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INTERORGANIZATIONAL GOVERNANCE RESPONSE STRATEGIES TO ACTIVE AND PASSIVE EX POST OPPORTUNISM: INCREASED UNDERSTANDING VIA VALUE-BASED BOUNDARY CONSTRAINTS

By

Steven Head Seggie

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ABSTRACT

INTERORGANIZATIONAL GOVERNANCE RESPONSE STRATEGIES TO ACTIVE AND PASSIVE EX POST OPPORTUNISM: INCREASED UNDERSTANDING VIA VALUE-BASED BOUNDARY CONSTRAINTS

By

Steven Head Seggie

This dissertation investigates the governance responses of buyer firms to active and passive ex post opportunism by their supplier partners. The potential for ex post opportunism in an interorganizational relationship is an assumption of transaction cost economics, and this dissertation examines buyer firms' tolerance of active and passive ex post opportunism. In addition, the dissertation examines the role of the value (both economic value and strategic value) of the interorganizational relationship as a safeguard to preserve the relationship when active and passive ex post opportunism accumulate.

The dissertation examines the accumulation of active and passive ex post opportunism in an interorganizational buyer-supplier relationship and the argument is made that ceteris paribus, firms will tolerate a greater accumulation of passive ex post opportunism as opposed to active ex post opportunism before exiting the relationship. In addition, it is argued that in interorganizational buyer-supplier relationships where there is high strategic value for the receiving party of the ex post opportunism, when the receiving party of the ex post opportunism exits the relationship they will exit via vertical integration.

The results of the study indicate support for the hypothesized greater tolerance of the accumulation of passive ex post opportunism than active ex post opportunism. In addition, results also demonstrate that when there is high economic value and high

strategic value derived from the relationship by the receiving party of the active or passive ex post opportunism, then this party will tolerate a greater accumulation of the active or passive ex post opportunism than when there is low economic value and low strategic value. However, the results do not find support for the hypothesized exit via vertical integration when strategic value is high, instead indicating that firms exit via reverting to market exchange irrespective the level of economic value and strategic value.

DEDICATION

This is dedicated with love and gratitude to my wife Nevra.
Without your support, your belief and your love, this would not have been possible.

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

Introduction

Background

The threat of ex post opportunism (i.e., opportunism during an ongoing relationship) by partners in long-term interorganizational relationships (Williamson, 1975) compels firms to adopt governance structures to counteract this threat (Anderson and Coughlan, 1987; Heide and John, 1990). Although the movement toward fostering long-term relationships has enhanced performance, scholars (e.g., Anderson and Jap, 2005; Jap and Anderson, 2003) note that instances of ex post opportunism often arise in long-term relationships.

Theoretically, the potential for ex post opportunism in interorganizational relationships is one of the key underlying assumptions of transaction cost economics (Williamson, 1975). Transaction cost economics (TCE) is the dominant paradigm in the study of interorganizational governance (Ghosh and John, 1999) and proponents of TCE explain the potential existence of ex post opportunism in long-term relationships as a result of a small numbers condition that develops in the relationship (Williamson, 1975). In a small numbers condition, partners to the relationship have an advantage with regard to continuation of the relationship, as it is difficult for firms external to the relationship to compete and bid against either of the partners. Lacking outside bids, firms become vulnerable to potential ex post opportunistic behavior from their partners (Williamson, 1975, 1985).

In spite of the prevalence of ex post opportunism in interorganizational relationships and the fact that the potential existence of ex post opportunism in these relationships is a key underlying assumption of TCE, reviews of the TCE literature (e.g., Macher and Richman, 2005; Rindfleisch and Heide, 1997) show that few studies have directly measured ex post opportunism, its consequences or responses to it. Of the studies that are the exception to this, there are three major concerns: (1) there are contradictory findings regarding appropriate responses to ex post opportunism; (2) there is a lack of conceptual consistency with regard to ex post opportunism; and (3) although long-term in nature, ex post opportunism is primarily analyzed via cross-sectional studies therefore only implying causality rather than testing causality. These are all explained in greater detail following.

Results from studies examining appropriate responses to ex post opportunism have been inconsistent. TCE arguments caution to protect against ex post opportunism in interorganizational relationships. Some studies support the traditional TCE logic that opportunism has a deleterious impact on the performance of a relationship (e.g., Parkhe, 1993) and thus should not be tolerated. However, other studies not only demonstrate that firms tolerate a certain amount of ex post opportunism by partners (e.g., Bergen, Heide, and Dutta, 1998), but also that it is optimal for firms to tolerate some level of ex post opportunism (e.g., Dutta, Bergen, and John, 1994). This inconsistency of results within the extant TCE literature may be partially attributable to lack of specification of the construct of opportunism itself as discussed next.

Scholars have recently argued that there is a lack of conceptual consistency with regard to what behaviors actually constitute ex post opportunism (Wathne and Heide, 2000). The extant literature suggests a broad range of behaviors including behaviors where firms make an active effort to behave opportunistically (e.g., Gundlach, Achrol, and Mentzer, 1995; Jap and Anderson, 2003; Parkhe, 1993) and also behaviors where firms withhold efforts and are thus opportunistic (e.g., Anderson, 1988; Dahlstrom and Nygaard, 1999; John, 1984). In response to this lack of conceptual clarity, Wathne and Heide (2000) conceptualized two main forms of ex post opportunism: active ex post opportunism and passive ex post opportunism.

Active ex post opportunism is when a firm engages in a particular behavior to its own benefit that violates certain explicit or implicit restrictions in the relationship or engages in forced renegotiation to its own benefit in response to new circumstances (Wathne and Heide, 2000). This is otherwise referred to as ex post opportunism by commission. These behaviors include acts such as lying (e.g., Lee, 1998; Provan and Skinner, 1989; Rokkan, Heide and Wathne, 2003), breaching formal or informal agreements (e.g., Achrol and Gundlach, 1999; Rokkan et al. 2003), alteration of facts (e.g., John 1984; Parkhe, 1993), making false accusations (e.g., Jap and Anderson, 2003), exaggerating difficulties (e.g., Anderson, 1988; Provan and Skinner, 1989), and using unexpected events to extract concessions from partners (e.g., Rokkan et al., 2003).

Passive ex post opportunism is when a firm, for its own benefit, evades obligations previously agreed upon either explicitly or implicitly or refuses to adapt to new circumstances (Wathne and Heide, 2000). This is otherwise referred to as ex post opportunism by omission. This may include firms not doing as promised (Anderson, 1988; Dahlstrom and Nygaard, 1999; Jap and Anderson, 2003; John, 1984), hiding information (Dahlstrom and Nygaard, 1999), not telling the whole truth (Anderson, 1988); neglecting to fulfill obligations (Lee, 1998), not providing proper notification (Jap and Anderson, 2003) and not accepting responsibility (Jap and Anderson, 2003).

Although Wathne and Heide (2000) theorize the existence of the two different forms of ex post opportunism and different outcomes, as far as I am aware, there has yet to be any published studies testing these different forms. In this dissertation it is argued that the delineation of the specific types of opportunism may provide for greater clarity of response to ex post opportunism.

Furthermore, in this dissertation it is stated that contradictory findings related to the appropriate response to ex post opportunism are partially attributable to models that have been conceptually underspecified. Specifically, the extant ex post opportunism literature neglects the concept of value in an interorganizational relationship, instead focusing on minimizing cost. However, Williamson implies the importance of value through his direct link of TCE to Coase's theorem (Williamson, 1996b) and his implication that interorganizational relationships have both a strategic and economic value (Williamson, 1975). In addition, other scholars (e.g., Ghosh and John, 1999; Kaufmann, 1987) have suggested that relationships should be analyzed from the perspective of value. In spite of this focus in theoretical works of TCE on the importance of the different types of value of interorganizational relationships, the extant empirical TCE and more specifically, ex post opportunism literature, does not reflect this. Here it is argued that through the incorporation of economic and strategic value as boundary constraints to the model, greater specificity in the timing of exit as well as the type of exit (i.e., through market exchange or vertical integration) can be determined.

Finally, although TCE is conceptually longitudinal, studies of ex post opportunism have been almost exclusively empirically cross-sectional (Macher and Richman, 2005; Rindfleisch and Heide, 1997), thus unable to methodologically match the conceptual nature of the theory, possibly leading to inconsistencies in findings. Studying a longitudinal problem with a cross-sectional approach naturally hampers the validity of findings and in addition, neglects the accumulative aspects of the phenomenon. Conducting an analysis of active and passive ex post opportunism in a longitudinal experiment (cf., Lehmann and Pan, 1994) could assist in advancing understanding in this area.

Purpose of the Study

This dissertation intends to address the major concerns highlighted in the introduction. In this dissertation the responses of buyers to the accumulation of both active and passive ex post opportunism by suppliers over the course of an interorganizational relationship under varying boundary conditions of value are examined. Thus, ex post decisions by buyers in ongoing relationships regarding changes in governance structure in response to this accumulation are examined, therefore acknowledging the fact that interorganizational relationships change over time and governance decisions can change over a relationship (Williamson, 1975). As such, this dissertation will provide answers to the following questions: (1) Do buyers respond differently to the accumulation of active ex post opportunism as opposed to the accumulation of passive ex post opportunism by suppliers in long-term interorganizational relationships? (2) What accumulation of either active or passive ex post opportunism do buyers tolerate before changing the governance structure and how is this impacted by the various boundary conditions of value? (3) Under what boundary conditions do buyers exit through vertical integration and under what boundary conditions do they exit through market exchange?

This remainder of this dissertation is organized as follows. In Chapter 2, an overview of transaction cost economics and ex post opportunism is provided. In Chapter 3, the theoretical model and hypotheses are laid out. This model and hypotheses are developed from the transaction cost economics paradigm. Chapter 4 presents the research design of the study including the in-depth interviews, quantitative pre-testing, pilot study and the longitudinal experiment. The in-depth interviews are employed to inform the scenarios and ex post opportunistic behaviors utilized in the longitudinal experiment. In Chapter 5 the results are presented, and in Chapter 6 the managerial and theoretical contributions of the study are discussed.

CHAPTER 2

The Theoretical Foundation

The possibility that ex post opportunism may occur in interorganizational buyer-supplier relationships is an underlying assumption of transaction cost economics (Williamson, 1975, 1985, 1996b). An overview of transaction cost economics is proffered, followed by a theoretical examination of the construct of opportunism.

Transaction Cost Economics

Transaction cost economics is part of the New Institutional Economics and builds upon the work of Coase (1937) to state that firms are governance structures and that transaction costs rather than production costs should be the focus of analysis (Williamson, 1975). In TCE the transaction is the unit of analysis and the focus of the theory is on minimizing transaction costs through different forms of governance (Williamson, 1975, 1979, 1985, 1996b). These different forms of governance are market exchange, vertical integration and hybrid governance forms. The preferred governance form is that which minimizes the transaction costs. The theory rests upon four dimensions of transactions and three assumptions (Williamson, 1975). The dimensions of transactions are asset specificity, environmental uncertainty, behavioral uncertainty and transaction frequency and the assumptions are bounded rationality, opportunism, and risk neutrality. These are explained in greater detail next.

The first dimension of transactions in TCE is asset specificity. This is the degree to which assets are particular to a transaction and have limited value outside of that transaction (Williamson, 1991). As asset specificity increases, the ability to redeploy the asset elsewhere decreases and this leads to a safeguarding problem due to the potential for opportunistic behavior. TCE predicts that a transaction with high asset specificity will take place in a hierarchical form of governance, with low asset specificity will take place in the market, and with intermediate asset specificity will take place in hybrid forms of governance (Williamson, 1991). For example, Proctor & Gamble has employees based at Wal-Mart headquarters in Arkansas to coordinate the sale of P&G products in Wal-Mart stores across the United States and beyond (Rokkan, Heide, and Wathne, 2003). These employees constitute a specific investment by P&G in its relationship with Wal-Mart.

The second dimension is environmental uncertainty, sometimes referred to as external uncertainty. Environmental uncertainty is defined as "unanticipated changes in circumstances surrounding an exchange" (Noordewier, John, and Nevin, 1990, p.82). The existence of environmental uncertainty leads to the adaptation problem in that partners to the exchange have difficulty in adapting agreements to deal with the changing circumstances (Rindfleisch and Heide, 1997). Ongoing renegotiations of contracts to adjust to the new realities caused by environmental uncertainty will lead to substantial transaction costs.

The third dimension is behavioral uncertainty, sometimes referred to as internal uncertainty. Behavioral uncertainty is when "performance cannot be easily verified ex post" (Rindfleisch and Heide, 1997, p.31). The existence of behavioral uncertainty leads to the performance evaluation problem in that partners have difficulty in evaluating whether or not a partner has complied with an agreement. Gathering the necessary information to check for compliance with agreements also introduces substantial transaction costs (Rindfleisch and Heide, 1997).

The theory states that the level of both forms of uncertainty is only of importance when there is a non-trivial degree of asset specificity (David and Han, 2004). As uncertainty increases in the presence of a non-trivial degree of asset specificity, hybrid forms and hierarchy become more attractive as continuity is important and market governance is costly as a result of haggling and maladaptiveness (Williamson, 1985). However, when uncertainty is high in the presence of non-trivial asset specificity, TCE predicts that both market governance and hierarchy are preferable to hybrid forms of governance. This is because hybrid forms require mutual consent from parties to make adaptations whereas under market exchange adaptations can be made unilaterally and under hierarchy adaptations can be made by fiat (Williamson, 1991).

The final dimension is the frequency of transaction, i.e. how often the transaction takes place. This is also a conditional effect, in that when there is high asset specificity, the theory predicts a high frequency of transactions is more effectively managed in a hierarchical governance structure. This is because it is easier to recuperate the costs of hierarchical governance when the transactions of concern are large and recurring (Williamson, 1985).

The first behavioral assumption of TCE is that decision makers are limited by bounded rationality. That is to say, the human mind is limited in capacity and therefore not capable of providing objectively rational solutions to complex problems. Individuals intend to behave rationally, however, cognitive limitations necessitate that individuals create a simplified model of the situation and direct behavior rationally with regard to this simplified model (Simon, 1957). TCE specifies that bounded rationality creates problems under conditions of environmental uncertainty and behavioral uncertainty (Williamson, 1975; 1985; 1996).

The second behavioral assumption of TCE is that a party to an exchange may behave opportunistically. Williamson (1975; 1985) defines opportunism as self seeking interest with guile including behaviors such as lying, stealing, and breaking agreements. Opportunistic behavior may occur ex ante, i.e., during the relationship initiation stage, or ex post, i.e., during the relationship. Opportunism poses the greatest problems when one party invests assets specific to a transaction that have limited value outside the transaction. In such a situation the party that invests these assets is vulnerable to opportunistic behavior by its partner, as it has limited recourse to the market as a protection against this opportunism (Williamson, 1975; 1985; 1996).

The final behavioral assumption of TCE is that parties to a transaction are risk-neutral (Williamson, 1985). There is no clear definition of risk-neutrality in the TCE literature and as a result scholars have used the definition of risk-neutrality as proffered by neoclassical economists (Chiles and McMackin, 1996). That is to say, the assumption of risk-neutrality is that parties are neither risk seeking nor risk averse, instead occupying a position between these two extremes where the parties neither prefer fluctuating profits over certain profits (risk seeking) or certain profits over fluctuating profits (risk averse) (Chiles and McMackin, 1996) assuming the expected average of both is equal. This assumption of risk neutrality ensures that there is a single point of asset specificity where firms will switch from market to hierarchical governance.

There have been many recent reviews of the TCE literature ranging from literature reviews focusing mainly on marketing (e.g., Rindfleisch and Heide, 1997), to more general literature reviews (e.g., David and Han, 2004; Macher and Richman, 2005) to a recent meta-analysis (Geyskens, Steenkamp, and Kumar, 2006). All of these reviews generally support Williamson's (1996a) assertion that "[T]ransaction cost economics is an empirical success story" (p.55). TCE is the dominant paradigm in interorganizational relationship studies in marketing (Ghosh and John, 1999) and as such many marketing studies have tested the fundamental propositions of TCE. Additionally, there are many studies in non-marketing business disciplines including finance and economics that have tested these fundamental propositions. These studies have used the theory of TCE to examine different contexts including backward and forward integration; use of a direct salesforce or manufacturer's representatives; choice of type of entry mode; and quasi-vertical integration, various levels of vertical coordination and joint action. Table 1 presents a summary of selected studies, ordered by first author's surname, that employ TCE.

Table 1: Summary of Selected Transaction Cost Economics Studies[1]

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Adler, Scherer, Barton & Katerberg (1998)	Contracts in B2B buyer-seller exchanges	Asset specificity; Uncertainty; Contract incompleteness	Type of contract	Asset specificity, uncertainty, and contract incompleteness predict type of contract.
Anderson (1985)	Use of a direct salesforce (salesforce integration) or manufacturers' representatives	Asset specificity; Behavioral uncertainty; Interaction of environmental uncertainty and asset specificity; Transaction frequency	Direct salesforce versus manufacturers' representatives	Two of seven asset specificity measures are positively related to salesforce integration. Behavioral uncertainty and environmental uncertainty x asset specificity are positively related to salesforce integration.
Anderson (1988)	Opportunism in integrated and independent sales forces	Asset specificity; Environmental uncertainty; Behavioral uncertainty	Opportunism	Asset specificity is positively related to opportunism. Behavioral uncertainty is positively related to opportunism.
		Type of sales force; Company and sales person goal congruence; Monitoring of salesperson	Opportunism	Integrated sales forces exhibit less opportunism than manufacturers' reps. Salesperson and company goal congruence decreases opportunism.
Anderson & Coughlan (1987)	Use of independent or integrated channels of distribution in international market entry	Asset specificity	Integrated versus independent channel for international market entry	Asset specificity is positively related to the use of an integrated channel.

[1] The format of the table was adapted from Rindfleisch and Heide (1997).

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Anderson & Schmittlein (1984)	Use of a direct salesforce (salesforce integration) or manufacturer's representatives	Asset specificity; Environmental uncertainty; Behavioral uncertainty; Transaction frequency; Interaction of environmental uncertainty and asset specificity; Interaction of behavioral uncertainty and asset specificity	Direct salesforce versus manufacturers' representatives	Asset specificity and behavioral uncertainty are positively related to salesforce integration.
Anderson & Weitz (1992)	Commitment of manufacturers and distributors in channel relationships	Asset specificity; Perception of asset specificity	Manufacturers' commitment to the dyad; Distributors' commitment to the dyad	Distributor asset specificity and manufacturer asset specificity are positively related to distributor and manufacturer commitment. Manufacturer and distributor perception of asset specificity is positively related to the perception of other party's commitment.
Antia & Frazier (2001)	Contract enforcement in interfirm channel relationships	Asset specificity; Environmental uncertainty; Interaction of asset specificity and environmental uncertainty; Interaction of asset specificity and relationalism.	Contract enforcement	Asset specificity is positively related to contract enforcement. The interaction of asset specificity with relationalism weakens the inverse relationship between relationalism and contract enforcement.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Aulakh & Kotabe (1997)	Channel integration in foreign markets	Asset specificity; Environmental uncertainty	Channel integration	Environmental uncertainty is negatively related to channel integration. As asset specificity increases firms use a market option rather than an intermediate option.
Balakrishnan & Wernerfelt (1986)	Make or buy in B2B relationships	Technological uncertainty	Vertical integration	Integration is affected negatively by technological uncertainty.
Barney, Edwards & Ringleb (1992)	Legal liability and vertical integration	Technological uncertainty; Demand uncertainty	Vertical integration	Technological uncertainty is positively related while demand uncertainty is negatively related to vertical integration.
Bello & Gilliland (1997)	Performance of the export channel	Asset specificity	Flexibility	Asset specificity is positively related to flexibility.
Bensaou & Anderson (1999)	Antecedents of asset specificity in B2B buyer-supplier relationships	Architectural interdependency; Task complexity; Size; Market share; External uncertainty; Technological uncertainty; Supply concentration; Resource standardization; Relationship scope; Relationship age; Supplier performance reputation; Institutional environment	Asset specificity	Task complexity, technological uncertainty, and scope of the relationship are positively related to relationship specific investments. Supplier market share, resource standardization, supplier reputation, and institutional (Japan versus US) environment are negatively related to relationship specific investments.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Bergh & Lawless (1998)	Governance choice under uncertainty	Environmental uncertainty	Portfolio restructuring	Tentative support that increases in environmental uncertainty lead to divestiture and decreases lead to acquisition.
Brouthers (2002)	Entry mode selection	Transaction costs; Asset specificity	Entry mode	Transaction cost is positively related to wholly owned modes of entry.
Brouthers, Brouthers, & Werner (2003)	Entry mode selection	Asset specificity; Behavioral uncertainty; Economic uncertainty; Interaction of asset specificity and economic uncertainty	Entry mode; Performance	Asset specificity and economic uncertainty are positively related to wholly owned modes of entry. Firms that follow TCE prescriptions have better performance than those that do not.
Bucklin & Sengupta (1993)	Organization of co-marketing alliances	Asset specificity; Transaction frequency; Behavioral uncertainty	Power imbalance	Asset specificity and transaction frequency are positively related to power imbalance.
Buvik & Andersen (2002)	Vertical coordination in international B2B purchasing relationships	Behavioral uncertainty; Asset specificity	Ex post transaction costs	Ex post transaction costs are higher in international relationships than in domestic relationships. When there is substantial asset specificity vertical coordination reduces ex post transaction costs more in international than domestic purchasing relationships.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Buvik & John (2000)	Vertical coordination in B2B purchasing relationships	Interaction of environmental uncertainty and asset specificity; Asset specificity; Frequency of transaction	Ex post transaction costs	Frequency of transaction leads to greater ex post transaction costs. Vertical coordination is beneficial in the face of uncertainty and low specific assets. More vertical coordination when uncertainty and specific assets are absent increases governance costs.
Buvik & Reve (2001)	Deployment of specific assets in B2B purchasing relationships	Asset specificity	Formalized purchase contracting	Formality same in cases with mutual -low specificity and unilateral buyer-held specific assets. Formality greater with unilateral supplier-held specific assets than with mutual low asset specificity. Higher formality with unilateral supplier-held than unilateral buyer-held specific assets. Formality is higher with higher than with lower mutual specific assets. Formality is higher with mutual high asset specificity than with unilateral buyer-held specific assets.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Cannon & Perreault (1999)	Buyer-seller relationships in business markets	Asset specificity	Customer satisfaction; Customer evaluation of supplier performance	Mutually adaptive relationships (i.e. with high mutual asset specificity) are positively related to customer satisfaction and customer evaluation of supplier performance.
Celly, Spekman & Kamauff (1999)	B2B purchasing arrangements in the Pacific Rim	Technological uncertainty; Competition; Importance of supplier responsiveness; Lack of importance of traditional purchasing criteria;	Asset specificity	Technological uncertainty and importance of supplier responsiveness are positively related to asset specificity.
		Asset specificity	Relationship stability; Buyer information sharing	Asset specificity is positively related to relationship stability and buyer information sharing.
Coles & Hesterly (1998)	Make or buy decisions in public hospitals	Asset specificity; Interaction of environmental uncertainty and asset specificity	Vertical integration	Asset specificity is positively related to vertical integration. The interaction of environmental uncertainty and asset specificity is positively related to vertical integration.
Combs & Ketchen (1999)	Interfirm cooperation and performance	Asset specificity	Interfirm cooperation	Asset specificity is positively related to interfirm cooperation.
Crocker & Masten (1988)	Design and duration of long-term contractual relationships	Uncertainty	Contract length	Increases in uncertainty shorten average contract length

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Dutta, Bergen, Heide & John (1995)	Plural distribution systems	Behavioral uncertainty	Single versus dual channels	Behavioral uncertainty is positively related to the use of dual channels.
Dutta, Heide & Bergen (1999)	Issues of vertical territorial restrictions	Behavioral uncertainty; Asset specificity	Deployment of territorial restrictions	Behavioral uncertainty is negatively related while asset specificity is positively related to territorial restrictions.
Dutta & John (1995)	Competition as a safeguard in TCE	Asset specificity	Single or multiple vendor	Asset specificity is positively related to multiple vendors.
		Number of suppliers	Supplier's selling price	Monopoly sellers charge higher prices than sellers in duopoly.
Dyer (1996)	Supplier networks in the auto industry	Asset specificity	Speed of new product development; Quality; Inventory cost	Human asset specificity is positively related to quality and new model cycle time. Interfirm asset specificity is positively related to profitability.
Dyer (1997)	Minimization of transaction costs and maximization of transaction value	Asset specificity	Transaction costs	Findings do not support the TCE propositions.
Dyer & Chu (2003)	Supplier-buyer relationships in the United States, Japan, and Korea	Trust; Trustworthiness	Transaction costs	Trust negatively related to ex ante and ex post transaction costs in pooled sample, and to ex post transaction costs in US sample. Trustworthiness is negatively related to ex post transaction costs.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Erramilli & Rao (1993)	International entry mode for service firms	Asset specificity	Control in entry mode	When asset specificity is low service firms share control. This is moderated by country risk, firm size and separability of production and consumption.
Fein & Anderson (1997)	Credible commitments in B2B distribution channels	Asset specificity	Territory selectivity granted to distributor by supplier.	Asset specific investments by distributors are positively related to manufacturers granting territory selectivity.
			Brand selectivity granted to supplier by distributor.	Asset specific investments by suppliers are positively related to distributors granting brand selectivity.
Folta (1998)	Trade-off between administrative control and commitment	Technological uncertainty; Interaction of technological uncertainty and asset specificity	Equity collaboration versus collaborations	Technological uncertainty and the interaction between technological uncertainty and asset specificity are positively related to the use of equity collaboration.
Ganesan (1994)	B2B buyer-seller relationships	Asset specificity	Dependence, credibility, benevolence	Vendors' perception of retailer's transaction specific investments has a positive effect on vendors' perception of retailer dependence.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Gatignon & Anderson (1988)	Ownership of foreign subsidiaries of US multinational companies	Asset specificity; Environmental uncertainty; Behavioral uncertainty; Interaction of asset specificity and environmental uncertainty	Equity ownership of foreign subsidiary (%)	Environmental uncertainty is negatively related while behavioral uncertainty is positively related to percentage of equity ownership.
			Total versus partial ownership of subsidiary	Under high asset specificity, high behavioral and low environmental uncertainty, total ownership is likely.
Heide & John (1988)	Dependence balancing in B2B marketing channels	Asset specificity	Offsetting of investments.	Increased asset specificity is positively related to offsetting investments.
			Replaceability of partner.	Asset specificity is negatively related to replaceability.
Heide & John (1990)	Joint action in B2B buyer-supplier relationships	Asset specificity; Environmental uncertainty; Behavioral uncertainty	Joint action	Joint action increases with OEM specific investments and suppliers' specific investments.
			Expectations of continuity	Technological uncertainty decreases continuity expectation.
			Supplier verification efforts	Behavioral uncertainty increases the level of verification efforts.
Heide & John (1992)	Impact of norms on B2B buyer-seller relationships	Asset specificity; Interaction of asset specificity and relational norms	Buyer's control over supplier decisions	Buyer asset specificity is negatively related to buyer control.
				Asset specificity x relational norms is positively related to buyer control.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Houston & Johnson (2000)	Buyer-supplier contracts versus joint ventures	Asset specificity; Behavioral uncertainty	Joint venture versus contract	Asset specificity is positively related to joint venture formation. Behavioral uncertainty is positively related to joint venture formation.
Ingham & Thompson (1994)	Wholly-owned versus collaborative ventures	Asset specificity	Degree of wholly-owned activity	Asset specificity is positively related to whole ownership.
Jap (1999)	Collaboration in B2B buyer-supplier relationships	Environmental factors; Dyadic goal congruence; Complementary capabilities; Belief in trustworthiness; Asset specificity (as moderator)	Profit performance; Realized competitive advantages	Environmental factors are positively related to asset specificity. Complementary capabilities are positively related to asset specificity. Asset specificity is positively related to profit performance and realized competitive advantage.
Jap & Ganesan (2000)	Safeguarding investments through the relationship lifecycle in B2B buyer-seller relationships	Asset specificity; Interaction of retailers' asset specificity and suppliers' asset specificity; Interaction of retailers' asset specificity and relational norms; Interaction of retailers' asset specificity and explicit contracts	Retailers' perception of suppliers' commitment (as mediator)	Retailers' transaction specific investments are negatively related to commitment. Suppliers' transaction specific investments are positively related to commitment.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
John & Weitz (1989)	Salary versus incentive compensation for the salesforce of industrial firms	Environmental uncertainty; Behavioral uncertainty; Salesperson replaceability; Interaction of salesperson replaceability and environmental uncertainty	Percentage paid in salary	Behavioral uncertainty, salesperson replaceability and the interaction with environmental uncertainty are positively related to the percentage of salary compensation.
Joshi & Stump (1999a)	Asset specificity in B2B purchasing relationships	Asset specificity; Interaction of behavioral uncertainty and asset specificity	Joint action	Asset specificity is positively related to joint action. The positive relationship between asset specificity and joint action is increased with enhanced levels of behavioral uncertainty.
Joshi & Stump (1999b)	Inter-organizational governance	Asset specificity; Technological uncertainty	Ex post opportunism (and mediators of manufacturer dependency and manufacturer long-term orientation)	Asset specificity is positively related to dependence. Asset specificity is negatively related to long-term orientation. Technological uncertainty is negatively related to long-term orientation. Dependence and long-term orientation are negatively related to opportunism.
Joskow (1987)	Relationship specific investments in coal markets	Asset specificity	Duration of contract	Asset specificity is positively related to the length of the contract.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Kim (1999)	Joint action in B2B buyer-supplier relationships	Asset specificity	Dependence; Service differentiation; Joint action	Distributor asset specificity is positively related to joint action, distributor dependence and service differentiation.
Kim & Hwang (1992)	Multinationals' entry mode choices	Environmental uncertainty; Asset specificity	Entry mode	No support for TCE propositions.
Klaas, McClendon & Gainey (1999)	The role of transaction costs on the impact of HR outsourcing	Interaction of asset specificity and HR outsourcing; Interaction of uncertainty and HR outsourcing	Benefits from outsourcing	Asset specificity and uncertainty positively moderated the relationship between HR outsourcing and perceived benefits.
Klein (1989)	The levels of control that companies maintain over the export channel	Asset specificity; Environmental uncertainty; Transaction frequency	Vertical control of export channel	When there is high asset specificity, high uncertainty and high transaction frequency then exporters exert greater control over the export channel.
Klein, Frazier & Roth (1990)	Channel integration in international markets	Asset specificity; Environmental uncertainty	Channel integration in international markets	Asset specificity is positively related to channel integration. Findings provide some support for the positive effect of environmental uncertainty on channel integration.
Klein & Roth (1990)	Foreign market entry type	Asset specificity	Foreign market entry type	Experience and psychic distance are moderated by asset specificity in their relationship with foreign market entry type.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Krafft (1999)	Sales force control systems	Environmental uncertainty; Behavioral uncertainty; Asset specificity; Interaction of asset specificity and uncertainty	Sales force control	Uncertainty has a positive relationship with behavioral control. Behavioral uncertainty has a positive relationship with behavioral control.
Leiblein & Miller (2003)	The vertical boundaries of the firm	Asset specificity; Uncertainty; Interaction of asset specificity and uncertainty	Vertical integration	The interaction of asset specificity and uncertainty is positively related to vertical integration. Uncertainty is negatively related to vertical integration.
Leiblein, Reur & Dalsace (2002)	The influence of governance on performance	Asset specificity; Environmental uncertainty; Interaction of asset specificity and environmental uncertainty	Internalization of governance	Environmental uncertainty is positively associated with internalization. Asset specificity is positively related to internalization. The interaction of asset specificity and environmental uncertainty is negatively related to internalization.
Levy (1985)	Vertical integration in B2B buyer-supplier relationships	Asset specificity; Environmental uncertainty	Degree of vertical integration	Asset specificity and environmental uncertainty positively related to the degree of vertical integration.
Lieberman (1991)	Upstream and downstream integration in B2B markets	Asset specificity	Level of vertical integration	Asset specificity is positively related to vertical integration.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Lyons (1995)	Test of TCE in engineering firms	Asset specificity	Degree of vertical integration	Asset specificity only has influence on the level of vertical integration in the presence of economies of scale.
Majumdar & Ramaswamy (1994)	Downstream integration	Environmental uncertainty; Behavioral uncertainty; Asset specificity; Transaction frequency	Degree of vertical integration	Environmental uncertainty, behavioral uncertainty, asset specificity, and transaction frequency are positively related to the degree of vertical integration.
Masten, Meehan & Snyder (1991)	Costs of organization	Asset specificity; Environmental uncertainty	Vertical integration; Costs of internal organization	Asset specificity and environmental uncertainty are positively related to internal organization due to the reduction in cost of internal organization.
Masten (1984)	Organization of production in the aerospace industry	Asset specificity; Environmental uncertainty	Vertical integration	Asset specificity and environmental uncertainty are positively related to internal organization. The interaction of asset specificity and environmental uncertainty has a multiplicative effect on internal organization.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
McNaughton (2002)	Use of multiple export channels by small firms	Asset specificity; Environmental uncertainty	Multiple export channel use	Physical asset specificity is negatively related to multiple channel use. Environmental volatility (part of environmental uncertainty) is negatively related to multiple channel use. Environmental diversity (part of environmental uncertainty) is positively related to multiple channel use.
Monteverde & Teece (1982)	Switching costs and vertical integration in the automotive industry	Asset specificity	Internalization of procurement	Asset specificity is positively related to the internalization of procurement.
Murray, Kotabe & Wildt (1995)	Implications of a global sourcing strategy	Asset specificity; Transaction frequency	Market performance	Increased asset specificity provides better financial performance under internal sourcing.
Nickerson, Hamilton & Wada (2001)	Linking Porter and Williamson's work.	Asset specificity	Vertical integration	The existence of specific assets increases the likelihood of vertical integration.
Noordewier, John & Nevin (1990)	B2B buyer-vendor relationships	Environmental uncertainty	Acquisition cost	High relational governance reduces the acquisition cost under environmental uncertainty.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Parkhe (1993)	Examination of interfirm cooperation	Perception of opportunism;	Performance; Contractual safeguards	The perception of opportunism is negatively related to performance and positively related to contractual safeguards.
		History of cooperation;	Perception of opportunism	Cooperative history is negatively related to the perception of opportunism.
		Asset specificity	Perception of opportunism; Length of relationship; Performance	Asset specificity is positively related to performance and length of relationship. Asset specificity is negatively related to the perception of opportunism.
Pilling, Crosby & Jackson (1994)	Empirical examination of the transaction cost economics framework.	Asset specificity; Environmental uncertainty; Transaction frequency	Ex ante and ex post transaction costs	Asset specificity is positively related to ex ante and ex post transaction costs. Environmental uncertainty is positively related to ex ante transaction costs.
Poppo & Zenger (1998)	Testing alternative theories of the firm	Asset specificity; Behavioral uncertainty; Technological uncertainty	Market versus internal organization	Asset specificity is negatively related to satisfaction with outsourcing. Asset specificity is negatively related to market performance. Behavioral uncertainty is negatively related to satisfaction with internal activity.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Reuer & Arino (2002)	Renegotiation of contracts in strategic alliances	Asset specificity; Governance misfit	Contractual renegotiation	Governance misfit and asset specificity are positively related to contractual renegotiations.
Robertson & Gatignon (1998)	Use of internal R&D versus alliances in the development of technology	Asset specificity; Environmental uncertainty; Behavioral uncertainty	Internal development versus alliance	Asset specificity is negatively related while technological uncertainty and behavioral uncertainty are positively related to the use of alliances.
Rokkan, Heide & Wathne (2003)	Impact of specific investments on opportunism in B2B buyer-seller relationships	Asset specificity	Ex post opportunism	Specific investments promote opportunism where there are weak solidarity norms. Strong solidarity norms decrease opportunism. Likely future interactions reduces possibility of opportunism for buyers but not suppliers.
Skarmeas, Katsikeas & Schlegelmilch (2002)	Performance of cross-cultural buyer-seller relationships from the importers' perspective.	Asset specificity; Opportunism; Environmental uncertainty	Commitment	Importer asset specificity is positively related to importer commitment. Overseas supplier opportunism is negatively related to importer commitment.
		Environmental uncertainty; Cultural sensitivity	Opportunism	Environmental uncertainty is positively related to overseas supplier opportunism while exporter cultural sensitivity is negatively related to exporter opportunism.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Steensma, Marino, Weaver, & Dickson (2000)	Influence of national culture on the formation of technology alliances	Environmental uncertainty Interaction of culture variables and environmental uncertainty.	Use of technology alliances	Technological uncertainty is positively related to the use of technology alliances. The interaction of uncertainty avoidance and technological uncertainty is positively related to the use of technology alliances. The interaction of masculinity and technological uncertainty is negatively related to the use of technology alliances.
			Use of equity ties in alliances	The interaction of individualism and technological uncertainty is negatively related to the use of equity ties in alliance formation.
Stump & Heide (1996)	Manufacturers' organization of buyer-supplier relationships	Asset specificity	Buyer qualification of supplier ability; Buyer qualification of supplier motivation; Specific investments by suppliers; Monitoring	Buyers protect specific investments through the careful selection of suppliers, and supplier specific investments.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Subramani & Venkatraman (2003)	Safeguarding of investments in asymmetric inter-organizational relationships	Asset specificity (site, physical, business process, domain knowledge).	Joint decision making	Business process specificity is positively related to joint decision making.
				Domain knowledge specificity is positively related to joint decision making.
				Physical asset specificity is positively related to joint decision making
			Quasi-integration	Domain knowledge specificity is positively related to quasi-integration.
				Physical asset specificity is positively related to quasi-integration.
Walker & Weber (1984)	Relationships between B2B buyers and suppliers	Environmental Uncertainty	Component bought or made	Volume uncertainty affects make or buy decisions.
Walker & Weber (1987)	Relationships between B2B buyers and suppliers	Environmental Uncertainty	Component bought or made	The interaction of market competition and volume uncertainty affects make or buy decisions.
Weiss & Anderson (1992)	Use of an independent salesforce or direct (integrated) salesforce	Asset specificity; Behavioral uncertainty	Manufacturers' dissatisfaction with representatives.	Specific investments made by sales reps reduce manufacturer dissatisfaction.
			Intention to integrate salesforce	Behavioral uncertainty is positively related to the intention to integrate the salesforce.

Table 1 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Weiss & Kurland (1997)	Holding channel relationships together	Asset specificity; Interaction of asset specificity and length of relationship	Relationship termination	Manufacturer specific assets and customer specific assets are negatively related to relationship termination. The likelihood of relationship termination decreases with the length of the relationship, holding customer specific and manufacturer specific assets constant.
Widener & Selto (1999)	Outsourcing of internal auditing activities	Asset specificity; Environmental uncertainty; Interaction of asset specificity and environmental uncertainty; Behavioral uncertainty; Interaction of asset specificity and behavioral uncertainty; Transaction frequency; Interaction of transaction frequency and asset specificity	Internalization	Asset specificity is negatively related to outsourcing. Transaction frequency is negatively related to outsourcing. The interaction of asset specificity and transaction frequency is positively related to outsourcing.
Zaheer & Venkatraman (1994)	Electronic integration in the insurance industry	Asset specificity; Reciprocal investments	Degree of electronic integration	Asset specificity is positively related to electronic integration.
Zaheer & Venkatraman (1995)	Relational governance in inter-organizational relationships	Asset specificity; Behavioral uncertainty; Reciprocal investments	Quasi-integration	Asset specificity is positively related to quasi-integration.

Safeguarding Problem

The safeguarding problem is when a firm invests in specific assets and is concerned that its partner firm may opportunistically exploit the existence of these assets (Rindfleisch and Heide, 1997). In TCE arguments, it is thought that the existence of specific assets increases safeguarding costs and TCE proposes that the way to minimize these safeguarding costs is through vertical integration (Williamson, 1985). That is to say, vertical integration is proposed as a safeguard for these specific assets. Williamson (1975; 1985) argues that asset specificity is the key independent variable driving the choice of governance structure. Table 1 and reviews of the transaction cost literature (e.g., David and Han, 2004; Geyskens, Steenkamp, and Kumar, 2006) show that the proposition that asset specificity leads to greater integration is generally supported in the many different contexts that it has been tested in. That is to say, asset specificity has been found to be positively related to greater integration.

Specifically, studies in upstream and downstream integration support the TCE proposition that vertical integration performs the task of safeguarding specific assets. For example, studies indicate that when production components require specific investments then there is a greater likelihood of them being produced in-house than externally (Masten, 1984; Monteverde and Teece, 1982). Majumdar and Ramaswamy (1994) examined 1,392 firms from an assortment of industries and found that both physical asset specificity and intangible asset specificity were positively related to vertical integration. Likewise, Levy (1985) found a positive relationship between research intensity (used as a proxy for asset specificity) and vertical integration, in a sample of 69 firms from 37 different industries over four years.

The foreign market entry literature is another context supporting the TCE proposition. Here, studies with asset specificity as an independent variable are generally associated with entry modes that are more integrated. For example, Anderson and Coughlan (1987) examined 94 market entry ventures by 36 U.S.-based firms in the semiconductor industry and found that higher levels of asset specificity lead to a greater use of an integrated channel of distribution as opposed to an independent channel. Other studies in the foreign market entry literature (e.g., Brouthers, Brouthers, and Werner, 2003; Lu, 2002) also support the proposition that asset specificity leads to use of a wholly-owned entry mode and not an independent one.

Additionally, studies in the sales marketing literature suggest support for the asset specificity proposition. For example, Anderson (1985) used data from the electronic components industry to examine the decision of 13 manufacturing firms in the choice of the use of an integrated or independent salesforce. She found that asset specificity, in the form of complex brands that experienced salespeople need a lot of time to learn, and investment in relationships within and specific to the firm, are positively related to an integrated salesforce. Also, Anderson and Schmittlein (1984) provide further support for the proposition that greater asset specificity increases the likelihood of an integrated salesforce with their study of 145 sales managers from 16 manufacturing firms in the electronic components industry.

In addition to vertical integration as a safeguard against opportunism in the presence of specific assets, recent TCE theoretical developments suggest the use of various hybrid mechanisms. These hybrid mechanisms can be separated into two types: unilateral and bilateral (Heide, 1994; Rindfleisch and Heide, 1997). The unilateral hybrid mechanism involves use of contractual authority, while the bilateral hybrid mechanism involves developing closer ties between partners (Rindfleisch and Heide, 1997). An example of a unilateral hybrid mechanism is given by Joskow (1987). In his study of 277 coal contracts, he finds that 'site specificity', i.e., when "[T]he buyer and supplier are in a "cheek-by-jowl" relationship with one another" (p. 170), increases the likelihood of longer-term contracts. An example of a bilateral hybrid mechanism is recounted by Kim (1999) in his study of 276 distributor firms from three US industries: industrial machinery and equipment, industrial supplies, and hardware. He finds that specialized investment by the distributor (i.e., asset specificity) increases the likelihood of interfirm joint action between the distributor and supplier. Further support for this positive relationship between asset specificity and joint action can be seen in studies by Subramani and Venkatraman (2003), Joshi and Stump (1999a) and Heide and John (1990).

In conclusion, it is possible to state that the proposition that greater asset specificity in the presence of possible opportunistic behavior leads to vertical integration is generally supported by the extant literature in TCE. This literature shows that many firms make use of vertical integration as a mode of governance when they have invested in assets specific to a transaction to safeguard their assets from opportunistic behaviors. Although the use of vertical integration as a safeguard is broadly supported, studies also show that firms may also make use of various unilateral and bilateral safeguards such as long-term contracts, joint action, and quasi-integration.

Adaptation Problem

The adaptation problem is when a firm cannot modify its existing contractual agreements to react to changes in the external environment. This inability to modify existing agreements results from the bounded rationality of the managers in the firm (Rindfleisch and Heide, 1997). TCE arguments suggest that in conditions of high environmental uncertainty, there is an increase in transaction costs and as such firms should use vertical integration to minimize these transaction costs (Rindfleisch and Heide, 1997; Williamson, 1975, 1985). The adaptation problem only occurs when there is a non-trivial amount of asset specificity (David and Han, 2004). As Geyskens, Steenkamp and Kumar (2006) note, environmental uncertainty coupled with asset specificity necessitates vertical integration, while environmental uncertainty without transaction specific assets is best served by the market. Reviews of TCE (e.g., David and Han, 2004; Rindfleisch and Heide, 1997) and Table 1 demonstrate a substantial numbers of studies examining the adaptation problem. There is less support for the hypothesized relationship between environmental uncertainty and vertical integration than between asset specificity and vertical integration, and in fact some studies suggest that environmental uncertainty decreases the propensity for firms to vertically integrate.

Of the studies that examine the relationship between environmental uncertainty and governance, only a few support the TCE hypothesis. For example, Levy (1985) finds that an increase in unanticipated events increases the likelihood of manufacturing firms engaging in vertical integration. Likewise, Masten (1984), in a study conducted in the aerospace industry, found that higher levels of environmental uncertainty increase the likelihood of internalization of the production of necessary components. Additionally, Majumdar and Ramaswamy (1994) found a positive relationship between environmental uncertainty and downstream integration.

There are also many studies that do not support the TCE hypothesized relationship between environmental uncertainty and vertical integration. For example, Leiblein, Reuer, and Dalsace (2002), in a study conducted in the semiconductor industry find that increased levels of environmental uncertainty increase the likelihood of firms outsourcing rather than internalizing production. Additionally, Brouthers, Brouthers, and Werner (2003) find a similar result in their study of firms' entry modes, that is to say, they find that higher levels of environmental uncertainty decrease the likelihood of wholly-owned modes of entry. Also, Anderson and Schmittlein (1984) find there to be no significant relationship between environmental uncertainty and vertical integration. This inconsistency in results is likely as a result of one of the two following reasons. First, TCE specifies that the adaptation problem only exists when both environmental uncertainty and asset specificity are present. As such, studies that examine the interaction effect of asset specificity and environmental uncertainty may provide greater support for the theoretical predictions. Second, environmental uncertainty has been hypothesized to be a multidimensional construct (Walker and Weber, 1984) with different dimensions having different effects.

Several studies approach the adaptation problem by examining the interaction of environmental uncertainty and asset specificity. For example, Coles and Hesterly (1998) in their study of make or buy decisions in hospitals found that higher levels of environmental uncertainty when there was asset specificity, increases the likelihood of vertical integration. Likewise, Anderson (1985) in her study of manufacturers' use of direct salesforce or manufacturers representatives, found that environmental uncertainty in the presence of asset specificity was positively related to the likelihood of use of the integrated (i.e., direct) salesforce. Finally, Leiblein, Reuer and Dalsace (2002) find that environmental uncertainty when asset specificity is present is negatively related to the decision to outsource production.

Rindfleisch and Heide (1997) credit Walker and Weber (1984) as being the first TCE scholars to theorize different dimensions to environmental uncertainty, i.e., volume uncertainty and technological uncertainty. In a study of the decisions made in the component division of a U.S. automobile manufacturer, Walker and Weber (1984) find that high volume uncertainty increases the likelihood of the firm internalizing production, while technological uncertainty had no significant effect on the make or buy decision. Balakrishnan and Wernerfelt (1986) find that technological uncertainty is negatively related to the propensity of manufacturers to vertically integrate. Similarly, Folta (1998) in his study of the biotechnology industry, finds that the existence of high levels of technological uncertainty increases the likelihood of firms using equity collaborations rather than acquisitions. However, Barney, Edwards and Ringleb (1992) in their study of manufacturers find that technological uncertainty is positively associated with vertical integration while volume uncertainty is negatively associated with vertical integration.

There is mixed support in the extant TCE literature for the hypothesized positive relationship between environmental uncertainty and vertical integration. Some studies support the hypothesis, particularly when the scholars examine the interaction between asset specificity and environmental uncertainty; however, many studies show no relationship or a negative relationship. In addition, even when broken down into its two theorized dimensions conflicting results remain. An explanation for all of these inconsistencies may be that the hypothesized TCE relationship between environmental uncertainty in all its dimensions and vertical integration may be bound by industry. The dynamics of certain industries (e.g., biotechnology) may require firms to be more flexible thus greatly reducing the likelihood of vertical integration. On the other hand, large manufacturing firms may require more stability in relationships and thus may be more likely to vertically integrate in response to technological uncertainty. Either way, it appears possible that there may be industry-specific dynamics that play a powerful role in the decision of firms to integrate or not.

Performance Evaluation Problem

The performance evaluation problem is when a firm has problems assessing whether or not its partner firm has complied with the contract. This inability to assess partner compliance to the contract results from the bounded rationality of the managers in the firm (Rindfleisch and Heide, 1997). TCE arguments suggest that in conditions of high behavioral uncertainty, there is an increase in transaction costs and as such firms should use vertical integration to minimize these transaction costs (Rindfleisch and Heide, 1997; Williamson, 1975, 1985). Reviews of TCE (e.g., David and Han, 2004; Geyskens et al., 2006; Rindfleisch and Heide, 1997) and Table 1 demonstrate fewer studies examining the performance evaluation problem, yet most studies that do examine this problem support the TCE predictions.

For example, Majumdar and Ramaswamy (1994) in their study utilizing the PIMS database find that higher levels of behavioral uncertainty increase the likelihood of downstream integration. Likewise, studies in the use of direct salesforce or manufacturers' representatives (Anderson, 1985; Anderson and Schmittlein, 1984) demonstrate that higher levels of behavioral uncertainty increase the likelihood of the use of a direct salesforce. Furthermore, Houston and Johnson (2000) and Gatignon and Anderson (1988) also support the hypothesized relationship between behavioral uncertainty and greater integration.

To sum up, the extant TCE literature generally supports the positive hypothesized relationship between behavioral uncertainty and vertical integration.

Transaction Frequency

TCE hypothesizes a positive relationship between transaction frequency and vertical integration, as frequently occurring transactions would bring substantial transaction costs associated with monitoring should they occur in the market (Williamson, 1985). However, reviews of the extant literature (e.g., David and Han, 2004; Rindfleisch and Heide, 1997) and Table 1 demonstrate that few studies to date have tested this relationship. Of the studies that are the exception to this, they generally support the predictions of the theory. For example, Majumdar and Ramaswamy (1994) studied 1,392 firms from multiple industries and discovered that transaction frequency was positively related to downstream integration. Likewise, Widener and Selto (1999) found that transaction frequency was negatively related to the likelihood of firms outsourcing internal auditing activities. Finally, Buvik and John (2000) were able to show that the transaction frequency of purchases by original equipment manufacturers was positively related to ex post transaction costs. Theoretically these transaction costs would best be attenuated by vertical integration. Overall, few studies examine the relationship between transaction frequency and vertical integration, however, those that do generally support the predictions of TCE theory.

Having analyzed the extant TCE literature, the dissertation now moves on to examine the extant literature specifically measuring the antecedents and consequences of opportunism in interorganizational relationships. The possibility of partners to an exchange behaving opportunistically during an ongoing relationship is a key assumption of TCE (Williamson, 1975) and the focus of the rest of this dissertation.

Opportunism in Interorganizational Relationships

Opportunism is a key construct in the study of interorganizational relationships, yet issues remain regarding its conceptualization, measurement and empirical testing (Wathne and Heide, 2000). Theoretically, opportunism has been defined as self-seeking interest with guile (Williamson, 1975) and is a focal construct in exchange theory (Jap and Anderson, 2003), particularly TCE. It is key to acknowledge that proponents of TCE do not state that partners will behave opportunistically, but that they may behave opportunistically. Wathne and Heide (2000) list many examples from the extant marketing literature to demonstrate the existence of opportunistic behavior by partners including "falsification of expense reports (Phillips, 1982), breach of distribution contracts (Dutta, Bergen, and John, 1994), ... quality shirking (Hadfield, 1990) and violation of promotion agreements (Murry and Heide, 1998)" (p.36). Clearly, it is not unusual for firms to face the problem of opportunism.

Theoretically, in TCE, opportunism is considered to be of two types, ex ante opportunism and ex post opportunism (Williamson, 1985). Ex ante opportunism is opportunism that occurs in the initiation stage of a relationship whereas ex post opportunism occurs during the process of the relationship. In addition, the contemporary theoretical perspective in TCE is that there exists a dichotomy of opportunism based upon whether the opportunism occurs by commission or omission (Wathne and Heide, 2000). That is to say, there are two types of opportunism, active ex post opportunism (by commission) and passive ex post opportunism (by omission). Active ex post opportunism is when a firm engages in behaviors and is thus opportunistic, whereas passive opportunism is when a firm refrains from behaviors and is thus opportunistic (Wathne and Heide, 2000). For example, behaviors such as lying (Rokkan et al., 2003), breaching agreements (Gundlach et al., 1995), making false accusations (Jap and Anderson, 2003), using unexpected events to extract concessions (Rokkan et al., 2003), altering facts (Achrol and Gundlach, 1999; Anderson, 1988) and not being sincere (Achrol and Gundlach, 1999; Gundlach et al., 1995) constitute acts of active ex post opportunism. Alternatively, behaviors such as a firm not doing as promised (Dahlstrom and Nygaard, 1999; John, 1984), hiding information (Dahlstrom and Nygaard, 1999), not accepting responsibility where appropriate (Jap and Anderson, 2003), not providing proper notification (Jap and Anderson, 2003), and not telling the whole truth (Anderson, 1988) constitute passive ex post opportunism.

Reviews of the TCE literature (e.g., David and Han, 2004; Macher and Richman, 2005; Rindfleisch and Heide, 1997) note few studies that include opportunism as either a dependent or independent variable. Table 2 presents a list of studies, ordered by first author's surname, that are the exception to this.

Table 2: Studies Employing Opportunism as an Independent or Dependent Variable

Author (year)	Context	Independent Variables	Dependent Variable	Findings
Achrol & Gundlach (1999)	Different legal and social safeguards against opportunism.	Commitment by one party; Granting of decision control to one party; Interaction of contractual safeguards and increase in commitment; Relational norms; Interaction of relational norms and increase in commitment; Interaction of decision-control and relational norms; Interaction of contractual norms, relational norms and increase in commitment	Opportunism	An increase in the comparative commitment of one party is positively related to opportunism by the other. Relational norms are negatively related to opportunism. The interaction of relational norms and increase in one party's commitment is negatively related to opportunism.
Anderson (1988)	Opportunism in integrated and independent sales forces	Asset specificity; Environmental uncertainty; Behavioral uncertainty	Opportunism	Asset specificity positively related to opportunism. Behavioral uncertainty positively related to opportunism.
		Type of sales force; Company and sales person goal congruence; Monitoring of salesperson	Opportunism	Integrated sales forces exhibit less opportunism than manufacturers' reps. Salesperson and company goal congruence decreases opportunism.

Table 2 (continued)

Author (year)	Context	Independent Variables	Dependent Variable	Findings
Bergen, Heide & Dutta (1998)	The tolerance of gray market activity	Performance ambiguity; Dual distribution; Exclusive dealing; Free-riding potential; Product maturity	Tolerance of opportunism	A free-riding potential with respect to distributor services is negatively related to tolerance of opportunism. Higher performance ambiguity is positively related to tolerance of opportunism. Commitments by distributors are positively related to tolerance of opportunism. Product maturity is positively associated with tolerance of opportunism.
Brown, Dev & Lee (2000)	Efficacy of alternative governance mechanisms in managing marketing channel opportunism	Vertical integration; Asset specificity; Perception of relational exchange; Vertical integration x asset specificity; Vertical integration x perception of relational exchange; Asset specificity x perception of relational exchange; Vertical integration x asset specificity x perception of relational exchange	Opportunism	The more the hotel invests in specific assets the more opportunistic it will be. The perception of relational exchange mitigates the hotel's opportunism.

Table 2 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Dutta, Bergen & John (1994)	The issue of governing exclusive territories when dealers can bootleg	N/A	N/A	Firms tolerate a certain amount of opportunism and managers should consider importance of services, difficulty of behaving opportunistically, and reseller's perception of manufacturer's commitment when deciding how much opportunism to tolerate.
Jap & Anderson (2003)	Safeguarding interorganizational performance and continuity under ex post opportunism	Interaction of bilateral idiosyncratic investments and ex post opportunism; Interaction of goal congruence and ex post opportunism; Interaction of interpersonal trust and ex post opportunism	Exchange outcomes	At higher levels of ex post opportunism, goal congruence is more positively associated with exchange outcomes. At lower levels of ex post opportunism (not higher levels) interpersonal trust is more positively associated with exchange outcomes.
John (1984)	Antecedents of opportunism in marketing channels	Bureaucratic structuring; Perceptions of coercive power attribution; Attributions of non-contingent power	Opportunism	Bureaucratic structuring (i.e. formalization, centralization and controls) is positively related to opportunism. Coercive power attributions are positively related to opportunism.

Table 2 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Joshi & Arnold (1997)	An experimental examination of the moderating role of relational norms in the relationship between buyer dependence and buyer opportunism in buyer-supplier relationships.	Interaction of dependence and relational norms	Opportunism	Buyer dependence on a supplier is positively related to buyer opportunism when there are low relational norms. Buyer dependence on a supplier is inversely related to buyer opportunism when there are high relational norms.
Lee (1998)	Strategic alliances between importers and exporters	Decision-making uncertainty; Cultural distance; Economic ethnocentrism	Opportunism	Exporters' decision making uncertainty is positively related to their opportunism. Cultural distance is positively related to opportunism. Exporters' economic ethnocentrism is positively related to their opportunism.
Parkhe (1993)	Examination of interfirm cooperation	Perception of opportunism;	Performance; Contractual safeguards	Perception of opportunism is negatively related to performance and positively related to contractual safeguards.
		History of cooperation;	Perception of opportunism	Cooperative history is negatively related to perception of opportunism.
		Asset specificity	Perception of opportunism; Length of relationship; Performance	Asset specificity is positively related to performance and length of relationship and negatively related to perception of opportunism.

Table 2 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Provan & Skinner (1989)	An examination of opportunism in relationships between farm and power equipment dealers and their suppliers	Dependence; Control over decisions	Opportunism	Highly dependent dealers are less likely to engage in opportunistic behavior with their suppliers than less dependent dealers. Supplier control over dealer decisions is positively related to dealer opportunism.
Rokkan, Heide & Wathne (2003)	Impact of specific investments on opportunism in B2B buyer-seller relationships	Asset specificity	Ex post opportunism	Specific investments promote opportunism where there are weak solidarity norms. However, strong solidarity norms decreased opportunism. Possibility of future interactions reduces possibility of opportunism for buyers but not for suppliers.
Sako & Helper (1998)	Determinants of trust in buyer-supplier relationships in the automotive industry in Japan and the US	Vertical integration; Length of written contract; Asset specificity; Interaction of asset specificity and environmental uncertainty	Opportunism	Interaction of asset specificity and environmental uncertainty is positively related to buyer opportunism. Environmental uncertainty is positively related to buyer opportunism.

Table 2 (continued)

Author (year)	Context	Independent Variables	Dependent Variables	Findings
Schilling & Steensma (2002)	Determination of the boundaries of the firm when sourcing technological know-how	Uniqueness of technology to be sourced; Barriers to imitation of technology to be sourced; Uncertainty associated with technology to be sourced.	Perceived threat of opportunism	Barriers to imitation of the technology is positively related to the perceived threat of opportunism.
		Perceived threat of opportunism	Acquisition versus licensing agreement	The perceived threat of opportunism increases the likelihood of an acquisition as opposed to a licensing agreement.
Skarmeas, Katsikeas & Schlegelmilch (2002)	Performance of cross-cultural buyer-seller relationships from the importers' perspective.	Asset specificity; Opportunism; Environmental uncertainty	Commitment	Importer asset specificity is positively related to importer commitment. Overseas supplier opportunism is negatively related to importer commitment.
		Environmental uncertainty; Cultural sensitivity	Opportunism	Environmental uncertainty is positively related to overseas supplier opportunism. Exporter cultural sensitivity is negatively related to exporter opportunism.

Table 2 and reviews of TCE (David and Han, 2004; Macher and Richman, 2005; Rindfleisch and Heide, 1997) note very few studies that directly measure opportunism or its antecedents and consequences. As Macher and Richman (2005) note, this is surprising as there is no theoretical reason, according to TCE arguments, for firms to choose hierarchy over market absent opportunism, or at least the potential for opportunism (Williamson, 1985). Of the 15 studies in Table 2, 10 studies employ opportunism as the dependent variable, one study examines the interaction of opportunism with other independent variables, and three have multiple analyses incorporating opportunism as an independent variable in some analyses and the dependent variable in other analyses.

As the majority of the studies employ opportunism as the dependent variable, I will first examine those studies with opportunism as the dependent variable. One of the first studies to measure opportunism as an endogenous rather than exogenous variable was John (1984). In his study of 147 retail dealers of a major oil company he found that bureaucratic structuring (i.e., formalization, centralization and control) and coercive power attributions were positively related to an increase in ex post opportunism by channel partners. Provan and Skinner (1989) in their study of 226 farm and power equipment dealers, also found that supplier control over dealer decisions led to increased levels of dealer opportunism. In a study of 169 sales managers, Anderson (1988) found that the greater the level of transaction specific investments possessed by salespeople and the difficulty of measuring the performance of these salespeople increased the likelihood of the salespeople behaving opportunistically.

The export marketing literature has also been the context for some studies with opportunism as the dependent variable. For example, in a study of 105 Australian firms exporting to Korea, Lee (1998) found three factors that impacted upon the exporters' intention to behave opportunistically. Specifically, Kim found that an exporter's economic ethnocentricism, decision-making uncertainty, and the cultural distance between the exporter and importer were all positively related with the exporter's opportunistic behavior. Skarmeas, Katsikeas, and Schlegelmilch (2002) in their study of exporter-importer relationships found that variability in demand and supply (i.e., environmental uncertainty) was positively related to the exporter's opportunism. In contrast they found that exporter cultural sensitivity was negatively related to exporter opportunism.

Some studies have examined the role of relational norms in attenuating opportunism. Rokkan, Heide and Wathne (2003) support Anderson's (1988) finding of asset specificity leading to increased opportunism, but only when relational norms are weak. When relational norms are strong, they find that asset specificity is negatively related to opportunistic behavior. Finally, two of the studies in Table 2 use experimental methods to examine antecedents of opportunism. Joshi and Arnold (1997), similar to Rokkan et al. (2003), find that the level of relational norms moderates the influence of antecedents on opportunism. More specifically, Joshi and Arnold (1997) in an experiment with 148 purchasing managers find that buyer dependence on a supplier is positively related to high levels of buyer opportunism in the presence of low relational norms. However, if there are high relational norms between buyer and supplier, then buyer dependence on the supplier was inversely related to buyer opportunism. And in an experiment with 101 undergraduate students, Achrol and Gundlach (1999) found that stronger relational norms led to lower levels of opportunism and also that stronger relational norms negatively moderated the relationship between a comparative increase in commitment by one party and opportunism by the other.

Of equal importance from the perspective of the theoretical underpinnings of TCE, are studies examining the consequences of ex post opportunism. The results of studies in this regard, present conflicting results leaving it unclear whether firms should attempt to eliminate opportunism completely or tolerate some opportunism (Wathne and Heide, 2000). For example, Parkhe (1993) in his study of interfirm cooperation in 111 firms, finds that opportunism has a detrimental effect on performance. This result is in line with traditional TCE arguments (Williamson, 1975, 1985, 1996) that argue without opportunism there is no benefit of vertical integration over the market. However, Dutta, Bergen and John (1994) recommend that firms develop a tolerance limit for opportunistic behavior treating opportunism as part of a cost-benefit calculation thus invoking a trade-off between managing opportunism and reducing governance costs (Wathne and Heide, 2000).

As indicated by TCE scholars (e.g., Macher and Richman, 2005; Wathne and Heide, 2000), it is necessary for more studies to be conducted examining the construct of ex post opportunism. Scholars are unsure as to the conceptualization of the opportunism construct and the consequences of tolerating a certain amount of opportunism as opposed to attempting to eliminate it completely. It may be that inconsistencies in results and confusion surrounding ex post opportunism are as a result of the different forms of ex post opportunism, i.e. active ex post opportunism and passive ex post opportunism (Wathne and Heide, 2000). These different forms may explain differences in the toleration level of ex post opportunistic behavior. In addition, it is possible that the question of how much ex post opportunism to tolerate may also be a function of the value that exists in a relationship, with parties tolerating greater amounts of ex post opportunism when there is more value in the relationship. Therefore, in Chapter 3, a model based on the TCE paradigm is developed to address these concerns.

CHAPTER 3

Theoretical Model and Hypotheses

This study takes the perspective of a buyer firm in an interorganizational buyer-supplier relationship where active or passive ex post opportunistic behavior occurs in the relationship from the supplier. This study examines the impact of both the accumulation of active and passive ex post opportunistic behavior on the response of the buyer under different boundary conditions of value (i.e., economic value and strategic value) in the interorganizational buyer-supplier relationship.

Ex Post Opportunism

Opportunism is defined as self seeking interest with guile (Williamson, 1975). As indicated previously an underlying assumption of TCE is that parties to a transaction may behave opportunistically. Without potential opportunism, rules could be used to govern behavior and there would be no need for alternative governance mechanisms (Williamson, 1985). This study works toward greater specificity to what is known in TCE by recognizing two forms of ex post opportunism: active ex post opportunism and passive ex post opportunism (Wathne and Heide, 2000).

Active and passive ex post opportunism are ex post opportunism by commission and omission, respectively (Wathne and Heide, 2000). Given differences in actions, the legal system has treated acts of commission and omission differently.[2] The law (and decision makers) place greater responsibility upon actions (commission) as it is more appropriate to make inferences to intentions based upon commission rather than based upon omission (Baron, 1992; Shell, 1991). In addition, acts of commission necessitate

[2] This dates back to the United States Supreme Court case of Laidlaw *et al.* v. Organ (1815) where Supreme Court Chief Justice Marshall ruled that a party is not obliged to disclose information that is to his own benefit and this non-disclosure does not amount to fraudulent misrepresentation.

greater effort on the part of the actor engaging in the behavior than acts of omissions, thus indicating stronger intentions; omissions may be the result of ignorance whereas commissions are not; and commissions are generally motivated by greater malice than omissions (Spranca, Minsk, and Baron, 1991). Both active ex post opportunism (commission) and passive ex post opportunism (omission) create tension in the interorganizational buyer-supplier relationship as they impede the smooth functioning of the relationship (Planalp and Honeycutt, 1985), that is, they increase the cost to the relationship. The greater effort and malice involved in active ex post opportunism creates a greater tension in the system than that generated by passive ex post opportunism. Therefore, acts of active ex post opportunism are more costly to the interorganizational buyer-supplier relationship than acts of passive ex post opportunism.

Firms routinely engage in both active and passive ex post opportunistic behavior against partner organizations. For example, Wathne and Heide (2000) recount Muris and colleagues' (1992) example of both active and passive ex post opportunism in the "Cola Wars" of the 1980s between Pepsi and Coca-Cola. During these "Wars" it was essential for both Pepsi and Coca-Cola to develop flexible strategies regarding new products, packaging etc. that would enable the firms to respond quickly to the fluctuations of the external environment. Many of the independent bottlers used by both Pepsi and Coca-Cola engaged in passive ex post opportunistic behavior by refusing to make the necessary changes requested to allow either of the cola companies to be flexible in their strategies. Although the norms of the relationships suggested that the bottlers be flexible and make the necessary changes, they refused to do so thus engaging in passive ex post opportunistic behavior. Some of the bottlers engaged in active ex post opportunism by extracting concessions from Coca-Cola and Pepsi in return for making the necessary changes. By doing this, the bottlers attempted to engage in forced renegotiation to benefit themselves at the expense of Coca-Cola and Pepsi (Wathne and Heide, 2000). These acts of active and passive ex post opportunism ultimately led to a move away from the use of independent bottlers by these two firms, i.e., a change in governance form.

Responses to Active and Passive Ex Post Opportunism in Long-Term Interorganizational Buyer-Supplier Relationships

Transaction cost economics provides for two main responses to the accumulation of ex post opportunistic behavior in interorganizational buyer-supplier relationships: exit from the relationship (via market exchange or vertical integration) or continuation of the hybrid form of governance (Williamson, 1985).

First, one form of exit from the interorganizational buyer-supplier relationship is through vertical integration (Williamson, 1975, 1979, 1985, 1996). Vertical integration is commonly referred to as the hierarchy form of governance and is internal organization of the transaction. Under the hierarchy form of governance, disputes between parties are resolved internally through the use of fiat (Williamson, 1975). A second form of exit is for one of the partners to the interorganizational buyer-supplier relationship to revert to market exchange. This involves leaving the interorganizational buyer-supplier relationship and reverting to a large numbers condition where any opportunistic behaviors by a partner in the market will be resolved by the market as options exist for firms (Williamson, 1975, 1979, 1985, 1996). Under market governance the identity of the parties to the transaction is irrelevant and classical contract law governs the relationships with any disputes resolved by appealing to the law (David and Han, 2004; Williamson, 1975). The firm reverting to market exchange can be a prelude to developing a new long-term interorganizational buyer-supplier relationship.

The two types of exit, market exchange and hierarchy, are polar modes and the continuation of the interorganizational buyer-supplier relationship is an intermediate, hybrid form of governance (Williamson, 1996). The continuation of a hybrid form of governance by the firm allows for the continuation of ownership autonomy thus allowing the firm to adapt to disturbances that can be dealt with without recourse to the partner. However, there exists a degree of bilateral dependency in these relationships that necessitates the existence of contractual safeguards and certain apparatus to support long-term contracts. Thus, when particularly important disturbances arise it can be costly for the firms to engage in arbitration to resolve the dispute. Compare this to hierarchy, where these disturbances would be resolved by fiat in a less costly manner (Williamson, 1996).

Hypothesis Development

The contemporary view in the TCE literature with regard to ex post opportunism is that it should be treated as a policy variable, i.e., subject to cost-benefit analysis (Wathne and Heide, 2000). Cost-benefit analyses are used for investment decisions and are built upon the principle that for an investment decision to be made the benefit should exceed the cost (Dupuit, 1844). With regard to ex post opportunistic behavior in interorganizational buyer-supplier relationships, ex post opportunism is viewed as a transaction cost and as such the governance of such costs is analyzed against the benefit of remaining in the interorganizational buyer-seller relationship. The benefit of remaining in the interorganizational buyer-seller relationship is the value provided to the partner by this relationship. In TCE, this value is implied to have both a strategic component (referred to as the strategic value) and an economic component (referred to as the economic value), with Williamson (1975, p.39) stating that "...preferences for atmosphere may induce individuals to forego material gains for nonpecuniary satisfactions..." The cost-benefit analysis allows for the determination of the tolerance level for ex post opportunistic behavior (Dutta et al., 1994), in that the party to a relationship will tolerate ex post opportunistic behavior as long as the benefit of the relationship, as depicted by the value of the relationship, outweighs the accumulated costs of the ex post opportunism.

Cost of the Accumulation of Active and Passive Ex Post Opportunism

As indicated previously, both active ex post opportunism (commission) and passive ex post opportunism (omission) create tension in the interorganizational buyer-supplier relationship as they impede the smooth functioning of the relationship (Planalp and Honeycutt, 1985), i.e., they increase the cost to the relationship. The greater malice involved in active ex post opportunism and thus the greater effort required to overcome this type of opportunism creates a greater transaction cost in the system than that generated by passive ex post opportunism. Thus, the accumulation of active ex post opportunistic behavior builds at a greater rate than the accumulation of passive ex post opportunism. This is similar to differences in base numbers (suggestive of the transaction cost) when keeping the exponent constant (suggestive of frequency of act of opportunism), with active opportunism having a larger base number than passive opportunism (i.e., 3^3 versus 2^3).

Under the treatment of ex post opportunism as a policy variable (Wathne and Heide, 2000), and in line with the logic of TCE, as long as the benefit, (i.e., the value), of maintaining the relationship is greater than the cost from ex post opportunism, the relationship continues (Dupuit, 1844). However, when the cost outweighs the benefit then the firm that is the receiving party of the ex post opportunistic behavior will exit the relationship. Given a constant level of relationship benefits, i.e., assuming a non-changing level of value in the relationship over time, the differences in the accumulation of transaction costs across active and passive opportunism theoretically imply that an exit decision will be made more quickly when the accumulation of ex post opportunism is active rather than passive. That is to say a firm will tolerate the accumulation of passive ex post opportunism longer than it will tolerate the accumulation of active ex post opportunism given that the build up of transaction costs is at a lower rate under this condition thus maintaining a positive cost-benefit ratio within the relationship for a longer duration of time (where tolerance is exhibited via continuation governance decision). More formally stated:

> *H1:* *Ceteris paribus, as acts of active ex post opportunism accumulate in an interorganizational buyer-seller relationship, the response of the receiving party will change from continuation to exit more quickly than as the acts of passive ex post opportunism accumulate.*

The Role of Economic Value and Strategic Value as a Safeguard in Interorganizational Buyer-Seller Relationships

While the delineation of ex post opportunism into active and passive ex post opportunism provides insights into the timing of exit across active and passive ex post opportunism, it does not explain variations in timing of exit within active and passive ex post opportunism. That is to say, under what boundary conditions does the receiving party of the active (passive) ex post opportunism tolerate a greater accumulation of active (passive) ex post opportunism? In this dissertation it is argued that the value of the buyer-supplier relationship to the receiving party of the active (passive) ex post opportunism determines the level of tolerance of the active (passive) ex post opportunistic behavior. Furthermore, the value of the relationship to the parties is composed of both an economic component and a strategic component (Williamson, 1975; Jap, 1999), for as Jap (1999, p.466) notes, "[M]any of the benefits of close relationships cannot be expressed easily in economic terms...[A]s such, there has been a call for investigations into a broader and more proximal set of outcome variables than has been examined in the past. There has also been little investigation into the nature of strategic returns in close relationships."

Therefore in line with Jap (1999), Jap and Anderson (2003) and Williamson (1975), in this study, value is categorized as being of two types: economic value and strategic value. For the purpose of this study, economic value of the interorganizational buyer-supplier relationship is defined as the financial outcomes derived by the parties to the relationship (Silverman, Nickerson, and Freeman, 1997; Williamson, 1975, 1985). Strategic value is defined as the non-financial benefits derived by the parties to the relationship (cf., Jap, 1999; Jap and Anderson, 2003), including access to resources and technology (Aulakh, Kotabe, and Sahay, 1996; Folta and Janney, 2004; Porter, 1985), the opportunity to learn new competencies (Hennart, 1991), access to new markets (Frazier, 1983), and access to strong networks (Gulati, 1998). It is argued here that high levels of economic value and strategic value act as a safeguard (as the relationship has a higher base of benefits) against the cost of the active (passive) ex post opportunism thus ensuring greater toleration of the active (passive) ex post opportunism. Firms will tolerate a greater accumulation of active (passive) ex post opportunism from a partner firm as long as the partner firm also provides financial gain and strategic gain to offset the costs from the opportunism thus delaying the move of the receiving firm to exit. Therefore, when the economic value and strategic value are high, the receiving party of the ex post opportunistic behavior will tolerate a greater accumulation of active (passive) opportunism than when the value is low because high value ensures that the cost benefit ratio of opportunism to value remains positive for longer than in the situation of low value conditions. In other words, the high economic value and high strategic value provides greater benefit to input into the cost-benefit calculation than the boundary condition of low economic value and low strategic value.

Therefore, under the boundary conditions of high economic value and high strategic value, firms will tolerate a greater accumulation of active (passive) ex post opportunism than under the boundary conditions of low economic value and low strategic value. More formally stated,

H2a: *As acts of active ex post opportunism accumulate in an interorganizational buyer-seller relationship, the response of the receiving party will change from continuation to exit more quickly under the boundary conditions of low economic value and low strategic value than under the boundary conditions of high economic value and high strategic value.*

H2b: *As acts of passive ex post opportunism accumulate in an interorganizational buyer-seller relationship, the response of the receiving party will change from continuation to exit more quickly under the boundary conditions of low economic value and low strategic value than under the boundary conditions of high economic value and high strategic value.*

While previous arguments provide insights into the timing of exit from an interorganizational relationship, no insights have yet been provided as to form of exit. This is examined next. As noted previously TCE suggests two forms of exit from the buyer-seller relationship: exit through market exchange and exit through vertical integration (Williamson, 1975). In this dissertation it is argued that greater exploration of the value of the relationship to the target party of the active or passive ex post opportunism leads toward the specificity required. It is argued following that choice between exit through market exchange and exit through vertical integration is a function of the strategic value that the target party of the ex post opportunism receives from the relationship.

Influence of Strategic Value on the Exit Decision

In the face of the accumulation of either active ex post opportunism or passive ex post opportunism (Wathne and Heide, 2000), the firm has a choice to make, continue the relationship or exit. Within the decision to exit lie two forms of exit: exit through market exchange or exit through vertical integration (Williamson, 1975). As indicated previously, it is argued following that choice between exit through market exchange and exit through vertical integration is a function of the strategic value that the party subjected to the ex post opportunism receives from the relationship rather than a function of the economic value.

It is argued that in cases of high strategic value there are likely to be limited alternative partners available to a firm that would provide the same level of strategic value as the existing partner. These alternative partners may not have access to the resources, competencies and networks of the supplier providing the high level of strategic value. TCE arguments (Williamson, 1975) indicate that the ex post opportunistic behavior will be attenuated thus ensuring a reduction in the cost in the firm's cost-benefit calculation while retaining the benefit of the relationship via vertical integration. Therefore, although the strategic value in the relationship acts as a safeguard, when the accumulated transaction costs associated with ex post opportunism moves the cost-benefit calculus of the relationship to a negative state, firms move to protect the relationship via vertical integration even in instances where economic value is low.

Alternatively, under the boundary condition of low strategic value it can be theorized that by reverting to market exchange the firm has the potential to find a new partner that could provide a higher level of strategic value. This potential higher strategic value holds promise for potential future business and the firm will be reluctant to vertically integrate its present partner and sacrifice the access to resources (Aulakh et al., 1996; Folta and Janney, 2004; Geringer, 1991; Porter, 1985), to new markets (Frazier, 1983), and to network partners (Gulati, 1998) that could develop in a relationship with an alternative partner. Therefore, in the hope of developing a new relationship with greater strategic value the firm will exit through market exchange when accumulated transaction costs associated with ex post opportunism of the extant relationship moves the cost-benefit calculus of the relationship to a negative state. This holds even when the level of economic value is high. More formally stated,

H3: *As acts of ex post opportunism accumulate in a relationship, firms upon deciding to exit, will exit through market exchange under the boundary conditions of high economic value and low strategic value but will exit through vertical integration under the boundary conditions of low economic value and high strategic value.*

Control Variables

As this study examines one of the underlying assumptions of TCE (i.e., opportunism) it is necessary to control for the previously discussed TCE elements to eliminate potential alternative theoretical explanations. Therefore, transaction specific assets, environmental uncertainty, behavioral uncertainty and frequency of transactions are included in the model as control variables to minimize the spuriousness of results. As a hybrid form of governance is specified as the current state of on-going inter-organizational relationships, asset specificity is maintained at the intermediate level as TCE states that a hybrid form of governance is the most efficient when asset specificity is at this level (Rindfleisch and Heide, 1997). Ex post opportunism and asset specificity are the antecedents of the safeguarding problem in TCE (Rindfleisch and Heide, 1997), therefore it is crucial to control for asset specificity in a way that is in alignment with TCE. However, the other governance problems in TCE, i.e. the adaptation problem and the performance evaluation problem have bounded rationality and behavioral uncertainty as their respective antecedents (Rindfleisch and Heide, 1997). As the focus of this research is on active and passive ex post opportunism, therefore, it is possible to maintain environmental uncertainty and behavioral uncertainty at low levels. Also, in line with the logic of a long-term interorganizational buyer-seller relationship, the frequency of transaction is set as recurring transactions[3]. In addition industry and size of firm, respectively, are included as control variables.

[3] As noted by Rindfleisch and Heide (1997), many marketing scholars (e.g., John and Weitz, 1988; Klein, Frazier and Roth, 1990) treat frequency of transaction as a dichotomous variable, i.e., one-off transaction versus recurring exchange. To ensure consistency with the extant literature I continue this and control for the phenomenon of transaction frequency by defining recurrent exchanges in the scenario.

CHAPTER 4

Research Design

Research Methods

Following the extant TCE literature (e.g., Achrol and Gundlach, 1999; Dutta and John, 1995; Joshi and Arnold, 1997; Pilling, Crosby and Jackson, 1994,), an experimental scenario study is employed to test the hypotheses. The use of experimental studies provides greater internal validity and means to clearly delineate the theoretical relationships as opposed to other methods. Therefore, this dissertation employs an experimental method in five phases described next.

Phases of the Study

This section describes the five phases of the study. Phase one explains the pre-testing employed to validate the conceptual elements of the study. Phase two describes the pilot testing conducted before the testing of the research hypotheses. Phase three, phase four, and phase five describe the testing of research hypothesis one, two and three respectively.

Phase One

Phase One is an iterative process with a sample of purchasing managers aimed at providing external validity to the conceptual elements of the experiment. This includes validation of the active and passive acts of ex post opportunism, the experimental scenario presented to participants and strategic and economic value. Denoting their actuation in the interorganizational buyer-supplier context enhances external validity in the experimental stimuli. A clinical professor of purchasing management was recruited to assist in the development of the sample frame for phase one. Using the clinical professor's professional contacts, 30 purchasing managers were selected representing multiple firms across a wide variety of manufacturing industries. The identified purchasing managers were contacted by email (Appendix 1) by the clinical professor and asked to participate in phase one.

The 30 purchasing managers were sent a follow-up email (Appendix 2) with an outline of the study attached (Appendix 3) and were given two weeks to return specific examples of disruptive behavior[4] that they had experienced at the hands of their suppliers. After 10 days, those managers that had not yet responded with examples of ex post opportunistic behaviors were contacted again by email and reminded that the deadline was approaching (Appendix 4). To facilitate participation, respondents were promised the compiled list of examples of the behaviors upon completion of phase one. One manager declined to participate as his department did not have direct contact with suppliers. Another manager declined to participate due to pressures of time, while two other managers declined to participate as their firms were in bankruptcy proceedings and the firm lawyers did not allow them to participate. As a result, 26 purchasing managers (Group 1) participated in phase one of the study.

Upon receipt of the specific examples of behaviors from the executives participating in phase one of the study, all company-specific and identifying features were removed and a full list was compiled. Then, the compiled list was examined to check for duplicate behaviors. In instances where there were examples of duplicate behaviors, only one was included in the final compiled document. Additionally, the list

[4] Purchasing managers were asked for examples of disruptive behaviors rather than opportunistic behaviors on the recommendation of the clinical professor who felt that "opportunistic behaviors" was too academic a term and the managers would not necessarily understand what was meant by it. He felt, and I agreed, that asking for examples of disruptive behaviors would provide examples of opportunism.

was examined to check for behaviors that did not fit the contemporary definition of either active or passive ex post opportunism (Wathne and Heide, 2000). In the result of a behavior not fitting these definitions of being opportunistic this behavior was also removed from the compiled list.

Simultaneously a list of the extant measurement scales for opportunism was compiled (Achrol and Gundlach, 1999; Anderson, 1988; Gundlach, Achrol and Mentzer, 1995; Jap and Anderson, 2003; John, 1984; Parkhe, 1993; Provan and Skinner, 1989; Rokkan, Heide and Wathne, 2003) (Appendix 5). Those scales that measured ex ante opportunism were removed from the list, as the focus of this study is ex post opportunism. In addition, reversed items, e.g. "*We always provided this importer with a completely truthful picture of our business*", that did not demonstrate opportunistic behaviors were removed as the focus of the study is on ex post opportunistic behaviors. This then left scale items that had been used to measure ex post opportunism in a multitude of contexts including salesperson – firm relationships, interorganizational buyer-supplier relationships and channel relationships. These different contexts meant that slight differences existed in some of the scale items that were otherwise identical and were measuring the same ex post opportunistic behavior. As the focus of this study is on the actual ex post opportunistic behavior, these scale items were then grouped together into specific opportunistic behaviors. These behaviors were the sorted into active and passive ex post opportunism and were assessed by five academic experts in the field of TCE and ex post opportunism. Agreement was achieved among these experts pertaining to the final listing of active and passive ex post opportunistic behaviors derived from the extant measurement scales (Appendix 6).

The purchasing managers' list of ex post opportunistic behaviors was then compared against the list of the extant measurement scales with the intention of compiling a complete list of externally valid active and passive ex post opportunistic behaviors. Where there were measurement scales that were not represented on the list of externally valid behaviors, behaviors representative of these scales were added to the compiled list of ex post opportunistic behavior. This compiled list was then sent to the 26 purchasing managers (Group 1) for their assessment. The list was then amended in line with the purchasing managers' final suggestions to produce the list of active and passive ex post opportunistic behaviors in Appendix 7.

Concurrently, the scenario to be used in the experiment was drafted based upon a scenario developed by Joshi and Arnold (1997). As in Joshi and Arnold's experiment, subjects in the experiment are asked to "assume the role of *purchasing manager responsible for the purchase of microchips for a midsize electronic equipment manufacturer*" (p. 829) (italics authors' own). The choice of microchips was made because it is a product that is bought on a repetitive basis and is a key component in electronic equipment (Joshi and Arnold, 1997) thus encouraging ongoing relationships between buyers and suppliers (cf., Noordewier, John and Nevin, 1990). To ensure compatibility with this study, subjects are told that there are multiple suppliers in the market to allow subjects to exit the relationship and enter a new relationship should they so desire. Additionally, the scenario states that the relationship is two years old and has had no problems so far to control for prior opportunistic behavior and length of the relationship.

It was also important to control for alternative theoretical explanations within TCE. TCE describes three governance problems: the safeguarding problem, the adaptation problem, and the performance evaluation problem (Rindfleisch and Heide, 1997). The antecedents of the safeguarding problem are ex post opportunism and asset specificity. The study necessitates an ongoing interorganizational relationship as a starting point; therefore it is imperative to set the level of asset specificity in the scenario to intermediate level (i.e., neither a significant nor insignificant amount of investments specifically dedicated to the relationship with the one supplier in the scenario) as TCE states that a hybrid form of governance is the most efficient when asset specificity is at this level (Rindfleisch and Heide, 1997). However, the adaptation problem and the performance evaluation problem have bounded rationality and behavioral uncertainty as their respective antecedents (Rindfleisch and Heide, 1997). As the focus of this research is on active and passive ex post opportunism, therefore, it is possible to maintain environmental uncertainty at a low level (i.e., no unanticipated changes in the external environment or in the demand for the product) and behavioral uncertainty at a low level (i.e. it is easy to verify the performance of the supplier). In line with TCE, the assumption is made that participants in the study are limited in their behavior by bounded rationality. Also, as noted previously and in line with the logic of a long-term interorganizational buyer-seller relationship, the frequency of transaction is set as recurring transactions.

In addition, the explanations of different levels of strategic value and economic value were drafted in line with the extant academic literature to incorporate levels of economic benefit and strategic benefit that buyers derive from a relationship with a supplier.

In line with White, Varadarajan and Dacin (2003), an email (Appendix 8) was then sent to the participating purchasing managers (Group 1) with two attachments, one asking them to comment on the realism of the scenario (Appendix 9) and the other on the appropriateness of the definitions of value (Appendix 10). After one week a follow-up email was sent to participants who had not yet responded to the initial email request (Appendix 11). The scenarios and definitions were then altered slightly in line with the responses of the purchasing managers. The finalized scenario and finalized definitions of strategic value and economic value can be seen in Appendices 12 and 13 respectively.

Next, each example of active and passive ex post opportunism from Appendix 7 was dissected into a consequence to the buyer and opportunistic behavior by the supplier. This was done in conjunction with the extant literature on active and passive ex post opportunism (e.g., Wathne and Heide, 2000) and the extant ex post opportunism measurement scales. Where there was no consequence to the buyer of the supplier's ex post opportunism e.g., *"Your supplier manufacturers the product in location X, however, a fire breaks out and burns down the manufacturing location. Your supplier does not inform you of the fire and continues to ship product from the US where they have built up inventory. You find out about the fire from a news article"*, the behavior was deleted. Where possible active and passive ex post opportunistic behaviors that had the same consequence for the buyer were paired together, and in instances where a pair was not available, one was written. Consequence, active ex post opportunistic behaviors and passive ex post opportunistic behaviors can be seen in Appendix 14.

Next, this table of consequences was sent to the same participating group of purchasing professionals (Group 1) as an attachment to an email (Appendix 15) with the active and passive ex post opportunistic behaviors mixed and with the request that for each consequence the participants state which of the behaviors are active ex post opportunism (i.e., opportunism by commission) and which are passive ex post opportunism (i.e., opportunism by omission). Additionally, participants were invited to edit the document to help improve clarity where necessary. The participants were able to correctly define active and passive opportunistic behaviors expect in the instances of passive and active ex post opportunism under new circumstances, e.g., when the buyer had extra demand for the supplier to help meet, or there was a new order etc. When participants were unable to clearly identify active or passive ex post opportunism, the behaviors were removed.

Next, the remaining consequences were pretested for equivalence of consequence. The experiment involves an accumulation of behaviors; as such it is essential that the consequence of behaviors is equivalent to ensure that any response is to a build up of consequences rather than one single, particularly strong consequence. A new group of 20 purchasing professionals (Group 2) was randomly selected from local manufacturing businesses in the local area telephone directory, contacted by telephone and asked to rate the consequences from 1 to 7, where 1 indicates a very low cost to them, 4 neither high nor low cost to them, while 7 indicates a very high cost to them (Appendix 16). An Analysis of Variance (ANOVA) was then conducted in SPSS 12.0 to ensure that all the consequences were equivalent in cost. The results of the ANOVA (Appendix 17) (N=20) show that all the consequences were equivalent in cost ($F(4,99) = 0.297$, $p = 0.879$).

Next, the active and passive ex post opportunistic behaviors were matched to the extant measures and those extant measures scales that had a match were included in the pretest of differences in intensity between active and passive ex post opportunistic behaviors. It is key for the experiment that the passive and active ex post opportunistic behaviors are different across type to ensure differing response to active and passive ex post opportunistic behavior in the final experiment. The same 20 purchasing professionals (Group 2) that rated the cost of the consequences were again contacted by telephone and asked to rate the active and passive ex post opportunistic behaviors from 1 to 7, where 1 indicates a very low intensity, 4 neither high nor low intensity, while 7 indicates a very high intensity (Appendix 18). An Analysis of Variance (ANOVA) was then conducted in SPSS 12.0 for Windows to check for differences in intensity. All the ratings of the active ex post opportunistic behaviors were grouped together and all the ratings of the passive ex post opportunistic behavior were grouped together and an ANOVA was conducted to check for differences across groups (Appendix 19). Results indicate that the intensity of active ex post opportunistic behaviors was higher than the intensity of passive ex post opportunistic behaviors ($F(1,198) = 122.397$, $p < 0.001$).

Next, using the ratings on the behaviors in Appendix 18 received from the purchasing managers, analysis was conducted to ensure equivalency of intensity of active ex post opportunistic behaviors. The results of the ANOVA (Appendix 20) indicate that there are differences in intensity within the active ex post opportunistic behaviors ($F(5,114) = 2.894$, $p < 0.05$). Examination of the results from the post-hoc Tukey test indicates that the mean intensity of "*Your supplier makes false accusations*" is significantly different than the mean intensity of "*Your supplier violates agreements*" ($p < 0.05$) and "*Your supplier provides you with false information*" ($p < 0.1$). Consequently, "*Your supplier makes false accusations*" was removed from consideration for the experiment.

Further, the passive ex post opportunistic behaviors were examined for equivalence in intensity. Results of the ANOVA (Appendix 21) indicate that there are differences in intensity within the passive ex post opportunistic behaviors ($F(3,76) = 4.597$, $p < 0.01$). Examination of the results of the post-hoc Tukey test indicates that the mean intensity of "*Your supplier does not take responsibility for his/her actions*" is significantly different than the mean intensity of "*Your supplier hides information from you*" ($p < 0.05$) and the mean intensity of "*Your supplier does not provide proper notification*" ($p < 0.05$). Consequently, "*Your supplier does not take responsibility for his/her actions*" was removed from consideration for the experiment.

Next, the remaining examples of active and passive ex post opportunistic behavior and consequences were modified to ensure compatibility with the scenario (Appendix 22). The original group of 26 purchasing managers (Group 1) were contacted and asked to read the examples and explain in their own words what they understood from the examples. For the examples of passive ex post opportunism the participants identified the examples as meaning: fewer microchips being delivered and the supplier not providing notification that fewer would be delivered and the reason why; the delivery not arriving on time and the supplier not informing/notifying the buyer that the delivery would not be on time; receiving microchips with defects and the supplier not informing the buyer of the problem in production line that has led to the defects; non-compliant microchips being delivered and the supplier not specifying compliance or lack of (i.e., hiding information); and microchips being delivered that do not meet contractual standard and the supplier not informing the buyer of the change in production facilities that led to the problem in meeting the contractual standard. For the examples of active ex post opportunism the participants identified the examples as meaning: fewer microchips being delivered and the supplier violating the contract by prioritizing another customer thus leading to the shortage; the delivery not arriving on time and the supplier previously misinforming you (i.e., lying to you) that it would arrive on time; receiving microchips with defects and the supplier violating the contract by changing the production line thus leading to defects; non-compliant microchips being delivered and the supplier intentionally mislabeling these microchips; and microchips being delivered that do not meet contractual standard and the supplier violating the contract by changing production facilities leading to the substandard microchips.

Finally, these examples of active and passive ex post opportunistic behavior with consequences were tested for difference in intensity between the active ex post opportunistic examples and the passive ex post opportunistic examples. A new group of 20 purchasing professionals (Group 3) was randomly selected from local manufacturing businesses in the local area telephone directory, contacted by telephone and asked to rate the examples of active and passive ex post opportunistic behavior from 1 to 7, where 1 indicates a very low intensity, 4 neither high nor low intensity, while 7 indicates a very high intensity (Appendix 23).

Analysis of the passive ex post opportunistic behaviors and consequences was conducted to see if they were equivalent in intensity. Results of this analysis (Appendix 24) indicate differences in the intensity of the passive ex post opportunistic behaviors and consequences ($F(4,95) = 30.135$, $p < 0.001$). The post-hoc Tukey comparisons indicate that the mean of "*Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Subsequently you learn from a reliable source that your supplier has changed production facilities and you suspect this may be the cause. In conversation with your supplier, your supplier has not informed you about the change*" is different from all the other means. Post-hoc conversations with the purchasing managers indicated that they felt that the change in production facilities was a definite violation of the contract and therefore very serious on its own therefore overpowering any non-informing that was taking place. As a result, this passive ex post opportunistic behavior and consequence was removed from consideration for the experiment.

Analysis of the active ex post opportunistic behaviors and consequences (Appendix 25) indicate no statistical differences in the intensities of the active opportunistic behaviors and consequences ($F(4,95) = 1.791$, $p = 0.137$). As a result, there was no need to remove any of the active ex post opportunistic behaviors and consequences. However, as "*Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Subsequently you learn from a reliable source that your supplier has changed production facilities and you suspect this may be the cause. In conversation with your supplier, your supplier has not informed you about the change*" had been removed from consideration for the pilot test in phase two and experiment in phases three, four and five, the active equivalent, "*Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Your supplier informs you that, in violation of your contract with* *them, they have changed production facilities and some problems led to the microchips not meeting the standard*", was also removed from consideration.

Finally, a pretest was conducted between active and passive ex post opportunistic behaviors and consequences to ensures differences between the active examples and the passive examples. The results of the ANOVA can be seen in Appendix 26. Results indicate that the intensity of active ex post opportunistic behaviors and consequences was higher than the intensity of passive ex post opportunistic behaviors and consequences ($F_{(1,158)} = 335.884$, $p < 0.001$). This successful conclusion to the pre-testing enables the move to phase two.

Phase Two

Phase two was conducted to ensure comprehension and recall of the scenario to be used in the experimental phases. A new group of 20 purchasing managers (Group 4) was randomly selected from local manufacturing businesses in the local area telephone directory, contacted by telephone and asked if they would be willing to take part in a piece of research into buyer-supplier relationships. They consented and were told that they were going to be read an interorganizational buyer-supplier scenario and asked questions based upon the scenario. They were then read the script in Appendix 27. Subsequently, they were asked to recount what they remembered from the scenario to check for comprehension and recall of the scenario (cf., Petty, Cacioppo and Schumann, 1983). Participants were able to recall key components of the scenario. This testing allowed the research to move onto phases three and beyond.

Phase Three

Phase three is a 2 (ex post opportunism: active, passive) x 2 (time: time 1, following time periods) factorial design experimental study with one between-subject factor and one within-subject factor to empirically examine research hypothesis one. The order of opportunistic behavior was determined randomly with consequences matched across active and passive.

In order to test research hypothesis one, it was necessary to recruit a total of 90 participants, 45 per treatment, to ensure sufficient power (Cohen, 1988). In addition, as participants were asked to roleplay a purchasing manager in a long-term interorganizational buyer-supplier relationship, it was required that the participants be purchasing professionals as they have the knowledge and expertise of the situations required for them to be able to make informed decisions in the experimental setting. This would ensure that the participants fulfill the criteria to be key informants (Campbell, 1955) for the study. The steps outlined below were taken to get 90 purchasing professionals to participate in this stage of the research.

First, a list of 5,000 purchasing professionals was provided by the Institute of Supply Management (ISM) upon request. These 5,000 purchasing professionals were randomly distributed throughout all manufacturing industries. Decisions were made to exclude certain participants on the list from consideration for inclusion in the following phases as follows. Two hundred and sixteen purchasing professionals were excluded, as they were non-U.S. members of ISM and the study focuses on U.S. domestic buyer-supplier relationships. Nine members with only billing addresses were excluded as the researcher intended to contact the individuals by telephone and telephone numbers are not available for billing addresses. Finally, 1,682 members with home addresses were excluded as the researcher was going to contact individuals by telephone and did not want to disturb people at home. This left a list of 3,093 purchasing professionals to draw the sample from. The researcher then attempted to find telephone numbers for these 3,093 purchasing professionals on the list through www.whitepages.com. Telephone numbers could not be found for 728 of these 3,093 purchasing professionals leaving a final list of 2,365 purchasing professionals.

The 90 participants (45 per treatment cell) to be randomly assigned to either the active ex post opportunism treatment or passive ex post opportunism treatment were randomly selected from this list and contacted by telephone to elicit participation. Each participant was contacted a maximum of ten times and if they had not answered the telephone or returned a call to the researcher after the 10th attempt to contact them then they were counted as a non-respondent. Participants that answered the telephone or returned the phone call were informed that the researcher was a doctoral candidate at Michigan State University and that their name had been provided by ISM. They were given a brief explanation of what the research entailed and asked if: a) they were willing to participate, and b) they were knowledgeable enough to respond.

Of the initial 90 purchasing professionals contacted, 53 agreed to participate, 13 refused to participate citing reasons of lack of time, lack of interest or company policy, 10 did not return the phone call and 14 had left the company. Subsequently, another 37 purchasing professionals (to ensure a sample of 90 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 17 agreed to participate, two refused to participate citing reasons of time, lack of interest or company policy, 10 did not return the phone call and eight had left the company. Subsequently, another 20 purchasing professionals (to ensure a sample of 90 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 13 agreed to participate, three refused to participate citing reasons of time, lack of interest or company policy, three did not return the phone call, and one had left the company. Subsequently, another seven purchasing professionals (to ensure a sample of 90 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, four agreed to participate, one refused to participate citing reasons of time, lack of interest or company policy, and two did not return the phone call. Subsequently, another three purchasing professionals (to ensure a sample of 90 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, all three agreed to participate. This resulted in a response rate of 67.16% (90 out of 134). 50 of these were male and 40 were female. 10 of these had completed high school, 23 had completed some college, 35 had completed a bachelor's degree and 10 had a master's degree or above.

The 90 purchasing professionals that agreed to participate in the experiment were then randomly assigned to either the active ex post opportunism treatment or the passive ex post opportunism treatment resulting in 45 participants per treatment.

The script for the active ex post opportunism treatment and passive ex post opportunism treatment can be seen in Appendix 28 and Appendix 29 respectively. Participants were read the script (either active or passive depending on treatment) over the telephone and asked to answer a, b, c, or d. If participants answered a or b then the researcher continued reading as per the script, however, if the participant answered c or d they were thanked and asked the questions from Appendix 30. The researcher continued reading the script until the participant chose either c or d. Then the participant was thanked and asked the questions from Appendix 30.

The researcher noted how many examples of ex post opportunism (either active or passive depending upon treatment) that the participants tolerated before exiting the interorganizational buyer-seller relationship, whether the participant chose to exit through market exchange or vertical integration, and the responses to the questions from Appendix 30. 12 out of the 90 participants chose not to respond to the questions in Appendix 30. Then an ANOVA was conducted to see if there were any differences in mean tolerance the accumulation of opportunism between those subjects in the active ex post opportunism treatment group and those subjects in the passive ex post opportunism treatment group.

Phase Four

Phase four is a 2 (ex post opportunism: active, passive) x 2 (economic value strategic value: high high, low low) x 2 (time: time 1, following time periods) factorial design experimental study with two between-subject factors and one within-subject factor to empirically examine research hypothesis two. The order of opportunistic behavior was the same as in phase three.

In order to test research hypothesis two, it was necessary to recruit a total of 180 participants, 45 per treatment, to ensure sufficient power (Cohen, 1988). In addition, as participants were asked to roleplay a purchasing manager in a long-term interorganizational buyer-supplier relationship, it was required that the participants be purchasing professionals as they have the knowledge and expertise of the situations required for them to be able to make informed decisions in the experimental setting. This would ensure that the participants fulfill the criteria to be key informants (Campbell, 1955) for the study. The same steps outlined to recruit participants in phase three were taken to recruit the 180 purchasing professionals to participate in this stage of the research.

The 180 participants (45 per treatment cell) to be randomly assigned to either the active ex post opportunism high economic value high strategic value treatment, active ex post opportunism low economic value low strategic value treatment, passive ex post opportunism high economic value high strategic value treatment, or passive ex post opportunism low economic value low strategic value treatment, were randomly selected from the list supplied by ISM and contacted by telephone to elicit participation. Each participant was contacted a maximum of ten times and if they had not answered the telephone or returned a call to the researcher after the 10th attempt to contact them then they were counted as a non-respondent. Participants that answered the telephone or returned the phone call were informed that the researcher was a doctoral candidate at Michigan State University and that their name had been provided by ISM. They were given a brief explanation of what the research entailed and asked if: a) they were willing to participate, and b) they were knowledgeable enough to respond.

Of the 180 purchasing professionals contacted, 106 agreed to participate, 22 refused to participate citing reasons of lack of time, lack of interest or company policy, 44 did not return the phone call and eight had left the company. Subsequently, another 74 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 47 agreed to participate, one refused to participate citing reasons of time, lack of interest or company policy, 20 did not return the phone call and six had left the company. Subsequently, another 27 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 16 agreed to participate, eight did not return the phone call and three had left the company. Subsequently, another 11 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, two agreed to participate, one refused to participate citing reasons of time, lack of interest or company policy, five did not return the phone call and three had left the company. Subsequently, another nine purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, seven agreed to participate, one refused to participate citing reasons of time, lack of interest or company policy, and one did not return the phone call. Finally, another two purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, all agreed to participate. This resulted in a response rate of 63.6% (180 out of 283). 99 of these were male and 81 were female. 17 of these had completed high school, 53 had completed some college, 62 had completed a bachelor's degree and 33 had a master's degree or above.

The 180 purchasing professionals that agreed to participate in the experiment were then randomly assigned to one of the following four treatments: active ex post opportunism high economic value high strategic value treatment; active ex post opportunism low economic value low strategic value treatment; passive ex post opportunism high economic value high strategic value treatment; or passive ex post opportunism low economic value low strategic value treatment. 45 participants were assigned to each treatment.

The scripts for active ex post opportunism high economic value high strategic value treatment; active ex post opportunism low economic value low strategic value treatment; passive ex post opportunism high economic value high strategic value treatment; and passive ex post opportunism low economic value low strategic value treatment can be seen in Appendix 31, Appendix 32, Appendix 33, and Appendix 34 respectively. Participants were read the script (depending on treatment) over the telephone and asked to answer a, b, c, or d. If participants answered a or b then the researcher continued reading as per the script, however, if the participant answered c or d they were thanked and asked the questions from Appendix 35. The researcher continued reading the script until the participant chose either c or d. Then the participant was thanked and asked the questions from Appendix 35.

The researcher noted how many examples of ex post opportunism (either active or passive depending upon treatment) that the participants tolerated before exiting the interorganizational buyer-seller relationship, whether the participant chose to exit through market exchange or vertical integration and the responses to the questions in Appendix 35. All participants responded to question one, 168 participants responded to question two, 168 participants responded to question three, 103 participants responded to question four (non-respondents worked for private companies and were not allowed to divulge this information), 165 participants responded to question five, 85 participants responded to question six (non-respondents cited reasons of time or not understanding the question), and 77 participants responded to question seven (non-respondents cited reasons of time or not understanding the question).

For the active ex post opportunism treatments, an ANOVA was conducted to see if there were any differences in mean tolerance of active ex post opportunism between those subjects in the high economic value high strategic value treatment and those subjects in the low economic value low strategic value treatment. For the passive ex post opportunism treatments, a t-test for equality of means where equal variances are not assumed and an ANOVA was conducted to see if there were any differences in mean tolerance of passive ex post opportunism between those subjects in the high economic value high strategic value treatment and those subjects in the low economic value low strategic value treatment.

Phase Five

Phase five is a 2 (ex post opportunism: active, passive) x 2 (economic value strategic value: high low, low high) x 2 (time: time 1, following time periods) factorial design experimental study with two between-subject factors and one within-subject factor to empirically examine research hypothesis three. The order of opportunistic behavior was the same as in phase three and phase four.

In order to test research hypothesis three, it was necessary to recruit a total of 180 participants, 45 per treatment, to ensure sufficient power (Cohen, 1988). In addition, as participants were asked to roleplay a purchasing manager in a long-term interorganizational buyer-supplier relationship, it was required that the participants be purchasing professionals as they have the knowledge and expertise of the situations required for them to be able to make informed decisions in the experimental setting. This would ensure that the participants fulfill the criteria to be key informants (Campbell, 1955) for the study. The same steps outlined to recruit participants in phases three and four were taken to recruit the 180 purchasing professionals to participate in this stage of the research.

The 180 participants (45 per treatment cell) to be randomly assigned to either the active ex post opportunism high economic value low strategic value treatment, active ex post opportunism low economic value high strategic value treatment, passive ex post opportunism high economic value low strategic value treatment, or passive ex post opportunism low economic value high strategic value treatment, were randomly selected from the list supplied by ISM and contacted by telephone to elicit participation. Each participant was contacted a maximum of ten times and if they had not answered the telephone or returned a call to the researcher after the 10th attempt to contact them then they were counted as a non-respondent. Participants that answered the telephone or returned the phone call were informed that the researcher was a doctoral candidate at Michigan State University and that their name had been provided by ISM. They were given a brief explanation of what the research entailed and asked if: a) they were willing to participate, and b) they were knowledgeable enough to respond.

Of the 180 purchasing professionals contacted, 95 agreed to participate, 12 refused to participate citing reasons of lack of time, lack of interest or company policy, 47 did not return the phone call and 26 had left the company. Subsequently, another 85 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 38 agreed to participate, 12 refused to participate citing reasons of time, lack of interest or company policy, 23 did not return the phone call and 12 had left the company. Subsequently, another 47 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 23 agreed to participate, six refused to participate citing reasons of time, lack of interest or company policy, nine did not return the phone call, and nine had left the company. Subsequently, another 24 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, 13 agreed to participate, two refused to participate citing reasons of time, lack of interest or company policy, five did not return the phone call and four had left the company. Subsequently, another 11 purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, seven agreed to participate, two did not return the phone call and two had left the company. Finally, another four purchasing professionals (to ensure a sample of 180 purchasing professionals) were randomly sampled from the list and identical steps were followed to get them to participate in the study as before. Of these, all agreed to participate. This ensured a response rate of 60.4% (180 out of 298). 102 of these were male and 78 were female. 35 of these had completed high school, 44 had completed some college, 56 had completed a bachelor's degree and 27 had a master's degree or above.

Participants were randomly assigned to one of four treatments: active ex post opportunism high economic value low strategic value treatment; active ex post opportunism low economic value high strategic value treatment; passive ex post opportunism high economic value low strategic value treatment; or passive ex post opportunism low economic value high strategic value treatment. 45 participants were assigned to each treatment.

The scripts for active ex post opportunism high economic value low strategic value treatment; active ex post opportunism low economic value high strategic value treatment; passive ex post opportunism high economic value low strategic value treatment; and passive ex post opportunism low economic value high strategic value treatment can be seen in Appendix 36, Appendix 37, Appendix 38, and Appendix 39 respectively. Participants were read the script (depending on treatment) over the telephone and asked to answer a, b, c, or d. If participants answered a or b then the researcher continued reading as per the script, however, if the participant answered c or d they were thanked and asked the questions from Appendix 35. The researcher continued reading the script until the participant chose either c or d. Then the participant was thanked and asked the questions from Appendix 35.

The researcher noted whether the participant chose to exit through market exchange or vertical integration, and the responses to the questions in Appendix 35. All participants responded to question one, 176 participants responded to question 2, 176 participants responded to question three, 61 participants responded to question four (non-respondents worked for private companies and were not allowed to divulge this information), 162 participants responded to question five, 93 participants responded to question six (non-respondents cited reasons of time or not understanding the question), and 87 participants responded to question seven (non-respondents cited reasons of time or not understanding the question).

CHAPTER 5

Results of the Analysis

Research Hypothesis One

Hypothesis one states that the responses of parties to ex post opportunism will move more quickly toward exit in the face of the accumulation of active ex post opportunism as opposed to in the face of the accumulation of passive ex post opportunism. Calculation of the Levene statistic for homogenous variance, descriptive statistics and the results of the ANOVA to test hypothesis one can be seen in Appendix 40. The Levene statistic (1.030, $p = 0.313$) indicates that the two groups have homogenous variance thus allowing the use of ANOVA for the analysis. Results of the ANOVA indicate that the means of the two groups are different ($M_{active} = 2.98$, $M_{passive} = 4.00$; $F(1,88) = 24.934$, $p < 0.001$). This indicates that ceteris paribus, the mean tolerance of passive ex post opportunism is 4.00 instances whereas the mean tolerance of active ex post opportunism is 2.98 instances. Therefore, H1 is supported.

Gender (male / female), sales of the participant's firm (less than $500 million / greater than $500 million), and education level (high school / some college / bachelors degree / graduate degree) were adopted as control variables in the analysis of H1. None of these control variables were found to have a significant effect on time of exit (Gender, $F = 1.876$, $p = 0.174$; Education level, $F = 1.239$, $p = 0.301$; Sales, $F = 0.863$, $p = 0.357$).

Research Hypothesis Two

Hypothesis two part (a) states the responses of parties to the accumulation of active ex post opportunism will move more quickly toward exit under the boundary conditions of low economic value and low strategic value than under the boundary conditions of high economic value and high strategic value. Calculation of the Levene statistic for homogenous variance, descriptive statistics and the results of the ANOVA to test hypothesis two (a) can be seen in Appendix 41. The Levene statistic (1.254, $p = 0.266$) indicates that the two groups have homogenous variance thus allowing the use of ANOVA for the analysis. Results of the ANOVA indicate that the means of the two groups are different ($M_{high,high} = 3.93$, $M_{low,low} = 2.80$; $F(1,88) = 24.933$, $p < 0.001$). This indicates that the mean tolerance of active ex post opportunism under the boundary conditions of high economic value and high strategic value is 3.93 instances, whereas the mean tolerance of active ex post opportunism under the boundary conditions of low economic value and low strategic value is 2.80 instances. Therefore, H2a is supported.

Gender (male / female), sales of the participant's firm (less than $500 million / greater than $500 million), and education level (high school / some college / bachelors degree / graduate degree) were adopted as control variables in the analysis of H2a. None of these control variables were found to have a significant effect on time of exit (Gender, $F = 0.913$, $p = 0.342$; Education level, $F = 0.715$, $p = 0.546$; Sales, $F = 1.062$, $p = 0.308$).

Hypothesis two part (b) states the responses of parties to the accumulation of passive ex post opportunism will move more quickly toward exit under the boundary conditions of low economic value and low strategic value than under the boundary conditions of high economic value and high strategic value. Calculation of the Levene statistic for homogenous variance, descriptive statistics, the results of the ANOVA to test hypothesis two (b), and the result of the t-test for equality of means where equal variances are not assumed to test hypothesis two (b) can be seen in Appendix 42. The Levene statistic (15.080, $p < 0.001$) indicates that the two groups cannot be assumed to have homogenous variance violating the assumption of homogenous variance in ANOVA. Therefore, in addition to ANOVA, a t-test for equality of means where equal variances are not assumed was also conducted. Results of the t-test and ANOVA are consistent with one another. The results of the t-test indicate that the means of the two groups are different ($M_{high,high} = 4.73$, $M_{low,low} = 2.91$; $t(60.394) = 5.318$, $p < 0.001$). Likewise the results of the ANOVA indicate that the means of the two groups are different ($M_{high,high} = 4.73$, $M_{low,low} = 2.91$; $F(1, 88) = 28.285$, $p < 0.001$). This indicates that the mean tolerance of passive ex post opportunism under the boundary conditions of high economic value and high strategic value is 4.73 instances, whereas the mean tolerance of passive ex post opportunism under the boundary conditions of low economic value and low strategic value is 2.91 instances. Therefore, H2b is supported.

Gender (male / female), sales of the participant's firm (less than $500 million / greater than $500 million), and education level (high school / some college / bachelors degree / graduate degree) were adopted as control variables in the analysis of H2b. None of these control variables were found to have a significant effect on time of exit (Gender, $F = 0.172$, $p = 0.679$; Education level, $F = 0.505$, $p = 0.680$; Sales, $F = 0.722$, $p = 0.400$).

Research Hypothesis Three

Hypothesis three states that in the face of the accumulation of ex post opportunism firms will tend to exit through market exchange under the boundary conditions of high economic value and low strategic value and will tend to exit through vertical integration under the boundary conditions of low economic value and high strategic value. No participants in any of the treatments chose to exit through vertical integration. Therefore, H3 is not supported.

Question six in Appendix 35 probed participants for information regarding why they did not choose to vertically integrate. Answers to this question were partially transcribed and analyzed by hand (cf., Price and Arnould, 1999). The dominant theme emerging from the responses to this question was that the reason why the participants had not chosen to vertically integrate was because producing microchips was not a core competency of the buyer firm in the scenario and as such the buyer would not have the capabilities necessary to produce the microchip in-house even after buying the supplier. Participants felt that the microchip being sourced was a commodity part that could be sourced from many different suppliers and only as a last resort would they consider to vertically integrate. Examples of some of the representative responses to the question include:

> "There are multiple suppliers available so if I was in the business of making electronic components then I would want to exhaust all my buy opportunities before I make this chip myself. It's not my core competency and as long as supply is available then until I feel a threat to the supply in the market I buy."
>
> "If my company had the ability to do this then I would not be sourcing to begin with so just buying another company does not provide me with the capabilities and so I would not do it."
>
> "It's not my core competency so I will fall flat on my face if I do this."

Likewise question seven in Appendix 35 probed participants for information regarding the role of strategic value and economic value in the decisions made in the scenario. Answers to this question were partially transcribed and analyzed by hand (cf., Price and Arnould, 1999). The dominant theme emerging from the responses to this question was that participants mainly considered the economic value from the relationship rather than the strategic value when making the decisions in the scenario. Examples of some of the representative responses to the question include:

> "The economic value is the most important as not every supplier can provide the same economic value for you. Strategic (value) is not as important as this (economic value)."
>
> "Bottom line is the economic value is important – we don't jump ship straight away."
>
> "Economic value is really important but when the quality suffers and the relationships starts to have problems then the economic value is secondary and I will look to other suppliers."

CHAPTER 6

Theoretical and Managerial Contributions of the Study

The motivation behind this dissertation was to understand the theoretical differences in responses to the accumulation of active and passive ex post opportunism in interorganizational buyer-supplier relationships, and how the understanding of these differences would extend theory and influence interorganizational buyer-supplier relationship governance. As such, three questions were proposed in this dissertation: (1) Do buyers respond differently to the accumulation of active ex post opportunism as opposed to the accumulation of passive ex post opportunism by suppliers in long-term interorganizational relationships? (2) What accumulation of either active or passive ex post opportunism do buyers tolerate before changing the governance structure and how is this impacted by the various boundary conditions of value? (3) Under what boundary conditions do buyers exit through vertical integration and under what boundary conditions do they exit through market exchange? The results of this dissertation provide insights into answering the aforementioned questions with implication for marketing academics and practitioners.

Theoretical Contributions of the Study

Underlying the first research question is the key theoretical argument that ex post opportunism is of two different forms: active ex post opportunism and passive ex post opportunism (Wathne and Heide, 2000), with differing governance responses to these different forms. Specifically, Wathne and Heide (2000) expand upon Williamson's (1975) conceptualization of opportunism to posit these two different forms, however, their work is conceptual in nature. As such, they do not empirically test differences in governance responses across the different forms of ex post opportunism. The findings of this work directly address this limitation in the literature by providing evidence of differences in governance responses to active and passive ex post opportunism in interorganizational buyer-supplier relationships.

Specifically to address the first research question this study examined responses toward active and passive ex post opportunism. The findings demonstrate the tolerance level of buyers toward ex post opportunism by suppliers is contingent upon the form of ex post opportunism engaged in by the supplier. Buyers were found to respond by exiting an interorganizational buyer-supplier relationship more quickly in the face of the accumulation of active ex post opportunism by the supplier than in the face of the accumulation of passive ex post opportunism by the supplier. Thus supporting the theoretical contention made in this dissertation that buyers will tolerate a greater accumulation of passive ex post opportunism than active ex post opportunism. This finding not only provides empirical support for Wathne and Heide's (2000) delineation of ex post opportunism into the active and passive forms with subsequent differences in the consequences of the two forms, but also extends Wathne and Heide's (2000) work through the inclusion of the concept of accumulation. This is a significant contribution to the literature as the examination of accumulation is consistent with the longitudinal nature of TCE, which heretofore has been neglected in the extant literature, thus not providing interorganizational governance scholars with a better understanding of the long-term nature of transaction cost economics. While the study of the accumulation of active and passive ex post opportunism explains toleration to opportunism across forms of opportunism, it fails to provide a fully bounded theoretical perspective of the response to accumulation within forms of ex post opportunism. To do this, the boundary constraint of value was examined.

The importance of value in interorganizational buyer-supplier relationships was proposed by Williamson (1975) and further expanded upon conceptually by Jap (1999) who stated that, "[M]any of the benefits of close relationships cannot be expressed easily in economic terms…[A]s such, there has been a call for investigations into a broader and more proximal set of outcome variables than has been examined in the past. There has also been little investigation into the nature of strategic returns in close relationships." Through the incorporation of the value boundary parameter, via the inclusion of both economic value and strategic value, the underlying TCE model for interorganizational buyer-supplier relationship governance becomes more clearly specified. In examining the influence of value on the tolerance of the accumulation of ex post opportunism, the findings of this dissertation show that the existence of high levels of economic value and strategic value in a relationship act as a buffer against the cost of the accumulation of the ex post opportunism. The findings show that when the buyer derives high levels of economic value and high levels of strategic value from the interorganizational relationship then he/she will tolerate greater accumulation of active ex post opportunism than when he/she derives low levels of economic value and low levels of strategic value. Likewise, in the face of the accumulation of passive ex post opportunism, the buyer will tolerate a greater accumulation when he/she derives high levels of economic value and high levels of strategic value then when he/she derives low levels of economic value and low levels of strategic value.

Further, these findings provide empirical support for the theoretical arguments of Ghosh and John (1999) and Kaufmann (1987) that relationships should be analyzed from the perspective of value. For without the acknowledgement of the level of value in the relationship, one would be unable to provide sufficient understanding of what drives the level of toleration of active or passive ex post opportunism within these forms of ex post opportunism. As such, these findings answer critics of TCE who charge that empirical works in TCE focus purely on cost minimization and neglect the concept of value. By including levels of value in the model in this dissertation, there is an incorporation of both cost minimization and value thus providing more specificity in models of interorganizational buyer-supplier governance.

Upon the decision to exit the interorganizational buyer-supplier relationship, TCE provides for two choices of exit to the buyer: exit through vertical integration or exit through reverting to market exchange. Traditional TCE arguments would indicate that the level of specific assets determines the choice of exit, with higher levels of asset specificity leading to exit through vertical integration. In this dissertation, the level of asset specificity was held at the intermediate level with theoretical arguments made that higher levels of strategic value would drive firms toward exit through vertical integration as a means to protect the level of strategic value. However, the findings indicate that irrespective of the level of strategic value in the relationship, buyers choose to exit through reverting to purchasing from a new supplier thus avoiding vertical integration. Findings also indicate that a potential reason for this avoidance of vertical integration is one of core competency. Specifically, some participants reasoned that the supplier was performing a task for the buyer that was not one of the core competencies of the buyer and as such integrating this non-core competency into the purchasing firm would be unsuccessful and lead to greater problems for the firm than opting to use another supplier. However, this exit of one relationship toward a new supplier necessitates giving up a value-laden relationship for a relationship with a new supplier that potentially does not provide the same levels of value to the buyer. Theoretically, one potential means of overcoming the problem of a lack of core competency that would enable firms to protect these value-laden relationships is for the firm to engage in plural governance as discussed next.

Plural governance is when a firm simultaneously uses both vertical integration and market exchange for the same transaction (Heide, 2003). Plural governance is a relatively widespread phenomenon, although one that is comparatively underresearched in the extant marketing literature (Heide, 2003). Scholars have argued for many benefits of plural governance including a reduction in information asymmetry as a result of the expertise developed in the production of the part that is sourced (Heide, 2003; Walker and Weber, 1984), and as a safeguard to help manage independent sales representatives (Dutta, Bergen, Heide and John, 1995). In addition to these aforementioned benefits, the results of this dissertation suggest that plural governance could be used to protect value-laden relationships, as its implementation would enable the buyer firm to develop the relevant expertise in-house that would allow the firm to successfully integrate a supplier firm that was engaging in ex post opportunistic behavior and yet provided high levels of strategic and economic value to the buyer. In essence, the use of plural governance by the buyer will make viable the option of vertical integration should the buyer firm decide it is the best option in the face of the accumulation of either active or passive ex post opportunism.

Managerial Implications of the Study

The managerial implications of this dissertation fall under two broad categories: (1) the implications for buyer firms whose supplier partners are engaging in ex post opportunism, and (2) the implications for the perpetrators of ex post opportunism.

First, consider a buyer firm that is faced with the potential of ex post opportunism by its supplier partner. This research explicates the behavioral reactions of managers to the specific stimuli of the accumulation of active and passive ex post opportunism. The specification of behavioral reactions allows for greater insights into how managers make decisions in response to opportunistic behavior by partners, thus providing an in-depth analysis of the behaviors that managers are actually engaging in. It is demonstrated in this research that managers tend to exit from relationships more quickly in the face of active ex post opportunism than in the face of passive ex post opportunism. This is important for the reason elaborated following.

Whether the ex post opportunism is active or passive does not necessarily change the financial consequence of the behavior that occurred. For example, if a delivery from the supplier does not come on time and the supply firm does not inform the buyer it is not going to come on time then this is perceived as somehow less costly than if the delivery does not come on time and the supplier assured the buyer it would come on time. Yet, in both circumstances the delivery does not come on time. By making this explicit, this research enables better quantification of the decision processes of managers and enables managers to better adjust and refine the criteria that help them make better governance decisions. When confronted with active ex post opportunism managers should perhaps "take a step back" and consider the consequence of the action and a measured response rather than the active ex post opportunism itself. Thus, this research provides in-depth analysis for managers that will aid them in improving their decision-making regarding issues of ongoing governance in response to ex post opportunistic behavior by partners.

Second, consider a firm that is the perpetrator of ex post opportunistic behavior. The results of this research would appear to indicate that should a firm wish to engage in ex post opportunistic behavior then it is prudent for the firm to engage in passive ex post opportunism rather than active ex post opportunism. It is possible for a firm to maintain a relationship for a longer period of time by engaging in passive ex post opportunism, as the accumulation of passive ex post opportunism will be tolerated for longer than the accumulation of active ex post opportunism. For example, rather than lying to the buyer about the delivery arriving on time, it is better, from the perspective of the supplier, to not inform the buyer that the delivery will not arrive on time. These apparent benefits of engaging in passive ex post opportunism rather than active ex post opportunism may help to explain the phenomena known as "the dark side of close relationships." (Anderson and Jap 2005, p.75). These authors note that many close relationships are susceptible to forces "quietly building beneath the surface of the relationship" (p.75) and that the dark side of close relationships can be *subtle* and not very *hostile* leading to the continuation of these relationships for long periods of time before exit takes place. In essence, the dark side of these relationships is firms engaging in passive ex post opportunism and as a result slowly destroying the relationship over a long period of time.

In addition, it would also be wise for the firm engaging in ex post opportunism to make clear to its partner what value the buyer-supplier relationship provides to the partner not engaged in ex post opportunism. Confronted with ex post opportunism in an interorganizational buyer-supplier relationship, firms consider the value in the relationship when considering how great an accumulation of ex post opportunism to tolerate. Therefore, a firm engaged in ex post opportunism should demonstrate the value of the relationship, as the greater the value perceived by the buyer, the greater the toleration of the ex post opportunism.

Limitations and Future Research Directions

Although this study provides a number of useful insights, as with all research it also embodies a number of limitations that should be taken into consideration when considering the results. The first limitation of the study is with regard to the design of the study. The study only looks at the accumulation of either active ex post opportunism or the accumulation of passive ex post opportunism. However, it is more realistic for firms to engage in a combination of active and passive ex post opportunistic behaviors rather than one particular form in part to avoid reaching what epidemiologists refer to as the "tipping point" of tolerance at which point the firm that is the target of the ex post opportunism will exit the relationship. A future research direction could examine the governance response strategies to a mixture of the accumulation of active and passive ex post opportunism.

Second, another limitation may be the domestic setting of the experiment and this may be one reason why participants did not appear to factor the level of strategic value into their decision-making process. The U.S. has been seen to be a short-term oriented culture (Hofstede, 2003) that places emphasis on short-term financial gain. Perhaps similar studies conducted in cultures that have a more long-term orientation may produce different results with regard to the impact of strategic value on the decision calculus of managers. Williamson (1991) acknowledges the importance of considering the institutional environment (including culture) when making theoretical predictions about responses to opportunism and this study may be a victim of not fully considering the institutional environment of the United States of America. Therefore, extending this study outside the institutional environment of the United States may be a way to extend the study in a theoretically interesting direction.

Third, another limitation may be the industry and the component being sourced in the scenario. The scenario was developed in line with the extant literature and was pre-tested for realism; however, the lack of participants choosing vertical integration may be an artifact of the scenario. Microchips may be seen as a component part thus explaining the reluctance of participants to consider vertical integration as an option. A different scenario depicting the sourcing of a more specialized non-component part may result in more participants considering the option of vertical integration as a viable alternative to protect the value in the relationship. This therefore suggests that TCE is bound by industry-specific limitations with regard to the theoretical predictions it can make. Future research should be conducted in a different industry and with a different sourced component.

A further limitation of this study is the use of a hypothetical, albeit realistic, scenario to test the research hypotheses rather than relying on real-life experiences of managers. Future studies could be done by examining real-life interorganizational buyer-supplier relationships and examining the build up of ex post opportunism in these relationships and how quickly this build up leads to termination. Along similar lines, it may also be possible to examine cases of specific firms in a specific industry (e.g., the automotive industry) to examine the governance responses of these firms to the accumulation of ex post opportunism.

Finally, it may be of interest to examine the scenario from the perspective of the proponent of the ex post opportunistic behavior. In this study, the focus was on the toleration of ex post opportunism but of course the counter to this is the perpetration of ex post opportunism. Firms that engage in ex post opportunism will wish to examine how much ex post opportunism they can engage in before their partners leave the relationship and how they can optimize their opportunistic behavior. Generally ex post opportunism has been seen as a bad thing, however, it may be of interest to consider opportunism as value neutral and examine optimal levels of opportunism that firms' partners will tolerate.

APPENDICES

APPENDIX 1

Email From Clinical Professor of Purchasing Management to Purchasing Professionals Soliciting Initial Help With Study

Best and Brightest,

As you know, one of our research streams at MSU is around supplier relations / collaboration. The flip side, as it were, looks at supply chain design and governance in the face of disruptive acts either by commission or omission by either the buyer or seller. Steven Seggie, a doctoral student at MSU, is initiating a study in this area. The purpose of this email is to request your early stage support of Steven's research by responding to email interviews. Steven intends to use the findings from these initial interviews to put together a pilot study and develop an iterative experiment with a broader SCM practitioner audience.

Because of your SM expertise along with your firm's reputation as a leader in SM, we'd like your help. Steven will contact you within the next two weeks to determine your interest and availability. Thanks in advance for your support.

Best regards,

XXX

APPENDIX 2

Follow Up Email Soliciting Specific Support From Purchasing Managers

Dear XXX,

I hope all is well. I am following up on XXX's email to you concerning the project on management of supply chain relationships. We are very much looking forward to your participation so that a better understanding of the management of supply chain relationships and challenges to effective governance can be gained.

To begin we would like to get a better understanding of behaviors that have created challenges in your supply chain relationships.

Please provide 3 to 5 detailed examples of disruptive behavior both by commission (i.e. doing something either explicitly or implicitly forbidden) and by omission (i.e. not doing something either implicitly or explicitly agreed upon previously) that your supply partners have engaged in.

Should you have any questions please do not hesitate to contact me. We would be grateful if we could receive your replies within 2 weeks.

After the deadline we will provide a summary of all responses and ask for your comments on the full set of examples.

Thanks in advance and best regards

Steven H. Seggie

Department of Marketing and Supply Chain Management, Michigan State University

APPENDIX 3

Outline of Study as Sent to Participants in Phase One

Governance Response Strategies to Disruptive Acts by Suppliers

Although academics have touted trust and commitment and the development of close relationships as a panacea for many of the problems between industrial buyers and suppliers, we still observe dysfunctional relationships between industrial buyers and suppliers punctuated by disruptive acts by one or both parties. These disruptive acts are both by commission (e.g., lying, breaching agreements etc.) and omission (e.g., not telling the whole truth, not accepting responsibility etc.)

This study examines the responses of industrial buyers to the disruptive acts of suppliers. The responses include various ways to manage the relationship, including exiting from the relationship. The researchers argue that these disruptive acts should be treated as a cost to be weighed against the economic and strategic benefits that exist for the industrial buyers from the relationship. Also, the researchers argue that different combinations of economic and strategic benefit will elicit different patterns of responses.

To investigate this issue a three-stage approach is proposed. First, the researchers will conduct iterative email interviews with a unique group of 25-30 leading purchasing professionals to develop the scenarios, elicit examples of disruptive acts (both by commission and omission), and develop the concepts of strategic and economic value. This is a key stage in the research, as poor execution of stage one will render the results of stage two and three meaningless. Next, the researchers will conduct an iterative experiment that will simulate the accumulation of disruptive acts by a supplier over a relationship and capture the responses of buyers to these acts occurring in relationships with different combinations of economic and strategic benefit. Finally, the researchers will analyze the data collected in stage two and write up the article and managerial summary.

The findings of this study will help to direct managerial action by suggesting strategies for managing dysfunctional relationships that involve treating disruptive acts as a cost to be balanced against the benefits gleaned from the relationship. It will also suggest modes of exit from the relationship for firms based upon the strategic benefits perceived in the relationship, as well as strategies to put effective trust back into the relationship.

APPENDIX 4

Follow Up Email Soliciting Support and Reminding Participants of the Approaching Deadline

Dear XXX,

Hope you are well. I am just writing as a friendly reminder that the deadline is approaching for our study - the end of this week or the start of next week would be fantastic. As I mentioned before your contribution is particularly valuable for all of us in increasing understanding of the management of supply chain relationships.

Thanks in advance and best regards

Steven

APPENDIX 5

Measures of Opportunism

Opportunism (by partner), Achrol and Gundlach (1999)

Exaggerated needs in order to get what they desired.
They were not always sincere.
Altered facts in order to get what they wanted.
Good faith bargaining was not a hallmark of their bargaining style.
Provided a completely truthful picture when negotiating (reversed).
Breached formal or informal agreements to benefit themselves.

Perceived opportunism (Adapted from John 1984), Anderson (1988)

The following statements are labeled 'disagree/agree' on a 1 to 7 scale. Please circle the number corresponding to how well each statement describes the situation in your territory.

Our salespeople feel the company isn't always candid with them, so they are not completely candid with the company.
Our salespeople feel they sometimes have to alter the facts slightly in order to get what they need from the company.
Sometimes our salespeople present facts to the company in such a way that they look good.
Our salespeople feel that complete honesty does not pay when dealing with the company.
Our salespeople feel they sometimes have to exaggerate their needs in order to get what they really need from the company.
Our salespeople feel it is all right to do anything within their means to further their own interests.
On occasion, our salespeople distort information to the company about certain things in order to protect their interests.
Our salespeople sometimes promise the company they will do certain things without actually doing them later.
Our salespeople always provide the company a completely truthful picture of their activities (reversed).

Opportunism, Dahlstrom and Nygaard (1999)

We have reason to believe that the company hides important information regarding our station.
The company has not kept promises made when we entered the relationship.

Opportunism, Gundlach, Achrol and Mentzer (1995)

Partner exaggerated needs to get what they desired.
Partner was not always sincere.
Partner altered facts to get what they wanted.
Good faith bargaining was not a hallmark of partner's negotiation style.
Partner provided a completely truthful picture when negotiating (reversed).
Partner breached formal of informal agreements to their benefit.

Ex Post Opportunism, Jap and Anderson (2003)

When a problem occurs how often will the buyer (supplier) do the following? (1=Hardly ever, 7=Very often)
They make hollow promises.
They are aloof toward us.
They "window-dress" their efforts to improve.
They expect us to pay for more than our fair share of the costs to correct the problem.
They are unwilling to accept responsibility.
They make false accusations.
They provide false information.
They fail to provide proper notification.

Opportunism, John (1984)[5]

Sometimes, I have to alter the facts slightly in order to get what I need.
I have sometimes promised to do things without actually doing them later.

Opportunism, Lee (1998)

We always provided this importer with a completely truthful picture of our business (reversed).
We always carry out the duties of our relationship even if this importer does not check up on us (reversed).
We have sometimes promised this importer that we would do things, even though we actually had no intention of following through.
In terms of this importer, we believe that it is O.K. to do anything within our means that will help further our firm's interest.
To get the necessary support from this importer, we sometimes mask the true nature of our needs.
To get the needed support from this importer, we sometimes overstate the difficulties our firm faces.

[5] The full scale used by John is not noted in the article; however, subsequent articles (e.g., Anderson, 1988 and Provan and Skinner, 1989) adapt John's full set of scales thus ensuring that the scales are included.

In order to maintain our goal (i.e., profitability, sales volume and market share), we occasionally find it necessary to neglect some of our obligations to this importer.
Regardless of its impact on our business (i.e., profitability, sales volume, or market share), we always conscientiously perform our duties to this importer (reversed).
Sometimes we have had to alter the facts slightly in order to get what we need from this importer.
On occasion, we have had to lie to this importer about certain things in order to protect our interests.

Opportunism (Adopted from John 1984), Parkhe (1993)

With respect to your partner firm in the present alliance:
They have always provided us a completely truthful picture of their business (reversed).
Complete honesty does not pay when dealing with my partner.
Sometimes my partner alters the facts slightly in order to get what they need.
My partner carries out their duties even if we do not check up on them (reversed).
My partner has sometimes promised to do things without actually doing them later.
They seem to feel that it is OK to do anything within their means that will help further their firm's interests.

Opportunism (Adapted from John 1984), Provan and Skinner (1989)

I have always provided my primary supplier a completely truthful picture of my business.
I feel that it is OK to do anything within my means that will further help my own interests (reversed).
Sometimes I have to alter the facts slightly in order to get what I need (reversed).
I have sometimes promised to do things without actually doing them later (reversed).
Complete honesty does not pay when dealing with my primary supplier (reversed).
Sometimes I present facts to my primary supplier about certain things in order to protect my interests (reversed).
On occasion, I have to lie to my primary supplier about certain things in order to protect my interests (reversed).
My primary supplier isn't always truthful with me, so I am not always completely candid with them (reversed).
Sometimes I have to exaggerate my needs in order to get what I really need from my supplier (reversed).

Supplier Opportunism (Adapted from John 1984; Gundlach et al. 1995) with 2 new items at end, Rokkan, Heide and Wathne (2003)

On occasion, this supplier lies about certain things in order to protect their interests.
This supplier sometimes promises to do things without actually doing them later.
This supplier does not always act in accordance with our contract(s).
This supplier sometimes tries to breach informal agreements between our companies to maximize their own benefit.

This supplier will try to take advantage of "holes" in our contract to further their own interest.

This supplier sometimes uses unexpected events to extract concessions from our firm.

APPENDIX 6

Active and Passive Ex Post Opportunistic Behaviors Derived From the Measures of Opportunism

Active Ex Post Opportunistic Behaviors

Doing anything to further their own/their firm's interests (Anderson 1988; Lee 1998; Parkhe 1993; Provan and Skinner 1989).
Lying to protect their own interests (Lee 1998; Provan and Skinner 1989; Rokkan et al. 2003).
Providing false information (Jap and Anderson 2003).
Exaggerating needs to get what they desired (Achrol and Gundlach 1999; Anderson 1988; Gundlach et al. 1995; Lee 1998; Provan and Skinner 1989).
Altering facts to get what they wanted (Achrol and Gundlach 1999; Anderson 1988; Gundlach et al. 1995; John 1984; Lee 1998; Parkhe 1993; Provan and Skinner 1989).
Breaching formal or informal agreements to benefit themselves (Achrol and Gundlach 1999; Gundlach et al. 1995; Rokkan et al. 2003).
Making false accusations (Jap and Anderson 2003).
Not always being sincere (Achrol and Gundlach 1999; Gundlach et al. 1995).
Expecting the other party to pay for more than the fair share of the costs to correct a problem (Jap and Anderson 2003).
Taking advantage of "holes" in a contract to further their own interest (Rokkan et al. 2003).
Using unexpected events to extract concessions from partner firm (Rokkan et al. 2003).

Passive Ex Post Opportunistic Behaviors

Promising to do something and then not fulfilling the promise (Anderson 1988; Dahlstrom and Nygaard 1999; Jap and Anderson 2003; John 1984; Lee 1998; Parkhe 1993).
Hiding information from one's partner (Dahlstrom and Nygaard 1999).
Neglecting to fulfill obligations to one's partner (Lee 1998).
Not accepting responsibility for one's own actions (Jap and Anderson 2003).
Not providing proper notification to one's partner (Jap and Anderson 2003).
Not telling the whole truth (Anderson 1988).

APPENDIX 7

Real Life Examples of Ex Post Opportunism by Suppliers: Split Into Active Ex Post Opportunism and Passive Ex Post Opportunism

Active Ex Post Opportunistic Behaviors

Your supplier stops a shipment due to ongoing contractual negotiations not going the way the supplier wished.

You learn that contrary to your supplier agreement, your supplier is also supplying the same parts to your competitor.

Due to a natural disaster your supplier informs you that it cannot deliver your order. However, you discover that the supplier is supplying your competitor at higher prices. This is contrary to your agreement that indicates that in crises the first priority of the supplier is to supply your firm.

You hear that your supplier has been gossiping about the poor quality of your product to others in the industry.

Your supplier complains to you that they lost business unfairly to another supplier. Upon investigation, you find that in fact the supplier lost business due to poor service quality.

Your supplier provides a non-conforming part and then threatens to stop shipments if you bill the supplier to recoup costs.

Your supplier sends you parts that are stamped compliant, however, upon inspection you find that they are not.

Your supplier refuses to accept traditional terms and conditions. Instead trying to renegotiate at every opportunity.

Your supplier accuses you of trying to hire one of its best employees. You contact your HR department and you find out that no approach has been made.

Your supplier informs you that your biggest competitor is planning to introduce a new line of goods. You do some investigating and find out that your supplier is not telling the truth.

Your supplier reneges on part of the contract.

Your supplier takes advantage of holes in the contract to gain an advantage over you.

Your supplier provides a non-conforming part and then refuses to send you a new part when you request.

Passive Ex Post Opportunistic Behaviors

Your supplier's delivery turns up one day later than it was supposed to. Your supplier did not inform you that it would not be on time.

Faced with a sudden increase in demand you ask your supplier if they can help you meet the extra demand by providing their part for the finished good. They say yes, but then do not follow through on their promise.

In line with what is allowed in the contract, you changed your order. However, your supplier delivers the old order claiming they were not informed of the new order. The supplier refuses to accept responsibility for the mistake saying that they were not informed.

A supply disruption occurs but your supplier fails to communicate this to the appropriate person on your side.

Your supplier fails to produce and deliver a key component on time and does not inform the buyer that it would not be on time.

In one of the deliveries from your supplier, you discover that the number of parts is short by 5%.

At one of your deliveries it appears that the delivery is short. You contact the supplier but they deny it is their responsibility and suggest one of your employees is to blame. You know that not to be the case.

Your supplier manufacturers the product in location X, however, a fire breaks out and burns down the manufacturing location. Your supplier does not inform you of the fire and continues to ship product from the US where they have built up inventory. You find out about the fire from a news article.

The delivery does not arrive from your supplier and when you enquire your supplier explains that they have a problem with the production line in the factory and that they had informed you by leaving a message with someone at the company. You did not receive the message and anyway normally you would expect to be informed directly by the supplier if such a thing happened.

Your supplier does not invest in the quoted capacity for a program. In addition, the supplier does not inform you of this. You have paid for full capacity and when you increase demand, the supplier does not have excess capacity to fall back on.

You face an increase in demand from one of your customers and this necessitates your supplier working overtime. Although the norms of the relationship would dictate your supplier would usually help you, in this instance your supplier refuses to help.

Your supplier told you it was going to increase the efficiency of its production line thus bringing cost savings in the future. The supplier promised the changes in 4 months; however, it appears that they have not fulfilled this promise.

Your supplier promises to deliver X number of components and then under delivers.

A delivery from your supplier comes late because the truck breaks down. It turns out that the supplier is not servicing the trucks regularly.

Your supplier fails to ensure its own supply of raw materials therefore rendering it unable to deliver to you, the buyer.

Your supplier promised to replace the driver of the truck delivering your order, as he was generally careless when unloading orders and had nearly damaged a few orders as a result. However, you notice that it is still the same driver delivering your order.

Your supplier moves production from one facility to another without informing you and subsequently parts start coming to you with defects.

Your supplier fails to control quality in the supplier plant resulting in supply interruption and product being put on hold. This impacts upon ability to deliver to you.

Your supplier provides a non-conforming part and then does not send you a new part when you request.

You find that the quality of one of the parts supplied by your supplier is substandard. Upon investigation you discover that your supplier has changed their manufacturing processes without authorization from you first.

Your supplier uses an alternative raw material for the part leading to a reduction in quality. Your supplier does not inform you of this and only when you telephone to inquire do they confirm what happened.

In repeated telephone conversations with your supplier you inquire as to whether everything is going fine or not. From other sources you hear that they may have some problems, however, they always say everything is fine. You suspect they are not telling the whole truth.

You find out from some sources in the industry that your competitors have been regularly contacting your supplier to get information on the parts they are supplying to you. You are surprised because the supplier did not mention that your competitors had been doing this.

Your supplier never returns phone calls on important business matters.

It is the responsibility of the supplier to ensure that the loads are packed tightly and cleanly and arrive at your factory in one piece. Your supplier appears to be neglecting this.

APPENDIX 8

Email to Purchasing Executives Soliciting Further Help in Phase One

Dear XXX,

I hope you are well.

In our efforts to further understand the management of supply chain relationships we would request your valuable help once again. I have attached two documents (they are independent of one another) and as before I would like your comments on them - the questions I would like you to comment upon are provided in bold on the attached documents. Written responses are great or if you prefer I could phone you.

It should only take around five minutes of your time and would be a further valuable step in our efforts to increasing the understanding of the management of supply chain relationships and challenges to effective governance.

Thanks in advance and best regards

Steven H. Seggie

Michigan State University

APPENDIX 9

Scenario and Question Sent to Purchasing Managers During Phase One

Question: On the whole, does the following scenario appear realistic to you?

Scenario:

Imagine you are a purchasing manager responsible for the purchase of microchips for a midsize electronic components manufacturer. There are multiple suppliers of microchips in the market, however, you have been frequently buying microchips from one of your suppliers for two years with no difficulties.

You have made a medium amount of investments specifically dedicated to your relationship with this supplier. You can assess the performance of this supplier easily and there are no unanticipated changes in the external environment. Your demand for the microchip is steady.

APPENDIX 10

Question and Definitions of Strategic Value and Economic Value

Question: On the whole when defining the value in a relationship with a supplier are the following definitions appropriate?

(a) High economic value: substantial financial rewards to a firm from a relationship.

(b) Low economic value: minimal financial rewards to a firm from a relationship.

(c) High strategic value: substantial strategic rewards including substantial access to new markets, new network partners, and new resources.

(d) Low strategic value: minimal strategic rewards including minimal access to new resources, new network partners, and new resources.

APPENDIX 11

Follow Up Email to Purchasing Managers Requesting Participation in the Evaluation of the Realism of Scenarios and the Appropriateness of the Definitions of Economic Value and Strategic Value

Dear XXX,

I hope you are well. I would again thank you for all the contributions you have made so far to our research project.

This is just a gentle reminder that the deadline is approaching for you to provide feedback on the documents that I sent you last week. Thanks again for all the help you have provided so far and I have again attached the documents for your convenience.

I would reiterate that it should only take around 5 minutes of your time and would be a further valuable step in our efforts to increasing the understanding of the management of supply chain relationships and challenges to effective governance.

Thanks in advance and best regards

Steven H. Seggie

Michigan State University

APPENDIX 12

Finalized Scenario Incorporating Feedback From Purchasing Professionals

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

APPENDIX 13

Finalized Definitions of Strategic Value and Economic Value Incorporating Feedback From Purchasing Professionals

High economic value: substantial financial benefits to a firm from a relationship.

Low economic value: minimal financial benefits to a firm from a relationship.

High strategic value: substantial strategic benefits including substantial access to new markets, new network partners, and new resources.

Low strategic value: minimal strategic benefits including minimal access to new resources, new network partners, and new resources.

APPENDIX 14

Consequence, Active Ex Post Opportunism and Passive Ex Post Opportunism

Table 14-1: Consequence, Active Ex Post Opportunism and Passive Ex Post Opportunism

Consequence	Active Ex Post Opportunism	Passive Ex Post Opportunism
Your delivery does not turn up on time.	Your supplier told you that it would turn up on time.	Your supplier did not notify you that it would not turn up on time.
Your supplier does not help you with extra demand.	You ask your supplier to help you meet extra demand as is normal in your relationship. They agree, on the condition you renegotiate the supplier contract.	You ask your supplier to help you meet extra demand as is normal in your relationship. Your supplier refuses.
Your supplier delivers the old order not the new order.	In line with what is allowed in the contract, you changed your order. Your supplier agrees to deliver on the condition you renegotiate the supplier contract.	In line with what is allowed in the contract you change your order. Your supplier refuses to comply with the new order and delivers the old order.
Delivery is short.	Your supplier contacts you and informs you that the delivery coming is going to be 5% short of the contractual amount.	In one of the deliveries from your supplier, you discover that the number of parts is short by 5%. Your supplier does not inform you.
Delivery is short.	One of your deliveries appears to be short. You contact the supplier and they falsely accuse one of your employees.	One of your deliveries appears to be short. You contact the supplier and they deny it is their responsibility.
Delivery is short.	Your delivery is short. You asked your supplier to invest in sufficient capacity but your supplier only agreed on the condition you renegotiated the supplier contract.	Your delivery is short. You asked your supplier to invest in sufficient capacity but they refused.

Table 14-1 (continued)

Consequence	Active Ex Post Opportunism	Passive Ex Post Opportunism
Your supplier does not help meet increased demand.	You face an increase in demand from one of your customers and this necessitates your supplier working overtime. Your supplier agrees on the condition you renegotiate the supplier contract.	You face an increase in demand from one of your customers and this necessitates your supplier working overtime. The norms of the relationship dictate your supplier helps you but your supplier refuses.
Your supplier does not increase efficiency.	You ask your supplier to increase the efficiency of its production. Your supplier agrees on the condition you renegotiate the supplier contract.	You ask your supplier to increase the efficiency of its production. The supplier refuses.
Your delivery does not come on time.	A delivery from your supplier does not come on time because the truck breaks down. It turns out the supplier is deliberately buying and using old trucks even though the contract specifies the trucks should be no more than 5 years old.	A delivery from your supplier does not come on time because the truck breaks down. It turns out that the supplier is not servicing the trucks regularly as you had thought.
There is gossip about the poor quality of your product.	You hear that your supplier has been gossiping about the poor quality of your product to others in the industry.	You hear that your supplier is not defending the quality reputation of your product to others in the industry.
You receive parts that are non-compliant.	Your supplier sends you parts that are non-compliant. Upon inspection you realize they are stamped as compliant.	Your supplier sends you parts that are non-compliant. Upon inspection you realize they are not stamped as compliant.
You receive parts that have defects.	Your supplier moves production from one facility to another without informing and subsequently parts start coming to you with defects. Previously your supplier had asked if they could move production, however, you had denied them the right to do this.	Your supplier moves production from one facility to another without informing you and subsequently parts start coming to you with defects.

Table 14-1 (continued)

Consequence	Active Ex Post Opportunism	Passive Ex Post Opportunism
You have delivery problems	Your supplier has stopped controlling quality in the supplier plant resulting in supply interruption and product being put on hold. This impacts upon ability to deliver to you.	Your supplier fails to control quality in the supplier plant resulting in supply interruption and product being put on hold. This impacts upon ability to deliver to you.
You don't have the compliant part.	You supplier provides a non-conforming part and refuses to send a new one when you request.	Your supplier provides a non-conforming part and then promises to send a new one. However, they still have not done so.
You are receiving sub-standard parts.	You find that the quality of one of the parts supplied by your supplier is substandard. Upon investigation you discover that your supplier has changed their manufacturing processes without telling you, even though you previously told them they could not change their manufacturing processes.	You find that the quality of one of the parts supplied by your supplier is substandard. Upon investigation you discover that your supplier has changed their manufacturing processes without telling you.

APPENDIX 15

E-mail to Purchasing Managers Requesting They Identify Active and Passive Ex Post Opportunistic Behaviors

Dear XXX,

I hope you are well. Thank you again for your continued support with our research study. Please find attached a document listing consequences and opportunistic behaviors. I would be grateful if you could identify the behaviors as either active opportunism (i.e., by commission) or passive ex post opportunism (i.e., by omission). In addition, please fell free to make any suggestions as to how I may improve the clarity of the document.

Best regards

Steven

APPENDIX 16

Pre-Test of Consequences

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

Please rate the following from 1 to 7: where 1 indicates a very low cost to you, 4 neither high nor low cost to you, while 7 indicates a very high cost to you.

(a) You receive microchips that do not meet contractual standards.

(b) Your delivery contains defective microchips.

(c) Your delivery does not arrive on time.

(d) You receive less microchips in the delivery than specified in your contract.

(e) You receive microchips that are not compliant.

APPENDIX 17

Results of Analysis of Variance for Equivalence of Consequences

Table 17-1: Analysis of Variance (ANOVA) for Consequences

	Sum of Squares	df	Mean Square	F	Significance
Between Groups	5.060	4	1.265	0.297	0.879
Within Groups	404.700	95	4.260		
Total	409.760	99			

APPENDIX 18

Pre-test of Ex Post Opportunistic Behaviors

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

Please rate the following behaviors from 1 to 7: where 1 indicates a very low intensity, 4 neither high nor low intensity, while 7 indicates a very high intensity.

When a problem occurs in the relationship:

(a) Your supplier does not tell you the whole truth.

(b) Your supplier provides you with false information.

(c) Your supplier lies to you.

(d) Your supplier alters facts.

(e) Your supplier makes false accusations.

(f) Your supplier is not sincere.

(g) Your supplier violates agreements.

(h) Your supplier hides information from you.

(i) Your supplier does not accept responsibility for his/her actions.

(j) Your supplier does not provide proper notification

APPENDIX 19

Results of Analysis of Variance for Active Versus Passive Opportunistic Behaviors

Table 19-1: Analysis of Variance (ANOVA) Active Versus Passive Opportunistic Behaviors

	Sum of Squares	DF	Mean square	F	Significance
Between Groups	71.053	1	71.053	122.397	0.000
Within Groups	114.942	198	0.581		
Total	185.995	199			

APPENDIX 20

Results of Analysis of Variance of Intensity of Active Ex Post Opportunistic Behaviors

Table 20-1: Analysis of Variance (ANOVA) of Intensity of Active Ex Post Opportunistic Behaviors

	Sum of Squares	DF	Mean square	F	Significance
Between Groups	4.842	5	0.968	2.894	0.017
Within Groups	38.150	114	0.335		
Total	42.992	119			

Table 20-2: Multiple Comparisons TUKEY HSD

Variable 1	Variable 2	Mean Difference (Variable 1- Variable 2)	Standard Error	Significance	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.0500	.18293	1.000	-.5803	.4803
	3	.1500	.18293	.963	-.3803	.6803
	4	.4500	.18293	.145	-.0803	.9803
	5	.2500	.18293	.747	-.2803	.7803
	6	-.1500	.18293	.963	-.6803	.3803
2	1	.0500	.18293	1.000	-.4803	.5803
	3	.2000	.18293	.883	-.3303	.7303
	4	.5000	.18293	.077	-.0303	1.0303
	5	.3000	.18293	.574	-.2303	.8303
	6	-.1000	.18293	.994	-.6303	.4303
3	1	-.1500	.18293	.963	-.6803	.3803
	2	-.2000	.18293	.883	-.7303	.3303
	4	.3000	.18293	.574	-.2303	.8303
	5	.1000	.18293	.994	-.4303	.6303
	6	-.3000	.18293	.574	-.8303	.2303
4	1	-.4500	.18293	.145	-.9803	.0803
	2	-.5000	.18293	.077	-1.0303	.0303
	3	-.3000	.18293	.574	-.8303	.2303
	5	-.2000	.18293	.883	-.7303	.3303
	6	-.6000	.18293	.017	-1.1303	-.0697
5	1	-.2500	.18293	.747	-.7803	.2803
	2	-.3000	.18293	.574	-.8303	.2303
	3	-.1000	.18293	.994	-.6303	.4303
	4	.2000	.18293	.883	-.3303	.7303
	6	-.4000	.18293	.252	-.9303	.1303
6	1	.1500	.18293	.963	-.3803	.6803
	2	.1000	.18293	.994	-.4303	.6303
	3	.3000	.18293	.574	-.2303	.8303
	4	.6000	.18293	.017	.0697	1.1303
	5	.4000	.18293	.252	-.1303	.9303

* The mean difference is significant at the 0.05 level.

N. Where 1 is 'Your supplier lies to you, 2 is 'Your supplier provides you with false information', 3 is 'Your supplier alters facts', 4 is 'Your supplier makes false accusations', 5 is 'Your supplier is not sincere' and 6 is 'Your supplier violates agreements'.

APPENDIX 21

Results of Analysis of Variance of Intensity of Passive Opportunistic Behaviors

Table 21-1: Analysis of Variance (ANOVA) of Intensity of Passive Opportunistic Behaviors

	Sum of Squares	DF	Mean square	F	Significance
Between Groups	11.050	3	3.683	4.597	0.005
Within Groups	60.900	76	0.801		
Total	71.950	79			

Table 21-2: Multiple Comparisons TUKEY HSD

Variable 1	Variable 2	Mean Difference (Variable 1- Variable 2)	Standard Error	Significance	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.9500	.28308	.007	-1.6936	-.2064
	3	-.1000	.28308	.985	-.8436	.6436
	4	-.2500	.28308	.814	-.9936	.4936
2	1	.9500	.28308	.007	.2064	1.6936
	3	.8500	.28308	.019	.1064	1.5936
	4	.7000	.28308	.072	-.0436	1.4436
3	1	.1000	.28308	.985	-.6436	.8436
	2	-.8500	.28308	.019	-1.5936	-.1064
	4	-.1500	.28308	.952	-.8936	.5936
4	1	.2500	.28308	.814	-.4936	.9936
	2	-.7000	.28308	.072	-1.4436	.0436
	3	.1500	.28308	.952	-.5936	.8936

Where 1 is *'Your supplier hides information from you*, 2 is *'Your supplier does not accept responsibility for his/her actions'*, 3 is *'Your supplier does not provide proper notification'*, and 4 is *'Your supplier does not tell you the whole truth.'*

APPENDIX 22

Examples of Active and Passive Ex Post Opportunistic Behaviors With Consequences

Passive Ex Post Opportunism

(a) In a delivery you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand elsewhere leading to your shortage.

(b) A delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

(c) In a delivery you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

(d) Upon inspection of a delivery you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

(e) Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Subsequently you learn from a reliable source that your supplier has changed production facilities and you suspect this may be the cause. In conversation with your supplier, your supplier has not informed you about the change.

Active Ex Post Opportunism

(a) In a delivery from your supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that, in violation of your contract with them, they shorted you as they had to meet extra demand elsewhere.

(b) A delivery from your supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

(c) In a delivery from your supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that, in violation of your contract with them, they have changed the set up of the production line causing some problems on the production line leading to these defects.

(d) Upon inspection of a delivery from your supplier you notice some of the microchips are not compliant. You check and they are mislabeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

(e) Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Your supplier informs you that, in violation of your contract with them, they have changed production facilities and some problems led to the microchips not meeting the standard.

APPENDIX 23

Pretest of Treatments for Scenario

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

Please rate the following examples from 1 to 7: where 1 indicates a very low intensity, 4 neither high nor low intensity, while 7 indicates a very high intensity.

(a) In a delivery you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

(b) A delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

(c) In a delivery you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

(d) Upon inspection of a delivery you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

(e) Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Subsequently you learn from a reliable source that your supplier has changed production facilities and you suspect this may be the cause. In conversation with your supplier, your supplier has not informed you about the change.

(f) In a delivery from your supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that, in violation of your contract with them, they shorted you as they had to meet extra demand elsewhere.

(g) A delivery from your supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

(h) In a delivery from your supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that, in violation of your contract with them, they have changed the set up of the production line causing some problems on the production line leading to these defects.

(i) Upon inspection of a delivery from your supplier you notice some of the microchips are not compliant. You check and they are mislabeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

(j) Your delivery contains some microchips that do not meet the contractual standard. One of your team contacts the supplier and the supplier agrees to send replacements. Your supplier informs you that, in violation of your contract with them, they have changed production facilities and some problems led to the microchips not meeting the standard.

APPENDIX 24

Results of Analysis of Variance of Intensity of Passive Opportunistic Behaviors and Consequences

Table 24-1: Analysis of Variance (ANOVA) of Intensity of Passive Opportunistic Behaviors and Consequences

	Sum of Squares	df	Mean square	F	Significance
Between Groups	59.700	4	14.925	30.135	0.000
Within Groups	47.050	95	0.495		
Total	106.750	99			

Table 24-2: Multiple Comparisons TUKEY HSD

Variable 1	Variable 2	Mean Difference (Variable 1-Variable 2)	Standard Error	Significance	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.30000	.22255	.662	-.3189	.9189
	3	-.05000	.22255	.999	-.6689	.5689
	4	.45000	.22255	.264	-.1689	1.0689
	5	-1.70000*	.22255	.000	-2.3189	-1.0811
2	1	-.30000	.22255	.662	-.9189	.3189
	3	-.35000	.22255	.518	-.9689	.2689
	4	.15000	.22255	.962	-.4689	.7689
	5	-2.00000*	.22255	.000	-2.6189	-1.3811
3	1	.05000	.22255	.999	-.5689	.6689
	2	.35000	.22255	.518	-.2689	.9689
	4	.50000	.22255	.172	-.1189	1.1189
	5	-1.65000*	.22255	.000	-2.2689	-1.0311
4	1	-.45000	.22255	.264	-1.0689	.1689
	2	-.15000	.22255	.962	-.7689	.4689
	3	-.50000	.22255	.172	-1.1189	.1189
	5	-2.15000*	.22255	.000	-2.7689	-1.5311
5	1	1.70000*	.22255	.000	1.0811	2.3189
	2	2.00000*	.22255	.000	1.3811	2.6189
	3	1.65000*	.22255	.000	1.0311	2.2689
	4	2.15000*	.22255	.000	1.5311	2.7689

* The mean difference is significant at the 0.05 level.

N. Where variables 1 to 5 are the passive ex post opportunistic behaviors and consequences from Appendix 22 in the same order as in Appendix 22.

APPENDIX 25

Results of Analysis of Variance of Intensity of Active Opportunistic Behaviors and Consequences

Table 25-1: Analysis of Variance (ANOVA) of Intensity of Active Opportunistic Behaviors and Consequences

	Sum of Squares	df	Mean square	F	Significance
Between Groups	1.640	4	0.410	1.791	0.137
Within Groups	21.750	95	0.229		
Total	23.390	99			

APPENDIX 26

Results of Analysis of Variance for Active Versus Passive Opportunistic Behaviors and Consequences

Table 26-1: Analysis of Variance (ANOVA) for Active Versus Passive Opportunistic Behaviors and Consequences

	Sum of Squares	df	Mean square	F	Significance
Between Groups	140.625	1	140.625	335.884	0.000
Within Groups	66.150	158	0.419		
Total	206.775	159			

APPENDIX 27

Script for Pilot test

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

APPENDIX 28

Script for Active Ex Post Opportunism Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

In a delivery you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you, as they had to meet extra demand.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then a delivery does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. In a delivery you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that, in violation of your contract with them, they have changed the set up of the production line causing some problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then upon inspection of a delivery you notice some of the microchips are not compliant. You check and they are mislabeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, in a delivery you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you as they had to meet extra demand.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then upon inspection of a delivery you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, in a delivery you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that in violation of your contract with them they have changed the set up of the production line causing some problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, a delivery does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

APPENDIX 29

Script for Passive Ex Post Opportunism Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

In a delivery you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, a delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, in a delivery you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then upon inspection of a delivery you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, in a delivery you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then upon inspection of a delivery you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then, in a delivery you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

4 weeks pass without any problems. Then a delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Purchase the supplier firm and produce microchips in-house.

(d) Exit the relationship and find a new supplier.

APPENDIX 30

Post-Phase Three Questions

(1) Why did you exit the relationship with the supplier at this point?

(2) How many years have you been working in purchasing?

(3) What industry do you deal with?

(4) What are the approximate sales of your company?

(5) What's your highest level of formal education?

APPENDIX 31

Script for Active Ex Post Opportunism High Economic Value High Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive substantial financial benefits from the relationship with this supplier and you also receive substantial strategic benefits including access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you, that in violation of your contract with them, they shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that in violation of your contract with them they have changed the set up of the production line causing some problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from this same supplier you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from this same supplier you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

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(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

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Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 32

Script for Active Ex Post Opportunism Low Economic Value Low Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive minimal financial benefits from the relationship with this supplier and you also receive minimal strategic benefits including minimal access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

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Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from this same supplier you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from this same supplier you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that in violation of your contract with them they have changed the set up of the production line causing some problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 33

Script for Passive Ex Post Opportunism High Economic Value High Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive substantial financial benefits from the relationship with this supplier and you also receive substantial strategic benefits including access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from the same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and substantial strategic benefits from your relationship with this supplier. Then a delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 34

Script for Passive Ex Post Opportunism Low Economic Value Low Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive minimal financial benefits from the relationship with this supplier and you also receive minimal strategic benefits including minimal access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from the same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

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Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

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4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and minimal strategic benefits from your relationship with this supplier. Then a delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 35

Post-Phase Four Questions

(1) Why did you exit the relationship with the supplier at this point?

(2) How many years have you been working in purchasing?

(3) What industry do you currently work in?

(4) What are the approximate sales of your company?

(5) What's your highest level of formal education?

(6) As you noticed one of the choices was buying the supply firm and producing microchips in-house. Why did you not choose this option? (Only asked if participant did not choose this option)

(7) As you probably noticed we are interested in the level of economic value and strategic value in a relationship. How do the levels of strategic and economic value impact upon the decisions you made in the scenario? Is there any trade-off between strategic value and economic value?

APPENDIX 36

Script for Active Ex Post Opportunism High Economic Value Low Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. Your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive substantial financial benefits from the relationship with this supplier; however, you receive minimal strategic benefits including minimal access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

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Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from this same supplier you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

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(a) Continue the relationship as if nothing happened.

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Do you:

(a) Continue the relationship as if nothing happened.

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Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 37

Script for Active Ex Post Opportunism Low Economic Value High Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. Your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive minimal financial benefits from the relationship with this supplier; however, you receive substantial strategic benefits including substantial access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees contacts the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, your supplier informs you that in violation of your contract with them they shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, your supplier informs you that in violation of your contract with them they have changed the set up of the production line causing some problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from this same supplier you notice some of the microchips are not compliant. You check and they are labeled as compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

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(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier had assured you it would arrive on time. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 38

Script for Passive Ex Post Opportunism High Economic Value Low Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive substantial financial benefits from the relationship with this supplier, however, you receive minimal strategic benefits including minimal access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from the same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

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4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive substantial financial benefits and minimal strategic benefits from your relationship with this supplier. Then a delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 39

Script for Passive Ex Post Opportunism Low Economic Value High Strategic Value Treatment

Imagine you are a purchasing manager responsible for acquiring microchips for a midsize electronic components manufacturer. There are no unanticipated changes in the external environment, for example, your demand for the microchip is steady and you are able to predict relevant technological changes. There are multiple qualified suppliers of microchips in the market. You have been frequently buying microchips from one of your suppliers for two years with no problems. Deliveries come from this supplier twice a week. Although you have made some investments specifically dedicated to your relationship with this supplier, these do not completely bind you to the relationship. You are able to assess the performance of this supplier easily.

You receive minimal financial benefits from the relationship with this supplier, however, you receive substantial strategic benefits including substantial access to new markets, new network partners, and new resources.

In a delivery from this supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier shorted you as they had to meet extra demand elsewhere.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then, a delivery from this same supplier does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from the same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive fewer microchips than specified in your contract. One of your employees telephones the supplier and the supplier agrees to send the rest. The microchips arrive. Subsequently, you learn from a reliable source external to your supplier that your supplier had to meet extra demand leading to your shortage.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then upon inspection of a delivery from the same supplier you notice some of the microchips are not compliant. You check and they are not labeled as either compliant or non-compliant. One of your employees contacts the supplier and the supplier agrees to send replacements. The compliant replacements arrive.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then, in a delivery from this same supplier you receive some microchips with defects. One of your employees contacts the supplier and the supplier agrees to send replacements. The replacements arrive and are ok. Subsequently, you learn from a reliable source external to your supplier that your supplier has problems on the production line leading to these defects.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

4 weeks pass without any problems. You still receive minimal financial benefits and substantial strategic benefits from your relationship with this supplier. Then a delivery does not arrive on time. Your supplier did not inform you it was going to be late. One of your team contacts the supplier and your supplier tells you it is on its way. It arrives.

Do you:

(a) Continue the relationship as if nothing happened.

(b) Continue the relationship but make efforts to solve the problem.

(c) Buy the supplier firm and produce microchips in-house.

(d) Exit the relationship and source from a different supplier.

APPENDIX 40

Analysis of Passive Versus Active Treatment Groups (Hypothesis 1)

Table 40-1: Test of Homogeneity of Variance (Hypothesis 1)

Levene Statistic	df1	df2	Significance
1.030	1	88	0.313

Table 40-2: Descriptive Statistics (Hypothesis 1)

					95% Confidence Interval for Mean			
	N	Mean	Standard Deviation	Standard Error	Lower Bound	Upper Bound	Minimum	Maximum
Passive	45	4.0000	1.04447	0.15570	3.6862	4.3138	1.00	7.00
Active	45	2.9778	0.89160	0.13291	2.7099	3.2456	1.00	5.00
Total	90	3.4889	1.09385	0.11530	3.2598	3.7180	1.00	7.00

Table 40-3: Analysis of Variance (ANOVA) (Hypothesis 1)

	Sum of Squares	DF	Mean square	F	Significance
Between Groups	23.511	1	23.511	24.934	0.000
Within Groups	82.978	88	0.943		
Total	106.489	89			

APPENDIX 41

Analysis of Active Ex Post Opportunism High Economic Value High Strategic Value Versus Active Ex Post Opportunism Low Economic Low Strategic Value Treatment Groups (Hypothesis 2a)

Table 41-1: Test of Homogeneity of Variance (Hypothesis 2a)

Levene Statistic	dfl	df2	Significance
1.254	1	88	0.266

Table 41-2: Descriptive Statistics (Hypothesis 2a)

					95% Confidence Interval for Mean			
	N	Mean	Standard Deviation	Standard Error	Lower Bound	Upper Bound	Minimum	Maximum
Active HH	45	3.9333	1.03133	0.15374	3.6235	4.2432	2.00	8.00
Active LL	45	2.8000	1.12006	0.16697	2.4635	3.1365	1.00	5.00
Total	90	3.3667	1.21276	0.12784	3.1127	3.6207	1.00	8.00

Table 41-3: Analysis of Variance (ANOVA) (Hypothesis 2a)

	Sum of Squares	DF	Mean square	F	Significance
Between Groups	28.900	1	28.900	24.933	0.000
Within Groups	102.000	88	1.159		
Total	130.900	89			

APPENDIX 42

Analysis of Passive Ex Post Opportunism High Economic Value High Strategic Value Versus Passive Ex Post Opportunism Low Economic Low Strategic Value Treatment Groups (Hypothesis 2b)

Table 42-1: Test of Homogeneity of Variance (Hypothesis 2b)

Levene Statistic	df1	df2	Significance
15.080	1	88	0.000

Table 42-2: Descriptive Statistics (Hypothesis 2b)

					95% Confidence Interval for Mean			
	N	Mean	Standard Deviation	Standard Error	Lower Bound	Upper Bound	Minimum	Maximum
Passive HH	45	4.7333	2.10411	0.31366	4.1012	5.3655	1.00	9.00
Passive LL	45	2.9111	0.92496	0.13789	2.6332	3.1890	1.00	5.00
Total	90	3.8222	1.85774	0.19582	3.4331	4.2113	1.00	9.00

Table 42-3: T-Test for Equality of Means Equal Variances Not Assumed (Hypothesis 2b)

DF	t	Significance
60.394	5.318	0.000

Table 42-4: Analysis of Variance (ANOVA) (Hypothesis 2b)

	Sum of Squares	DF	Mean square	F	Significance
Between Groups	74.711	1	74.711	28.285	0.000
Within Groups	232.444	88	2.641		
Total	307.156	89			

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