealing" (p. 275).

e4 = "realized mutuality of interest, manifested in the parties' apparent reluctance to exploit short term advantages to the detriment of long-run relations" (pp. 275-76).

e5 = "realized mutuality of interest...with vertical integration" (p. 278).

(2) Attitude toward requests for agreement adjustments

a1 = "holding to original terms" (p. 279).

a2 = flexibility (p. 279)

(3) Types of adjustments

n1 = "unilateral...one party's announcement of a change without consulting the other." (p. 280).

n2 = negotiated which is further subdivided into present consideration and future consideration

n3 = "no adjustments attempted" (p. 280).

(4) Information exchanged for long-term planning

h1 = did not

h2 = did exchange long-term forecasting, proprietary, or impacted information

(5) Information exchanged for structural planning

s1 = did not

s2 = did exchange information for the "development of rules or procedures for dealing with long-term problems or unforeseen contingencies."

(6) Aggregated governance structure (from Table 7, footnote 23, p. 287)

g1 = market, that is, parties classified as e1, a1, n1, h1, and s1

g2 = mixed, that is, not g1 nor g3

g3 = relational, that is, parties classified as e4 or e5, n2, h2, and s2

(7) Investment characteristics

Nonspecific[NI] = "capital that is easily transferable between users and uses" (p. 268).

Moderately idiosyncratic[MI] = "*ex post* alternative sources of purchase or supply are limited by the specialized requirements of the transaction" (p. 268). Highly

idiosyncratic[HI]= alternative sources of supply and use are even more restricted [than above]" (p. 268).



### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

No formalized hypotheses were explicated. The idea tested in the study was the fundamental TCA paradigm that "as investment characteristics become more transaction specific, the associated institutional structure becomes increasingly unique to the parties and the transaction" (p. 266).

### **MEASURES OF THE CONSTRUCTS AS SO DEFINED**

In all categories, the author performed a "content" analysis of the interview and calculated frequencies.

### **VALIDITY AND RELIABILITY**

No test given

### **STATISTICAL ANALYSIS**

Tabulation, "rough" correlations drawn for conclusion purposes, very exploratory

### **OUTCOME**

Conclusions drawn supported broad "hypotheses" above. No p-values given. Statistical analysis was limited to tabulations. Tabulations show highest frequencies with the following combinations:

(1) Enforcement and investment characteristics

NI and e1,e2

MI and e3,e4

HI and e4,e5

That is, with low nonspecific investment, threat to withdrawal was more common. As investment became more idiosyncratic, trust, mutuality of interest, and vertical integration are emphasized (in this order).

(2) Attitude toward adjustments and investment characteristics

NI and a1

MI and a2

HI and only a2

That is, with nonspecific investment, the tendency was to hold to original terms. As investment became more idiosyncratic, flexibility was emphasized, and with high idiosyncraticity, flexibility was the only attitude expressed.

(3) Types of adjustments and investment characteristics

NI and n1, n2 (present)

MI and n2 (both), n3

HI and n2 (mainly future), n3 (predominate)

That is, with nonspecific investment, the nature of contractual changes tended to be unilateral or negotiated with consideration in the present. As investment became more idiosyncratic, negotiated changes occurred (both for future and present consideration) but

also, a fair number of parties attempted no changes. As investment was characterized as highly idiosyncratic no changes was the predominant behavior and negotiated changes with future consideration was the next favored mode.

**(4) Long-term planning and investment characteristics**

With nonspecific investment, no exchange of information predominated. As investment became more idiosyncratic, exchange of information increased.

**(5) Structural planning and investment characteristics**

With nonspecific investment, most firms did not share information, with moderate idiosyncratic investment, information sharing occurred as often as not, and with highly idiosyncratic investment, most firms did share information.

**(6) Governance structure and investment characteristics**

With nonspecific investment, most firms used a market (91) structure; about half as many used a mixed structure (92). With moderately idiosyncratic investment a mixed structure was slightly more popular than a relational structure. With highly idiosyncratic investment, relational structure was the overwhelming choice. With both degrees of idiosyncratic investment, there were no market structures.

## Article Reference Number 5

### **REFERENCE**

Joskow, Paul L. (1985), "Vertical Integration and Long-term Contracts: The Case of Coal-burning Electric Generating Plants," *Journal of Law, Economics, and Organization*, 1 (Fall), 33-79.

### **EMPIRICAL SETTING**

Coal generation industries (mines and power companies)

### **SAMPLE**

Contract type n = 21 and 14

### **CONSTRUCTS**

- (1) Duration
- (2) Types of clauses
- (3) Apparent occurrence of inequities

### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

Without rigorous hypothesis testing, the overall purpose was to determine if the patterns of these contracts could be said to follow the TCA paradigm. Apparently, in the author's opinion, the nonintegrating firms relied on length of contract for protection against opportunism.

### **STATISTICAL ANALYSIS**

Means and frequencies

### **OUTCOME**

Apparently, the relationship was supported

## Article Reference Number 6

### REFERENCE

Joskow, Paul L. (1987), "Contract Duration and Relationship-Specific Investments: Empirical Evidence from Coal Markets," *The American Economic Review*, 77 (March), 168-85.

### EMPIRICAL SETTING

Coal industry

### SAMPLE

Coal contracts

### CONSTRUCTS

- (1) Asset specificity
- (2) Contractual duration
- (3) Contract clauses establishing *ex ante* protocols
- (4) Annual quantity
- (5) Coal utilization

### PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)

H1: "The more important are relationship-specific investments, the longer will be the period of time (or number of discrete transactions) over which the parties will establish the terms of trade *ex ante* by contract" (p. 169).

### STATISTICAL ANALYSIS

OLS, MLE (regression techniques)

### OUTCOME

H1 was strongly supported.

## Article Reference Number 7

### REFERENCE

Mulherin, J. Harold (1986), "Complexity in Long-term Contracts: An Analysis of Natural Gas Contractual Provisions," *Journal of Law, Economics, and Organization*, 2 (Spring), 105-17.

### EMPIRICAL SETTING

Analysis of contractual trends in natural gas industry

### SAMPLE

Firms' contracts (n = 632-3818; varies with each hypotheses)

### CONSTRUCTS

(1) Specific assets: delivery points

(2) Contractual safeguards: various provisions (i.e., take or pay, most favored nation clause)

(3) Risk: as bankruptcy

### PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)

(NOTE: paraphrases of how author expresses "hypotheses." Interested readers are encouraged to read entire article.)

To test the TCA paradigm using the dynamics of the natural gas industry:

H1: The delivery point will be positively related to the number of purchasers and negatively related to the number of sellers to allow well owners to sell to a variety of pipelines (n = 3818).

H2: Ex post bargaining opportunities [opportunism] will be lessened by the presence of take-or-pay contract provisions such that daily take/estimated reserves is negatively related to the number of pipelines in a field/contract price [with a dummy variable for jurisdiction] and positively related to the number of producers in a field/contract price. (n = 632).

H3: *Ex post* opportunism will be mitigated by a pre-set method of renegotiating prices (such as in the most favored nation clause) thus the presence of such a clause is negatively related to the number of pipelines in a field and positively related to the length of the contract in years (n = 2234).

H4: Risk allocation can be achieved through take-or-pay provisions. Using the H2 data set, small producers were segregated and a chi-square test was performed on bankruptcy costs to test if the provision lessened risk in terms of bankruptcy (n = 632).

### STATISTICAL ANALYSIS

Chi-square, regression

**OUTCOME**

H1, H2, H3 were supported at 95% confidence level.

H4 was not supported.

### **REFERENCE**

Klein, Saul and Victor J. Roth (1988), "A Transaction Cost Model of Channel Integration in International Markets," *working paper*. Northeastern University, Boston, Mass.

### **RESEARCH DESIGN**

Cross-sectional field study

### **SAMPLE**

Entire population of firms in directory of Canadian exporters was used except for sellers of unprocessed goods. Received 55% (510) surveys back, 340 were usable for this study. The unit of analysis is the transaction between particular firms; key informants were used in the firms.

### **CONSTRUCTS**

(1) Dependent variable: degree of forward integration in the channel

Independent variables:

(2) Volume of goods carried in a channel

(3) Transaction specificity of assets

(4) UncertaintyA: volatility of the environment surrounding a channel

(5) UncertaintyB: diversity of the environment surrounding a channel

### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "The greater the volume of goods carried in a channel, the greater will be the degree of forward integration" (p. 10).

H2: "The greater the transaction specificity of assets, the greater will be the degree of forward integration" (p. 11).

H3: "The effect of uncertainty on forward integration varies with the particular type of uncertainty under consideration" (p. 12).

H3a: "The greater the volatility of the environment surrounding a transaction, the greater will be the degree of forward integration" (p. 12).

H3b: "The greater the diversity of the environment surrounding a transaction, the lesser will be the degree of forward integration" (p. 12).

### **VALIDITY AND RELIABILITY**

Factor analysis used to refine measures

### **STATISTICAL ANALYSIS**

Factor analysis, multinomial LOGIT

**OUTCOME**

H1 very strongly supported.

H2 strongly supported.

H3a, H3b were somewhat supported.

log likelihood = -420.71, Chi square = 84.9, sig. = .00001, Tau = .18



## Article Reference Number 9

### REFERENCE

Bowersox, Donald J., Edward A. Morash, and Patricia J. Daugherty (1988), "Boundary Spanning in Channels of Distribution," *unpublished paper*, Michigan State University, East Lansing, Michigan.

### RESEARCH DESIGN

Field survey format, Likert style items on questionnaire.

### SAMPLE

U.S. manufacturing firms, 668, response rate 57% (380)

### CONSTRUCTS

- (1) Formalization of boundary spanning units
- (2) Boundary strategies
- (3) Channel performance
- (4) Uncertainty absorption
- (5) Information processing

### THEORETICAL DEFINITIONS OF CONSTRUCTS

Boundary strategies include (in increasing ability to process information and reduce uncertainty, which also increases the cost of implementation): boundary communication, contracting, coopting, functional absorption, coalescing, and boundary expansion (p. 6).

### PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)

"The basic premise is that channel members who have formally established boundary spanning units will experience improved efficiency and effectiveness compared to participants who have not established such units...channel members who emphasize boundary uncertainty absorption and information processing will exhibit superior channel performance" (p. 4).

H1: "Channel members with established and formalized boundary spanning units will experience superior channel performance" (p. 4).

H2: "Channel members with formal boundary spanning organizational units that concentrated on absorbing uncertainty and processing information for the channel with ... superior performance" (p. 4).

H3: "Channel members willing to adopt interorganizational boundary spanning strategies...for uncertainty reduction will exhibit superior channel performance" (p. 9).

H4: "Channel members who view boundary channel relationships as long-term strategic alliances will exhibit superior channel performance" (p. 9).

**VALIDITY AND RELIABILITY**

Questionnaire was validated through an executive panel and pretesting

**STATISTICAL ANALYSIS**

Chi-square, t-test

**OUTCOME**

H1, H2, and H3, were supported at the  $p < .01$  level.

H4 was not supported.

### **REFERENCE**

Achrol, Ravi S. and Louis W. Stern (1988), "Environmental Determinants of Decision-Making Uncertainty in Marketing Channels," *Journal of Marketing Research*, XXV (February), 36-50.

### **RESEARCH DESIGN**

Mail survey

### **EMPIRICAL SETTING**

Retail stores (viz.: air conditioning, agricultural equipment, automobiles, books, computers, furniture, office supplies, and TV/electronics).

### **SAMPLE**

Measurement development: sent 300, received 64 usable (22%)

Measure-validation: sent 1000, received 269 usable (29%)

The unit of analysis is the retail end of the dyad

### **CONSTRUCTS**

As defined on page 37:

- (1) Environmental diversity: degree of similarity or differentiation perceived between the elements of the population dealt with...and any social forces affecting resources.
- (2) Environmental dynamism: perceived frequency of change and turnover in marketing forces in the output environment.
- (3) Environmental concentration: extent to which output market resources are perceived as controlled by, or concentrated in, a few or many organizations.
- (4) Environmental capacity: perceived favorableness-unfavorableness of economic and demand conditions characterizing the output market's capacity to absorb resources of the focal dyad.
- (5) Environmental interconnectedness: number and pattern of linkages or connections perceived among relevant organizations.
- (6) Environmental conflict: perceived level of abnormal competitive stress (due to opponent-centered behaviors) characterizing relations among actors vying for control of output market resources.
- (7) Environmental interdependence: mutual reactivity and sensitivity to one another's acts perceived to be present among actors competing for output market resources.

## **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1a: "The greater the diversity in the consumer environment, the greater the decision-making uncertainty" (p. 38).

H1b: "Perceived diversity in the organizational customer environment has no effect on decision making uncertainty" (p. 38).

H2: "The more dynamic the environment is perceived to be, the greater the decision-making uncertainty" (p. 38).

H3: "Increasing concentration in the perceived environment affects decision-making uncertainty (nondirectionally, 2-tailed hypothesis)" (p. 39).

H4: "The more concentrated the environment is perceived to be, the less the perceived conflict in the environment" (p. 39).

H5: "The greater the perceived capacity of the environment, the lower the decision-making uncertainty" (p. 39).

H6: "The greater the perceived capacity of the environment, the less the conflict perceived in the environment" (p. 39).

H7: "The greater the perceived capacity of the environment, the lower the perceived interdependence of environmental actors" (p. 39).

H8a: "The greater the interconnectedness perceived in the input environment, the greater the perceived interdependence among output actors" (p. 39).

H8b: "The greater the interconnectedness perceived in the input environment, the greater the decision-making uncertainty" (p. 39).

H9a: "The greater the interconnectedness perceived in the output environment, the greater the perceived interdependence among output actors" (p. 40).

H9b: "The greater the interconnectedness perceived in the output environment, the greater the decision-making uncertainty" (p. 40).

H10: "The greater the perceived interdependence among environmental actors, the higher the perceived environmental conflict" (p. 40).

H11: "The greater the perceived interdependence among environmental actors, the greater the decision-making uncertainty" (p. 40).

H12: "The more the conflict perceived in the environment, the greater the decision-making uncertainty" (p. 40).

## **VALIDITY AND RELIABILITY**

measure were developed

MANOVA used to assess group equivalence

## **STATISTICAL ANALYSIS**

LISREL

**OUTCOME**

LISREL model did not completely fit.

H1a, H2, H3 (non-directional), H5, H6, H8b (as uni-directional), H9a, and H10 were supported.

H1b, H4, H7, H8a, H9b, H11, and H12 were not supported.

**REFERENCE**

Ruekert, Robert W., Orville C. Walker, Jr. and Kenneth J. Roering (1985), "The Organization of Marketing Activities: A Contingency Theory of Structure and Performance," *Journal of Marketing*, 49 (Winter), 13-25.

**EMPIRICAL SETTING**

Theory building in channel relationships

**SAMPLE**

Firms

**CONSTRUCTS**

(1) Internal organization

(2) External organization: market based transaction

(3) Efficiency: refers to relative efficiencies between internal and external activities

(4) Formalization: (1) "in internal organization structures, formalization is increased through the development and enforcement of rules and standard operating procedures (2) in external structures, formalization increase as the procedures to be followed and the performance to be accomplished by the suppliers are spelled out in more detail, such as through a legal contract" (p. 18).

(5) Centralization: "refers to the organizational locus of decision making and to the lack of dispersion of authority throughout the organization" (p. 18).

(6) Specialization/differentiation: "in both internal and external systems is evidenced by relatively narrow job descriptions with individual employees or suppliers focusing on limited ranges of activities" (pp. 18-19).

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

P1: "External (or market) organization of a given task leads to more efficient performance than internal organization, when (a) no, or very few, idiosyncratic assets, whether physical or human, are required: and (b) many competitive suppliers are available" (p. 17).

P2: "The greater the formalization of a given task, whether organized internally or externally, the greater the efficiency of its performance, when (a) the task is of short duration; (b) the task is repetitive; (c) performance outcomes can be easily and accurately assessed; and (d) the task environment is stable and not complex" (p. 18).

P3: "The greater the centralization of a given task, whether organized internally or externally, the greater the effectiveness of its performance when (a) the task is routine and

repetitive; (b) performance outcomes can be easily and accurately assessed; and (c) the task environment is stable and not complex" (p. 18).

P4: "The greater the specialization/differentiation of a task, whether organized internally or externally the greater the adaptability of its performance when (a) the task is nonroutine; (b) performance outcomes are difficult to assess; (c) the task environment is rapidly changing and uncertain; and (d) the task environment is complex" (p. 19).

## **OUTCOME**

The authors have normative conclusions from their analysis of structural forms:

The organic structure is appropriate "when the environment is highly uncertain, adaptiveness of task performance becomes critical. When environmental uncertainty is coupled with market failure, a task is best organized internally with a decentralized, nonformalized, and specialized structure" (p. 20-21). "The bureaucratic form organized marketing tasks internally and employs a centralized, formalized, and nonspecialized structure. When the environment is stable and a task is frequently performed and clearly measurable, but it requires some idiosyncratic investment" use the bureaucratic form (p. 22).

**REFERENCE**

Anderson, Erin (1984), *The Salesperson as Outside Agent or Employee: A Transaction Cost Analysis*, Report No. 84-107. Cambridge, MA: Marketing Science Institute.

**SAMPLE**

16 out of 30 companies gave data (nonresponse bias tested, no strong tendency found). The unit of analysis is the product line of each firm. Respondents were district sales managers. Sales managers were given surveys by top management. From 172 surveys returned, 159 were usable.

**CONSTRUCTS**

Transaction specificity of assets (7 types below; measured and averaged) (pp. 15-21)

- (1) Company nature: how necessary it is to forge working relationships
- (2) Products: uniqueness of brand
- (3) Confidential information: makes it difficult to replace agent
- (4) Customer nature: need to take time to know accounts and build relationship
- (5) Customer nature: complexity
- (6) Customer loyalty to salesperson: this is a significant asset
- (7) Importance of key accounts: importance of need to specialize
- (8) Difficulty of evaluating performance: when ambiguous
- (9) Environmental unpredictability: includes instability and venturing into unknown
- (10) Interaction between environmental unpredictability and transaction specificity
- (11) District density-travel time in district
- (12) Importance of non-selling activities
- (13) Time span to feedback
- (14) Price-quality

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

The first four hypotheses are the most relevant.

H1: "The greater the potential transaction specificity of assets (the more irreplaceable the current salespeople), the greater the likelihood of using a direct sales force" (p. 7).

H2: "The more difficult it is to evaluate sales performance, the more unlikely the use of a direct salesforce" (p. 8).

H3: "The higher the combination of environmental unpredictability and transaction-specific assets, the higher the likelihood of a direct salesforce" (p. 8).

H4: "The greater a district's density, the more likely a direct salesforce" (p. 9).



H5: "The more favorable a firm's price-quality combination relative to competition in a district (the more attractive a product line), the greater the district's likelihood of going direct" (p. 10).

H6: "The larger the firm, the more likely it will serve any district with direct personnel" (p. 10).

H7: "The probability of going direct in a given district increases, the greater the importance of non-selling activities" (p. 10).

H8: "The longer the time span to feedback" (p. 10).

H9: "Sales managers of direct salesforces will expect a higher management pay premium than will managers of reps" (p. 11).

## **VALIDITY AND RELIABILITY**

Discriminant analysis

## **STATISTICAL ANALYSIS**

Logistic regression using step-wise procedure

## **OUTCOME**

H2, H3, H5, and H7 were supported, note in H3 using unpredictability alone, there was no effect.

H1 had mixed support (not all 7 types were in final model).

H4, H6, H8, and H9 were not supported.

"Transaction cost framework appears to explain use of direct salesforce; however, it is by no means a complete explanation" (p. 35).

**REFERENCE**

Anderson, Erin and Anne T. Coughlan (1987), "International Market Entry and Expansion via Independent or Integrated Channels of Distribution," *Journal of Marketing*, 51 (January), 71-82.

**RESEARCH DESIGN**

Structured field interviews using both scaled response and open-ended questions  
Regression analysis

**EMPIRICAL SETTING**

Distribution channel choice in foreign markets by U.S. semiconductor companies

**SAMPLE**

94 overseas distribution operations started between 1955 and 1975 carried out by 36 U.S. based firms, multiple informants (executives) for complex organizations

**CONSTRUCTS**

- (1) Asset specificity defined in terms of amount of training of sales people, education, sales experience.
- (2) Training given to employees of purchasers.
- (3) Service and maintenance defined in terms of level needed and percentage contracted to give by seller.
- (4) Degree of product differentiation defined in terms of low to high.
- (5) Impact of antitrust regulations was estimated by informant.
- (6) Existing distribution arrangement categorized as entry or expanding.
- (7) Relatedness to firm's principal business.
- (8) Strength of patent.
- (9) Relatedness defined as relevant or spinoff.
- (10) Patent strength defined in terms of countries obtained, cost in dollars, time needed by competitor to "invent around" patent.

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

"In this model, integration of the distribution channel function is more likely:

- the greater the level of transaction-specific assets in the salesforce,
- the less mature the product category,
- the higher the service level associated with the product,
- the less prevalent the legal restrictions constraining direct foreign investment,

- when an integrated distribution channel is already in place (the converse is true for the case of a non-integrated channel),
- the more closely related the product to the company's core business,
- the more important the trade secrets relative to patents in protecting the technology,
- the more competitors have integrated distribution channels in the foreign market, and
- the more similar to the U.S. the culture of the country being entered" (p. 74).

### **VALIDITY AND RELIABILITY**

Inherent limitation of interviewing process in the high incidence of yea-saying

### **STATISTICAL ANALYSIS**

Logistic regression

### **OUTCOME**

6 terms remained in the logistic regression curve ( $p = .205 =$  reasonable fit). They were: Asset specificity .9, Product differentiation 1.21, Distribution arrangement (integrated = 1.13, independent = -.59), Region of entry (Japan -.59, Southeast Asia -.72). General support of TCA was found

## **REFERENCE**

Anderson, Erin and Hubert Gatignon (1986), "Modes of Foreign Entry: A Transaction Cost Analysis and Propositions," *Journal of International Business Studies*, XVII (Fall), 1-26.

## **EMPIRICAL SETTING**

Purpose of this paper is to develop testable propositions from the TCA paradigm perspective because international business "entry mode choices are most usefully and tractably viewed as a tradeoff between control and the cost of resource commitments, often under conditions of considerable risk and uncertainty" (p. 3).

## **SAMPLE**

Firms

## **CONSTRUCTS**

- (1) Entry mode: is subdivided by entrant's level of control into High, Medium, and Low levels. High-control mode is characterized by dominant equity interest (e.g., wholly-owned subsidiary). Medium-control mode is characterized by balanced interests (e.g., a plurality of shareholders or partners, contractual joint venture). The Low-control mode is characterized by diffused interests (e.g., nonexclusivity in contracts, many shareholders).
- (2) Transaction-specific assets: "investments (physical and human) that are specialized to one or a few users or uses" (p. 7).
- (3) External uncertainty: "the unpredictability of the entrant's external environment" (p. 7).
- (4) Internal uncertainty: "the entrant's inability to determine its agent's performance by observing output measures" (p. 7).
- (5) Free-riding potential: "agents' ability to receive benefits without bearing the associated costs" (p. 7).

## **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

- P1: "Modes of entry offering greater control are more efficient for highly proprietary products or processes" (p. 10).
- P2: "Entry modes offering higher degrees of control are more efficient for unstructured, poorly understood products and processes" (p. 11).
- P3: "Entry modes offering higher degrees of control are more efficient for products customized to the user" (p. 12).
- P4: "The more mature the product class, the less control firms should demand of a foreign business entity" (p. 13).

P5: "The greater the combination of country risk (e.g., political instability, economic fluctuations) and transaction-specificity of assets (proprietary content, poorly understood products, customization, product class immaturity), the higher the appropriate degree of control" (p. 15).

P6: "The entrant's degree of control of a foreign business entity should be positively related to the firm's cumulative international experience" (p. 16).

P7: "When sociocultural distance is great:

a: "Low-control levels are more efficient than intermediate levels;

b: "High-control levels are more efficient than intermediate levels;

c: "High-control levels are more efficient only when there is a substantial advantage to doing business in the entrant's way" (p. 18).

P8: "The larger the foreign business community in the host country, the lower the level of control an entrant should demand" (p. 19).

P9: "Entry modes offering higher degrees of control are more efficient the higher the value of a brand name" (p. 20).

### **REFERENCE**

Gatigon, Hubert and Erin Anderson (1987), "The Multinational Corporation's Degree of Control Over Foreign Subsidiaries: An Empirical Test of a Transaction Cost Explanation." *Report No. 87-103* Cambridge, MA: Marketing Science Institute.

### **EMPIRICAL SETTING**

Reviews international economic and management literature, proposes multinomial LOGIT model.

### **SAMPLE**

Examination of 1,267 foreign market entries by 180 large U.S. corporations between 1960 and 1974 (from report summary)

### **CONSTRUCTS**

(1) Transaction specific assets: "investments (physical and human) that are specialized to one or a few users or uses" (Anderson and Gatigon [A&G] 1986, p. 7).

(2) External uncertainty: "the unpredictability of the entrant's external environment" (A&G, p. 7).

(3) Internal uncertainty: "the entrant's inability to determine its agent's performance by observing output measures" (A&G, p. 7).

(4) Free-riding potential: "agents' ability to receive benefits without bearing the associated costs" (A&G, p. 7).

(5) Governance structure (dependent variable) is one of 4 forms:

"1) wholly owned subsidiaries: the MNC holds 100 percent of equity,

2) dominant partnerships: the MNC holds the dominant share of equity, i.e. owns more equity than any other partner,

3) balanced (roughly equal) partnerships: the MNC's share is the same as that of the largest partner,

4) minority partnerships: the MNC holds less equity than the largest partner" (p. 12).

### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "MNCs take more control as the proprietary content of products and processes increases" (p. 19).

H2: "MNCs take less control in risky countries than in 'safe' countries" (p. 19).

H3: "MNCs take less control in countries which legally restrict foreign ownership" (p. 19).

H4: "MNCs take less control the less experience they have abroad" (p. 19).

H5: "MNCS take less control the larger the scale of operations of the entity under consideration (the business in the country being entered)" (p. 19).

H6: "MNCS take more control the more heavily the product category is advertised" (p. 19).

H7: "MNCS take less control in countries which are socioculturally distant from the U.S." (p. 19).

### **STATISTICAL ANALYSIS**

Multinomial LOGIT model

### **OUTCOME**

Hypotheses were supported (modifications in text, most not linear)

**REFERENCE**

Anderson, Erin and Barton Weitz (1988), "Determinants of Continuity in Conventional Channel Dyads" Working Paper No. 88-028 Wharton School of the University of Pennsylvania.

**EMPIRICAL SETTING**

Manufacturers and manufacturers agents

**SAMPLE**

690 dyadic relationships

**CONSTRUCTS**

- (1) Support provided
- (2) Goal congruence
- (3) Cultural similarity
- (4) Perceived competence
- (5) Trust
- (6) Communications
- (7) Age of relationship
- (8) Power imbalance
- (9) Perceived continuity of relationship
- (10) Stakes
- (11) Negative reputation

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

P1: "The continuity of a channel relationship increases as:

- (a) the level of trust between the channel members increases,
- (b) the power in the relationship becomes more balanced,
- (c) communication between the channel members increases,
- (d) stakes in the relationship increase,
- (e) the manufacturer's reputation for fairness to channel members improves,
- (f) the relationship persists over time" (p. 6).

P2: "A channel member's trust in a manufacturer increases:

- (a) the better the manufacturer's reputation in its dealings with channel members,
- (b) the more the manufacturer offers sales support,
- (c) the more congruent the manufacturer's and channel member's goals,
- (d) the greater the cultural similarity between the manufacturer and channel member,
- (e) the older the dyad,



(f) the higher the communication level in the dyad,  
(g) the more balanced the power in the dyad" (p. 10).

P3: "The communication level in the dyad increases:

- (a) the higher the stakes in the relationship,
- (b) the more culturally similar are the manufacturer and channel member,
- (c) the more the channel member perceives the manufacturer's liaison personnel as competent,
- (d) the younger the dyad,
- (e) the higher the trust level in the relationship" (pp. 11-12).

### **VALIDITY AND RELIABILITY**

Reliabilities of most scales are consistent with coefficient alpha of .7 however, the reliabilities of continuation, imbalance, and reputation are between .5 and .7.

### **STATISTICAL ANALYSIS**

Three stage least squares

### **OUTCOME**

P1: supported for trust\*\*, age\*\*, stakes\*\*, imbalance of power (neg.)\*, and reputation (few signals of neg.) \*

P2: supported for communication\*\*, age\*\*, imbalance of power (neg.)\*, reputation (few signals of neg.)\*, support\*\*, congruence\*\*.

P3: supported for trust\*\*, age\*\*, stakes\*\*, and competence\*\*

\* = significant. at  $p < .05$

\*\* = significant. at  $p < .01$

**REFERENCE**

Dwyer, F. Robert and Sejo Oh (1987), "Output Sector Munificence Effects on the Internal Political Economy of Marketing Channels," *Journal of Marketing Research*, XXIV (November), 347-58.

**EMPIRICAL SETTING**

Field survey of automobile dealers in "5 rich and 5 lean macroenvironments" (p. 349).

**SAMPLE**

Pretest 58 sent, with 59% response rate

Sample 185 sent, 133 returned.

Auto industry used because "past research has established that (1) a supplier-favored asymmetrical power structure prevails and (2) dealer principles (owners/managers) are useful key informants" (p. 350).

**CONSTRUCTS**

(1) Bureaucratic structuring includes formalization, participation, centralization

(2) Relationship quality includes satisfaction, minimal opportunism, trust

(3) Perceived munificence refers to the "availability and abundance of critical resources" (p. 348).

**MEASURES OF THE CONSTRUCTS AS SO DEFINED**

NOTE: all Likert scale items (reproduced from p. 350)

Bureaucratic structuring: rules and procedures, consultation in decision making, manufacturer authority

Relationship quality: overall satisfaction with relationship with manufacturer low tendency to shirk obligations and distort information, expectations of coordination and met obligations

Perceived munificence: market opportunities for profit and growth

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "Greater levels of munificence in the output environment foster exchange relationships characterized by:

(a) less supplier formalization in procedures

(b) more participation in marketing decision making, and

(c) less centralized supplier authority" (p. 349).

H2: "The quality of channel relationships, as reflected in satisfaction minimal opportunism, and high trust of exchange partner's

- (a.) formalization,
- (b.) resistance to participation in decision making, and
- (c.) centralization" (p. 349).

**VALIDITY AND RELIABILITY**

Pretesting

Measures converged in confirmatory factor analysis, cited evidence of coefficient alpha, Discriminant validity, nomological validity, chi-square for single-factor structure

**STATISTICAL ANALYSIS**

LISREL

**OUTCOME**

H1 was supported.

H2 was partially supported.

### **REFERENCE**

Dwyer, F. Robert and Sejo Oh (1988), "A Transaction Cost Perspective on Vertical Contractual Structure and Interchannel Competitive Strategies," *Journal of Marketing*, 52 (April), 21-34.

### **RESEARCH DESIGN**

Field Survey using Likert scale items

### **SAMPLE**

Retail hardware stores drawn from the Yellow pages of 10 U.S. cities, 212 were contacted, 186 surveys mailed, 133 returned for 71% response rate

### **CONSTRUCTS**

- (1) Bureaucratization: included centralization, formalization, and participation.
- (2) Business strategy: included market niching, low cost emphasis, dealers' reliance on sales service by store personnel and the unique features of the store (viz.: assortment, wholesaler affiliation, promotional prices, and national brand merchandise).
- (3) Channel form

### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "Wholesaler voluntaries exhibit the highest, independents the lowest, and dealer cooperatives midrange levels of centralized wholesaler activity" (p. 25).

H2: "Dealer cooperative groups exhibit the highest, independents the lowest, and wholesaler voluntaries midrange levels of formalization in wholesaler-dealer relations" (p. 25).

H3: "Wholesaler-sponsored groups exhibit the lowest, independents the highest, and dealer cooperatives midrange levels of wholesaler-dealer participation in decision making" (p. 25).

H4: "Independents have a greater inclination to target and serve small markets or emphasize specialty products in their retail strategy" (p. 26).

H5: "Affiliates or wholesaler-sponsored groups differentiate on the basis of promotional specials, assortment, and service" (p. 26).

H6: "Members of dealer cooperatives emphasize affiliation in advertising" (p. 26).

### **VALIDITY AND RELIABILITY**

LISREL Chi-square analysis showed item convergence.

## **STATISTICAL ANALYSIS**

Chi-square

F-statistics given

## **OUTCOME**

H1 was not supported.

H2, H3 had mixed support.

H5 had weak support.

H4, H6 were supported.

**REFERENCE**

Ping, Robert and F. Robert Dwyer (1988), "Relationship Termination in Marketing Channels," *1988 AMA Educators' Proceedings*. Chicago: American Marketing Association, 245-50.

**EMPIRICAL SETTING**

Marketing channels (this is a proposed model)

**SAMPLE**

Firms

**CONSTRUCTS**

- (1) Role performance: outcomes of the relationship between channel members
- (2) CLalt: "lowest level of outcomes a party to the relationship will accept in light of available alternatives" (p. 246).
- (3) Switching costs: costs incurred in changing exchange partners.

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

(all quoted from p. 248)

- P1: As channel member B's role performance decreases in comparison to member A's CLalt, A's propensity to initiate termination increases.
- P2: As channel member A's CLalt increases in comparison to member B's role performance, the likelihood of A to initiate termination increases.
- P3: As channel member B's role performance decreases in comparison to A's CLalt, A's role performance decreases.
- P4: As channel member A's perceived alternatives less switching costs decrease, member B's role performance decreases.
- P5: As channel member A's alternatives decrease, its role performance in exchanges with member B increases.
- P6: Channel member A regards terminated channel member B's role performance significantly lower than A's alternatives, adjusted for switching costs.

**REFERENCE**

John, George (1984), "An Empirical Investigation of Some Antecedents of Opportunism in a Marketing Channel," *Journal of Marketing Research*, XXI (August), 278-89.

**EMPIRICAL SETTING**

Survey of 1,000 oil dealers of a major oil company

**SAMPLE**

151 returned surveys, 147 were useful, firms

**CONSTRUCTS**

- (1) Opportunism in the channel
- (2) Attitudes: regarding orientation to one another
- (3) Perception of institutional structures: degree of formality, bureaucracy
- (4) Social influence attribution: power held by companies

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "Bureaucratic structuring is related positively to opportunism and negatively to the attitudinal orientation of involvement with another channel member" (p. 280).

H2a: "Perceptions of coercive power attribution lead to a less favorable attitudinal orientation and a greater degree of opportunism. Reward power usage leads to similar effects but to a much lesser degree" (p. 281).

H2b: "Attributions of noncontingent power lead to a more favorable attitudinal orientation and a reduced degree of opportunistic behavior" (p. 281).

**VALIDITY AND RELIABILITY**

Panel of 5 doctoral students assessed the items, non-response bias checked, two nomological validity checks were performed

**OUTCOME**

H1: supported (formalization  $r = -.347$ , centralization  $r = .371$ , controls  $r = -.528$ ).

H2a: supported (coercive attribution  $r = .28$ ).

H2b: noncontingent influence correlated positively with expert, legitimate, and referent. Referent was significant whereas the other two were slight.

## Article Reference Number 21

### **REFERENCE**

Noordewier, T., G. John, and J. Nevin (1988), "Performance Outcomes of Purchasing Arrangements in Industrial Buyer-Vendor Relationships," *working paper*, University of Wisconsin, Madison.

### **EMPIRICAL SETTING**

Ball bearing industry

### **SAMPLE**

483 OEM purchasers of ball bearings, 140 responses from a total of 20 different companies

### **CONSTRUCTS**

- (1) Level of transaction: degree of involvement between parties to a contract
- (2) Uncertainty: degree that company is unable to predict what will happen
- (3) Hierarchy: degree of formalization in the bureaucratic structure

### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "When high uncertainty surrounds purchasing transactions or arrangements, firms that have high levels of hierarchical or relational elements in their purchasing relationships should display relatively lower transaction costs" (p. 17).

### **STATISTICAL ANALYSIS**

Factor analysis

### **OUTCOME**

H1 was supported.



**REFERENCE**

Heide, Jan B. (1987), *Explaining "Closeness" in Industrial Purchasing Relationships: The Effects of Dependence Symmetry on Inter-organizational Coordination Patterns*, Ann Arbor, MI: University Microfilms International.

**EMPIRICAL SETTING**

OEM manufacturers and suppliers

**SAMPLE**

Firms

**CONSTRUCTS**

- (1) Buyer's specific assets
- (2) Supplier's specific assets
- (3) Buyer's ability to replace supplier
- (4) Supplier's ability to replace buyer
- (5) Volume unpredictability
- (6) Technological unpredictability
- (7) Performance observability
- (8) Expected duration
- (9) Formalization
- (10) Surveillance
- (11) Norm of flexibility
- (12) Norm of information exchange
- (13) Norm of mutuality

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

H1: "Environmental uncertainty leads to the establishment of close relationships in the form of long duration, a high degree of joint action, and extensive qualification" (p. 69).

H2: "Dependence leads to the establishment of close relationships in the form of long duration, a high degree of joint action, and extension qualification" (p. 69).

H3: "Asymmetric dependence leads to hierarchical coordination, specified by the dependent party" (p. 73).

H4: "Symmetric dependence leads to normative coordination, or coordination by mutual adjustment" (p. 76).

H5a: "Establishing general closeness under conditions of dependence and uncertainty has a positive effect on relationship performance" (p. 79).

H5b: "Establishing hierarchical coordination under conditions of asymmetric dependence has a positive effect on relationship performance" (p. 80).

H5c: "Establishing normative coordination under conditions of symmetric dependence has a positive effect on relationship performance" (p. 80).

### **VALIDITY AND RELIABILITY**

Scales tested using Chi-square (from LISREL) and factor analysis

### **STATISTICAL ANALYSIS**

Regression, ANCOVA

### **OUTCOMES**

H1, H2, H4 were supported.

H3: not significant, instead, findings show "contrary to...expectations, hierarchical coordination was also found to be the highest under conditions of symmetric asset exposure" (p. 202).

H5abc: "Overall, the only results pertaining to coordination that are consistent with our original model were obtained in the buyer sample, where centralization by the buyer under conditions of asymmetric specific assets, and information exchange and mutuality given symmetric investments had positive and significant influences in performance...The results of the supplier sample were less encouraging [none supported]" (pp. 215-17).

### **REFERENCE**

Heide, Jan B. and George John (1988), "The Role of Dependence Balancing in Safeguarding Transaction-Specific Assets in Conventional Channels," *Journal of Marketing*, 52 (January), 20-35.

### **EMPIRICAL SETTING**

Survey of manufacturers' agents (electrical/technical) that were small relative to principal, have large transaction specific investment in relationship, TCA safeguard (vertical integration, or long-term contract) unavailable (p. 27).

### **SAMPLE**

800 sent (400 for each of 2 industries), 199 received

### **CONSTRUCTS**

(1) Offsetting investments: "The extent to which an agency carries out efforts to develop close bonds with its customers for the principal's products. Such...efforts...are intended to create switching costs" (p.28). Measures include the number of principals represented by an agency and the % of business accounted for by the biggest principal" (p.26).

(2) Replaceability: "The degree to which an agency can replace the commission income...from...principal...represents dependence" (p.28). Measures include number of exchange partners and concentration of exchange.

(3) Specific investments: "Extent to which an agency has invested in specific assets in its relationship with the principal" (p.28).

(4) Performance: Measured by "ratio between field selling costs...incurred to sell the particular line and the commission" (pp.28-9).

(5) Market and product factors: the market environment.

### **PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

P1: "When specific assets are at risk in an interfirm relationship and vertical integration is infeasible, the party at risk will utilize offsetting specific investments in related trading relationships to balance its dependence" (p. 24).

P2: "Offsetting investments made by a firm with specific assets invested in an interfirm relationship reduce its dependence by increasing the replaceability of the incumbent exchange partner" (p. 25).

P3: "The positive effect of replaceability on performance is contingent on high levels of specific assets being invested by the agency in the interfirm relationship" (p. 25).

**VALIDITY AND RELIABILITY**

Evidence given to support good convergent, discriminant, and nomological validity.

**STATISTICAL ANALYSIS**

Factor analysis, step-wise regression

**OUTCOME**

P1, P2, and P3 were supported at least  $p < .10$ .

**REFERENCE**

John, George and Barton A. Weitz (1988), "Forward Integration into Distribution: An Empirical Test of Transaction Cost Analysis," *Journal of Law, Economics, and Organization*, 4 (Fall), 337-55.

**EMPIRICAL SETTING**

Channels for industrial goods

**SAMPLE**

Non-random sample of industrial firms with sales over \$50 million, n = 87, used key informants

**CONSTRUCTS**

- (1) Vertical integration: direct channels
- (2) Other institutions: indirect channels
- (3) Asset specificity
- (4) Environmental uncertainty: changes in circumstances
- (5) Behavioral uncertainty: difficulty in ascertaining performance, could be opportunistic behaviors
- (6) Production costs

**PROPOSED RELATIONSHIP BETWEEN CONSTRUCTS (HYPOTHESES)**

P1: "As the levels of specific assets needed to support distribution activities are increased, industrial firms will rely more heavily on direct channels" (p. 341).

P2: "As downstream environmental uncertainties increase in industrial goods markets, manufacturers will rely more heavily on direct channels" (p. 341).

P3: "As performance assessment difficulties in downstream activities increases, manufacturers will rely more heavily on direct channels" (p. 342).

P4: "Industrial manufacturers who can exhaust economies of scale will rely more heavily on direct channels" (p. 342).

**VALIDITY AND RELIABILITY**

Executive panel used to refine measures

**STATISTICAL TESTS**

Multiple regression, multinomial LOGIT

**OUTCOME**

P1, P2, P3 were supported at .05 level.

P4 received mixed support.

NOTE: This was, apparently, the first study that examined multiple channels.

## APPENDIX C: INSTRUMENTS FOR THE NEGOTIATION SIMULATION

## LIST OF INSTRUMENTS FOR THE SIMULATION

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Cover Letter



University of San Diego

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School of Business Administration - Olin Hall

Dear Participant:

Thank you for volunteering to participate in this research. Since you are currently enrolled in a masters level business course, the topic of this study will be somewhat familiar to you. We hope you find it to be an interesting and relevant experience.

The purpose of this research is to investigate how social and economic factors affect the bargaining process. This will be done by constructing a simulation in which participants negotiate over the purchase or sale of microscalpels. This activity will take place in a specific social context, as outlined by a scenario.

During the simulation, it is important that you make decisions using only the information provided. Also, it is important that you play your role by acting in a manner that fits with the objectives for that role. Your success in the company is dependent upon achieving risk reduction and improved corporate profitability. Thus, your motivation should be to get the best deal possible for your company.

Keep in mind that there are no right or wrong answers. Your responses will be kept strictly confidential.

In conclusion, it is necessary that you understand every aspect of the simulation. Please concentrate, listen carefully, and study all written materials along the way. If you have any questions, please ask them at any time.

Thank you,

A handwritten signature in cursive script that reads "Brenda Ponsford Konrad".

Brenda Ponsford Konrad  
Asst. Prof. of Marketing

5998 Alcalá Park, San Diego, California 92110-2492 619/260-4830

## Script

## **SCRIPT FOR CONDUCTING DATA COLLECTION**

1. Thank you for coming to this project session. My name is Brenda Ponsford (Konrad) and I am studying business behavior. In this research study, all the answers you give will be kept strictly confidential. Because this is an ongoing research study, please do not discuss this study with anyone who is not participating in this session. I will give a debriefing session at a later date to explain to you the results of this study and answer your questions. The date for the debriefing session will be announced later.

It is important for you to listen carefully and follow instructions closely. I will give you opportunities to ask questions at each step along the way. This study is important to furthering the knowledge of business behavior and your cooperation is appreciated.

You will be given the role of either a sales representative representing a surgical equipment manufacturer or a purchasing agent representing a hospital supply wholesaler. Please treat your role seriously. You will be paired with another student to negotiate a business deal concerning price, quantity, and contract terms. You do not need to come to agreement with your current bargaining partner as there are other companies to do business with. You have been given the opportunity to draw a role out of the envelope. The number is the pair or dyad number that you have been assigned. If the number is followed by an S, you are a seller. If the number is followed by a B, you are a buyer. Please sit in the chair with the same number on it. Your bargaining partner will be across from you. See who your current bargaining partner is. A manila file jacket is between you and your bargaining partner separating you. An orange piece of cardboard may be to your side to partition you from another group.

2. This session will be split into two parts. The first part is just a warm-up session. The only purpose of the warm-up session is to help you become used to using the game instructions which include a cost table and an incomplete contract. In front of you, you have warm-up packet in a light blue folder. Please follow along in the materials with me. We must keep together with the steps. The buyers should all have red pens to write with. You may write on any other the loose pages you find in the folders, but please do not write on the materials in the plastic sleeves. I will supply you with scratch paper should you need it. The materials have been written so that you do not need to do calculations.

3. Please open your folders. In the folders you have confidential information concerning your company so keep the pages out of the view of your bargaining partner during the entire session. The first sheet is a letter from me thanking you for participating and giving some basic information. Please take a few minutes to read through the letter.

4. Are you finished? Now that you are finished with the letter, let us look in the folders. [Page through a sample folder.] You will have a set of instructions for your role, a warm-up cost table at the end of the instructions, an incomplete contract, and the buyers will have a memo pad with separate sections for each players messages. You have the minimum pieces in your folder because we are just learning how to use the materials. When we do the actual negotiations, you will receive a dark blue folder with more instructions, a scenario about your company's situation, an expanded cost table and contract menu as well as some questionnaires I'd like for you to fill out. However, we are only doing the warm-up session now so we will just look at the cost table and contract separately so you can learn how to use them. This is the only purpose of this warm-up session. When we get to the actual negotiations with [hold up a dark blue folder] the dark blue folder, we will use all the instructions, cost table, and contract menu together. When we do the actual negotiations, you will be evaluated on how profitable a deal both in terms of risk reduction and financial profit that you can negotiate on behalf of your company. Right now we will use simplified decision rules.

5. Please read the instructions and then I will explain the cost table. (pause) Finished? Please look at the cost table you have at the end of the instructions. Look at the cost table I have drawn on the blackboard. It is like the cost table you have at the end of your instructions. Along the top I have written out the price ranges per case of scalpels. These are a range of prices for the same quality scalpels. A lower price does not indicate a lower quality scalpels but rather that prices range on a region. On the vertical are typical quantities of cases purchased/sold per month. These tables are different from profit tables that you may have used in other classes. To help simplify your negotiations, we have calculated the total cost of engaging in this particular deal at a given price and quantity. To keep your costs secret, I have put x's in the total transaction cost spots. These are total transaction costs at a given price and quantity, not costs per a case. You do not need to multiply this number by price or quantity. It is the total cost of putting together

the deal and doing business for this particular exchange. These are transaction costs. These costs are different from direct labor or material. For example, if you were to require the help of a technical advisor for a new deal but not for a standard deal, your transaction costs will be higher for the new deal than for the standard deal. Transaction costs are the costs of doing business. Your instructions are to negotiate a price and quantity that would result in lowering costs for yourself. Please use only the prices and quantities mentioned on the chart. Any questions on the cost table?

Example: Suppose the transaction costs at this  $x$  is \$700. Be careful not to think that this is a bad deal because the transaction cost exceeds the selling price of one case. This deal is for 41 cases. Revenue here covers materials, labor, and, yes, the \$700 transaction cost for putting together the deal.

The manufacturers will cover all costs and the wholesalers can safely anticipate future sales to hospitals that would cover their costs.

Your simplified decision rule here is to look at the transaction costs and aim for the price and quantity combinations that would correspond to the low transaction costs on your charts. Any questions?

The Buyers have memo pads in their packets that each pair will use to negotiate with. All messages you exchange must be in writing only. Please do not talk to each other. Write whatever you like. The buyers may begin with an offer of a price and quantity combination whenever they feel ready. The sellers may respond with either an acceptance or a new counter-offer of a different price and quantity. The buyers may begin whenever they are ready to start negotiating. Remember that you do not have to come to an agreement. You will have 5 minutes to negotiate. You may begin. I will circulate to answer any question you may have [5 minutes]. Please stop negotiating. Do you feel comfortable with the cost tables? Any questions? Please set the tables aside.

6. Next in the folder you will see an incomplete contract. Please read it through and ask any questions you have on terminology at this time. You will notice that the third clause has not been negotiated yet. It reads "to be negotiated." When you do the actual negotiations with the dark blue folders, you will be asked to complete the contract by negotiating clause three. Clause three is a liquidated

damages clause. Liquidated damages is another term for cash paid to cover the injured party's losses. The purpose of the liquidated damages clause is to put the injured party in the position he or she would be in if the contract had been carried out properly or as intended. It is not meant to punish or fine the other party. The amount of money to be paid out is based on the expectations of the value of the contract at the time it is entered into. You and your partner will be given identical selections or a menu of six possible contract clauses choices to negotiate with. You may not modify the clauses and may use them only as written. They are labelled A.-F. for easy references. For example if you want clause B, write down clause B. If your partner wishes to counteroffer with clause A., then he can easily refer to clause A. Unlike the other confidential materials, the clause menu you and your partner will receive will be exactly the same. Your final contract may contain only one clause choice. Please read over the incomplete contract and ask any questions at this time.

In contract negotiation, one thing to consider is risk. Risk is defined as the probability of something going wrong and the cost to you if it does. The cost is how much you must invest to have a business relationship. The contract is a way to reduce risk. When you start to negotiate, keep in mind your investment and act accordingly.

7. Now that we have completed the warm-up please put everything in your light blue folders pockets for me to collect. Please remain quiet and do not discuss your business transactions at this time. When you receive your dark blue folder you may begin to read your instructions.

8. In front of you are the actual negotiating folders. In this real session you will use both the contract menu and cost tables together to negotiate a full business deal. You are not held to any previous agreements. In your packet you should have: further instructions, expanded cost tables, the contract menu, a contract evaluation sheet, a scenario about your company explaining your situation with a demand history, and a short questionnaire. Some of these sheets are in the front pocket of your folder. Use the demand history as if it were the past year to negotiate monthly deliveries for the next three years. You will be negotiating a fixed monthly delivery quantity for the next three years as well as completing clause 3 with one final clause choice. As you read your packet, I'd like for you to answer two questionnaires. These are in the front pocket. As you read the new contract menu please do an evaluation of the contract clauses on the

sheet. The sheet will ask you to indicate for each clause if you think the clause is written in favor the seller, or in favor of the buyer, or in favor of neither. Please evaluate them objectively. Then after you read the scenario, please answer the questions on the questionnaire about your company's situation. You may refer to any materials you wish to as you answer the questions. Please do not begin negotiating until you have finished reading everything in the packet and have answered both questionnaires. You may or may not have additional memos in your packet from your superior. The buyers have a fresh memo pad and they will start the negotiations. Questions?

9. You will have until \_\_\_\_\_ [75 minutes] to negotiate and you do not have to come to an agreement with your present partner. If you do come to an agreement or you wish to stop negotiating, please place your memo pad in the file jacket between you to show me that you are ready to go on to the next step. If you do come to an agreement, please fill out the contract forms. You may sign with an x to preserve anonymity and place it in the file jacket as well. Use the pockets in the folders to store any other pages that you are finished with. You will then receive from me further memorandums and instructions. Questions?

Remember as you negotiate, it is not only important for you to reduce transaction costs but also to manage risk. You will be evaluated on how well you manage risk and how profitable a deal you negotiate financially. Risk is defined as the probability of something going wrong and the cost to you if it does. The contract is a way to reduce risk. As you negotiate, keep in mind any investment that you must make and act accordingly. Please negotiate the contract clause and a price/quantity combination for the next three years. After you finish reading and have answered both questionnaires, you may begin to negotiate. You will have until \_\_\_\_\_ [75 minutes] to complete the questionnaires and complete your business negotiations.

When the buyers are ready, they may start the negotiations. Any questions? You may begin.

10. [when the memo pad in the file jacket, collect and ask if they reached an agreement. Memos are presented with "please read this now" temptations are presented "please write your reply at the bottom, fold in half, and place on the your desk. Final questionnaires are presented when members are done with inductions.]



11. Please stop negotiating. [Collect packets] I cannot explain everything about this project to you now but it is about how people negotiate. Please do not discuss what we did today (tonight) with others. I will have a debriefing session in several months you may come to if you wish. Thank you for participating.

## **Instructions**



Note that the inside numbers represent "costs accrued at that particular price and quantity." For example, if you negotiate to purchase 5 cases of microscalpels at \$450 a case (100 microscalpels per case), total transaction costs (including inventory carrying, sales force management, transportation, etc.) will be \$300 for that deal (not per case). Notice that as price increases, costs tend to increase since it will be harder for you to sell a more expensive product and costs tend to increase since it will be harder for you to sell a larger quantity of an expensive product. Also, as quantity purchased increases, costs tend to increase because of inventory-carrying costs. As a buyer for the Wholesale Hospital Supply Company, you will be rewarded only if you are able to lower the costs associated with the negotiated transaction. Thus, your only motivation during bargaining is to lower transaction costs for yourself. Your bargaining partner has a cost table covering the same price and quantity choices, but does not necessarily have the same transaction costs, thus your bargaining partner may have different motivations.

While bargaining, please use only the price and quantity options provided in your table. All communication during the simulation will be written (using the memo pad provided). As the buyer, you will begin the bargaining process by making an offer of a price you would like to pay, a quantity you would like to receive and the contract terms you desire. The seller will respond to your offer by accepting it or by making a counter-offer. Feel free to communicate openly--write whatever you feel is appropriate to your bargaining partner.

In the first warm-up phase, you will bargain with the seller until you reach an agreement or until the ten-minute period is up. Keep in mind that you do not have to reach an agreement. You will use the "warm-up" cost matrices provided.

On the next page is an incomplete contract that has been in the negotiation process with Surgical Manufacturing. You will have the opportunity to read through the incomplete contract and ask questions about it. During the actual negotiations, you will receive a list of six (A.-F.) possible contract clauses that may be used to complete the contract. Unlike the tables of transaction costs, both you and your partner have identical lists to refer to. When you negotiate, you may easily refer to the clauses you want by letter.

The actual negotiation phase of the simulation will be similar to the warm-up exercise. However, in this phase you will work with more elaborate price-quantity tables and contract clause sheets, as well as a scenario of your business situation. The information you will use is company specific information, except that the contract clause sheet that you and the seller have will be identical. Your bargaining

partner is a representative from one of the companies your firm is considering doing business with. You do not have to come to an agreement with this particular bargaining partner. The final phase of the simulation will involve asking you about some of your perceptions about the bargaining process.

After you have completed reading these instructions, please wait for the experimenter to initiate the warm-up sessions. We are looking forward to your participation in the simulation. We hope you will find it an exciting and interesting experience.

**A BARGAINING SIMULATION: INSTRUCTIONS TO THE SELLER**

For the next hour and a half, you will be participating in a bargaining simulation. During the simulation, you will be asked to take the following role: a seller of microscalpels representing the Surgical Manufacturing Company. It will be your responsibility to negotiate a three year contract of monthly deliveries of microscalpels. A "microscalpel" is a small, light, very sharp straight knife used by surgeons. It will be your job to try to sell the microscalpels to a buyer representing the Wholesale Hospital Supply Company, one of the major potential buyers of your microscalpel product. Eventually, the microscalpels your firm sells will be distributed to hospitals. The Wholesale Hospital Supply Company (a potential customer) and Surgical Manufacturing Company have both been in business for a number of years, are stable, and reasonably profitable. Both firms are equal in size, performance, and power (e.g., number of employees, stock price, return on investment, social influence, etc.)

For the purposes of the simulation, it is important that you take your assigned role seriously and that you act in a manner that fits with the position you hold. In other words, assume that the results you achieve will have significant effects on your firm's profitability for this fiscal year. Therefore, your primary motivation is to insure the profitability for your company. As a seller, your success in the company is dependent upon achieving improved corporate profitability. Thus, your motivation should be to get the best deal possible for your company. You should behave as a normal business person and make decisions accordingly.

The bargaining simulation will consist of several short phases. In order to acquaint you with the bargaining process, the first phase involves a short "warm-up" negotiation using a price-quantity table similar to the one shown below. You will participate in a warm-up session with the objective of learning to use the cost table. You will receive additional information about the company at later dates.

**SELLER'S COST TABLES**

**Price**  
(per case)

		<u>\$450</u>	<u>\$500</u>	<u>\$550</u>
	<u>5</u>	\$700	\$600	\$500
<b>Quantity</b>	<u>6</u>	\$600	\$500	\$400
(of cases)	<u>7</u>	\$500	\$400	\$300

Note that the inside numbers represent "costs accrued as that particular price and quantity." For example, if you negotiate to sell 5 cases of microscalpels at \$450 a case (100 microscalpels per case), total transaction costs (including inventory carrying, sales force management, transportation, etc.) will be \$700 for that deal (not per case). Notice that as price increases, costs tend to decrease. Also, as quantity sold increases, costs tend to decrease because of lower inventory-carrying costs. As a seller for the Surgical Manufacturing Company, you will be rewarded only if you are able to lower the costs associated with the negotiated transaction. Your bargaining partner has a cost table covering the same price and quality choices, but does not necessarily have the same transaction costs, thus bargaining partner may have different motivations. Thus, your only motivation during bargaining is to lower transaction costs for yourself.

While bargaining, please use only the price and quantity options provided in your table. All communication during the simulation will be written (using the memo pad provided). As the seller, you will respond to the buyer's first offer by accepting it, or by making a counter-offer; the buyer will respond by accepting it or by making another counter-offer. Feel free to communicate openly--write whatever you feel is appropriate to your bargaining partner.

In the first warm-up phase, you will bargain with the buyer until you reach an agreement or until the ten-minute period is up. Keep in mind that you do not have to reach an agreement. You will use the "warm-up" cost matrices provided.

On the next page is an incomplete contract that has been in the negotiation process with Wholesale Hospital Supply Company. You will have the opportunity to read through the incomplete contract and ask questions about it. During the actual negotiations, you will receive a list of six (A.-F.) possible contract clauses that may be used to complete the contract. Unlike the tables of transaction costs, both you and your partner have identical lists to refer to. When you negotiate, you may easily refer to the clauses you want by letter.

The actual negotiation phase of the simulation will be similar to the warm-up exercise. However, in this phase you will work with more elaborate price-quantity tables and contract clause sheets, as well as a scenario of your business situation. The information you will use is company specific information, except that the contract clause sheet that you and the seller have will be identical. Your bargaining partner is a representative from one of the companies your firm is considering doing business with. You do not have to

come to an agreement with this particular bargaining partner. The final phase of the simulation will involve asking you about some of your perceptions about the bargaining process.

After you have completed reading these instructions, please wait for the experimenter to initiate the warm-up sessions. We are looking forward to your participation in the simulation. We hope you will find it an exciting and interesting experience.



## Warm-up Cost Tables

**BUYER'S COST TABLES**

**Price**

(per case of 100 microscalpels)

		<u>\$500</u>	<u>\$525</u>	<u>\$550</u>	<u>\$575</u>
<b>Quantity</b> (of cases)	<u>40</u>	\$400	\$600	\$800	\$1000
	<u>41</u>	\$600	\$800	\$1000	\$1200
	<u>42</u>	\$760	\$960	\$1160	\$1360
	<u>43</u>	\$880	\$1080	\$1280	\$1480

RECALL: As a buyer for the Wholesale Hospital Supply, you will be rewarded only if you are able to lower costs associated with the negotiated transaction. Thus your only motivation is to lower costs for yourself and to negotiate the terms of the three year contract.

**SELLER'S COST TABLES**

**Price**

(per case of 100 microscalpels)

		<u>\$500</u>	<u>\$525</u>	<u>\$550</u>	<u>\$575</u>
	<u>40</u>	\$1480	\$1280	\$1080	\$880
<b>Quantity</b>	<u>41</u>	\$1360	\$1160	\$960	\$760
(of cases)	<u>42</u>	\$1200	\$1000	\$800	\$600
	<u>43</u>	\$1000	\$800	\$600	\$400

RECALL: As a seller for the Surgical Manufacturing Company, you will be rewarded only if you are able to lower costs associated with the negotiated transaction. Thus your only motivation is to lower costs for yourself and to negotiate the terms of the three year contract.

## Interorganizational Memo Pad

DYAD NO. \_\_\_\_\_

PAGE \_\_\_\_\_

---

BUYER'S MESSAGE

---

SELLER'S MESSAGE

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BUYER'S MESSAGE

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SELLER'S MESSAGE

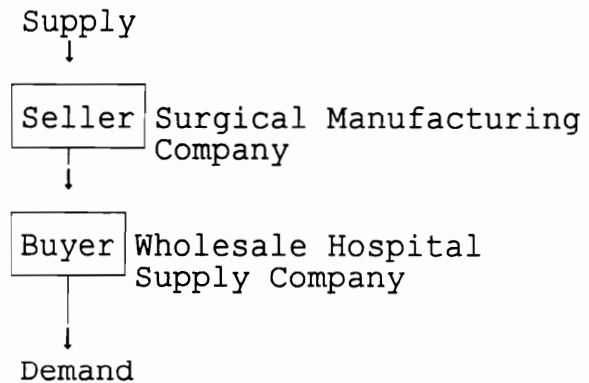
(Buyer go to next page for next message)

## Further Instructions

## A BARGAINING SIMULATION: FURTHER INSTRUCTIONS

You have now completed the warm-up exercises and should understand how to bargain using the price-quantity tables and contract clause sheets. It is time to move on to the actual phase of the simulation.

In this phase, you will receive a more elaborate price-quantity table and a longer contract clause sheet. Also, you will be asked to read a short scenario defining the social and economic context in which bargaining will take place. The scenario describes a business context in which the bargaining will take place. Just as in an actual decision making situation, there will not be a clear and obvious response to the information that is contained in the scenario. It is possible, however, to act in a way which will minimize any potential problems that the business environment (scenario) may pose. Thus, please carefully consider and use the information contained in the scenario to develop an appropriate strategy before bargaining. As you read and analyze the scenario, it may be helpful to refer to the following diagram:



Note that Surgical Manufacturing Company is selling to Wholesale Hospital Supply Company in this example but other exchange partners are available. You do not have to come to an agreement with your current bargaining partner.

You will be given several minutes to carefully study the scenario as well as your new price-quantity table and contract menu. You will also be asked a few questions. Answer the questions based on the information in this packet. When you are finished answering the questions, you may begin bargaining.

During this phase, you will be assigned the same role (buyer or seller) that you had in the warm-up exercise. All

communication will again be written and the buyer will start the negotiation by making an offer of price, quantity, and contract clauses. The seller may respond to the buyer's offer by accepting it, or by making a counter offer. Again, we would like to remind you to feel welcome to communicate freely and openly--write whatever you feel is appropriate to your bargaining partner.

Bargaining will continue until agreement is reached or until the 75 minute time limit has elapsed. Once again, your motivation is to lower costs for yourself and to negotiate a contract. However, this time you need to do this within the business situation outlined by the scenario. Please behave as actual business people would and base your decisions on the best outcome for your company. Your success in the company is dependent upon achieving improved corporate profitability. Thus, your motivation should be to get the best deal possible for your company. You are being evaluated on how good a deal you negotiate for your company.



## Cost Tables

BUYER'S COST TABLES

**Price**

(per case of 100 microscalpels)

		<u>\$500</u>	<u>\$525</u>	<u>\$550</u>	<u>\$575</u>	<u>\$600</u>
	<u>40</u>	\$400	\$600	\$800	\$1000	\$1200
<b>Quantity</b>	<u>41</u>	\$600	\$800	\$1000	\$1200	\$1400
(of cases)	<u>42</u>	\$760	\$960	\$1160	\$1360	\$1560
	<u>43</u>	\$880	\$1080	\$1280	\$1480	\$1680
	<u>44</u>	\$960	\$1160	\$1360	\$1560	\$1760
	<u>45</u>	\$1160	\$1360	\$1560	\$1760	\$1960

RECALL: As a buyer for the Wholesale Hospital Supply Company, you will be rewarded only if you are able to lower costs associated with the negotiated transaction. Thus your only motivation is to lower costs for yourself and to negotiate the terms of the three year contract.

SELLER'S COST TABLES

**Price**

(per case of 100 microscalpels)

		<u>\$500</u>	<u>\$525</u>	<u>\$550</u>	<u>\$575</u>	<u>\$600</u>
	<u>40</u>	\$1960	\$1760	\$1560	\$1360	\$1160
<b>Quantity</b>	<u>41</u>	\$1760	\$1560	\$1360	\$1160	\$960
(of cases)	<u>42</u>	\$1680	\$1480	\$1280	\$1080	\$880
	<u>43</u>	\$1560	\$1360	\$1160	\$960	\$760
	<u>44</u>	\$1400	\$1200	\$1000	\$800	\$600
	<u>45</u>	\$1200	\$1000	\$800	\$600	\$400

RECALL: As a seller for the Surgical Manufacturing Company, you will be rewarded only if you are able to lower costs associated with the negotiated transaction. Thus your only motivation is to lower costs for yourself and to negotiate the terms of the three year contract.

## Contract Menu

**CONTRACT CLAUSE CHOICES**  
for clause 3

Select one of the following six clauses. Use as written; do not modify the wording or combine clauses.

**NOTE:** "Liquidated" or cash damages refers to money paid to the injured party by the person or company at fault. The purpose is to put the injured party in the position he/she would be in if the contract had been performed properly. The expected position is based on the expectations of the parties when they formed the contract. There are no "fines" or "punishments" allowed in liquidated damages.

**3. LIQUIDATED DAMAGES FOR NONPERFORMANCE**

- A.** If either party cannot perform, the other party has the right to buy or sell the microscalpels on the open market.
- B.** The parties acknowledge that if the contract is properly performed, the Buyer, as a wholesaler, will make a profit on the goods supplied. Therefore, if the Seller wrongfully fails or refuses to supply, or in any other way does not adequately perform, the Buyer may attempt to locate alternative sources. The Seller must pay the Buyer the expected profits (based on past profit shown by the Buyer's past accounting records) as well. If the Buyer locates reasonable alternative sources that are more expensive, the Seller will make up the difference in price. If the Seller delays payment of these monies, the Seller must pay 12% per annum interest from the date of the failure to perform.
- C.** The parties acknowledge that if the contract is properly performed, the Buyer, as a wholesaler, will make a profit on the goods supplied. Therefore, if the Seller wrongfully fails or refuses to supply, or in any other way does not adequately perform, the Buyer may attempt to locate alternative sources. The Seller must pay the Buyer the expected profits (based on past profit shown by the Buyer's past accounting records) as well. If the Buyer locates reasonable alternative sources that are more expensive, the Seller will make up the difference in price. If the Seller delays payment of these monies, the Seller must pay 12% per annum interest from the date of the failure to perform.

If the Seller wrongfully fails or refuses to supply the agreed upon goods, the Buyer must make reasonable efforts to find alternative sources. If the Buyer cannot find reasonable alternative sources, the Seller must reimburse the Buyer for any capital equipment the Buyer has to invest in to do business specifically with the Seller according to the following formula:

$$\left( \text{Purchase Price of Equipment} \times \frac{\text{Remaining Months of Contract}}{\text{Total Life of Contract}} \right)$$

- Scrap Value

Example:

$$\left( \$100,000 \times \frac{18 \text{ months}}{36 \text{ months}} \right) - \$5000 = \$45,000$$

- D. The parties acknowledge that if the contract is properly performed, the Seller will make a profit on the goods supplied. Therefore, if the Buyer wrongfully fails or refuses to take delivery of goods, or in any other way fails to perform the contract, the Seller may resell the goods to alternative customers. The Buyer must pay any reasonable additional selling expenses incurred by the Seller. If the Seller cannot resell at all, the Buyer must pay to the Seller, the Seller's expected profit (based on past profit shown by Seller's past accounting records). If the Buyer delays payment of monies, the Buyer must pay 12% per annum interest from the date of failure to perform.
- E. The parties acknowledge that if the contract is properly performed, the Seller will make a profit on the goods supplied. Therefore, if the Buyer wrongfully fails or refuses to take delivery of goods, or in any other way fails to perform the contract, the Seller may resell the goods to alternative customers. The Buyer must pay any reasonable additional selling expenses incurred by the Seller. If the Seller cannot resell at all, the Buyer must pay to the Seller, the Seller's expected profit (based on past profit shown by Seller's past accounting records). If the Buyer delays payment of monies, the Buyer must pay 12% per annum interest from the date of failure to perform.

If the Buyer wrongfully fails or refuses to supply the agreed upon goods, the Seller must make reasonable efforts to locate alternative customers. If the Seller's attempts fail, the Buyer must reimburse the Seller for any capital equipment the Seller had to invest in to do business specifically with the Buyer according to the following formula:

$$\left( \text{Purchase Price of Equipment} \times \frac{\text{Remaining Months of Contract}}{\text{Total Life of Contract}} \right) - \text{Scrap Value}$$

Example:

$$\left( \$100,000 \times \frac{18 \text{ months}}{36 \text{ months}} \right) - \$5000 = \$45,000$$

- F.** Arbitration is a process often valuable for dispute resolution when both parties have a great deal at stake. However, there is a risk that the arbitrators will come to a decision that is insupportable. Appealing a decision that is insupportable is very difficult and often unsuccessful because typically the arbitrators only write out a one sentence decision (e.g., "We find for the Seller" or "We find for the Buyer"). Such a decision gives no clue to a judge if anything went wrong in the arbitration process on which to base an appeal. Disproportionate risk between the parties creates a situation in which the party with the high risk takes a big chance by agreeing to arbitration.

The parties acknowledge that there are mutual dependencies between the Buyer's and the Seller's companies. Therefore, if either party fails to perform, the companies will construct a team of advisors for the purpose of allocating expenses and reimbursements to each company so that the business relationship may be preserved. The team shall be composed as follows. Each company shall select one industry consultant with expertise in the problem area. The two consultants shall mutually select a third consultant who also has expertise in the problem areas. The team of three shall then determine the allocation of expenses, losses, and reimbursement responsibilities of the respective

companies. Each company will comply with the determinations of the team. That is, each company will pay to each other what the team determines is owed. Both companies will share equally in the expenses of the team.



## **Contract**

## CONTRACT

AGREEMENT made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_ by and between Surgical Manufacturing Company (seller) and Wholesale Hospital Supply Company (buyer).

### 1. PAYMENT

Payment is not due until 30 days after receipt of invoice with terms 2/10, net/30.\* Late Payments will be assessed late fees at the rate of 12% interest per annum.

### 2. DELIVERY

The 15th of the month is the date by which the Buyer will receive the agreed upon quantity of goods [\_\_\_\_\_ cases] from the Seller at the agreed upon price [\$\_\_\_\_\_ per case]. This quantity and price is set for monthly delivery for the next three years. It is agreed that the Seller will pay 1/2% of the value of the shipment invoice for every business day a shipment is delayed.

### 3. LIQUIDATED DAMAGES FOR NONPERFORMANCE (to be negotiated)

### 4. RELEASE FROM RESPONSIBILITY AND LIABILITY

If either party cannot perform due to forces beyond control of the party (i.e., Acts of God, Acts of War, Natural Disasters, Destruction of the plant or equipment), that party will be released from its responsibility and liability under this contract.

Surgical Manufacturing Company representative:

signed \_\_\_\_\_ date \_\_\_\_\_

Wholesale Hospital Supply representative

signed \_\_\_\_\_ date \_\_\_\_\_

\*2/10, net 30 refers to the terms of payment. A 2% discount is allowed if the bill is paid within 10 days. The full amount of the bill is due within 30 days.

**Scenario Used For Cell 1 Investment Pattern:  
Buyer and Seller With Symmetric Low Investment**

## WHOLESALE HOSPITAL SUPPLY COMPANY

### Instructions

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### Scenario

The purpose of the Wholesale Hospital Supply Company is to distribute microscalpels to hospitals in your geographic area. Manufacturers of surgical instruments purchase scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel and process the blanks into microscalpels.

You have conducted an analysis of manufacturers and determined that there are a number of reputable manufacturers who process microscalpels and with which you can do business. You will meet soon with a representative of one of these manufacturers, Surgical Manufacturing Company to try to negotiate an agreement.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microscalpel demand is provided below.

#### Quantity Demanded per Month:

Month	Cases
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

## **SURGICAL MANUFACTURING COMPANY**

### **Instructions**

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### **Scenario**

The purpose of the Surgical Manufacturing Company is to sell microscalpels to wholesalers representing a certain geographic territory. Surgical Manufacturing Company purchases scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel. Surgical Manufacturing Company then processes the blanks into microscalpels.

You have conducted an analysis of wholesalers and determined that there are a number of reputable wholesalers who are resellers of microscalpels and with which you can do business. You will meet soon with a representative of one of these wholesalers, Wholesale Hospital Supply Company to try to negotiate an agreement.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microscalpel demand is provided below.

#### **Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

**Scenarios Used for Cell 2 Investment Pattern**  
**Asymmetric Investment with Buyer Low, Seller High**

## **WHOLESALE HOSPITAL SUPPLY COMPANY**

### **Instructions**

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### **Scenario**

The purpose of the Wholesale Hospital Supply Company is to distribute microscalpels to hospitals in your geographic area. Manufacturers of surgical instruments purchase scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel and process the blanks into microscalpels.

Wholesale Hospital Supply Company has recently purchased the patent to a new design of microscalpels, the NIV microscalpel. While standard microscalpels would still be in demand, the expectations for the NIV microscalpels look promising. Wholesale Hospital Supply Company would be the only company with the rights to sell the NIV microscalpel. However, Wholesale Hospital Supply Company is not a manufacturer and needs to find a company that can produce the NIV microscalpels for them.

You have conducted an analysis of manufacturers and determined that there are a number of reputable manufacturers who process microscalpels and with which you can do business. You will meet soon with a representative of one of these manufacturers, Surgical Manufacturing Company, to try to negotiate an agreement. The NIV microscalpel is produced in a similar fashion to standard microscalpels, but the manufacturer which agrees to produce it would have to buy an additional expensive piece of manufacturing equipment to perform a second processing step that would transform a standard microscalpel into the NIV microscalpel. If you come to an agreement with Surgical Manufacturing Company, the new piece of manufacturing equipment would be specially designed to work with Surgical Manufacturing Company's existing equipment. The cost of the new piece of equipment is \$360,000 and would be borne by Surgical Manufacturing Company. The fact that the new piece of equipment is added on to Surgical Manufacturing Company's existing equipment saves them money which is important considering that the new addition is quite expensive. But, it ties the piece of machinery to Surgical Manufacturing Company because it would be a custom piece of equipment. Although there are many manufacturers in the microscalpel industry, the manufacturing processes of each

manufacturer are unique. Therefore, any necessary custom designed equipment would be designed to fit with the specific companies that are working together in a manufacturing process. If the business arrangement broke down, the machinery could not be switched to another company and thus would be worthless. But Wholesale Hospital Supply Company can still go to a number of other manufacturers and negotiate a new agreement.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microscalpel demand is provided below.

**Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41



## **SURGICAL MANUFACTURING COMPANY**

### **Instructions**

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### **Scenario**

The purpose of the Surgical Manufacturing Company is to sell microscalpels to wholesalers representing a certain geographic territory. Surgical Manufacturing Company purchases scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel. Surgical Manufacturing Company then processes the blanks into microscalpels.

You have conducted an analysis of wholesalers and determined that there are a number of reputable wholesalers who are resellers of microscalpels and with which you can do business. You will meet soon with a representative of one of these wholesalers, Wholesale Hospital Supply Company to try to negotiate an agreement.

Recently, the Wholesale Hospital Supply Company has purchased the rights to the patent for the NIV microscalpel. While standard microscalpels would still be in demand, the expectations for the NIV microscalpels look promising. However, Wholesale Hospital Supply Company is not a manufacturer and is looking for a manufacturing company to make the NIV microscalpels for them. Wholesale Hospital Supply Company is the only company with the rights to sell the NIV microscalpel.

The NIV microscalpel is produced in a similar fashion to standard microscalpels, but Surgical Manufacturing Company would have to buy an additional expensive piece of manufacturing equipment to perform a second processing step that would transform a standard microscalpel into the NIV microscalpel. The new piece of equipment is quite expensive but only the part needed for the additional step is needed. By adding it on to existing equipment, a savings is realized, but the new piece of equipment would have to be custom made for Surgical Manufacturing Company's production line. But, it ties the piece of machinery to Surgical Manufacturing Company because it is a custom made piece of equipment. Although there are many manufacturers in the microscalpel industry, the manufacturing processes of each manufacturer are unique.

Therefore, any necessary custom designed equipment would be designed to fit with the specific companies that are working together in a manufacturing process. If the business arrangement broke down, the machinery could not be switched to another company and thus would be worthless. The cost of this additional piece of equipment is \$360,000 and would be borne by Surgical Manufacturing Company. So in this case, because the new machinery is custom designed, it would be worthless if the relationship between Surgical Manufacturing Company and Wholesale Hospital Supply Company broke down.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microsurgical demand is provided below.

**Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

**Scenario Used for Cell 3 Investment Pattern:  
Asymmetric Investment With Buyer High, Seller Low**

## WHOLESALE HOSPITAL SUPPLY COMPANY

### Instructions

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### Scenario

The purpose of the Wholesale Hospital Supply Company is to distribute microscalpels to hospitals in your geographic area. Manufacturers of surgical instruments purchase scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel and process the blanks into microscalpels.

Wholesale Hospital Supply Company has recently purchased the patent to a new design of microscalpels, the NIV microscalpel. While standard microscalpels would still be in demand, the expectations for the NIV microscalpels look promising. Wholesale Hospital Supply Company would be the only company with the rights to sell the NIV microscalpel. However, Wholesale Hospital Supply Company is not a manufacturer and needs to find a company that can produce the NIV microscalpels for them.

You have conducted an analysis of manufacturers and determined that there are a number of reputable manufacturers who process microscalpels and with which you can do business. You will meet soon with a representative of one of these manufacturers, Surgical Manufacturing Company to try to negotiate an agreement. Wholesale Hospital Supply Company has been negotiating with Surgical Manufacturing Company to produce the NIV microscalpel. The NIV microscalpel is produced in a similar fashion to standard microscalpels, but Wholesale Hospital Supply Company must also invest \$360,000 in a compatible piece of equipment that puts a non-corrosive finish on the NIV microscalpels. The new piece of equipment would be specially designed to work with the existing equipment of the manufacturer which agrees to produce the NIV microscalpel. By adding the equipment, a savings is realized, but it ties the piece of machinery to whichever manufacturer you come to an agreement with because it would be a custom piece of equipment. Although there are many manufacturers in the microscalpel industry, the manufacturing processes of each manufacturer are unique. Therefore, any necessary custom designed equipment would be designed to fit with the specific companies that are working together in a manufacturing process. If the business arrangement broke down, the

machinery could not be switched to another company and thus would be worthless. So in this case, because the new machinery is custom designed, it would be worthless if the relationship between Surgical Manufacturing Company and Wholesale Hospital Supply Company broke down.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microscalpel demand is provided below.

**Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

## **SURGICAL MANUFACTURING COMPANY**

### **Instructions**

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### **Scenario**

The purpose of the Surgical Manufacturing Company is to sell microscalpels to wholesalers representing a certain geographic territory. Surgical Manufacturing Company purchases scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel. Surgical Manufacturing then processes the blanks into microscalpels.

You have conducted an analysis of wholesalers and determined that there are a number of reputable wholesalers who are resellers of microscalpels and with which you can do business. You will meet soon with a representative of one of these wholesalers, Wholesale Hospital Supply Company to try to negotiate an agreement.

Recently, the Wholesale Hospital Supply Company has purchased the rights to the patent for the NIV microscalpel. While standard microscalpels would still be in demand, the expectations for the NIV microscalpels look promising. However, Wholesale Hospital Supply Company is not a manufacturer and is looking for a manufacturing company to make the NIV microscalpels for them. Wholesale Hospital Supply Company is the only company with the rights to sell the NIV microscalpel. The NIV microscalpel is produced in a similar fashion to standard microscalpels, but Wholesale Hospital Supply Company must also invest \$360,000 in a compatible piece of equipment that puts a non-corrosive finish on the NIV microscalpels. The new piece of equipment would be specially designed to work with Surgical Manufacturing Company's existing equipment. By adding the equipment, a savings is realized, but it ties the piece of machinery to Surgical Manufacturing Company because it would be a custom piece of equipment. Although there are many manufacturers in the microscalpel industry, the manufacturing processes of each manufacturer are unique. Therefore, any necessary custom designed equipment would be designed to fit with the specific companies that are working together in a manufacturing process. If the business arrangement broke down, the machinery could not be switched to another company and thus would be worthless. But Surgical Manufacturing Company can

still go to a number of other wholesalers and negotiate a new agreement.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microsurgical demand is provided below.

**Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

**Scenario Used for Cell 4 Investment Pattern:  
Symmetric High Investment by both Buyer and Seller**



## WHOLESALE HOSPITAL SUPPLY COMPANY

### Instructions

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### Scenario

The purpose of the Wholesale Hospital Supply Company is to distribute microscalpels to hospitals in your geographic area. Manufacturers of surgical instruments purchase scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel and process the blanks into microscalpels.

Wholesale Hospital Supply Company has recently purchased the patent to a new design of microscalpels, the NIV microscalpel. While standard microscalpels would still be in demand, the expectations for the NIV microscalpels look promising. Wholesale Hospital Supply Company would be the only company with the rights to sell the NIV microscalpel. However, Wholesale Hospital Supply Company is not a manufacturer and needs to find a company that can produce the NIV microscalpels for them.

You have conducted an analysis of manufacturers and determined that there are a number of reputable manufacturers who process microscalpels and with which you can do business. You will meet soon with a representative of one of these manufacturers, Surgical Manufacturing Company, to try to negotiate an agreement. The NIV microscalpel is produced in a similar fashion to standard microscalpels, but the manufacturer which agrees to produce the NIV microscalpel would have to buy an additional expensive piece of manufacturing equipment to perform a second processing step that would transform a standard microscalpel into the NIV microscalpel. The new piece of manufacturing equipment would be specially designed to work with whichever manufacturer's existing equipment. The fact that the new piece of equipment is added on to Surgical Manufacturing Company's existing equipment saves money which is important considering that the new addition is quite expensive. But, it ties the piece of machinery to Surgical Manufacturing Company because it would be a custom piece of equipment. Although there are many manufacturers in the microscalpel industry, the manufacturing processes of each manufacturer are unique. Therefore, any necessary custom designed equipment would be designed to fit with the specific companies that are working together in a

manufacturing process. If the business arrangement broke down, the machinery could not be switched to another company and thus would be worthless. The cost of the new piece of equipment is \$360,000 and will be borne by Surgical Manufacturing Company. Wholesale Hospital Supply Company must also invest \$360,000 in a compatible piece of equipment that puts a non-corrosive finish on the NIV microscalpels. Due to the custom design of this equipment, it could not be switched to another company and thus would be worthless if the business arrangement broke down. So in this case, because both of the new pieces of machinery are custom designed, they would be worthless if the relationship between Surgical Manufacturing Company and Wholesale Hospital Supply Company broke down.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microscalpel demand is provided below.

**Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

## **SURGICAL MANUFACTURING COMPANY**

### **Instructions**

A number of factors may affect the process of bargaining. The following scenario provides some information on the potential impact of these factors. Please read the scenario slowly and carefully. Use the information it contains to develop an appropriate strategy before bargaining.

### **Scenario**

The purpose of the Surgical Manufacturing Company is to sell microscalpels to wholesalers representing a certain geographic territory. Surgical Manufacturing Company purchases scalpel "blanks" (pre-cut pieces of stainless steel) from a supplier of surgical steel. Surgical Manufacturing then processes the blanks into microscalpels.

You have conducted an analysis of wholesalers and determined that there are a number of reputable wholesalers who are resellers of microscalpels and with which you can do business. You will meet soon with a representative of one of these wholesalers, Wholesale Hospital Supply Company to try to negotiate an agreement.

Wholesale Hospital Supply Company has recently purchased the patent to a new design of microscalpels, the NIV microscalpel. While standard microscalpels would still be in demand, the expectations for the NIV microscalpels look promising. Wholesale Hospital Supply Company would be the only company with the rights to sell the NIV microscalpel. However, Wholesale Hospital Supply Company is not a manufacturer and needs to find a company that can produce the NIV microscalpels for them. The NIV microscalpel is produced in a similar fashion to standard microscalpels, but Surgical Manufacturing Company would have to buy an additional expensive piece of manufacturing equipment to perform a second processing step that would transform a standard microscalpel into the NIV microscalpel. The new piece of manufacturing equipment would be specially designed to work with Surgical Manufacturing Company's existing equipment. The fact that the new piece of equipment is added on to Surgical Manufacturing Company's existing equipment saves money which is important considering that the new addition is quite expensive. But, it ties the piece of machinery to Surgical Manufacturing Company because it would be a custom piece of equipment. Although there are many manufacturers in the microscalpel industry, the manufacturing processes of each manufacturer are unique. Therefore, any necessary custom designed equipment would be

designed to fit with the specific companies that are working together in a manufacturing process. If the business arrangement broke down, the machinery could not be switched to another company and thus would be worthless. The cost of the new piece of equipment is \$360,000 and will be borne by Surgical Manufacturing Company. Wholesale Hospital Supply Company must also invest \$360,000 in a compatible piece of equipment that puts a non-corrosive finish on the NIV microscalpels. Due to the custom design of this equipment, it could not be switched to another company and thus would be worthless if the business arrangement broke down. So in this case, because both of the new pieces of machinery are custom designed, they would be worthless if the relationship between Surgical Manufacturing Company and Wholesale Hospital Supply Company broke down.

Your prediction regarding demand should be considered carefully when negotiating for an appropriate price-quantity combination. In order to help you forecast the level of demand, the following historical record of microscalpel demand is provided below.

**Quantity Demanded per Month:**

<b>Month</b>	<b>Cases</b>
Jan.	38
Feb.	38
Mar.	42
Apr.	41
May	43
June	43
July	46
Aug.	40
Sept.	45
Oct.	42
Nov.	38
Dec.	41

## Manipulation Checks

Surgical Manufacturing Company

Instructions:

Please respond to the following statements pertaining to the scenario. Indicate your opinion by circling your response to each question.

1. If my company can't come to an agreement with Wholesale Hospital Supply, we can still sell standard microscalpels to other companies.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

2. In order to do business with Wholesale Hospital Supply, we must invest money in new equipment.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

3. This equipment is standard equipment.  
(If this question is non-applicable, check here \_\_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

4. This equipment is custom made equipment.  
(If this question is non-applicable, check here \_\_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

5. In order to do business with us, Wholesale Hospital Supply must invest money in new equipment.  
(If this question is non-applicable, check here \_\_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

6. This equipment is standard equipment.  
(If this question is non-applicable, check here \_\_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

7. This equipment is custom made equipment.  
(If this question is non-applicable, check here \_\_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

Considering the business situation outlined for you in your scenario, please indicate which price/quantity situation is best for your company, the worst, and a reasonable compromise:

8. The best price for my company is \$ \_\_\_\_\_ at \_\_\_\_\_ quantity.
9. The worst price for my company is \$ \_\_\_\_\_ at \_\_\_\_\_ quantity.
10. A reasonable compromise for my company is \$ \_\_\_\_\_ at \_\_\_\_\_ quantity.

Now consider the contract clause choices (A.- F.) given in the contract menu for completing clause three. Please indicate which clause is the best for your company, the worst, and which would make a reasonable compromise.

11. The best clause choice for my company is \_\_\_\_\_.
12. The worst clause choice for my company is \_\_\_\_\_.
13. A reasonable compromise choice for my company is \_\_\_\_\_.

Wholesale Hospital Supply Company

Instructions:

Please respond to the following statements pertaining to the scenario. Indicate your opinion by circling your response to each question.

1. If my company can't come to an agreement with Surgical Manufacturing Company, we can buy standard microscalpels from other companies.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

2. In order to do business with Surgical Manufacturing Company, we must invest money in new equipment.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

3. This equipment is standard equipment.  
(If this question is non-applicable, check here \_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

4. This equipment is custom made equipment.  
(If this question is non-applicable, check here \_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

5. In order to do business with us, Surgical Manufacturing Company must invest money in new equipment.  
(If this question is non-applicable, check here \_\_\_\_ and skip to next question.)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>



6. This equipment is standard equipment.  
 (If this question is non-applicable, check here \_\_\_\_ and skip to next question.)

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

7. This equipment is custom made equipment.  
 (If this question is non-applicable, check here \_\_\_\_ and skip to next question.)

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

Considering the business situation outlined for you in your scenario, please indicate which price/quantity situation is best for your company, the worst, and a reasonable compromise:

8. The best price for my company is \$\_\_\_\_\_ at \_\_\_\_\_ quantity.
9. The worst price for my company is \$\_\_\_\_\_ at \_\_\_\_\_ quantity.
10. A reasonable compromise for my company is \$\_\_\_\_\_ at \_\_\_\_\_ quantity.

Now consider the contract clause choices (A.- F.) given in the contract menu for completing clause three. Please indicate which clause is the best for your company, the worst, and which would make a reasonable compromise.

11. The best clause choice for my company is \_\_\_\_\_.
12. The worst clause choice for my company is \_\_\_\_\_.
13. A reasonable compromise choice for my company is \_\_\_\_\_.

## Induction Memos

**Memo Sent to Dyad Members in Cells 2, 3, and 4  
To Indicate Management Support  
and Grant Authority Regarding the NIV Project**

**SURGICAL MANUFACTURING COMPANY**

Memorandum

**TO:** Sales Representative

**FROM:** Sales Manager

**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

The NIV deal looks good. I am leaving negotiating the NIV agreement entirely up to you. The transaction costs and demand history should stay the same so you can use the old charts for decision purposes.

**WHOLESALE HOSPITAL SUPPLY COMPANY**

Memorandum

**TO:** Purchasing Agent  
**FROM:** Purchasing Manager  
**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

The NIV deal looks good. I am leaving negotiating the NIV agreement entirely up to you. The transaction costs and demand history should stay the same so you can use the old charts for decision purposes.

**Memo Sent to Dyad Members in Cell 2**  
**Seller-High; Buyer-Low Investment Pattern**  
**After Agreement is Formed**

**SURGICAL MANUFACTURING COMPANY**

Memorandum

**TO:** Purchasing Agent of Wholesale Hospital Supply  
**FROM:** Sales Manager of Surgical Manufacturing Company  
**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to produce the NIV microscalpels.

**SURGICAL MANUFACTURING COMPANY**

Memorandum

**TO:** Sales Representative  
**FROM:** Sales Manager  
**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to produce the NIV microscalpels.



**Memo Sent to Dyad Members in the Cell 3  
Seller-Low; Buyer-High Investment Pattern  
After Agreement is Formed**

**WHOLESALE HOSPITAL SUPPLY COMPANY**

Memorandum

**TO:** Sales Representative of Surgical Manufacturing Company

**FROM:** Purchasing Manager of Wholesale Hospital Supply Company

**SUBJECT:** Agreement between Surgical Manufacturing Company and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to coat the NIV microscalpels with a non-corrosive finish.

**WHOLESALE HOSPITAL SUPPLY COMPANY**

Memorandum

**TO:** Purchasing Agent

**FROM:** Purchasing Manager

**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to coat the NIV microscalpels with a non-corrosive finish.

**Memo Sent to Dyad Members in Cell 4**  
**Seller-High; Buyer-High Investment Pattern**  
**After Agreement is Formed**

**WHOLESALE HOSPITAL SUPPLY COMPANY**

Memorandum

**TO:** Purchasing Agent

**FROM:** Purchasing Manager

**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to coat the NIV microscalpels with a non-corrosive finish.

**WHOLESALE HOSPITAL SUPPLY COMPANY**

Memorandum

**TO:** Sales Representative of Surgical Manufacturing Company

**FROM:** Purchasing Manager of Wholesale Hospital Supply

**SUBJECT:** Agreement between Surgical Manufacturing Company and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to coat the NIV microscalpels with a non-corrosive finish.

**SURGICAL MANUFACTURING COMPANY**

Memorandum

**TO:** Sales Representative  
**FROM:** Sales Manager  
**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to produce the NIV microscalpels.

**SURGICAL MANUFACTURING COMPANY**

Memorandum

**TO:** Purchasing Agent of Wholesale Hospital Supply  
**FROM:** Sales Manager of Surgical Manufacturing Company  
**SUBJECT:** Agreement between Surgical Manufacturing Company  
and Wholesale Hospital Supply Company

You will be pleased to know that we have just purchased the additional manufacturing machinery needed to produce the NIV microscalpels.



## Post-Experimental Questionnaire

DYAD NO. \_\_\_ BUYER SELLER

1. In this section please respond to the following statements pertaining to your perception of the negotiation process. Please respond by circling the number above the response that closely reflects your own opinion.

1. My bargaining partner seemed to hinder the process of reaching a fair agreement.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

2. My bargaining partner seemed stubborn during negotiations

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

3. My bargaining partner showed a willingness to give and take during the negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

4. My bargaining partner seemed inflexible during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

5. During negotiations, my bargaining partner and I seemed to stand in opposition to one another.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

6. My bargaining partner tried to be fair during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

7. My bargaining partner seemed willing to compromise during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

8. During negotiations, it seemed as though my bargaining partner and I worked against one another.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

9. My bargaining partner seemed open to my offers during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

10. My bargaining partner seemed generally supportive during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

11. During negotiations, the interests of my bargaining partner and I seemed to clash.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

12. The negotiation process was filled with tension.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

13. My bargaining partner seemed generally flexible during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

14. During the negotiations process, my bargaining partner and I seemed to work together.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

15. I felt distressed during the negotiation process.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

16. During negotiations, my bargaining partner seemed willing to yield so that an agreement could be reached.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

17. I felt antagonistic toward my bargaining partner during the negotiation process.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

18. My bargaining partner seemed helpful during negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

19. Was an agreement reached (circle one)?

<b>1</b>	<b>2</b>
<b>Yes</b>	<b>No</b>

20. In your opinion, who came out ahead (circle one)?

- a. Both of us
- b. Myself
- c. My bargaining partner
- d. Neither of us

21. In your opinion, which issues were most important (circle one choice)?
- a. Price
  - b. Quantity
  - c. Contract terms
  - d. Price and quantity were the most important
  - e. Price and contract terms were the most important
  - f. Quantity and contract terms were the most important
  - g. All three issues were equally important

II. In this section please respond to the following statements pertaining to the strategies you used while negotiating with your bargaining partner.

22. When you gave information to your bargaining partner, how many times did you use the strategy of fully disclosing all relevant information.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

23. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

24. When you gave information to your bargaining partner, how many times did you use the strategy of disclosing correct information in a way that did not give a complete and accurate picture of your situation.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

25. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

26. When you gave information to your bargaining partner, how many times did you use the strategy of using arguments that were designed to sound logical and beneficial to your partner but were designed to actually only benefit yourself.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

27. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

28. When you gave information to your bargaining partner, how many times did you use the strategy of using arguments to accurately point out how you both could benefit.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

29. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

30. When you disclosed information about your situation, how many times did you use the strategy of only giving out as little as was needed.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

31. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

32. When you gave information to your bargaining partner about your situation, how many times did you use the strategy of including information that would help your bargaining partner.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

33. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

34. When you gave information about your situation to your bargaining partner, how many times did you use the strategy of exaggeration about your situation, but not saying anything that was actually false.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

35. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

36. When you gave information to your bargaining partner, how many times did you use the strategy of exaggeration in order to leave the wrong impression but not saying anything that was actually false.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

37. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

38. When you gave information to your bargaining partner, how many times did you use the strategy of giving opinions that were false, but communicating what could only be construed to be an opinion.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

39. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

40. When you gave information to your bargaining partner, how many times did you make up information that appeared to be factual.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

41. If you used this strategy, the effectiveness of it was:

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----

42. How many times did you use the strategy of threatening your bargaining partner in an effort to further the negotiations.

1	2	3	4	5
Did Not Use	Used 1 Time	Used 2 Times	Used 3 Times	Used 4+ Times

43. How effective was it?

1	2	3	4
Did Not Use	Ineffective	Neither Effective Nor Ineffective	Effective

-----



44. How many times did you use the strategy of giving warnings to your bargaining partner in an effort to further the negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Did Not Use</b>	<b>Used 1 Time</b>	<b>Used 2 Times</b>	<b>Used 3 Times</b>	<b>Used 4+ Times</b>

45. How effective was it?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Did Not Use</b>	<b>Ineffective</b>	<b>Neither Effective Nor Ineffective</b>	<b>Effective</b>

-----

46. How many times did you use the strategy of making promise(s) to your bargaining partner in an effort to further the negotiations.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Did Not Use</b>	<b>Used 1 Time</b>	<b>Used 2 Times</b>	<b>Used 3 Times</b>	<b>Used 4+ Times</b>

47. How effective was it?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Did Not Use</b>	<b>Ineffective</b>	<b>Neither Effective Nor Ineffective</b>	<b>Effective</b>

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48. How many times did you ask for more than you wanted to be able to make trade-offs to get the results you wanted.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Did Not Use</b>	<b>Used 1 Time</b>	<b>Used 2 Times</b>	<b>Used 3 Times</b>	<b>Used 4+ Times</b>

49. How effective was it?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Did Not Use</b>	<b>Ineffective</b>	<b>Neither Effective Nor Ineffective</b>	<b>Effective</b>

-----

III. Please indicate the amount of agreement you have with each of the following statements.

50. On occasion, I had to lie to my bargaining partner in order to protect my interests.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

51. Sometimes I had to exaggerate my needs in order to get what I really needed from my bargaining partner.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

52. Complete honesty does not pay when dealing with my negotiating partner.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

53. I always provided my bargaining partner a completely truthful picture of my business.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

54. Sometimes, I had to alter the facts slightly in order to get what I needed.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

55. My bargaining partner was not always truthful with me, so I was not always truthful in return.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

56. I feel that it is OK to do anything within my means that will help further my own interests.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

57. I felt at the beginning of the negotiation session that I had the upper hand (more power).

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

58. I felt at the beginning of the negotiation session that my bargaining partner had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

59. I felt at the beginning of the negotiation session that neither of us had greater power than the other.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

60. I felt during the negotiation session that I had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

61. I felt during the negotiation session that my bargaining partner had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

62. I felt during the negotiation session that neither of us had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

63. I felt at the end of the negotiation session that I had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

64. I felt at the end of the negotiation session that my bargaining partner had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

65. I felt at the end of the negotiation session that neither of us had the upper hand.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

66. I made concessions during the negotiation session because I felt it was important to do business with the particular company my bargaining partner represented.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

67. I made concessions because I felt my company wanted me to come to an agreement with the company my bargaining partner represented.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

68. I made concessions because it was to my advantage to make the deal that was in the best interests of my company.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

69. I made concessions because my negotiation partner had the most expertise concerning the products we were negotiating on.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

70. I made concessions because my negotiation partner's company could make things rough on my company.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

71. I asked for more than I wanted so I could make trade-offs to get the results I wanted.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

72. Check one statement (from a.-d.) that is closest to your overall characterization of the written contract that you negotiated with your negotiation partner. (circle one)

- a. Overall, the terms we agreed on are so typical of the economic forces of the market place that we really didn't need to write out a formal contract.
- b. Overall, I feel that the contract is biased in favor of my negotiation partner's company.
- c. Overall, I feel that the contract is biased in favor of my company.
- d. Overall, the terms we agreed on do not favor one side or the other. Rather, they allow the two companies to work issues out cooperatively.
- e. Not applicable because my partner and I did not come to an agreement.

IV. Please give your opinion on these statements.

73. The best way to handle people is to tell them what they want to hear.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

74. When you ask someone to do something for you, it is best to give the real reasons for wanting it, rather than reasons which might carry more weight.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

75. Anyone who completely trusts anyone else is asking for trouble.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

76. Honesty is the best policy in all cases.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

77. It is safest to assume that all people have a vicious streak, and it will come out when they are given a chance.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

78. Never tell anyone the real reason you did something unless it is useful to do so.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

79. One should take action only when sure it is morally right.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

80. It is wise to flatter important people.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

81. All in all, it is better to be humble and honest than important and dishonest.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

82. Barnum was very wrong when he said there's a sucker born every minute.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

83. People suffering from incurable diseases should have the choice of being put painlessly to death.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

84. It is possible to be good in all respects.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

85. There is no excuse for lying to someone else.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

86. Most people forget more easily the death of their father than the loss of their property.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

87. Most people who get ahead in the world lead clean, moral lives.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

88. Generally speaking, people won't work hard unless they're forced to do so.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

89. The biggest difference between most people and criminals is that criminals are stupid enough to get caught.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

90. Most people are brave.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>



V. Please rate yourself on the following.

91. Before participating today, I had an interest in negotiation strategies.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree Nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

92. Please indicated the level of personal knowledge you had about negotiation before participating today. Please take into consideration any articles and books that you may have read as well as courses that you may have taken.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>No Prior Knowledge</b>	<b>Little Prior Knowledge</b>	<b>Moderate Prior Knowledge</b>	<b>High Prior Knowledge</b>	<b>Very High Prior Knowledge</b>

93. Please rate the level of personal experience you had with negotiation in your private life before participating today. Please take into account negotiating the amount of an allowance, "house rules" with roommates, and/or buying/selling an item (books, TV, car, etc.).

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>No prior Experience</b>	<b>Little Experience</b>	<b>Moderate Experience</b>	<b>High Experience</b>	<b>Very High Experience</b>

94. Please rate the level of personal experience you had with negotiation in your work life before participating today. Please take into account negotiating wages/salary, work schedules/hours, negotiating "deals" for your company, and/or buying/selling goods for your company.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>No prior Experience</b>	<b>Little Experience</b>	<b>Moderate Experience</b>	<b>High Experience</b>	<b>Very High Experience</b>

95. Please rate the level of personal experience you had with contracts in your private life before participating today. Please take into account having read over contracts (even if you have not signed), borrowing small amounts of money (I.O.U.s), leases, dorm rental agreements, signing to verify information, making non-monetary commitments, car loan, and other non-work related contracts.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>No prior Experience</b>	<b>Little Experience</b>	<b>Moderate Experience</b>	<b>High Experience</b>	<b>Very High Experience</b>

96. Please rate the level of personal experience you had with contracts in your work life before participating today. Please take into account signing employment contracts, signing contracts for your company, buying/selling goods for your company, and/or explaining what was in a contract to a customer.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>No prior Experience</b>	<b>Little Experience</b>	<b>Moderate Experience</b>	<b>High Experience</b>	<b>Very High Experience</b>

97. If you signed contracts on behalf of a company, please give your job title(s): \_\_\_\_\_

98. My racial or ethnic background is:

- a. Asian
- b. Black
- c. Hispanic
- d. Pacific Islander
- e. White (European)
- f. White (Near Eastern or Arab)

99. My cultural heritage (how I think and relate to things, not necessarily my ethnic background) is most closely:
- a. Arab
  - b. African
  - c. Asian (other than Japanese)
  - d. British or Anglo
  - e. Germanic
  - f. Japanese
  - g. Latin American
  - h. Mediterranean or Near Eastern (Greek, Turkish, Iranian, Italian, etc.)
  - i. Nordic
  - j. North American
100. I have taken business law.
- a. yes, I am currently taking my first college class in it
  - b. yes, I have completed at least one class in it
  - c. no, I have not taken any college level classes in it
101. I have taken business ethics.
- a. yes, I am currently taking my first college class in it
  - b. yes, I have completed at least one class in it
  - c. no, I have not taken any college level classes in it
102. Sex.
- a. female
  - b. male
103. My age is\_\_.
104. I am currently working on \_\_\_\_\_ degree program and have completed \_\_\_\_\_ semesters of coursework (count 12 hours per semester).
105. I have \_\_\_\_\_ years of working experience in \_\_\_\_\_ field(s).
106. Why did you agree to the types of clauses that are in your final contract (in terms of how cooperative they are)?

## IAOO Temptations

**Memo sent to Group A Sellers For The  
Temptation to Act Opportunistically Treatment**

**SURGICAL MANUFACTURING COMPANY**

Memorandum

**TO:** Sales Representative  
**FROM:** Sales Manager  
**SUBJECT:** Sales Negotiations with IL Corp.

We have just received the opportunity to sell microscalpels to IL Corp. This contract is the largest in terms of sales and profit our company has ever had the opportunity to sign. However, in order to supply microscalpels to all our customers and to accept this deal with IL Corp., our production system will be strained. Under these conditions, the quality of the microscalpels will be cheapened. However, it will not be readily apparent that the quality has been lowered. We would not tell Wholesale Hospital Supply that we are cheapening the quality. Do you think that we should accept the deal with IL Corp.?

You can circle your reply at the bottom of this page. When you are done, fold it back in half and leave it on the left corner of your desk for pick-up.

Thanks,

---

REPLY

I recommend that we: (circle one)

accept

reject

**WHOLESALE HOSPITAL SUPPLY COMPANY**

Memorandum

**TO:** Purchasing Agent  
**FROM:** Purchasing Manager  
**SUBJECT:** Purchasing Negotiations with IL Corp.

We have just received the opportunity to sign a contract with IL Corp. This contract is the largest in terms of profit our company has ever had the opportunity to sign. If we take on the sales effort to sell IL Corp.'s microscalpels, our total sales would substantially increase, but it would dilute the effort that we can give to selling Surgical Manufacturing Company's microscalpels. We would not tell Surgical Manufacturing Company that we would not be giving them the same level of sales support and it would not be immediately apparent that our sales efforts would be lessened. However, in the long run, although we benefit, it would hurt the sales of Surgical Manufacturing Company's product through our company. Do you think that we should accept the deal with IL Corp.?

You can circle your reply at the bottom of this page. When you are done, fold it back in half and leave it on the left corner of your desk for pick-up.

Thanks,

---

REPLY

I recommend that we: (circle one)

accept

reject

## APPENDIX D: CONTENT ANALYSIS



## APPENDIX D: SYSTEM FOR CONTENT ANALYSIS

In the bargaining literature concerning channel relationships, the most common dimensions studied are measures of conflict and cooperation. Angelmar and Stern (1978) developed a system of content analysis drawing on communication literature. Twelve categories of bargaining communications were delineated. These are: questions, self-disclosures, recommendations, warnings, threats, rewards, punishments, normative appeals (positive and negative), commands, commitments, and promises. Angelmar and Stern (1978) recognized that some of these categories described communications that could be either distributive or integrative bargaining communications.

Analysis of bargaining communications along the lines of integrative and distributive communications was also used by Schurr and Ozanne (1985). However, they included behavioral patterns as well. Broadly, integrative and distributive behavior were classified in terms of the majority message type usage. Distributive behavior was also demonstrated by "[one-sided] self disclosures, more use of unreciprocating proposals, a smaller total amount of concessions, agreement on price for a smaller number of products, land/or a less favorable attitude toward [one's] bargaining partner" (p. 946). Integrative behavior was also demonstrated by "exchange of self-disclosure messages, more use of...concession, a larger total amount of concessions, agreement on price for a larger number of products, and a more favorable attitude toward one's bargaining partner" (p.

946). These measures were added to Angelmar and Stern's (1978) system for the purpose of content analysis.

Also, to measure opportunism, the communications were content analyzed for falsity. Angelmar and Stern's (1978) system measures cooperation which may be tied to relational contracting, but the competitive measures cannot necessarily be used to measure opportunism (John 1984). Thus, even with the addition of the Schurr and Ozanne (1985) measures, the system was modified to measure the degree of misrepresentation or falsity of the communications. Williamson (1985) referred to opportunism *with guile* to imply the willful and exploitative manipulation of events that includes falsity as part of the modus operandi.

An additional problem was that an opportunistic person may feign cooperation in order to take advantage of others. True cooperation precludes this, but judging what is true cooperation versus false cooperation was beyond the scope of the content analysis system. Therefore, self-report questions were posed on these issues in terms of strategic methods.

The description of opportunism as including guile is not unknown to the bargaining field. It is recognized that bluffing is a common tactic and if one does not bluff it could even result in a loss of credibility in the bargaining context (Raiffa 1982). Such strategic misrepresentations can range from bluffing to complete falsehoods. Conversely, the relative truthfulness of representations can vary from the complete and

whole truth, to partial truth, to the omission of certain facts, to a collection of true statements designed to mislead or trick the bargaining partner.

In examining bluffing behavior, Carson, Wokutch, and Murrman (1982) developed the following definitions which served as the basis for the content analysis for falsity. The following definitions delineate the categories of communications for falsity. "A lie is a deliberate false statement which is either intended to deceive others or foreseen to be likely to deceive others" (p. 17). This is consistent with Williamson's (1985) statement that opportunism *with guile* includes the making of self-disbelieved statements. "Bluffing is an act in which one attempts to misrepresent one's intentions or overstate the strength of one's positions in the bargaining process" (Carson, Wokutch, and Murrman 1982, p. 14). Bluffing can be nonverbal or accomplished by using true statements. It's apparent purpose to exaggerate is what makes a bluff a bluff. Puffery, which is legal under American law, "is an expression of opinion not made as a representation of fact...[nor as] an affirmation of fact" (Beach 1985, p. 193). Druckman (1977) mentions the category of "phony arguments" to describe "logic" that is twisted in order to mislead the other. Lastly, in the falsity category is the sticky category of using truth to deceive which was called "manipulated truth." The use of manipulated truth is apparently the preferred strategy of otherwise ethical people and is often not regarded as "dishonest" (Carson, Wokutch, and Murrman 1982).

The content analysis categories are tabulated below.

## CONTENT ANALYSIS TABLE

AREA	CATEGORY	SOURCE
Distributive/ Competitive	Threats Warnings Punishments Negative Normative Appeals Commands	Angelmar and Stern (1978)
	One-Sided Self Disclosures Unreciprocating Proposals Small Total Numbers of Concessions Less Favorable Attitude Toward Partner	Schurr and Ozanne (1985)
Integrative/ Cooperative	Promises Recommendations Rewards Positive Normative Appeals Self-Disclosures Questions	Angelmar and Stern (1978)
	Matching and Larger Amounts of Concession Larger Quantities Purchased Favorable Attitude About Opponent	Schurr and Ozanne (1985)
Falsity	Lies Bluffing	Carson Wokutch, and Murrman (1982)
	Puffery  Phony Arguments Manipulated Truth	Beach (1985)  Druckman (1975) Carson, Wokutch, and Murrman (1982)

## BRENDA JEANNETTE PONSFORD

15086 Avenida Venusto, Apt. 222  
San Diego, CA 92128  
(619) 592-0251

University of San Diego  
School of Business  
San Diego, Ca 92110  
(619) 260-4600 ext. 2834

### Education

Ph.D. in Business Administration -- 1993  
Major: Marketing; Minor: Industrial Psychology  
Virginia Polytechnic Institute and State University  
Blacksburg, Virginia  
Dissertation Title: Marketing Channels and Transaction Cost Analysis:  
The Role of Transaction Specific Investment

Master of Business Administration -- 1984  
Double Concentration: Marketing and Management  
Virginia Polytechnic Institute and State University

Bachelor of Science -- 1982  
Double Major: Marketing and Economics  
Virginia Polytechnic Institute and State University

### Research Interests

Business to Business Marketing, Channels, Physical Distribution and Logistics, Legal Aspects of Marketing, Negotiation, International Marketing,

### Teaching Experience

UNIVERSITY OF SAN DIEGO  
Assistant Professor of Marketing Sept. 1990 to Present  
Fundamentals of Marketing - using *The Marketing Game* simulation  
International Marketing - using *Export to Win* simulation  
Member of Teaching Excellence Committee

#### SETON HALL UNIVERSITY

Instructor of Marketing Sept. 1989 to June 1990

Principles of Marketing, Marketing Strategy, Advertising

Had highest teaching evaluations in Marketing Department

#### VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Instructor of Marketing Sept. 1986 to June 1987

Principles of Marketing

Department nomination for university-wide graduate instructor award.

#### RADFORD UNIVERSITY

Instructor of Marketing Aug. 1984 to June 1986

Principles of Marketing, Advertising , Marketing Management (capstone)

Served on BBA committee

### **Business Experience**

CONSULTANT- Hotel del Coronado Spring 1992

Gave workshops on Customer Service and the International Visitor

VEPCO - Virginia Power, Richmond, VA Jan. 1980 to June 1981

Customer Service Representative as a Co-op Student - four quarters

GENERAL ELECTRIC, Salem, VA March 1979 - June 1979

Quality Control Co-op Student - one quarter

### **Refereed Publications**

#### **Journal Articles**

John T. Mentzer and Brenda Ponsford Konrad (1990), "An Efficiency/Effectiveness Approach to Logistics Performance Analysis," *Journal of Business Logistics*. Vol. 12, No. 1, 33-62.

#### **Conference Proceedings**

Brenda Ponsford Konrad and Lance Masters (1993), "Information Sharing in the U.S. Electronics Industry: A Preliminary Report," *Academy of Marketing Sciences Conference Proceedings*.

Steve Staninger and Brenda Ponsford Konrad (1993), "Integrating Electronic Information Resources into Marketing Education." *Western Marketing Educators' Conference Proceedings*.

Brenda Ponsford Konrad and Lance Masters (1992), "Content Analysis in Marketing Channels: Update and Refinement in Negotiations," *Western Decision Sciences Institute 1992 Conference Proceedings*, 264-267.

Agnes Olszewski and Brenda Ponsford Konrad (1990), "A Non-Traditional/Proactive Approach to Undergraduate International Business Programs: A Conceptual Model," *WDSI Conference Proceedings*, 156.

John T. Mentzer and Brenda Ponsford Konrad (1988), "Performance Analysis in Logistics from an Efficiency/Effectiveness Perspective," *Council of Logistics Management Educators' Conference Proceedings*, 119-135.

### **Professional Memberships**

American Marketing Association  
Academy of Marketing Science  
Midwest Marketing Association  
MIT Enterprise Forum, San Diego Chapter -- Marketing Committee  
NAACP  
Southern Marketing Association  
Western Decision Sciences Institute  
Western Marketing Educators Association  
World Trade Association of San Diego

### **Awards**

Council of Logistics Management Student Honoree (Mid-Atlantic) 1987  
Awarded Tuition Waiver Fall 1987  
Maude E. Wallace Scholarship 1977 (academic)  
Beta Gamma Sigma (Business Honor Society)  
Alpha Mu Alpha (Marketing Honor Society)

**Reviewer**

Journal of Business Research 1992  
Academy of Marketing Science 1992  
Western Decision Sciences Institute 1989, 1990, 1991  
Southern Marketing Association Conference 1990  
Council of Logistics Management 1991  
Second International Conference on Marketing & Economic Development  
1988

**Track Chair**

Co-chair for 1991, 1992 WDSI Student Paper Track

**Session Chair**

Western Decision Sciences Institute 1992

**Panelist**

Academy of Marketing Sciences 1992

**Discussant**

Western Decision Sciences Institute 1990, 1991, 1992, 1993  
Academy of Business Administration 1992  
Southwestern Decision Sciences Institute 1992  
Academy of Marketing Sciences 1992  
Southern Marketing Association 1990  
Decision Sciences Institute 1990



## Conferences Attended

Western Decision Sciences 1989-1992  
Academy of Business Administration 1992  
Southwestern Decision Sciences 1992  
Academy of Marketing Sciences 1992  
AMA Educator's Conference 1988, 1990, 1991, 1993  
AMA Channels Consortium, 1988  
Western Marketing Educators 1991  
Southern Marketing Association 1990  
National Decision Sciences 1990  
Council of Logistics Management 1987, 1990  
Minorities in Marketing, N.C. A. & T., 1987  
All Rutgers Marketing Consortium 1989  
Export Management - St. Peter's College 1989

## Workshops Given

America's Cup Merchants Association  
Hotel del Coronado: Customer Service and the International Visitor  
Pulaski Downtown Merchants' Association:  
Advertising and the Small Business

## References

John (Tom) Mentzer, Ph.D.  
Marketing, College of Business  
Virginia Polytechnic Institute and State University  
Blacksburg, VA 24061

David Burt, Ph.D., N.A.P.M. Professor, and John Ronchetto, Ph.D.  
Marketing, School of Business  
University of San Diego  
San Diego, CA 92110

Howard Combs, Ph.D.  
Chair, Dept. of Marketing, College of Business  
Radford University  
Radford, VA 24142

*Brenda Jeannette Pansford*