

ABSTRACT

Title of Document: THE IMPACT OF CULTURAL DIFFERENCES ON
BUYER-SUPPLIER RELATIONSHIPS.

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In today's economy, an ever-increasing number of companies are dealing with partners from across the world giving rise to the need to understand the impact of cultural differences on business interactions. This dissertation uses two different approaches to investigate the impact of culture in buyer supplier relationships. The first study researches the effect of cultural differences in contractual buyer-supplier agreements using transaction cost as a theoretic lens. A large number of relationships translate into contracts between partners, but very few studies have investigated the effect of cultural differences on these written agreements: This research looks at the level of contract completeness and the option to renegotiate the contract as outcome variables. The study investigates the impact of cultural difference in buyer-supplier relationships using Hofstede's cultural dimensions. The main finding is that contract completeness increases as the cultural gap between the buyer and supplier widens. The results for individual culture dimensions on contract completeness are mixed.

Cultural distance impacts the option of renegotiation but the individual dimensions fail to have an effect. Finally, asset specificity has the expected positive effect on the level of contract completeness and the option to renegotiate, while more frequent transactions result in lower levels of contract completeness and fewer options to renegotiate. Overall, these findings emphasize that cultural background is a factor in contractual buyer supplier relationships and need to be taken into account in global supply chain management.

The second essay investigates the impact of cultural differences in the context of dyadic buyer-supplier negotiations. It looks at the moderating effect of culture. The study uses an experimental design to investigate these issues. In the simulation negotiation, participants, classified by their country of origin, are asked to take on the role of either a buyer or a seller. They negotiate prices and quality levels for three products. This study finds that cultural differences within the negotiation dyad reduce joint profits when compared to dyads of participants with similar cultural backgrounds. Cultural differences weaken the effect of trust and opportunism on joint profits. Overall, this study concludes that cultural differences as encountered in day-to-day business interactions in global supply chains impose greater challenges.

THE IMPACT OF CULTURAL DIFFERENCES ON BUYER-SUPPLIER
RELATIONSHIPS

By

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Dedication

To my family

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Chapter 1: Introduction

1.1 Introduction

Global sourcing has increased tremendously over the past decades due to reduced trade barriers and increased information and communication technologies (Kaufmann & Carter, 2002). Today, the U.S. economy and a majority of U.S. businesses, are heavily dependent on imports. U.S. imports in the past five years alone have increased by 55% from \$1.26 trillion in 2003 to \$1.95 trillion in 2007 (Census, 2008). Almost two-thirds of these imports were industrial supplies or capital goods such as “computers, telecommunications equipment, motor vehicle parts, office machines, electric power machinery” (Factbook, 2008). Similarly, in 2007, the U.S. economy exported goods worth \$1.16 trillion (Census, 2008). More than 75% of these exports were industrial supplies or capital goods such as “transistors, aircraft, motor vehicle parts, computers, telecommunications equipment” (Factbook, 2008). Given this strong reliance on foreign goods and the resulting need for international negotiations, it is surprising that there is limited research on international buyer-supplier relationships (Kaufmann & Carter, 2002).

This research examines the impact of culture on buyer-supplier relationships from two different perspectives. The first study investigates the impact of culture on contractual buyer-supplier relationships for a multinational company. Williamson’s (1979) transaction cost economics is used as a theoretical lens to motivate the study, while Hofstede’s (1983b) cultural dimensions are used to operationalize culture and

cultural distance. To the best of the author's knowledge, this is the first study to investigate the impact of culture using written contracts. The second study focuses on the impact of culture on a buyer-supplier dyad negotiation simulation. Culture is operationalized using Hall's (1976) low versus high context culture distinction. This research contributes twofold to the growing field of research investigating culture in negotiations: First, special focus in this research is on the impact of culture on perceived level of opportunism and actual opportunistic behavior. Second, the study investigates the moderating effect of culture on a variety of dimensions of negotiation.

Both papers are aimed at providing insights for companies with regard to their international supply chains. In today's global economy, firms are required to interact and negotiate with parties from around the world. Hence, the issues explored here are applicable to a vast number of businesses. Better understanding the influences of culture on the dealings of buyers and suppliers will enable companies to avoid costly misunderstanding and pitfalls.

This section continues with a short literature overview regarding culture, providing a definition for the concept as well as two widely accepted operationalizations of culture in the literature. The chapter concludes with a short section that wraps up the overall idea of culture and a short lay-out of the rest of this dissertation.

1.2 Literature Sketch

1.2.1 Culture

“Culture is the collective programming of the human mind that distinguishes the members of one human group from those of another” (Hofstede, 1980)

Culture allows outsiders to identify members of a group as belonging together as well as allowing its members to share values, beliefs, and traits; they can identify themselves with a collective (Hall, 1976). Culture provides guidelines as to how things should be and affects its members' behavior (Hofstede, 1985). Generally speaking, and from early research in modern organizations, most viewpoints start by using personal background as a benchmark, hence resulting in very different interpretation of the same situation in different cultures. As demonstrated by Hofstede (1980), the debate that arose between leading authorities in this field in the early 20th century was partially due to authors' nationality and hence their own cultural embeddedness. In the 1960s marketing literature, several authors discussed the impact of culture on customers and their perspectives, resulting in the adjustment of product marketing and advertising to these needs.

Although the impact of culture on various aspects of business life has been investigated, the literature is relatively scarce on the impact of culture on the relationship between organizations (Kaufmann & Carter, 2006). Today's supply chains generally span more countries than a decade or two ago. Companies source and produce across the globe (Griffith, Myers, & Harvey, 2006), a development that is substantially facilitated by IT as

it eases instantaneous communication between partners. However, this also implies that the management of companies has to deal with a more diverse employee and customer base resulting in potential conflicts.

Culture impacts organizational philosophy. So, if different cultures impact organizations differently, how do organizations take these differences into account when interacting with each other and when negotiating contracts? Two leading theorists in distinguishing cultural differences are Geert Hofstede and Edward Hoff. In the following, both are discussed in more detail.

1.2.2 Hofstede's Cultural Dimensions

Hofstede developed a measure for culture widely used in the academic literature (i.e., Graham, Mintu, & Rodgers, 1994). During the 1960s, he conducted a research in which he approached more than 40,000 IBM employees and asked them to participate in the study. Based on his findings, he developed Hofstede's (1980) cultural dimensions to differentiate subjects from different countries. The dimensions are power distance (PDI), masculinity/femininity (MAS), individualism/collectivism (IDV) and uncertainty avoidance (UAI). Figure 1 provides a comparison between the United States of America and China on these five dimensions.

Power distance refers to the extent to which unequal division of power is accepted within a society. Masculinity refers to a focus on values such as competitiveness, assertiveness, ambition, and the accumulation of wealth and material possessions, as opposed to femininity, which refers to values of relationships and quality of life.

Individualism versus collectivism refers to whether members of a society would rather act in reference for themselves (individual) or a group (collectivism). Uncertainty avoidance reflects societies' needs for rules and regulations in order to avoid anxiety due to uncertainty.

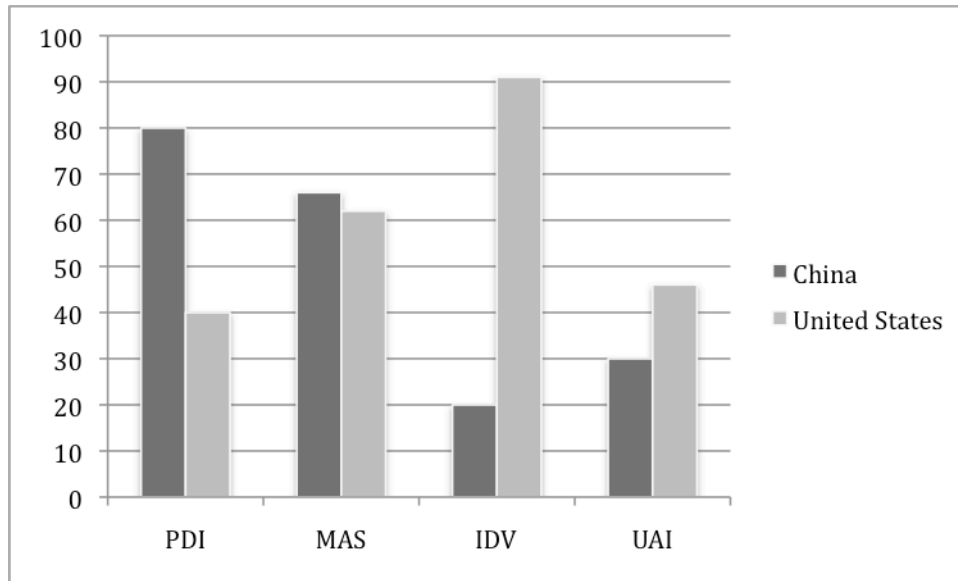


Figure 1: Cultural dimensions of China and the U.S.A.

The most accepted implementation of the Hofstede dimensions is the composite index for cultural distance (*CDI*) derived by Kogut and Singh (1998). In their study, in which they employ the index, Kaufman and Carter (2006) confirm that research in the field of international supply chain management for manufacturing companies is relatively scarce. They investigate the antecedents of supply management performance of international buyer-supplier relationships from the buyer's perspective. The authors surveyed both German and U.S. manufacturing companies. According to the authors' model, cultural distance is part of the broader measure of uncertainty. As such, it significantly, negatively impacts social bonding in their U.S. subset, hence, providing the link to previous studies that assess the importance of socialization (Cousins & Menguc,

2006) and alignment of partners (Barnes, Naude, & Michell, 2007). Interestingly, in their German subset, this relationship is insignificant. According to an interviewed German manager, this result is due to the fact that internationalization is less of an issue. However, as this path is significant in the U.S. model, national diversity is present and, hence, is likely to be reflected differently in various, perhaps culturally determined, management styles. According to the authors, these results might reflect the level of exposure to international suppliers.

Chung, Sternquist and Chen (2006) look at the impact of the Japanese culture on the retailer-buyer relationship. The authors surveyed department stores in Japan and found that in this cultural setting long-term orientation is an antecedent of trust and dependence, resulting in expectations and obligations towards the partner firms. This implies a considerably different mind-set to business dealings in the U.S.A. or Europe. Hence, companies from these continents willing to conduct business in Japan either need to adjust/align their goals with that of their partners in order to succeed or vice versa.

Bianchi (2006) develops a survey based on CDI to investigate this problem in more detail. Her study focuses on the impact of cultural differences on the development of trust and commitment but fails to find significant results. The unit of analysis is Chilean importers and their last foreign transaction. This leads to the major drawback of the study as the author has no opportunity to create a dyadic analysis nor is she able to compare trust levels between domestic versus global suppliers.

1.2.3 Hall's High versus Low Context Culture

Hall (1976) distinguished between low- and high-context cultures. The former relies on direct/explicit (often verbal) communication: Messages are communicated directly. High context on the other hand rely on the context the message is communicated in to provide the full meaning of the message. Context variables can include among others “individual backgrounds, associations, values and position in society” (Mintu-Wimsatt & Gassenheimer, 2000), “physical environment, status/power relationships, *roles of participants*, and even the nonverbal aspects of communication” (Graham et al., 1994, p. 77). High context culture relates back to relationship building in what Hofstede defines as collective cultures (e.g. Asian cultures). Low context cultures are in line with Hofstede's individualistic cultures (e.g. USA, Western Europe).

Ueltschy, Ueltschy and Fachinelli (2007) explore the impact of culture on trust in international supply chains using the concepts of Hall (1976) to distinguish between high (Brazil) and low-context (U.S.A.) cultures. They surveyed manufacturers in the U.S.A. and distributors in Brazil and found that the concept of trust (scale adjusted from Morgan & Hunt, 1994) differed significantly between the two countries. Overall, the authors conclude that as companies expand abroad there arises the need to better understand the “often subtle cultural differences” (p.22) in order to achieve good working relationships between partners.

1.3 Summary

This chapter provides an introduction to the subject of culture and its impact on business. Both Hofstede's and Hall's cultural distinctions are elaborated upon to give a basic understanding of their concepts. They are the bases of the majority of studies that address issues related to international interactions between partners. Next, I provide a brief review of different cross-cultural studies in the field of buyer supplier relationship. Although some preliminary work exists, the findings are scarce and not (always) consistent with expectations. The majority of these studies stress the need for further analysis in the field of cultural differences in buyer-supplier relationship to get a better understanding of the impact of culture in business relations. Hence, this dissertation aims at providing new and more detailed insights into two distinct aspects of intercultural interactions in global supply chains: contractual interactions and verbal negotiations.

In the following, both essays are explained in more detail. Chapter 2 introduces the research study that investigates the impact of culture on contracts. It discusses the research questions and related literature, followed by the hypotheses development. In the methodology section, I provide an overview of the data. This chapter concludes with a short results section, followed by the discussion of the results and an overall conclusion. Chapter 3 discusses the second study, starting with the impact of culture in negotiations. It provides theoretical background on negotiations and culture in negotiations followed by the hypotheses section for this study. In the methodology section, the experiment is explained. Next, the data collected is described before addressing the hypotheses. In the subsequent section, the results are discussed in detail. Finally, this chapter gives a brief

conclusion of the main findings. The dissertation concludes with a chapter that summarizes the findings of both studies and that provides an overall conclusion. The final section of Chapter 4 lists some suggestions for future research.

Chapter 2: The Impact of Culture on Contractual Buyer-Supplier Relationships

2.1 Introduction

More than 25 years ago, Hofstede (1983b) developed cultural dimensions that reflect national differences in the way people interact. In order to successfully deal with people from different countries and cultural backgrounds, it is important to understand these differences and how they impact the interactions of the involved parties. However, few studies have applied Hofstede's cultural dimensions to contracting in buyer-supplier relationships. Although some studies discuss its influence and impact on global oral negotiations (Brett, 2007), none, to this researcher's knowledge, has derived any recommendations for businesses how cultural differences impact the written communication and contracting between partners in a supply chain. In an environment that is embracing global supply chains, a better understanding of the impact of cultural differences is of the essence in order to achieve viable and competitive relationships. A better understanding of the impacts of culture on buyer supplier relationship can help organizations improve their understanding of the dynamics of these relationships ultimately translating in more nuanced deals with fewer problems. Hence, there is a need to understand the impact of culture better in order to take cultural differences into account when communicating in an international context.

Therefore, the study at hand addresses the following research question:

What is the effect of differences in the cultural background of buyer and supplier on their contractual relations?

First, the study provides unique insights into the negotiation outcomes of an organization by using archival data drawn from a European multinational Global Fortune 500 company. Previous studies have focused on survey based methodology (Kaufmann & Carter, 2006) or negotiation simulations (Brett, 2000; Graham et al., 1994) when investigating the impact of culture. Therefore, the use of archival data provides an additional dimension to the existing debate of understanding the impact culture can and should have in international buyer-supplier relationships. Second, the majority of these studies has focused on just a certain type of relationship, namely joint ventures (Lu, 2006) or mergers and acquisitions (Morisini, Shane, & Singh, 1998). However, these are very specific forms of relationships and the findings of these studies do not necessarily apply to buyer-supplier relationships in a more traditional sense, the purchase and sale of goods and services between firms. The current study therefore contributes to the literature by providing insights into the impact of culture on actual day-to-day buyer-supplier relationships. Third, the study at hand applies a formal transaction cost economics lens to the issue of culture and cultural distance. Using a theoretical framework provides structure and grounding to the topic.

The current chapter proceeds as follows: In the next section, an overview of transaction cost economics as a framework for the study is provided. I introduce and define the notion of culture, along with a more detailed descriptions of Hofstede's cultural dimensions. The second section discusses culture and its relationship with TCE.

In the third section, hypotheses are derived using transaction cost economics framework. The fourth section lists the data collection process, along with a detailed description of the variables employed in the study. In the fifth section, the results are detailed. A discussion of the results follows along with robustness checks, limitations and future directions for research in section six and I conclude with section seven.

2.2 Theoretical Background

2.2.1 Transaction Cost Economics

The current study uses Williamson's (1975) transaction cost economics (TCE) as an overarching theory. Transaction cost economics refers to "the costs of using the market to conduct business" (Waldman & Jensen, 2007, p. 19). A firm's overall objective is to minimize the costs that govern the relationship between buyer and supplier (transaction costs) when conducting business in order to maximize profits and shareholder value. Williamson (1981) emphasized that there are several advantages to procuring products rather than producing them in-house. The market, in certain situations, can capture economies of scale and scope that are unavailable to a company in need of only a few products. Also, using the market provides a mean to mitigate the potential risks of fluctuations in demand from the company to the market, which can more easily pool the risks across various firms.

Both Coase (1937) and Williamson (1979) specify the costs involved with purchasing on the market and describe them as follows: "searching for a supplier, negotiating with the supplier about contract terms, arranging for delivery, and monitoring

the quality of the input” (Waldman & Jensen, 2007, p.19). The underlying assumption is that a firm never has complete information, skills and time. This situation is referred to in the literature as *bounded rationality* (Williamson, 1979, 1981) and is the primary reason for incomplete contracts. Companies are unable to foresee every eventuality and, even if that were possible, the costs would outweigh the benefits. This opens up the potential for *opportunism* (e.g. Williamson, 1981): companies – as they are led by individuals – are prone to similar behavior pattern as humans (Hill, Eckerd, Wilson, & Greer, 2009) and are likely to maximize their own utility irrespective of potential hazards to the other party.

2.2.2 Drivers of Transaction Cost

According to TCE, three main characteristics determine the level of transaction cost: uncertainty, frequency, and idiosyncrasy of investments, or asset specificity (Williamson, 1979). Uncertainty refers to the unpredictability of events, contingencies and people. The literature has classified uncertainty into two main subgroups (Geyskens, Steenkamp, & Kumar, 2006; Rindfleisch & Heide, 1997). Its primary form, also referred to as *environmental uncertainty*, is due to changes in circumstances and the environment in the future that cannot be defined in the contract ex ante. The second kind of uncertainty, *behavioral uncertainty*, refers to issues arise due to the inability of the involved parties to assess performance ex post. By means of opportunistic decisions, a partner in the relationship can choose to deviate from the contractual agreement, especially if the other partner has no possibility to control performance (Rindfleisch & Heide, 1997).

Applying this theoretic lens to the global supply chain, uncertainty is increased when buyers and supplier conduct business in an international context in comparison to a purely domestic context. Culture impacts norms, values and expectation of the partner (Hofstede, 1980). Buyers and sellers in international relationships are dealing with partners that differ in their approaches to each other, in how they conduct their day-to-day operations, in their expectations of each other, and in the situations they are facing (Doney, Cannon, & Mullen, 1998). As a company ventures abroad, the environment in which it conducts business expands and broadens giving rise to more variations. Predicting future outcomes in a country that is unfamiliar in culture, norms and values is likely to amplify environmental uncertainty effects. Similarly, these cultural norms and values can likely translate to different views on issues such as opportunistic behavior, relationship development and mutual understanding in negotiations, thus increasing behavioral uncertainty.

Asset specificity, or idiosyncratic investment, refers to the degree one partner makes specific assets available and/or investments towards the transaction that cannot easily be transferred to another relationship (Geyskens et al., 2006). Asset specificity can take on the forms of a specific geographic location, physical characteristics of machinery, or specialized human capital. Generally, highly specialized assets are costly. In addition, the more specific an asset, the lower its transferability, and, hence, the higher the interdependency of the involved parties (Williamson, 1993). According to transaction cost economics, asset specificity leads companies to internalize production in order to reduce (eliminate) the transaction costs that arise due to complicated and lengthy contract negotiations (Williamson, 1979).

Finally, transaction frequency refers to the recurrence of transactions. Williamson (1985a) argues that as the number of transaction increases, companies are more inclined to internalize these often procured products as they are now more easily able to develop economies of scale. Although this dimension is indispensable to the classification of governance forms (please see next paragraph), it has received the least attention in the literature of the three TCE characteristics (Geyskens et al., 2006; Rindfleisch & Heide, 1997).

2.2.3 Governance Forms in TCE

According to TCE, a continuum of transaction governance exists that evolves from market to hybrid to hierarchy. *Market governance* is based on classical contract law and assumes that the structure is non-transaction-specific (Williamson, 1979). This implies that the transaction does not require specific information to be exchanged between the involved parties and applies to goods that are procured both on an occasional and frequent basis. The transaction generally involves “standardized goods at equilibrium prices” (Williamson, 1979, p. 247f) in which both buyers and suppliers are exchangeable and anonymous (autonomous contractors) (Geyskens et al., 2006); hence, no interdependency arises. In the case of frequent purchases, the partners can rely on their personal experience to decide whether to continue to interact with a particular partner or whether to find an alternative source to conduct business at little or no additional cost to the companies involved (Carter & Hodgson, 2006). In case of occasional transactions, the parties can rely on word-of-mouth in the market. Both formal and informal controls in the

market generally provide sufficient incentives to behave responsibly. The market provides sufficient controls and, hence, governs the transactions (Williamson, 1979).

The *hybrid* governance form is based on neoclassical contract law and assumes a non-trivial dependency between the involved parties. The governance structure is considered to refer to transactions in which the identity of the involved parties matter. This form is mainly used in the context of “occasional transactions of the mixed and highly idiosyncratic kinds” (Williamson, 1979, p. 249). Partners that engage in this kind of a market governance structure are to some extent dependent on each other and inclined to finish each interaction as agreed upon.

Both parties invest time, effort and, occasionally, idiosyncratic investments into the relationship resulting in the need for a contract. Generally, some asset specific investments are in place that would lose value if transferred to another party; the higher this investment the greater the incentives for the involved parties to continue the relationship. Frequency of transaction also influences this governance form, as the specific investments require a certain number of transactions to recover the cost. If disagreements arise, parties in this set-up are likely to resort to dispute arbitration by, if needed, third parties (Williamson, 1979). The hybrid option is more flexible and to some extent forgiving than the market governance structure: “This governance form foresees unanticipated disturbances, provides a ‘tolerance zone’ within which misalignments are absorbed, requires information disclosure when adaptation occurs” (David & Han, 2004, p. 40). In this context, formal contractual arrangements are needed as the market does not provide adequate controls to restrict opportunistic behavior (Carter & Hodgson, 2006). Most interactions that are referred to as buyer-supplier relationships in the

literature fall into this category as they often involve repeated, non-trivial interactions with a specific supplier.

Hierarchy, the third classification in the governance structure, is appropriate when the transactions are highly specific and frequent, and based on contract law of forbearance (David & Han, 2004; Williamson, 1979). Although Williamson (1979) specified both *obligational contracting* (high asset specificity, little possibility to reap economies of scale, hence, leaving production to an outside company) and *internal organization* (high asset specificity, hence, internalization of production) as individual sub-sections of hierarchy, the majority of studies focuses on the latter (i.e., Geyskens et al., 2006).

The obligational contracting or bilateral governance structure is characterized by high asset specificity and hence a great, mutual dependency between the two parties. The idiosyncratic investment is unlikely to be used in alternative production. Therefore, it binds both parties to each other providing incentives for both to remain in the relationship rather than break it. Hence, the parties are required to adapt to changing environments and circumstances. Contracting in this context is focused on long-term arrangements (Carter & Hodgson, 2006).

The internal organization or unified governance structure is the other extreme with respect to the market structure. The firm chooses not to buy from the outside and rather produces in-house as the transactions become more idiosyncratic and more frequent. As the company vertically integrates, “the need to consult, complete, or revise interfirm agreements” (Williamson, 1979, p. 253) becomes superfluous.

2.2.4 Contracts in Empirical Research

Contracts are a means to manifest negotiations in written form and, thereby, provide a safety net for the involved parties and a reference in terms of expectations and requirements. In the current study, contracts refer to written agreements between a buyer and a seller. Contracts are the final link between parties involved in an exchange before the actual exchange of the goods and/or services. They are the written version of the terms and conditions determined during negotiation. However, in the majority of cases, contracts contain (partially) confidential information and, as such, companies are very reluctant to provide insights into their dealings with their buyers and suppliers. Hence, research that involves actual contracts in a business context is relatively scarce.

A variety of studies have investigated the effect of transaction costs in the context of contracting. The concept of transaction cost refers to costs a company incurs when conducting a transaction. The company generally has the choice between procuring a product on the market (buy) versus producing it in-house (make). According to Coase (1937), companies would weigh the involved costs and choose to undertake the transaction internally as long as the costs were lower or equal to the costs of sourcing the product on the market.

Joskow (1987) wrote a seminal article in which he investigates the impact of relationship-specific investments on contract duration applying transaction cost theory to position his study. The author states three kinds of asset specificity that apply in the context of coal supplies: site specificity (e.g. build a plant next to the mine), physical asset specificity (equipment and machinery investments), and dedicated assets (general investments that might lead to excess capacity/loss of needed materials if contract ends

prematurely). To empirically confirm his hypotheses, data on contracts from the coal suppliers in England for the year 1979 were used. Joskow finds that buyers and suppliers agree to longer contracts if specific investments need to be made.

Another paper that provides insights into the contractual relationship between buyer and supplier is Saussier (2000). The author investigates the relationship between contract completeness and the transaction cost characteristics of asset specificity and uncertainty. Saussier (2000) argues that as the level of contract completeness is in part defined by bounded rationality, the involved parties can only negotiate the content of a contract to a certain extent. Beyond that point, the costs of defining the contract outweigh the potential costs of an incomplete contract. The author finds support for the proposition of transaction cost analysis that “the marginal costs of a contract that aims for completeness increases with the transaction-uncertainty level and the contract-completeness level” (Saussier, 2000, p. 193).

2.2.5 Culture

Culture has been defined in the literature as the “collective programming of the mind” (Hofstede, 1991, p. 4). Culture allows outsiders to identify members of a group as belonging together. Its members share values, beliefs, and traits; they can identify themselves with a collective (Hall 1976). Culture provides guidelines as to how things should be and affects its members’ behavior (Hofstede, 1985). It enables people to function within a group by providing guidelines to life, interpretations to actions and situations (Hall, 1976). To a great extent, cultural groups are defined by national borders as values, lifestyles and various other perceptions (e.g. ethical behavior or service

quality) are determined within these geographic dimensions (Sun, Horn, & Merritt, 2004; Ueltschy et al., 2007). For the current study, culture refers to national culture and is a combination of beliefs, values and customs that form societal behavioral norms and expectations (Ueltschy et al., 2007) defined by both verbal and nonverbal communication.

Although the impact of culture on various aspects of business life has been investigated, the literature is relatively scarce on the impact of culture on the relationship between organizations (Kaufmann & Carter, 2006). Today's supply chains generally span more countries than a decade or two ago. Companies source and produce across the globe (Griffith et al., 2006), a development that is substantially facilitated by information technology as it eases instantaneous communication between partners. However, this also implies that the management of companies has to deal with a more diverse employee and customer base, resulting in potential conflicts. In the following, the cultural dimensions are discussed in more detail.

2.2.6 Hofstede's Cultural Dimensions

Hofstede (1980) conducted a study in 40 countries evaluating responses from 116,000 questionnaires to assess differences of personal perceptions across countries and continents. Based on his findings, he developed Hofstede's (1980) cultural dimensions to differentiate subjects from different countries, which since have been widely used in the academic literature (Graham et al., 1994). The dimensions are power distance index (PDI), masculinity versus femininity (MAS), individualism versus collectivism (IDV), and uncertainty avoidance index (UAI)¹. Differences in scores on these dimensions

¹ Long-term orientation is not included in the current study as it was added later on and the research that derived this fifth dimension does not have the same rigor as the other four dimensions.

reflect deeply ingrained differences in the perceptions of values, beliefs and traits.

Members of a culture identify with a collective and provide a common ground for discussions and negotiations. They provide guidelines about processes as well as people's expected behavior.

Power distance refers to the extent to which unequal division of power is accepted in the society. Masculinity refers to a focus on values such as competitiveness, assertiveness, ambition, and the accumulation of wealth and material possessions, as opposed to femininity, which refers to values of relationships and quality of life. Individualism versus collectivism refers to whether members of a society would rather act in reference for themselves (individual) or a group (collectivism). Uncertainty avoidance reflects societies' needs for rules and regulations in order to avoid anxiety due to uncertainty.

Culture influences firms and businesses in multiple ways. First, it impacts a firm's organizational philosophy (Hofstede, 1985). A firm's values, beliefs and traits are reflective of the founder(s) and her (their) cultural background. To provide a simple example: firms from Japan tend to be more hierarchical in comparison to similar firms in the United States. Second, as a company grows internationally, it tends to hire employees locally, resulting in a more diverse workforce (Bolle, 1994). For example, Toyota Motor Corporation and McDonald's, among many others, hire most of their employees locally. Third, culture impacts a firm as it ventures out to source and produce globally. When dealing internationally, firms need to acknowledge their partners' expectations, for example, historically, in France the language is often used as a weapon that helps determine status in a relationship (Anonymous, 1996). The person that is more eloquent

in debate has an advantage (Cambell, Graham, Jolibert, & Meissner, 1988). Negotiators from France might be reluctant to talk in any language except French for this particular reason. In the same situation, they might consider it a weakness if their partner chose to talk imperfect French.

2.2.7 Culture and its Relationship to TCE

Companies with international operations face additional challenges compared to their domestic counterparts (Adler, Brahm, & Graham, 1992). As transaction cost economics theory highlights, higher levels of uncertainty are generally equated to higher transaction costs (Williamson, 1979). Dealing with companies from different countries increases uncertainty. Values, expectations, and behaviors are firmly anchored in the cultural background of the involved parties (Hall, 1976). The more different two countries are along the Hofstede cultural dimensions, the higher the likelihood of misunderstandings and hence the higher the uncertainty in the transaction.

For example, a U.S. company dealing with a Chinese supplier needs to be aware of differences in its expectations and negotiation styles. While the U.S. firm's representative was chosen according to her expertise in the area of interest, the Chinese company sends its vice-president into the negotiations to demonstrate the level of importance it places on this relationship. The Chinese firm can easily feel offended by dealing with someone who is of "lesser" status in the company – potentially resulting in failed interactions (Brett, 2007). The U.S. firm in this scenario would need to invest additional resources and hence money into either remedying the escalated situation or finding an alternative supplier.

In order to be successful on a global scale, firms and their managers need to be aware of these kinds of problem. This research is aimed at shedding additional light on potential issues in international relationships, in particular, contractual negotiations. Based on the theoretic lens of transaction cost and the four cultural dimensions, the next section will develop the hypotheses.

2.3 Hypotheses

TCE motivates the presence of contracts as a means to control for opportunistic behavior that might arise due to uncertainty, asset specific investments, and the frequency of the transactions (Saussier, 1999). Saussier (2000) argued that as the cost of opportunism increases, companies are more willing to spend additional resources on creating a contract that addresses more potential areas of conflict – a more complete contract.

In this section, a transaction cost based model is developed which links contract characteristics to culture, asset specificity, and frequency. Next, hypotheses are developed starting with the dimension of uncertainty and its relationship to TCE. Uncertainty is divided into two categories: Hofstede's culture dimensions – measured as an average score per dyad – and cultural distance per dyad. The section concludes with hypotheses relating the dimensions of asset specificity and frequency to transaction costs. Figure 2 provides a graphic depiction of the investigated model.

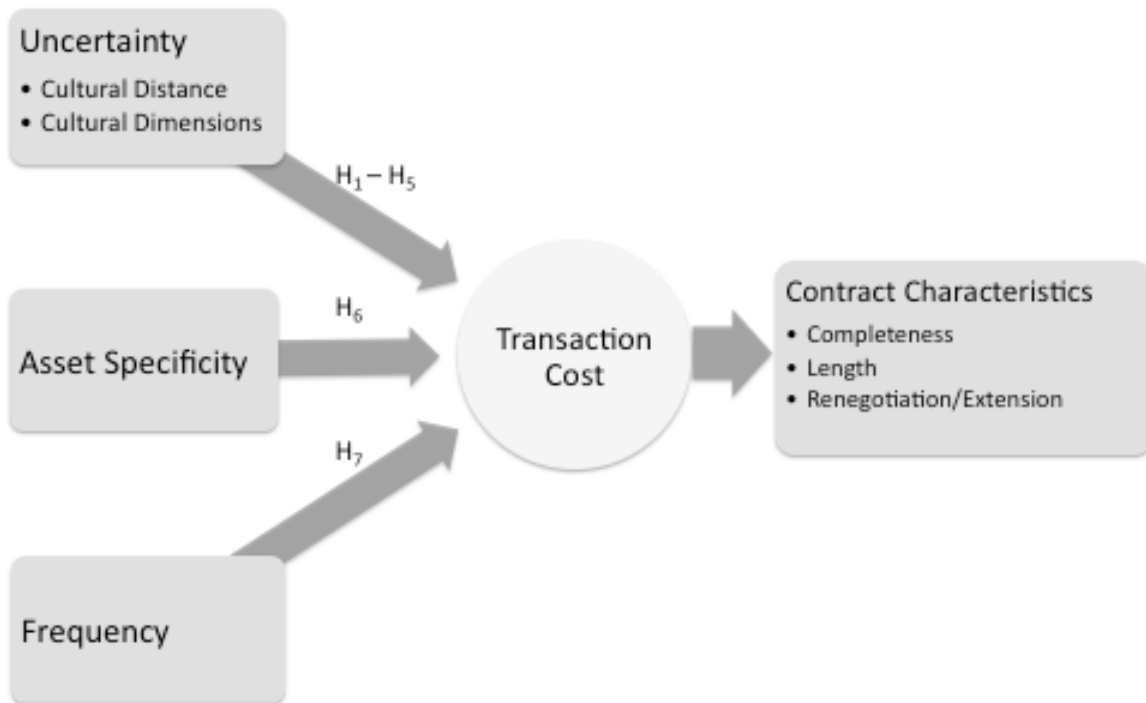


Figure 2: Culture as a determinant of transaction cost

Transaction costs cannot be measured directly and are generally examined through alternative proxies. Hence, this research uses three different dependent variables. I examine different characteristics of contracts – contract completeness, length, and the option to renegotiate a contract – and argue that all are related to the level of transaction cost in the buyer supplier relationship. The first variable is contract completeness. Saussier (2000) argued that as the costs for opportunism increases, companies are more willing to spend additional resources on creating a contract that addresses more potential areas of conflict. Second, contract length is employed. Similarly to contract completeness, it can be argued that as transaction cost increase, the involved parties will be more specific in the contract resulting in longer contracts. Finally, this study proposes

to use renegotiation as originally suggested by Crocker and Masten (1991). The authors used a binary variable of renegotiation provision in a contract. As transaction costs increase, providing the option to renegotiate prices rather than renegotiating complete contracts allows for contracts of a longer duration, and, therefore, reduces costs.

As measures of uncertainty, this research uses two measures. One is based on the average dimension score for both buyer and supplier while the second investigates the cultural difference between the partners in a dyad. The reason for this binary approach is to get a better understanding of the intricacies of cross-cultural contractual interactions. The assessment of the average effect of each cultural dimension on a buyer-supplier relationship allows this study to observe differences between dyads that score high versus those that score low on a particular dimension. As both buyer and supplier are working together, an “average” score can be derived for each of the four Hofstede dimensions. With respect to cultural distance, a single measure (CDI) is used that assesses the cumulative difference across all four Hofstede dimensions between the two partners in the contractual relationship.

Power Distance – The Hofstede-dimension of power distance (PDI) assesses a society’s expectancy and acceptance of hierarchical structures and authority (Hofstede & Bond, 1988; Kim, Park, & Suzuki, 1990). Countries that score low on this dimension such as Denmark or Israel generally have a more consultative or democratic understanding of dealing with each other. There are less hierarchical levels in both society and companies. Everybody in the society and the firm is allowed to express herself and contribute to decision-making processes. On the other hand, countries that

score high on this dimension have a more paternalistic and autocratic approach (Hofstede, 1983b).

Average power distance score refers to an additive effect of each partner's power distance score on the contract. The underlying argument is that two country pairs might be very similar in their score differences, while at the same time they can differ significantly from each other in their overall approach to hierarchies in society. The average power distance score is one way to measure this effect. Table 1 provides an example of this. The absolute cultural difference score for PDI is relatively low for both the buyer-supplier pairs of Australia and Norway (0 points) and Hong Kong and Taiwan (10 points). Still, it is likely that due to their cultural differences, both country pairs will react differently when setting up the contracts. The average power distance score reflects this difference: the Sweden-Norway pair receives a score of 67 points while the Hong Kong – Taiwan pair has a score almost twice as high of 126 points. Other studies have used geographic distance (using geographic coordinates) in their models (Ojala & Tyrväinen, 2007) to control for this type of an effect. However, as the current example demonstrates, the geographic distance between Australia and Norway (about 9,000 miles) is significantly longer than the geographical distance between Hong Kong and Taiwan (about 450 miles) or even between Norway and Taiwan (about 5,500 miles) (Google Maps Api, 2009). Using Hofstede's dimension to derive a measure for these potential effects deems to be a more appropriate approach and, thus, will be used in this study.

Table 1: Average cultural dimension score

| Buyer | Country score | | | | Supplier | Country score | | | | Absolute difference | | | | Average score | | | |
|-----------|---------------|-----|-----|-----|-----------|---------------|-----|-----|-----|---------------------|-----|-----|-----|---------------|------|------|------|
| | PDI | MAS | IDV | UAI | | PDI | MAS | IDV | UAI | PDI | MAS | IDV | UAI | PDI | MAS | IDV | UAI |
| Norway | 31 | 8 | 69 | 50 | Taiwan | 58 | 45 | 17 | 69 | 27 | 37 | 52 | 19 | 44.5 | 26.5 | 43 | 59.5 |
| Norway | 31 | 8 | 69 | 50 | Australia | 36 | 61 | 90 | 51 | 5 | 53 | 21 | 1 | 33.5 | 34.5 | 79.5 | 50.5 |
| Hong Kong | 68 | 57 | 25 | 29 | Taiwan | 58 | 45 | 17 | 69 | 10 | 12 | 8 | 40 | 63 | 51 | 21 | 49 |

Transaction cost economics stated that as uncertainty increases, transaction cost increases. Following this line of thought, it can be argued that as the average power distance of two partners increases, their respective countries' societies are more accepting of inequality (Hofstede & Bond, 1988). Hence, overall, there is a higher need for control within these societies and an accompanying shift of power towards authority leaving less individual responsibilities, and less uncertainty. One potential solution to this issue is to provide a more complete contract. Similarly, addressing more issues, and providing guidelines and rules to produce a level of control is associated with greater contract length. Finally, understanding an existing relationship is easier and more predictable than establishing a new relationship. Hence, the continuation of an existing contract through means of renegotiation increases the perceived level of power in the relationship. Therefore, this study proposes that as partners score averagely higher on the dimension of power distance, transaction costs increase.

H₁: The greater the average power distance score of the parties involved,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the higher the potential to renegotiate the contract.

Masculinity – The dimension of masculinity refers to the competitiveness of a society (Hofstede, 1983b). Masculine countries such as Japan value characteristics such as assertiveness, ambition, and accumulation of wealth and material possessions. Acting aggressive and being assertive in negotiations is perceived as a strength and asset. In contrast, feminine countries such as Sweden tend to be less aggressive and to put a higher emphasis on

relationships and quality of life (Steensma, Marino, Weaver, & Dickson, 2000). They also seem to have less defined gender roles in society.

In the context of negotiations, compromise is of essence in feminine societies. On the contrary, more masculine countries are likely to put a higher emphasis on their own points of view; by stressing assertiveness and material possessions, they are more likely to behave opportunistically. As the average score on the masculinity dimension increases, the increased assertiveness by both partners likely results in less flexibility and increased tension. On the other hand, as the partners' score is comparatively lower, there is a higher willingness to focus on the relationship and the mutual well being of both partners. In terms of transaction cost economics, this implies that as the average score increase, this study expects that the partners' likelihood to behave opportunistically increases. Therefore, I hypothesize that greater average masculinity scores are linked to greater levels of contract completeness, greater contract length and the option to renegotiate the contract.

H₂: The greater the average masculinity score of the parties involved,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the higher the potential to renegotiate the contract.

Individualism – Hofstede's individualism dimension refers to the extent to which members of a society are integrated into groups (Hofstede & Bond, 1988). On the one hand, in Anglo countries such as the U.S.A., Great Britain, and Australia, that score high on this dimension, individuals are expected choose their own affiliations and fend for themselves. On the other hand, in Latin American countries, that score relatively low on this dimension,

individuals act predominantly as a member of a life-long group or organization (Hofstede, 1983b).

Similarly to the dimension of masculinity, high average scores of the individualism dimension are expected to be associated with high transaction costs. In countries that emphasize the individual, the firm is expected to follow the same mindset and look after itself and its interest first. This leads to the hypothesis that firms that have a high combined score on the dimension of individualism are more inclined to behave opportunistically. Companies that score comparatively low are more likely to identify a unit that consists of the two partners and, hence, act in their best mutual interest resulting in lower transaction cost. Therefore, I propose:

H₃: The greater the average individuality score of the parties involved,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the lower the potential to renegotiate the contract.

Uncertainty Avoidance – The dimension uncertainty avoidance reflects a society's approach to dealing with the extent to which members of a society attempt to cope with unknown, novel, surprising or even only different situations (Hofstede & Bond, 1988). As a country's score for uncertainty avoidance increases, they prefer to reduce anxiety by minimizing uncertainty: Change is often perceived as dangerous. In cultures scoring high in uncertainty avoidance such as Mediterranean cultures, Latin America, and Japan, members of society prefer rules (e.g. about religion and food), formal laws and structured circumstances (Steensma et al., 2000). This is also reflected in the fact that “employees tend to remain longer

with their present employer” (Wikipedia, 2009). Countries that score high on this dimension perceive change as dangerous.

Hofstede’s dimension of uncertainty avoidance reflects a society’s need for structure. Countries that score high on this dimension such as Spain or Argentina feel threatened by (future) uncertainty and ambiguous situations (Pheng & Yuquan, 2002). Rules and regulation provide a means to avoid anxiety caused by uncertainty. China and Hong Kong are countries that score low on this dimension implying and according to the theory, these countries are less in need of formal structure. Hence, this research hypothesizes that as the average score of uncertainty avoidance increases, the involved partners increase their efforts to reduce uncertainty in their relationship by means of a more complete contract, longer contracts and an option to renegotiate the contract.

H₄: The greater the average uncertainty avoidance score of the parties involved,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the higher the potential to renegotiate the contract.

Cultural Distance – In addition to the characteristics of the buyer-supplier dyad regarding the individual cultural dimensions, the distance between buyer and seller across all the dimensions is also important. Cultural distance approximates the difference between two countries across the four (Kogut & Singh, 1988) cultural dimensions derived by Hofstede (1983). Kogut and Singh (1988) are the first to develop a widely accepted cultural distance

index (CDI) to measure the difference between two different countries across the Hofstede dimensions².

The more similar partners are, the more likely they are to reach a positive outcome in a negotiation (Adler & Graham, 1989). Similar behaviors and approaches towards conflict resolution as well as goal congruency and mutual benefits help supply chain partner “find and maintain a competitive advantage” (Mohr & Spekman, 1994, p.135). Even perceived similarities between partners affect aspects such as degree of cooperation in a positive way (Adler & Graham, 1989). Reversing this argument, one can conclude that the more different – real or perceived – the more difficult it is for participants in a relationship to reach an outcome.

Kaufmann and Carter (2006) derived a relationship, in the broader sense, between an increased cultural distance and uncertainty. Williamson (1979) posits that increased uncertainty results in higher transaction costs. The introduction of uncertainty in the context of international buyer-supplier relationship leads to a greater threat of opportunism as the involved firms fail to understand each other and ultimately leading to mistrust. As the cultural distance of the involved partners increases, the level of understanding decreases resulting in a higher level of uncertainty and, hence, higher transaction cost (Steensma et al., 2000). Therefore, greater cultural distance is expected to lead to greater levels of contract completeness in order to counter the potential increase in uncertainty. Similarly, greater cultural distance is likely to result in great contract length in order to specify in more detail the terms of the contract as well as to provide detailed explanations that in partners from the same

² Although it is possible to test for effects along each dimension separately, the results are not expected to differ from the combined measure of cultural difference. The theoretic argument is similar for the CDI measure as for each dimension separately. However, a robustness check is performed to provide statistical evidence for this claim.

cultural background are not required or expected. Finally, as the negotiation of the contract between participants from different cultures results in increased uncertainty and, hence, requires more detailed negotiation, an option to renegotiate provides a potential of cost savings. It allows partners to adjust a limited set of options the contract in the future rather than negotiate a new deal. I, therefore, propose that:

H₅: The greater the cultural distance between the parties involved,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the higher the potential to renegotiate the contract.

Asset Specificity – The most widely studied TCE characteristic is asset specificity and it refers to assets that are idiosyncratic to certain transactions. The concept has been studied repeatedly in the literature (for an overview, refer to David & Han, 2004; Rindfleisch & Heide, 1997). As the level of asset importance increases, the involved parties are more inclined to enter an agreement that specifies details (Saussier, 1999). Mutual dependency arises due to investment in specific assets as well as the importance of the component or service to the buyer, generally resulting in longer (Joskow, 1987) and more complete contracts (Saussier, 2000). Therefore, I hypothesize that as asset specificity increases, transaction costs increase resulting in higher levels of contract completeness, greater contract length and higher likelihood of a renegotiation option in the contract.

H₆: The greater product specificity,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the higher the potential to renegotiate the contract.

Transaction Frequency – Transaction frequency is the least studied characteristic of transaction cost economics (Geyskens et al., 2006; Rindfleisch & Heide, 1997). Williamson (1985a) argues that as the frequency of conducting a certain transaction increases, the involved bureaucratic cost due to the hierarchical structure are more than offset by the cost savings from conducting a greater number of transaction in the market. Thus, I propose that higher order frequency translates into lower transaction cost per unit, ultimately resulting in more complete contracts, longer contracts and an option to renegotiate the contract.

H₇: The greater the order frequency,

- a) the greater the level of contract completeness.
- b) the greater the contract length.
- c) the higher the potential to renegotiate the contract.

2.4 Methodology

A Global Fortune 500 company located in Europe provided access to its contractual agreements. The company has a workforce of more than 20,000 employees and is represented in 40 countries worldwide. It prides itself with being progressive in terms of both business practices and environmental issues. The firm has contracts with suppliers in various countries around the globe and, depending on the circumstances, needs to source both locally (for site specific contracts) and globally (for products and services they apply to several sites and/or subsidiaries). The company has a rich and diverse base of contracts: for the currently study, I had access to buying contracts of various sizes mainly for the year of 2008. The company is subsequently referred to as Buyer.

2.4.1 Data Description

The data set contains 190 observations from the headquarters and three subsidiaries of the Buyer. The contracts are all negotiated, set-up and monitored by the sourcing division of Buyer. I was allowed access to the contracts on site to read and code them. However, due to privacy concerns, access was limited to Buyer's site. The contracts could not be removed from their site-specific locations.

The sites are located on three different continents: Asia, Australia and Europe. The majority of the contracts are linked to Europe (89%), with only about 8% of the contracts from Asian and about 3% from the Australian subsidiary. This European orientation is due to several reasons: First, the organization has a European headquarter which is responsible for contracts that span the different subsidiaries. Second, the data were gathered on site at the headquarters and the European subsidiary. Third, the Asian subsidiary is currently being developed and as such does not have many contracts in place. The contracts from Asia are currently stored at the European headquarters. In the dataset, each buying location is noted and coded according to the Hofstede dimensions.

Table 2: Contractual data by continent and product category

| Supplier Continent | Construction | Equipment/ Material | Raw Material | Service and Maintenance | Total |
|-------------------------------|---------------------|--------------------------------|-------------------------|------------------------------------|--------------|
| North America | 0 | 0 | 10 | 2 | 12 |
| South America | 0 | 0 | 1 | 0 | 1 |
| Asia | 0 | 0 | 22 | 0 | 22 |
| Australia | 0 | 2 | 2 | 0 | 4 |
| Europe | 36 | 28 | 61 | 26 | 151 |
| Total | 36 | 30 | 96 | 28 | 190 |

The suppliers are located around the globe in 25 different countries. As seen in Table 2, the majority of products are sourced from Europe (78.9%), followed by Asia (12.1%) and

North America (6.3%). Australia (2.1%) and South America (0.5%) supply only a very limited number of goods. Again, each supplying location is coded according to the Hofstede cultural dimensions.

The types of contract vary significantly and are therefore classified along four product dimensions: construction, equipment/material, raw materials, and service. These product categories are used to partition the data set where required. In the complete set, dummy variables will be used to control for product group effects. The majority of contracts are for the purchase of raw materials (50.5%), followed by those for construction (18.9%), equipment/material (15.8) and service (14.7%). Please refer to Table 2 for an overview.

The data were collected on site in Europe due to the sensitive nature of the information. At the headquarters, the coder had access to all contracts relating to the major raw material purchases from January 2008 to January 2009. The sourcing for raw materials is centrally coordinated from the headquarters. Also, on site at the headquarters, construction contracts for Asia are held. All contracts made available at Buyer's headquarters were coded resulting in 85 observations. At the European subsidiary, access was granted to all contracts held at the site for the past year. These contracts consisted mainly of contracts negotiated for local needs of the subsidiary but included contracts applicable to other subsidiaries as well. The coder randomly selected contracts for this site resulting in a total of 105 observations.³

As a control measure for coder reliability, a second coder (internal to Buyer to avoid breach of confidentiality in the agreement with Buyer) was asked to code a number of contracts. The two coders' output was identical for every single coding except for one code in

³ The complete number of contracts stored at the location was not recorded but is estimated to amount to about 8,000 contracts.

one observation. The issue was related to the scale (binary rather than ordinal) of the variable. The variable was dropped from the final dataset.

2.4.2 Variables

2.4.2.1 Dependent Variables

Contract Completeness is calculated as a composite measure expanding on Saussier's (2000) study that used six dimensions. His study concentrated on a very narrowly defined type of contract (between imported coal transporters and one French electricity company) generating a homogenous dataset. He defined contract completeness based on six dimensions, namely: buyer's and supplier's minimum quantity, buyer and supplier penalties in case of default, price index (specific to French contracts as they require a transaction price in order to be legally binding) and a dispute resolution clause (Saussier, 2000).

The current study's dataset is much more diverse and as such included additional factors. The contract completeness variable consists of 19 individual dimensions (described in Table 3) that could be specified in the contract. Inclusion of a dimension in the contract receives a score of one. The complete score is calculated by summing the dimensional scores with each dimension receiving the same weight. The lower the final score, the less complete the contract. This variable hence is not a continuous variable but ordinal. Please refer to Table 3 for an overview of the contract completeness dimensions. The table provides an overview of the name of each dimension and a short description. The maximum score a contract theoretically can achieve is 19 and the lowest 0. Table 4 details the main variables in the model and one can observe that the average contract consists of about six dimensions: the least

detailed contract only mentioning one and the most detailed covering 16 out of 19 potential dimensions.

Table 3: Contract completeness dimensions

| | Variable Name | Description |
|----|--|---|
| 1 | <i>Buyer's quantity flexibility</i> | Buyer's flexibility to change order quantity |
| 2 | <i>Confidentiality</i> | Explicit mentioning of keeping the information confidential between the involved parties |
| 3 | <i>Definition section/ Rules for interpreting</i> | Explicitly mentioned in contract |
| 4 | <i>Dispute</i> | Dispute resolution explicitly mentioned in the contract |
| 5 | <i>General conditions of purchase (GCoP)</i> | Standardized set of rules and regulations governing the contract |
| 6 | <i>Health, safety, environment, and corp. soc. resp.</i> | Explicit mentioning of one of all of these aspects in the contract (often bundled in one section) |
| 7 | <i>Labeling</i> | Explicit instruction for labeling |
| 8 | <i>Mutual fairness</i> | Explicit mentioning of mutual fairness |
| 9 | <i>Packaging</i> | Explicit instruction for packaging |
| 10 | <i>Purchase order/ acknowledgement</i> | Level of formality in purchase order |
| 11 | <i>Quality assurance</i> | Explicit mentioning of a certificate of analysis |
| 12 | <i>Quantity discount</i> | Explicit mentioning of quantity discount in the contract |
| 13 | <i>Regular progress reports</i> | Explicit mentioning of regular progress reports |
| 14 | <i>Renegotiation</i> | Explicit mention to renegotiate part of the contract |
| 15 | <i>Subcontracting</i> | Explicit mentioning of subcontracting |
| 16 | <i>Supplier's default penalties</i> | Penalty for supplier if goods are not delivered on time |
| 17 | <i>Supplier's fixed quantity</i> | Supplier required to deliver fixed quantity |
| 18 | <i>Taxes</i> | Explicit mentioning of taxes |
| 19 | <i>Warranty</i> | Explicit mentioning of a warranty |

Length of the contract is the physical length measured in the number of pages. It is provides an approximation of the amount of effort invested into the negotiation of the contract. More complete contracts are likely to be longer. As such, this dependent variable is a simpler (and cruder) measurement of the complexity of the contract. The average length of a contract is 5.45 pages (Table 4).

Renegotiation is a binary variable that refers to the explicit mentioning of the need to renegotiate part of the contract (Crocker & Masten, 1991). Setting up contracts is time consuming and, hence, expensive. Providing the option for renegotiation, allows the involved parties to adjust certain aspects of the contract (i.e. prices, terms of delivery) without the need to readdress all other dimensions. 24.7% of all contracts contained the option to renegotiate part of the contract at a later time (Table 4).

2.4.2.2 Independent Variables

Cultural distance (CD) is measured using the country of both buyer and supplier and applying Hofstede's (1983a) cultural dimension scores for each of the four dimensions (PDI, MAS, IDV, UAI). The cultural distance index (CDI) (Kogut & Singh, 1988) is used to calculate a measure of cultural distance. They derived a composite measure for cultural distance based on Hofstede's cultural dimensions as:

$$CD_j = \sum_{i=1}^4 \left\{ \left(I_{ij} - I_{ik} \right)^2 / V_i \right\} / 4$$

where I_{ij} refers to the index of Hofstede's i th cultural dimension (i.e. PDI, IDV, MAS, and UAI) "and j th country, V_i is the variance of the index in the i th dimension," (Kogut & Singh, 1988, p. 422) k indicates the reference country.

As can be observed from Table 4, the primary independent variable of *cultural distance* has a mean score of 2, with scores ranging from 0 to 9.36. This relatively low average score for the relationships is due to the fact that the majority of contracts were negotiated between European partners.

Asset specificity is measured according to Williamson using a binary variable. Each contract is checked for an explicit mentioning of either dedicated or human assets. If either one of these is present, asset specificity is considered to be present in the contract and coded as 1, otherwise 0. The majority of contracts do not include asset specificity statements: only 4.2% of all the contracts explicitly mention either human or dedicated assets.

Frequency was also measured using a binary variable. The contracts were categorized as either one-time or multiple (repeated-type) purchases. A little more than half the contracts concern products that are purchased on a regular basis while 48% of the contracts are non-standard purchases.

2.4.2.3 Control Variables

Product category is a measure described earlier (see Table 1) and provides a control for product type specific variations in the contracts. I categorize the different products into construction, equipment/material, raw materials, and service. The first category, construction, refers to material and work related to the construction and maintenance of factory structures. It includes materials for the construction of the site in Asia, but also regular maintenance of reconstructing buildings on an existing site in Europe. Of all contracts, 18.9% fall into this category. The second category, equipment/material, refers to machinery and equipment purchased. This includes factory equipment but also work apparel and computer equipment. About 15.8% of all contracts belong to this category. The third category, raw materials, refers to products that are purchased in bulk for on-going production. This is the largest category and comprises a little more than 50% of all contracts (50.5%). The last category, service, refers to

service and maintenance agreements, such as cleaning services of a site, and security contracts. About 14.7% of all contracts fall into this category.

Common refers to the law that applies to the contract. This includes indirect assignment of a governing law through the General Conditions of Purchase⁴. There are three main types of legal systems, namely civil, common and Islamic law (Powell & Mitchell, 2007). Only the first two are applied to the contracts in the current study. Civil law is the type of law used in the majority of countries around the world and uses a codebook or collection of articles (legislative statutes) that are referred to when ruling in a court of law. This type of law dominates in South and Central America, most European countries, Asian countries (Japan, mainland China, Russia) and Africa (Madagascar, Congo, Algeria). A common law system is developed over time based on decisions and precedents in courts of law by judges. Countries that employ this legal system are the U.S.A. (except for Louisiana), Britain and many former British colonies such as India, Pakistan, Australia and Ghana. As civil law is based on a set of laws and regulation, the pure reference to these laws is sufficient to make them binding. In addition, the system takes negotiated intent into account. In a common law setting, there is no such reference set. Hence, the negotiating parties are required to specify greater levels of the detail in the contract. Underlying intension is not enforceable in a court of law unless it has been specified in writing in the contract. As such, contracts negotiated under common law are expected to be more elaborate and hence longer than contracts under civil law. Table 4 shows that the majority of contracts (86.7%) in this data set are governed by civil law and only about 13.3% use common law. Given the dominance of European contracts, this distribution is

⁴ General Conditions of Purchase are usually attached to the contract and refer to a standard set of laws and contract terms.

reasonable. Two contracts were not coded for this variable, as they had no explicit mentioning of the governing law, resulting on a final sample size of 188 observations.

Duration of the contract refers to the length of the contract in terms of time (measured in months). Due to type of contract and relationship with suppliers, the contracts under investigation range from 1-time purchases (0.033 months) to repeated deliveries over a longer period of time (up to ten years or 120 months). The average contract is a little more than a year (12.73 months) The underlying assumption for this control variable is that the longer the duration, the higher the interdependence of buyer and supplier and, hence, a likely influence to increase the level of contract completeness.

Company size categorizes for the size of the supplier into small (up to 99 employees), mid-size (100 up to 1000 employees) and large companies (more than 1000 employees). This measure takes into account differences that might arise due to size variation such as the power structure in the relationship. As the suppliers range from large multinational corporations to small, local, privately held firms, we use broad categories to control these potential size effects. Each category holds about 1/3 of the observations (small: 31.6%, mid-sized: 33.7%; large: 34.7%).

Year and *buyer subsidiary* dummies are added to the model to control for year and firm effects. As the dataset contains cross-sectional rather than panel data, we account for variations due to the year the contract was written. External events to the company could impact the manner in which the contract is composed. Similar, it is expected that each subsidiary of the buyer has idiosyncrasies that go beyond the national, cultural background that influence the manner in which the contract is established. More than two thirds of contracts in our dataset

were written in 2009 (23.2%) and 2008 (47.4%). The other contracts were written in the years 2004 to 2007: 1.1% in 2004, 4.7% in 2005, 6.3% in 2006 and 16.8% in 2007.

Table 4: Descriptive statistics of model variables

| Variable name | Obs. | Mean | Std. Dev. | Min | Max |
|---|-------------|-------------|------------------|------------|------------|
| Contract completeness | 190 | 5.984 | 2.857 | 1 | 16 |
| Contract length | 190 | 5.458 | 6.638 | 1 | 40 |
| Renegotiation | 190 | 0.247 | 0.433 | 0 | 1 |
| Cultural distance | 190 | 2.000 | 2.636 | 0 | 9.355 |
| Cum. power distance score | 190 | 79.774 | 19.417 | 42 | 157 |
| Cum. masculinity score | 190 | 98.963 | 35.883 | 16 | 145 |
| Cum. individuality score | 190 | 129.763 | 19.516 | 77 | 181 |
| Cum. uncertainty avoidance score | 190 | 116.200 | 20.324 | 63 | 154 |
| Asset specificity | 190 | 0.042 | 0.201 | 0 | 1 |
| Frequency | 190 | 0.516 | 0.501 | 0 | 1 |
| Large supplier | 190 | 0.347 | 0.477 | 0 | 1 |
| Mid-size supplier | 190 | 0.337 | 0.474 | 0 | 1 |
| Small supplier | 190 | 0.316 | 0.466 | 0 | 1 |
| Common law | 188 | 0.133 | 0.340 | 0 | 1 |
| Civil law | 188 | 0.867 | 0.340 | 0 | 1 |
| Duration | 190 | 12.732 | 21.617 | 0.033 | 120 |
| Construction contracts | 190 | 0.189 | 0.393 | 0 | 1 |
| Raw material contracts | 190 | 0.505 | 0.501 | 0 | 1 |
| Equipment contracts | 190 | 0.158 | 0.366 | 0 | 1 |
| Service contracts | 190 | 0.147 | 0.355 | 0 | 1 |
| Headquarter (Europe) | 190 | 0.368 | 0.484 | 0 | 1 |
| European subsidiary | 190 | 0.521 | 0.501 | 0 | 1 |
| Asian subsidiary | 190 | 0.079 | 0.270 | 0 | 1 |
| Australian subsidiary | 190 | 0.032 | 0.175 | 0 | 1 |
| Year dummy 2004 | 190 | 0.011 | 0.102 | 0 | 1 |
| Year dummy 2005 | 190 | 0.047 | 0.213 | 0 | 1 |
| Year dummy 2006 | 190 | 0.063 | 0.244 | 0 | 1 |
| Year dummy 2007 | 190 | 0.168 | 0.375 | 0 | 1 |
| Year dummy 2008 | 190 | 0.474 | 0.501 | 0 | 1 |
| Year dummy 2009 | 190 | 0.232 | 0.423 | 0 | 1 |

2.5 Empirical Results

I analyzed the impact of cultural distance, the average cultural dimensions, asset specificity and frequency on contract completeness using correlation analysis and ordered logit regression. Table 5 details the correlation of the hypothesized variables: cultural distance has a high, positive correlation with average power distance score (0.756), and a high, negative correlation with the average individuality (-0.701) and average uncertainty avoidance (-0.625) scores. In addition, the correlation between average power distance score and average individuality score is -0.730 indicating strong, negative correlation. For example, a buyer-supplier pair that comes from Europe is likely to score high on the average individuality but low on the average power distance dimension, while those from Asia would be more likely to stress power distance and collectivism.

Table 5: Correlation table

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|--------|--------|--------|--------|--------|--------|
| 1 Cultural distance | 1 | | | | | |
| 2 Cum. power distance score | 0.756 | 1 | | | | |
| 3 Cum. masculinity score | -0.381 | -0.121 | 1 | | | |
| 4 Cum. individuality score | -0.701 | -0.730 | 0.079 | 1 | | |
| 5 Cum. uncertainty avoidance score | -0.625 | -0.267 | 0.463 | 0.219 | 1 | |
| 6 Asset specificity | -0.142 | -0.125 | -0.041 | 0.245 | -0.063 | 1 |
| 7 Frequency | 0.233 | 0.029 | -0.367 | -0.176 | -0.266 | -0.216 |

2.5.1 Estimation Results

This study uses several different regression models. For subset a of the hypotheses, an ordered logit model is used to analyze the data (Table 6). As the dependent variable, contract completeness, is measured along an ordinal scale, ordinary least squares (OLS) is technically

not appropriate: it assumes the dependent variable to be continuous. The ordered logit model is an extension of the logistics regression model that allows for multiple ordered responses of the dependent variable without assuming equal distance between each answer. In the current context that implies that a score of 3 implies a less complete contract than a score of 6, however, it does not mean that the second contract is twice as complete as the first as can be assumed in the case of continuous variables. In the current study, the OLS output is also reported (Table 7) as the pseudo r-square of the ordered logit model is difficult to interpret (Baum, 2006). Similar to Saussier (2000), I find no significant differences in the results of these two types of regressions. For contract length, subset *b* of the hypotheses, an OLS model is used (Table 8). Finally, for the option to renegotiate the contract, I use a logit model as the dependent variable is binary (Table 9).

The first model in each table combines all four average cultural dimensions within one model. Although the correlation table suggested high correlations between some of the dimensions, I find no significant effect of multicollinearity between the dimensions (using variance inflation factors with VIF of 10 as a cut-off (Baum, 2006)). However, to substantiate these findings, I run each average score separately in a model and find consistent results (Models 2 – 5; Models ii – vi, Models II-V).

For the dependent variable of contract completeness (Table 6), the results show no significant statistical support for hypotheses H_{1a} and H_{2a} . Higher average power distance (H_{1a} : Model 2) and higher average masculinity (H_{2a} : Model 3) scores have no significant influence the level of contract completeness. Surprisingly, the results show that both average individuality (Model 4) and average uncertainty avoidance (Model 5) have a statistically significant, negative effect on contract completeness implying they reduce the level of contract

completeness. Hence, H_{3a} and H_{4a} are not supported as predicted: I actually find the opposite effect.

For the dependent variable of contract length (Table 8), I find that statistical support for hypothesis H_{2b} that greater average masculinity scores in a buyer-supplier relationship result in longer contract (Model III). The other three average Hofstede dimensions (H_{1b} : Model II, H_{3b} : Model IV and H_{4b} : Model V) have no statistically significant effect on the length of the contract. Regarding the option to renegotiate the contract as dependent variable, none of the four average Hofstede dimensions has a significant effect (H_{1c} : Model ii, H_{2c} : Model iii, H_{3c} : Model iv and H_{4c} : Model v).

Model 6 estimates the results for cultural distance between buyer and supplier and its effect on contract completeness. I find strong support for the main hypothesis (H_{5a}): greater cultural distance results in greater contract completeness. The relationship between cultural distance and contract length is not statistically significant (H_{5b} : Model VI). Finally, in Table 9, one can observe that at the 10% level, I find greater cultural distance reduces the likelihood of a renegotiation option in the contract (H_{5c} : Model vi). This finding is surprising as I hypothesized that greater cultural distance is more likely to result in the option to renegotiate the contract.

All models in Table 6 and Table 9 find statistically significant support for the positive influence of asset specificity on contract completeness (H_{6a}) and the option to renegotiate (H_{6c}). However, I do not find statistical significant results for a positive influence of asset specificity on contract length (H_{6b} : Table 8). Finally, all models find statistically significant support that frequency is negatively related to contract completeness. In all models, greater

frequency results in lower contract completeness (H_7). Again, this finding is counter to the hypothesized direction of relationship.

Next, I discuss the different outcomes for the control variables. The results show that supplier size does influence the level of contract completeness. Large suppliers tend to negotiate less complete contracts than mid-size or small supplier firms. Similarly, small suppliers appear to favor the option of renegotiation when compared to large supplier firms. The type of contract significantly influences the level of contract completeness, contract length and the option to renegotiate the contract. The current models use construction contracts as a reference category. The results show that all other contracts are significantly more complete than construction contracts. Similarly, the construction contracts tend to be significantly shorter than the other contracts. With respect to the option to renegotiate, raw material contracts are more likely to include this clause when compared to construction contracts. Contracts negotiated under the common law system are generally more complete and longer than those using civil law. The type of law system employed does not seem to be that important when considering the option to renegotiate the contract. The results in Table 9 show that only some of the models show marginal statistical significance. The duration of the contract has no impact on the level of contract completeness, the length of the contract or the option to renegotiate the contract.

With respect to year effects, I find only an effect for the year of 2007 in comparison to the year of 2009 for contract completeness: Contracts in 2007 were statistically significantly more complete than in 2009 (Table 6). I find marginally significantly longer contracts in 2005 when compared to 2009 (Table 8). There are no statistical differences between the reference

Table 6: Ordered logit model results for contract completeness (DV)

| Ordered logit model | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Predicted |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|---------------------|
| Average power distance | -0.0264 (-1.560) | 0.0131 (1.424) | | | | | H _{1a} : + |
| Average masculinity | 0.00225 (0.317) | | 0.00482 (0.702) | | | | H _{2a} : + |
| Average individuality | -0.0365** (-2.574) | | | -0.0211*** (-2.786) | | | H _{3a} : + |
| Avg. uncertainty avoidance | -0.0204** (-2.442) | | | | -0.0241*** (-2.918) | | H _{4a} : + |
| Cultural distance | | | | | | 0.190*** (2.738) | H _{5a} : + |
| Asset specificity | 2.431** (2.559) | 2.285** (2.437) | 2.186** (2.357) | 2.386** (2.530) | 2.235** (2.418) | 2.638*** (2.709) | H _{6a} : + |
| Frequency | -1.688*** (-3.777) | -1.651*** (-3.779) | -1.616*** (-3.723) | -1.705*** (-3.867) | -1.609*** (-3.652) | -1.693*** (-3.832) | H _{7a} : + |
| Mid-size supplier | 1.005** (2.558) | 0.974** (2.517) | 1.016*** (2.625) | 0.968** (2.524) | 0.974** (2.501) | 0.989*** (2.577) | |
| Small supplier | 0.744* (1.783) | 0.682* (1.648) | 0.665 (1.597) | 0.668 (1.619) | 0.804* (1.943) | 0.738* (1.785) | |
| Common law | 2.397** (2.513) | 1.747** (1.962) | 1.670* (1.887) | 2.164** (2.360) | 1.613* (1.811) | 1.916** (2.135) | |
| Duration | 0.0154* (1.663) | 0.0134 (1.518) | 0.0127 (1.440) | 0.0146 (1.604) | 0.0143 (1.611) | 0.0137 (1.539) | |
| Raw material contracts | 2.256*** (3.650) | 2.244*** (3.720) | 2.371*** (3.994) | 2.184*** (3.619) | 2.268*** (3.754) | 2.148*** (3.599) | |
| Equipment contracts | 1.144** (2.022) | 1.188** (2.151) | 1.181** (2.144) | 1.218** (2.194) | 1.060* (1.898) | 1.176** (2.119) | |
| Service contracts | 1.233** (2.184) | 1.137** (2.057) | 1.124** (2.048) | 1.212** (2.173) | 1.063* (1.910) | 1.232** (2.203) | |
| Australian subsidiary | -0.264 (-0.248) | -0.952 (-1.067) | -1.010 (-1.018) | -0.569 (-0.653) | -0.883 (-1.017) | -1.088 (-1.223) | |
| European subsidiary | -0.303 (-0.417) | -0.600 (-1.189) | -0.888 (-1.288) | -0.667 (-1.322) | -0.0391 (-0.0733) | -0.259 (-0.505) | |
| Asian subsidiary | 1.870 (1.634) | 1.171 (1.045) | 1.737* (1.711) | 0.892 (0.834) | 2.259** (2.250) | 1.029 (0.986) | |
| Year dummy 2004 | 1.218 (0.872) | 1.939 (1.269) | 1.639 (1.157) | 1.642 (1.139) | 1.815 (1.199) | 1.814 (1.230) | |
| Year dummy 2005 | 0.0534 (0.0611) | 0.172 (0.201) | 0.137 (0.160) | 0.0473 (0.0546) | 0.322 (0.375) | 0.215 (0.250) | |
| Year dummy 2006 | 1.203 (1.525) | 1.180 (1.593) | 1.228* (1.656) | 1.127 (1.497) | 1.340* (1.747) | 1.179 (1.571) | |
| Year dummy 2007 | 1.202*** (2.617) | 0.911** (2.029) | 0.804* (1.817) | 1.041** (2.311) | 1.016** (2.249) | 1.223*** (2.586) | |
| Year dummy 2008 | 0.503 (1.381) | 0.738** (2.030) | 0.697* (1.902) | 0.637* (1.768) | 0.660* (1.826) | 0.635* (1.748) | |
| Observations | 188 | 188 | 188 | 188 | 188 | 188 | |
| Pseudo R ² | 0.161 | 0.144 | 0.143 | 0.151 | 0.152 | 0.151 | |
| Log likelihood | -362.898 | -370.171 | -370.938 | -367.319 | -366.920 | -367.405 | |

t-statistics in parentheses, *** sig. at the 1% level, ** sig. at the 5% level, * sig. at the 10% level

Table 7: OLS results for contract completeness (DV)

| OLS | Model 7 | Model 8 | Model 9 | Model 10 | Model 11 | Model 12 | Predicted |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------|
| Average power distance | -0.024 (-1.180) | 0.015 (1.300) | | | | | H _{1a} : + |
| Average masculinity | 0.001 (0.133) | | 0.005 (0.554) | | | | H _{2a} : + |
| Average individuality | -0.037** (-2.189) | | | -0.025** (-2.598) | | | H _{3a} : + |
| Avg. uncertainty avoidance | -0.022** (-2.157) | | | | -0.027*** (-2.726) | | H _{4a} : + |
| Cultural distance | | | | | | 0.231*** (2.679) | H _{5a} : + |
| Asset specificity | 2.679*** (2.684) | 2.714*** (2.658) | 2.611** (2.554) | 2.765*** (2.757) | 2.613*** (2.618) | 3.032*** (2.991) | H _{6a} : + |
| Frequency | -1.939*** (-4.142) | -2.002*** (-4.175) | -1.966*** (-4.088) | -2.012*** (-4.260) | -1.918*** (-4.068) | -2.023*** (-4.287) | H _{7a} : + |
| Mid-size supplier | 0.896** (2.042) | 0.875* (1.957) | 0.947** (2.127) | 0.854* (1.959) | 0.913** (2.107) | 0.893** (2.058) | |
| Small supplier | 0.553 (1.195) | 0.486 (1.036) | 0.490 (1.031) | 0.468 (1.016) | 0.598 (1.298) | 0.529 (1.151) | |
| Common law | 2.407** (2.309) | 1.772* (1.738) | 1.710* (1.669) | 2.248** (2.195) | 1.710* (1.705) | 1.996** (1.979) | |
| Duration | 0.0158* (1.683) | 0.0139 (1.448) | 0.0133 (1.383) | 0.0152 (1.608) | 0.0140 (1.484) | 0.0137 (1.455) | |
| Raw material contracts | 2.047*** (3.207) | 2.204*** (3.376) | 2.355*** (3.659) | 2.069*** (3.226) | 2.204*** (3.483) | 2.056*** (3.207) | |
| Equipment contracts | 1.127* (1.974) | 1.211** (2.073) | 1.204** (2.051) | 1.210** (2.103) | 1.110* (1.931) | 1.213** (2.111) | |
| Service contracts | 1.040* (1.716) | 1.022 (1.651) | 1.031* (1.659) | 1.078* (1.766) | 0.939 (1.540) | 1.094* (1.794) | |
| Australian subsidiary | -0.684 (-0.523) | -1.450 (-1.299) | -1.521 (-1.226) | -0.912 (-0.836) | -1.473 (-1.355) | -1.538 (-1.411) | |
| European subsidiary | -0.408 (-0.492) | -0.807 (-1.385) | -1.115 (-1.388) | -0.830 (-1.445) | -0.176 (-0.285) | -0.351 (-0.586) | |
| Asian subsidiary | 1.651 (1.238) | 1.188 (0.880) | 1.852 (1.506) | 0.803 (0.635) | 2.242* (1.904) | 0.937 (0.755) | |
| Year dummy 2004 | 1.223 (0.766) | 1.954 (1.234) | 1.653 (1.042) | 1.556 (1.002) | 1.871 (1.208) | 1.790 (1.155) | |
| Year dummy 2005 | 0.0420 (0.0428) | 0.157 (0.158) | 0.187 (0.188) | -0.0522 (-0.0531) | 0.386 (0.394) | 0.142 (0.145) | |
| Year dummy 2006 | 1.377 (1.652) | 1.333 (1.565) | 1.394 (1.632) | 1.232 (1.467) | 1.551* (1.856) | 1.310 (1.566) | |
| Year dummy 2007 | 1.213** (2.258) | 0.970* (1.783) | 0.864 (1.596) | 1.087** (2.023) | 1.092** (2.037) | 1.298** (2.345) | |
| Year dummy 2008 | 0.577 (1.345) | 0.779* (1.814) | 0.759* (1.744) | 0.653 (1.530) | 0.766* (1.812) | 0.690 (1.626) | |
| Constant | 13.07*** (3.603) | 3.130*** (2.655) | 3.910*** (3.976) | 7.635*** (4.767) | 6.965*** (5.153) | 3.667*** (4.129) | |
| Observations | 188 | 188 | 188 | 188 | 188 | 188 | |
| R ² | 0.539 | 0.507 | 0.503 | 0.521 | 0.523 | 0.522 | |
| Adj. R ² | 0.481 | 0.454 | 0.450 | 0.470 | 0.472 | 0.471 | |

t-statistics in parentheses, *** sig. at the 1% level, ** sig. at the 5% level, * sig. at the 10% level

Table 8: OLS results for contract length (DV)

| OLS | Model I | Model II | Model III | Model IV | Model V | Model VI | Predicted |
|----------------------------|------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|---------------------|
| Average power distance | 0.001 (0.024) | 0.0189 (0.601) | | | | | H _{1a} : + |
| Average masculinity | 0.053** (2.272) | | 0.055** (2.396) | | | | H _{2a} : + |
| Average individuality | -0.002 (-0.052) | | | -0.018 (-0.667) | | | H _{3a} : + |
| Avg. uncertainty avoidance | -0.019 (-0.688) | | | | -0.023 (-0.851) | | H _{4a} : + |
| Cultural distance | | | | | | -0.021 (-0.0857) | H _{5a} : + |
| Asset specificity | -0.221 (-0.081) | -0.647 (-0.236) | -0.274 (-0.102) | -0.693 (-0.253) | -0.791 (-0.290) | -0.877 (-0.316) | H _{6a} : + |
| Frequency | -3.298** (-2.569) | -3.397*** (-2.627) | -3.328*** (-2.619) | -3.385*** (-2.620) | -3.310** (-2.564) | -3.350** (-2.588) | H _{7a} : + |
| Mid-size supplier | 1.304 (1.084) | 1.572 (1.305) | 1.359 (1.155) | 1.609 (1.348) | 1.646 (1.387) | 1.705 (1.432) | |
| Small supplier | -0.303 (-0.235) | 0.125 (0.098) | -0.353 (-0.277) | 0.145 (0.114) | 0.244 (0.192) | 0.191 (0.150) | |
| Common law | 8.048*** (2.823) | 8.310*** (3.030) | 8.004*** (2.964) | 8.621*** (3.086) | 8.238*** (3.008) | 8.235*** (2.986) | |
| Duration | 0.003 (0.119) | 0.00569 (0.220) | 0.00253 (0.100) | 0.00648 (0.251) | 0.00561 (0.218) | 0.00528 (0.204) | |
| Raw material contracts | 5.627*** (3.221) | 5.742*** (3.269) | 5.781*** (3.407) | 5.739*** (3.279) | 5.808*** (3.360) | 5.977*** (3.405) | |
| Equipment contracts | 7.476*** (4.786) | 7.398*** (4.706) | 7.531*** (4.865) | 7.388*** (4.702) | 7.306*** (4.649) | 7.371*** (4.685) | |
| Service contracts | 3.372** (2.031) | 3.384** (2.029) | 3.432** (2.091) | 3.423** (2.053) | 3.314** (1.986) | 3.384** (2.025) | |
| Australian subsidiary | 0.080 (0.022) | -0.32 (-0.0971) | -0.54 (-0.168) | -0.85 (-0.259) | 0.141 (-0.0417) | -0.697 (-0.207) | |
| European subsidiary | -0.083 (-0.023) | -3.476 (-1.158) | -0.164 (-0.0501) | -3.986 (-1.339) | -3.546 (-1.194) | -3.802 (-1.275) | |
| Asian subsidiary | -4.995 (-1.249) | -7.689** (-2.104) | -5.1 (-1.463) | -8.022** (-2.114) | -6.543* (-1.877) | -6.903* (-1.950) | |
| Year dummy 2004 | 3.873 (0.886) | 4.92 (1.155) | 3.741 (0.894) | 4.513 (1.065) | 4.765 (1.126) | 4.631 (1.092) | |
| Year dummy 2005 | -4.898* (-1.820) | -4.694* (-1.752) | -5.000* (-1.895) | -4.809* (-1.787) | -4.467* (-1.667) | -4.610* (-1.720) | |
| Year dummy 2006 | 2.977 (1.303) | 3.181 (1.387) | 2.903 (1.287) | 3.16 (1.378) | 3.409 (1.491) | 3.308 (1.444) | |
| Year dummy 2007 | 1.289 (0.843) | 1.48 (0.976) | 1.095 (0.737) | 1.512 (0.995) | 1.567 (1.030) | 1.338 (0.857) | |
| Year dummy 2008 | 0.610 (0.516) | 0.976 (0.840) | 0.628 (0.545) | 0.889 (0.760) | 0.97 (0.835) | 0.994 (0.852) | |
| Constant | -1.875 (-0.158) | 0.666 (0.144) | -4.094 (-0.892) | 4.897 (0.886) | 4.405 (0.960) | 2.301 (0.589) | |
| Observations | 185 | 185 | 185 | 185 | 185 | 185 | |
| R-squared | 0.376 | 0.354 | 0.374 | 0.354 | 0.355 | 0.352 | |
| Adj. R ² | 0.296 | 0.284 | 0.306 | 0.284 | 0.285 | 0.282 | |

t-statistics in parentheses. *** sig. at the 1% level, ** sig. at the 5% level, * sig. at the 10% level

Table 9: Logit regression results for renegotiation (DV)

| Logit | Model ii | Model iii | Model iv | Model v | Model vi | Model i | Predicted |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|
| Average power distance | -0.029 (-0.905) | -0.038 (-1.513) | | | | | H _{1c} : + |
| Average masculinity | 0.011 (0.683) | | 0.00751 (0.47) | | | | H _{2c} : + |
| Average individuality | 0.019 (0.658) | | | 0.0325 (1.39) | | | H _{3c} : + |
| Avg. uncertainty avoidance | 0.00156 (0.073) | | | | -0.001 (-0.053) | | H _{4c} : + |
| Cultural distance | | | | | | -0.493* (-1.948) | H _{5c} : + |
| Asset specificity | 3.750*** (2.609) | 3.552*** (2.610) | 3.837*** (2.641) | 3.746*** (2.668) | 3.732*** (2.667) | 3.269** (2.423) | H _{6c} : + |
| Frequency | -2.931*** (-3.437) | -2.940*** (-3.473) | -2.955*** (-3.478) | -2.988*** (-3.504) | -2.983*** (-3.514) | -2.861*** (-3.406) | H _{7ch} : + |
| Mid-size supplier | 0.193 (0.215) | 0.281 (0.315) | -0.0775 (-0.0869) | 0.097 (0.112) | -0.02 (-0.0227) | 0.0752 (0.082) | |
| Small supplier | 1.924** (2.149) | 2.073** (2.405) | 1.789** (2.037) | 2.001** (2.354) | 1.905** (2.254) | 2.112** (2.304) | |
| Common law | 3.315 (1.576) | 3.489* (1.766) | 2.892* (1.662) | 2.878 (1.532) | 2.942* (1.692) | 3.539* (1.774) | |
| Duration | 0.00631 (0.447) | 0.00847 (0.610) | 0.0081 (0.601) | 0.00616 (0.442) | 0.00853 (0.635) | 0.00856 (0.613) | |
| Raw material contracts | 5.182*** (4.221) | 5.104*** (4.258) | 4.648*** (4.051) | 5.050*** (4.286) | 4.679*** (4.104) | 5.479*** (4.251) | |
| Equipment contracts | 0.0534 (0.063) | 0.0324 (0.038) | 0.0604 (0.072) | 0.128 (0.151) | 0.0802 (0.095) | 0.0772 (0.090) | |
| Service contracts | 1.771* (1.924) | 1.746* (1.927) | 1.699* (1.868) | 1.732* (1.895) | 1.699* (1.868) | 1.702* (1.857) | |
| Australian subsidiary | 7.102** (2.363) | 6.263** (2.437) | 5.868** (2.444) | 7.327*** (2.603) | 5.873** (2.422) | 6.399** (2.455) | |
| European subsidiary | 4.51 (1.588) | 2.988 (1.362) | 3.245 (1.401) | 4.090* (1.690) | 2.734 (1.346) | 3.890* (1.689) | |
| Asian subsidiary | 5.139* (1.845) | 3.662* (1.732) | 2.263 (1.194) | 4.463* (1.715) | 2.008 (1.120) | 4.536** (1.999) | |
| Year dummy 2004 | -0.85 (-0.352) | -0.964 (-0.409) | -0.509 (-0.254) | -0.077 (-0.0397) | -0.361 (-0.186) | -0.463 (-0.234) | |
| Year dummy 2005 | -1.112 (-0.727) | -1.058 (-0.719) | -1.104 (-0.784) | -0.887 (-0.604) | -1.008 (-0.719) | -1.168 (-0.779) | |
| Year dummy 2006 | 1.763 (1.382) | 1.748 (1.380) | 1.437 (1.140) | 1.72 (1.355) | 1.502 (1.179) | 1.982 (1.560) | |
| Year dummy 2007 | 1.045 (0.972) | 1.135 (1.088) | 1.123 (1.068) | 1.188 (1.131) | 1.209 (1.151) | 0.756 (0.697) | |
| Year dummy 2008 | 0.772 (0.892) | 0.75 (0.899) | 0.725 (0.903) | 0.941 (1.107) | 0.787 (0.977) | 0.852 (1.015) | |
| Constant | -12.49* (-1.667) | -6.991** (-2.284) | -9.909*** (-3.025) | -15.16*** (-2.787) | -8.983*** (-2.714) | -9.808*** (-3.319) | |
| Observations | 185 | 185 | 185 | 185 | 185 | 185 | |
| Log likelihood | -55.64 | -56.11 | -57.23 | -56.29 | -57.34 | -55.01 | |
| Pseudo R ² | 0.46 | 0.46 | 0.45 | 0.46 | 0.45 | 0.47 | |

t-statistics in parentheses, *** sig. at the 1% level, ** sig. at the 5% level, * sig. at the 10% level

Table 10: Ordered logit model results for contract completeness (DV) for differences in each cultural dimension

| Ordered logit model | Model a | Model b | Model c | Model d |
|-----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Diff. Power Distance | 0.0429*** (4.074) | | | |
| Diff. Masculinity | | 0.0115 (1.501) | | |
| Diff. Individuality | | | 0.0408*** (4.010) | |
| Diff. Uncertainty Avoidance | | | | 0.0141 (1.002) |
| Asset specificity | 2.138** (2.141) | 1.524* (1.657) | 2.233** (2.145) | 1.501 (1.628) |
| Frequency | -1.358*** (-3.173) | -1.304*** (-3.089) | -1.365*** (-3.180) | -1.251*** (-2.998) |
| Mid-size supplier | 0.734** (1.992) | 0.933** (2.496) | 0.640* (1.727) | 0.823** (2.234) |
| Small supplier | 0.827** (2.011) | 0.924** (2.230) | 0.806** (1.965) | 0.754* (1.834) |
| Common law | 1.581* (1.841) | 1.251 (1.489) | 1.588* (1.824) | 1.366 (1.639) |
| Duration | 0.0127 (1.466) | 0.0118 (1.395) | 0.0117 (1.349) | 0.0107 (1.268) |
| Raw material contracts | 0.788 (1.413) | 1.078* (1.944) | 0.796 (1.447) | 0.908 (1.551) |
| Equipment contracts | 1.605*** (2.920) | 1.351** (2.498) | 1.575*** (2.868) | 1.364** (2.530) |
| Service contracts | 1.134** (2.035) | 1.015* (1.869) | 1.062* (1.925) | 0.970* (1.798) |
| European subsidiary | 0.286 (0.301) | -0.539 (-0.585) | 0.722 (0.704) | -0.432 (-0.472) |
| European headquarter | 0.528 (0.626) | -0.29 (-0.328) | 1.015 (1.120) | 0.117 (0.141) |
| Asian subsidiary | -0.496 (-0.448) | 0.496 (0.470) | 0.293 (0.259) | 0.347 (0.319) |
| Year dummy 2004 | -0.724 (-0.450) | -0.432 (-0.251) | -0.419 (-0.242) | -0.345 (-0.198) |
| Year dummy 2005 | -0.457 (-0.531) | -0.349 (-0.416) | -0.521 (-0.598) | -0.427 (-0.507) |
| Year dummy 2006 | 0.534 (0.714) | 0.958 (1.281) | 0.781 (1.026) | 0.766 (1.034) |
| Year dummy 2007 | 1.182** (2.371) | 0.67 (1.386) | 0.965** (1.961) | 0.689 (1.398) |
| Year dummy 2008 | 0.698* (1.891) | 0.727* (1.944) | 0.814** (2.179) | 0.724* (1.931) |
| Observations | 184 | 184 | 184 | 184 |
| Pseudo R ² | 0.094 | 0.076 | 0.093 | 0.075 |
| Log likelihood | -381.512 | -388.874 | -381.865 | -389.496 |

t-statistics in parentheses, *** sig. at the 1% level, ** sig. at the 5% level, * sig. at the 10% level

year of 2009 and other years with respect to the dependent variable of renegotiating the contract.

In terms of effects due to the buying firm subsidiary, I find no or only marginally significant effect on contract completeness. Only the Asian subsidiary has significantly more complete contracts than the ones negotiated at the European headquarter in Models 3 and 5. Surprisingly though, this findings is reflected in shorter contract length as reported in Table 8. Finally, Table 9 shows that the Australian subsidiary has a statistically significant impact on the option to renegotiate when compared to the European headquarter.

2.6 Discussion

The key result of this study is the significant relationship between cultural distance and the level of contract completeness in *Hypothesis 5a*. The results indicate that the greater the cultural difference of the involved parties, the more complete the final contract. In Table 10, this relationship is explored in more detail. When looking at cultural differences along each score, I find that greater power distance differences and greater individuality differences between partners result in significantly more complete contracts. For the dimensions of masculinity and uncertainty avoidance, the differences between buyer and supplier's cultural background does not have a significant effect.

The finding that greater cultural distance leads to greater contract completeness adds to the existing literature and underscores previous findings in the field of negotiations that cultural distance increases the level of difficulty in the negotiation context (Brett, 2007) and translates into the final written contract. Even in times of ever increasing standardization, successful companies such as the Global Fortune 500 company from this study appear to

consider its supplier's background when setting up the specifics of the transaction and the relationship. Although this finding is in line with expectations, this study provides empirical support as it had not been shown in the literature previously since studies in the field of culture and organizations are scarce (Kaufmann & Carter, 2006). The finding provides an additional incentive for companies in international relations to keep differences in nationalities in mind.

These results are consistent across different models and specifications. As a robustness check, I used Saussier (2000) classification of contract completeness, but the overall results are consistent. I also ran the same set of models using a cultural distance index that includes the fifth Hofstede dimension of long term orientation. This reduced the sample size to 146 observations but did not change the results. Similarly, I tested the effect on a subsample of the data (91 observations) using only the product category of raw materials as these contracts appear fairly similar and are related to one type of goods. The results are consistent with the findings from the complete dataset.

Surprisingly, cultural distance also has a marginally significant but negative effect on the option to renegotiate the contract (H_{5c}). Previous literature led to the hypothesis that greater distance within the dyads is associated with greater uncertainty in the relationship (Steensma et al., 2000) and, hence, as a consequence greater transaction cost. The finding of my study, therefore, contradicts expectations as the results show that participants are more inclined to renegotiate contract with partners from a more similar cultural background. I find no statistically significant effect of cultural distance on contract length (H_{5b}).

With respect to hypothesis 1 to 4, this study finds that some of the average Hofstede dimension scores significantly influence the level of contract completeness (H_{3a} and H_{4a}) and contract length (H_{2b}), while none has a significant effect on the option to renegotiate the

contract. As expected, greater average masculinity scores are associated with longer contracts (H_{2b}). The greater need for material possession and assertiveness increases partners need to incorporate more details in the contracts – making them longer – in order to prevent the other party from behaving opportunistically, hence, raising transaction cost.

Surprisingly, the average individuality score has a negative effect on contract completeness (H_{3a}). This indicates that as the partners in a relationship come from countries that are highly individualistic such as the United States of America and the Netherlands, they are likely to have a less complete contract than partners from countries such as Venezuela, South Korea and Thailand – these latter countries have more collectivistic societies with an emphasis on the group rather than the individual. This result can perhaps be attributed to the fact that although the dyads from collectivistic countries place emphasis on the group, they do not consider another firm as part of the collective but rather a competitor. Trust and a place in the relationship need to be earned by both parties over time. Hence, partners in a relationship bridge this period of getting acquainted with each other by setting up more complete contracts. On the other hand, firms from more individualistic countries might follow a code of ethics irrespective of the nationality of the partner organization. Although they stress their own achievements, society (and laws) still expect them to behave ethically. As such they might perceive less need to develop more complete contracts.

Similarly, higher average uncertainty avoidance scores resulted in lower contract completeness (H_{4a}). This finding is also unexpected. It appears that partners from countries such as China and Denmark – with relatively low uncertainty avoidance scores – have more complete contracts than partners from countries such as Argentina, Belgium or Japan. Part of the reason for this finding might be due to the way this dimension is measured originally by

Hofstede (1983b): in his study he asked participants their willingness to leave their current employment and their perception of breaking rules. Another possible explanation for this result could be that partners from countries with higher uncertainty scores only engage in relationships with partners that they trust in the first place requiring less need for more complete contracts once the relationship is established. Partners from low scoring countries, on the other hand, might be less discriminating when engaging in the business transaction but recognize the need in such a context to protect their business by having more complete contracts.

This study found no statistically significant relationship between average power distance score (H_{1a}) and average masculinity score (H_{2a}) and contract completeness. Similarly, no significant effect of average score of power distance (H_{1b}), individuality (H_{2b}) or uncertainty avoidance (H_{4b}) on length of the contract is found nor any of the dimensions on the option to renegotiate the contract (H_{1c} to H_{4c}). I therefore conclude that the average cultural dimensions appear to only have a very limited effect on the level of uncertainty and, hence, transaction cost in the contractual relationship. The findings demonstrate that although academia perceives to have a well-founded understanding of different cultures, their effects, influences and nuances need more thorough investigation. This study agrees with Kaufmann et al. (2006) that additional research on the effects of culture in inter-organizational relationships is needed.

The current study includes asset specificity and frequency to provide a complete assessment of the determinants of transaction cost. In line with previous studies, I find that higher asset specificity results in higher transaction cost which in this case means more complete contracts and a higher likelihood to have the option to renegotiate the contract. These findings are robust across all regression models for these two dependent variables. I do not find

a significant effect of asset specificity on contract length. Contrary to Williamson's (1985) proposition, I do not find that frequency increases the level of transaction costs. Instead the results show – across all models – that as frequency increases, the level of contract completeness decreases, the lengths of the contract decreases and the option of renegotiation in the contract decreases. These findings are in line with Argyres and Begilow (2007), who proposed that in generic transactions the costs of sourcing on the market, even in frequent intervals, is less than the costs associated with internalizing production within the firm. As the current study looks at contractual data using a hybrid form of market structure rather than the decision of market versus hierarchy, the results are reasonable. After all, the firm has already decided to source in the market and the model controls for other effects such as asset specificity of the investment. More frequent interactions imply a better understanding of the market and the ability to judge situations in a consistent manner allowing Buyer to use its experience to reduce the level of contract completeness.

The results show that contract completeness is the best measure of transaction cost in contracts of the three investigated. It is the most comprehensive of the measures and allows for a more nuanced study of the relationship between cultural differences and transaction cost. In this research, I used contract length as a simpler measure of contract completeness, however, the findings of this study lead to the conclusion that it is not a very sophisticated approximation and its predicting power is not aligned with the measure of contract completeness. Especially the Asian contracts demonstrate that the dyads include a variety of contract dimensions without significantly increasing the contract length. Finally, the findings of the option to renegotiate the contract provide results that suggest that more detailed studies into this variable are helpful in order to understand the negotiation of contracts between buyer and supplier.

2.5.3 Robustness Checks

The main relationship investigated in this study is the impact of cultural differences on contract completeness. In the following, I discuss some robustness checks for these results. In the OLS regressions (Table 7), I checked for the general OLS assumptions. I found no statistically significant effect for multicollinearity (using VIF) or heteroscedasticity (using the Breusch-Pagan Cook-Weisberg test) for the relationship between contract completeness and culture. The residuals all are normal.

As an additional robustness check of the results, I used Saussier's contract completeness variable as available in this dataset (using the dimensions of buyer's quantity flexibility, supplier's fixed quantity, supplier's default penalties, price and dispute resolution; excluding the dimension of buyer's default penalties as they were not mentioned in any of the contracts). The results overall were the same as those reported in Table 6. This model, however, failed to find support for the relationship between asset specificity and Saussier's contract completeness.

2.5.4 Limitations and Suggestions for Future Research

The data was gathered at a single European, Global Fortune 500 company: this is both a limitation as well as the strength of the study. On the one hand, using a single company to generalize the findings is problematic as each company faces different issues. As such, the findings from this study might only apply to Buyer company. However, Buyer as a Global Fortune 500 company has demonstrated its success by means of its adaptability and

responsiveness to the market. As a European company from a mid-sized country, from its origins, Buyer has been forced to source from and supply to markets outside its domestic context. It, hence, garnered great foreign experience unlike some of its North American counterparts that had a large domestic market to grow in initially. Therefore, it can be concluded that the fact that the company is as successful as it is today is in part attributable to its ability to deal in an international context. The findings of this study are generalizable to some extent and can be used to derive guidelines for intercultural buyer-supplier interactions.

However, additional research is needed that expands this study to a broader group of firms and industries and perhaps even a greater variety of countries. Furthermore, although the current study found an impact of culture and cultural distance on contract completeness, it does not provide insights into the specifics of the contracts. Future research needs to establish links between different aspects of contracts and their relationship to certain nationalities.

2.7 Conclusion

Using a unique data set, this study finds that cultural distance has an impact on contractual buyer supplier relationships. Providing robust results, the empirical analyses support that greater cultural distance between buyer and supplier leads to greater contract completeness. The measure of contract length as dependent variable does not provide great insights into the relationship between cultural differences and transaction cost. Surprisingly though, the study found that cultural difference does not impact the option to renegotiate as predicted but rather suggest that partners from culturally different places are less likely to do so.

In addition, this research investigated the impact of each cultural dimension in more detail and found some surprising results leading to the conclusion that additional research in the field of international buyer-supplier relationships is needed. The impact of culture is still not fully understood but the current study provided some new insights. Average individuality and uncertainty avoidance scores impacted the transaction costs – both having an unexpectedly negative relationship with the level of contract completeness, while average masculinity scores positively influence the physical length of the contract.

These findings establish that culture in buyer-supplier relationships is important and managers need to be aware of its potential influences when engaging in international interactions. Different contract terms are applicable in different cultural settings. Understanding culture and its impact in intercultural contract design can make firms more successful in today's economy and the context of global supply chains.

Chapter 3: The Impact of Cultural Differences on Negotiations

3.1 Introduction

In today's global economy, it is important for businesses to be aware of cultural differences. As an increasing number of firms are dealing with buyers and suppliers abroad, many of them have realized the need to take different cultural traits into account when negotiating (i.e. Weiss, 2006). These differences influence people's behavior and understanding of situations (Hofstede, 1980). Being aware of cultural differences can translate into better relationships between supply chain partners. Increased awareness of potential issues in a negotiation context allows firms to have more successful interactions in the long run (Adler et al., 1992) and helps them avoid misunderstandings. Furthermore, it can translate into more success in negotiations and, hence, result in cost savings and more competitive strategies. There is still both a business and academic need for better understanding "cross-cultural dyadic sales interactions" (Mintu-Wimsatt & Gassenheimer, 1996, p. 20) in order to effectively manage international interactions.

In particular, drawing on Williamson's (1975, 1985b, 1993) transaction cost economic theory, the current study investigates the impact of cultural differences and similarities on the negotiation dimension of opportunism. Opportunistic behavior occurs when participants in a relationship maximize their own utility at the expense of someone else's. However, it is only likely to occur in situations where opportunism is not detected easily (Waldman & Jensen, 2007). A negotiation context with participants from different countries provides such a scenario as it mimics the increased uncertainty. Studies have posited that negotiating parties in

intercultural negotiations are more likely not to fully understand how a partner will behave in a certain situation as it differs across countries (Bagozzi, Verbeke, & Gavino, 2003; Brett, 2007). This presents an opportunity for opportunistic behavior as one participant can use the existing uncertainty to disguise and manipulate a situation to her advantage. Also, firms and participants need to be aware of how negotiations are affected by similarities and differences in their cultural background (Graham et al., 1994). Culture is also likely to impact the relationship between different negotiation dimensions and the final outcome (Gelfand & Dyer, 2000). Therefore, the current study investigates these issues by addressing several research questions:

How does cultural distance effect international negotiations?

What is the moderating effect of cultural differences on negotiations?

This research contributes to the field of international negotiations in two ways. First, the study focuses on cultural differences. Literature that focuses on mixed cultural pairs in negotiations is relatively scarce (Brett, 2007; Brett & Okumura, 1998). However, in international negotiations, firms are faced with these kind of scenarios increasingly and, hence, require additional insights. Especially the relationship between culture and perceived opportunism and opportunistic behavior has not been studied in the context of intercultural negotiations before.

Second, the study provides a better understanding of the impact of culture as a moderating factor. Although the impact of culture is often mentioned, literature that investigates the moderating effect is limited (Gelfand & Dyer, 2000). Hence, the current study investigates the impact of culture on previously studied relationships between negotiation

dimensions and outcomes. When comparing dyads from different countries, the previously hypothesized relationships quite often are insignificant (Adler & Graham, 1987) or contradicting (Adler et al., 1992; vs. Graham et al., 1994). A moderating effect of culture would provide a potential explanation for these conflicting results in pervious studies. In addition, it makes partners in international supply chains aware of issues that can arise due to the differences in cultural background.

The paper provides a brief overview about negotiations, culture and their relationship. Subsequently, hypotheses are derived that investigate both dimensions and outcomes of negotiations and their impact on culture. The next section provides a description of the experimental study, its design and participants. Next, section 5 reports the results and is followed by the discussion in section 6. This chapter closes with a brief conclusion and potential limitations of the study.

3.2 Theoretical Background

This section the concepts of negotiations and culture are discussed, in general, and I specifically focus on low and high context cultures. Subsequently, the hypotheses are developed and the model to be analyzed is introduced.

3.2.1 Negotiations

Negotiations refer to the interaction between two or more parties with the ultimate goal of achieving a mutually beneficial outcome (Evans & Beltramini, 1987). During the process of negotiations, the participants are exposed to the often contradicting elements of individualistic

goals as well as a need for cooperation in order to resolve the arising conflict and arrive at the desired outcome (Graham et al., 1994). According to Brett (2007), a negotiation always involves some level of interdependence between the involved parties.

The final successful outcome of a negotiation is a deal. Deals can be either distributive or integrative. In distributive deals (also referred to as competitive, zero-sum or win-lose), the involved parties argue along a single issue or dimension. The relationship between the pay-off between partners is linear implying that a win for one party involves a proportional loss for the other party. Haggling over a single product in a market is an example of this kind of negotiation. The seller offers the good at a high price, the buyer counters with a low price and the two will eventually seal the deal if the overall outcome for both of them leaves them better off than without the deal. However, any gain by the buyer results in a proportional reduction in price to the seller as there is a “fixed pie of resources” (Brett, 2007, p. 2).

Integrative deals (also referred to as coordinative) arise if the process of negotiation actually increases the joint utility (profit pie), potentially allowing both seller and buyer a better outcome and creating a win-win situation (Brett, 2007; Pruitt & Lewis, 1975). Generally, in integrative deals multiple trade-offs are considered simultaneously. The participants approach issues as challenges to which they find a solution while keeping their own goals and aspirations in mind. This implies high levels of flexibility and at times out-of-the-box-thinking while being steadfast at the same time. It requires some extent of free flow of information from all sides that is truthful in order to reach a solution that benefits all involved parties (Pruitt & Lewis, 1975). A simple example is the sale of a fridge (in Europe). Refrigerators contain environmentally harmful substances and, hence, need to be disposed off at special dumping

sites at a cost. By offering to take back the customer's old fridge when delivering the new fridge, the customer might be more inclined to purchase at this seller. The seller gains by making the sale, while the buyer reduces his cost of transporting and disposing the old fridge. In general, in integrative deals, participants negotiate multiple issues at the same time (here: fridge sale, disposal of old fridge). They share information and are interested in solving the problem in a mutually beneficial way.

3.2.1.1 Negotiation Dimensions and Outcomes

Negotiations are characterized by different dimensions and outcomes. It is very difficult to observe negotiations in a real life business context. Hence, the extent to which potential dimensions can be investigated is limited (Graham et al., 1994). Therefore, research has focused on experimental studies also referred to as negotiation simulations. Several studies used joint profits as their main dependent variable in dyadic negotiations (Clopton, 1984; Graham et al., 1994; Pruitt & Lewis, 1975). Starting in the 1980s, studies began using post-experiment surveys to derive additional dependent variables such as satisfaction and trust (Dwyer & Walker, 1981; Graham et al., 1994; Kaufmann & O'Neill, 2007).

Joint Profits – Joint profit is a measure of economic rewards of the negotiation. The measure is defined as the profits that both partners combined receive (Pruitt & Lewis, 1975). Profits (both individual and joint) are the most common measure of negotiation outcome in experimental research (Adler et al., 1992; Dwyer & Walker, 1981; Gelfand & Dyer, 2000). In a dyadic relationship, it allows researchers to measure the monetary extent of the *integrative* deal across all participants irrespective of individual bargaining powers (Clopton, 1984). The

involved parties are required to communicate their wishes and needs beyond a simple price trade-off in an integrative deal. Joint profits in this context provide an objective performance measure. Furthermore, even as participants focus on their individual profits in the negotiation, joint profits is an adequate reflection of both participants', maximized individual profits.

Satisfaction – Satisfaction is defined “as a positive affective state resulting from the appraisal of all aspects of a firm’s working relationship with another firm” (Anderson & Narus, 1984, p. 66; Geyskens, Steenkamp, & Kumar, 1999, p. 224). It is another dimension to be considered when negotiating, especially in integrative deals, as satisfaction relates to both monetary and non-monetary compensation (Gassenheimer, Calantone, Schmitz, & Robicheaux, 1994). Zhao and Stank (2003) state satisfaction is a “cumulative evaluation based on the total [...] experience” (162). Hence, participants in a negotiation can strive for other objectives than pure immediate economic gains. For example, a firm might be willing to agree to a business deal that does not provide it with any profit knowing this will create goodwill for future dealings. Hence, at times negotiators perceive a deal as a win-win situation although the monetary payoff at that particular moment does not reflect it perfectly.

In terms of economic satisfaction, a partner in a negotiation context is satisfied if her/his receipts, in terms of profits, as well as her/his sales volume and/or margins align with her/his expectations in terms of goal attainment (Geyskens et al., 1999). This aspect of satisfaction is present only after closing the negotiation. Non-economic (or social) satisfaction, on the other hand, refers to “the psychosocial aspects of [a] relationship, in that interactions with the exchange partner are fulfilling, gratifying, and facile” (Geyskens & Steenkamp, 2000,

p. 13). It's initial perception usually develops in the early stages of a relationship (Geyskens & Steenkamp, 2000) and is adjusted throughout the process.

Trust – Trust is an important element of business dealings in general and negotiations in particular. “Trust is defined as *a willingness to rely on an exchange partner in whom one has confidence*” (Moorman, Zaltman, & Deshpande, 1992, p. 315). Trust is only required in situations of uncertainty and does not rely primarily on legal agreements (Kaufmann & Carter, 2006). However, clear definition and expectation help coordinate both negotiations as well as partnerships, allowing for trust to build. The trusting partner assumes that her partner will act in good faith (in a manner that does not hurt the trustor), fulfill promises and obligations, and generally behave as agreed upon (Cannon & Perreault, 1999; Corsten & Felde, 2005). Trust develops due to a combination of the following: past experiences, the understanding of the involved parties, as well as reliable role performance and professional image (credentials) (Rinehart, Eckert, Handfield, Page, & Atkin, 2004).

Trust is of importance to negotiations as negotiators reach cooperative goals faster if it is present (Ueltschy et al., 2007). Furthermore, trust has been found to allow partners to reduce expenditures related to controls against opportunistic behavior (Ghoshal & Moran, 1996) resulting in lower purchasing costs in buyer-supplier relationship (Corsten & Felde, 2005). In addition, higher level of trust have been found to result in longer relationships (Kaufmann & Carter, 2006). Finally, a minimal level of trust is a prerequisite for negotiators to move from pure distributive to integrative deals as the exchange of information requires trust (Pruitt & Lewis, 1975).

Opportunism – A firm displays opportunistic behavior when it is “self-interest seeking with guile” (Williamson, 1993, p. 458). Opportunism can take on many forms: one extreme is the example of two partners in a joint venture that bring different assets to the table. One partner contributes the knowledge of technology while the other has insights into a specific market. After getting a good understanding of the underlying technology, the second partner leaves the joint venture and develops a similar product in the same market. This partner exploited the first company and the relationship to gain new technological knowledge.

It is almost impossible to foresee at the beginning of a relationship, whether the partners are likely to behave opportunistically or not (Tangpong & Ro, 2009). In order to protect themselves, firms develop contracts trying to foresee any major issues that might introduce opportunism into the relationship. However, it is impractical and next to impossible as it is costly and time consuming to develop a contract that covers every eventuality (i.e., Williamson, 1979; Wuyts & Geyskens, 2005). Therefore, the current study wants to provide insights into opportunistic behavior – an issue that has not received much attention. This research investigates both the perceived level of opportunism as well as the presence of actual opportunistic behavior.

3.2.2 Culture and Cultural Differences

Culture provides characteristics of identification of and for members of a (social) group (i.e., Brett, 2007; Rivers & Lytle, 2007). It manifests itself in shared values, beliefs, and traits, providing a set of rules and guidelines to its members to interpret people, their behavior and situations (Brett & Okumura, 1998; Hofstede, 1985). The cultural characteristics provide

grounds for the interpretation of actions within a context (Rivers & Lytle, 2007). In research, culture has often been operationalized as “culture of shared value” (Rivers & Lytle, 2007, p. 3) using dimensions such as uncertainty avoidance or masculinity (defined by Hofstede, 1983b) or high versus low context cultures (Hall, 1976) to observe and assess the behavior of participants.

Negotiations are often conducted in an international context – between partners from different cultural backgrounds as today’s economy is becoming more and more interdependent. Production, procurement and sales span the entire world requiring businesses to conduct their negotiations with both domestic and foreign partners. Although negotiations have been studied extensively in the literature, these research studies have mainly been conducted in a Western context (Triandis, 1994). According to Gelfand and Dyer (2000) there is a distinctive need to elaborate the current research in this field.

Participants from different cultural backgrounds pose challenges to negotiators in an international context (Adair & Brett, 2005). Cultural differences reflect differences in (groups of) people and societies across countries and nationalities. They are manifested in “1. Language and language behavior; 2. Non-verbal behavior; 3. Values; 4. Pattern of thought” (Adler & Graham, 1989, p. 519). While the language barrier is an obvious obstacle, the latter points are more difficult to observe and integrate (understanding the reasoning of someone from the same cultural background is difficult as it is, understanding those of a person from a different upbringing and value-system is significantly more difficult). Non-verbal communication, expectations, and context interpretations influence intercultural relationships and hence negotiations (Triandis, 2000). Gelfand and Christakopoulou (1999) found that the

different cultural background resulted in different judgment errors in negotiations. Hence, the different cultural backgrounds of the negotiating parties are expected to increase the potential of pitfalls (Brett & Okumura, 1998). Participants are required to find a mutual agreement to the issue of negotiation while avoiding misunderstanding of various natures. However, the previous research focused on comparisons of dyads from different cultural backgrounds (Adler et al., 1992; Graham et al., 1994) did not address the fundamental issue of international negotiations. In the following, this paper investigates the potential impact of cultural differences on negotiation (intercultural negotiations) in detail. Please refer to Figure 3 for a graphic depiction of the effect of culture on negotiation dimensions and outcomes.

3.3 Hypotheses

3.3.1 Direct Effects of Intercultural Negotiations

The first hypothesis approaches the issue of cultural differences and their effect on negotiation outcomes as depicted in Figure 3. The experiment consists of two groups: those with a similar cultural background and those from different countries. Each participant is classified by his national culture, controlling for the time spent abroad. When possible, participants are matched *a priori* according to their nationality into these two groups. The first outcome investigated is joint profits, a pure economic perspective. Second, the study focuses on satisfaction, a more subjective outcome dimension. The third and fourth dimensions, opportunism and trust, respectively, are aspects of negotiations. Differences in cultural backgrounds are expected to influence these dimensions and outcomes. Each dimension is defined followed by theoretical arguments to position the hypothesis.

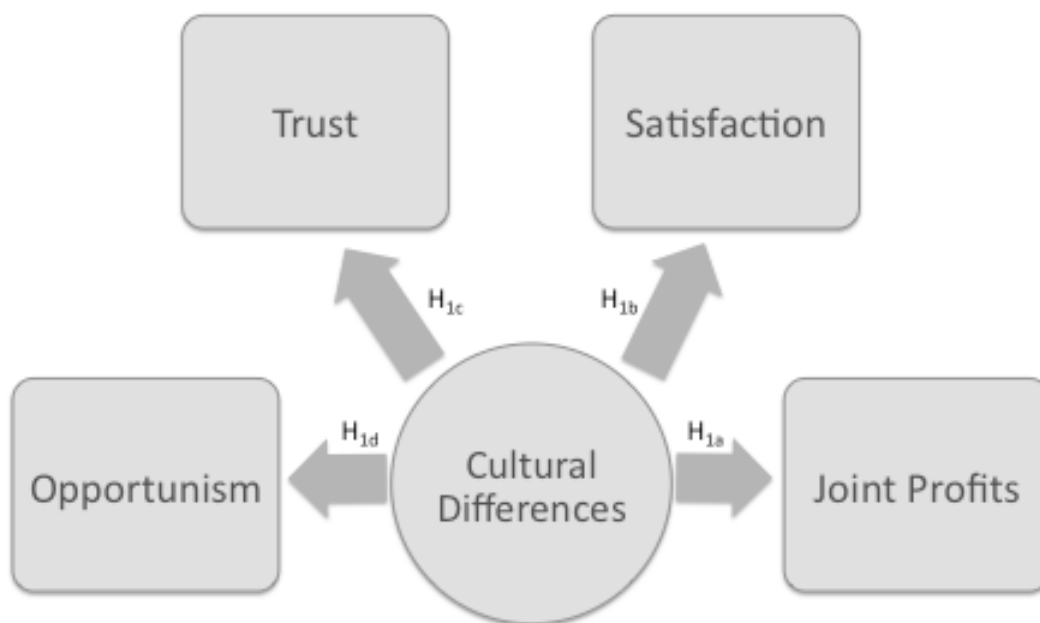


Figure 3: Direct effect of intercultural negotiations

Joint profits – Similar cultural backgrounds allow for a better understanding and assessment of the other participant and his/her goals (Mathews, Wilson, & Monoky, 1972). While participants from countries such as Germany and the United States of America, where the cultural background fosters a focus on personal benefits, focus on their own gains, participants from countries such as Japan or Latin America (Hofstede, 1983b) tend to emphasize “maintaining relatedness, fitting in with others, and promoting other’s goals, which directs cognitions to the relationship itself, and on the interests of others with whom one is related” (Gelfand & Christakopoulou, 1999, p. 263). Brett and Okumura (1998) found that similarity has affected the degree of cooperation between participants resulting in higher

profits. Therefore, as the current study uses an integrative profit scheme, I propose that negotiations between partners from the similar cultural background results in higher overall monetary compensation (joint profits) than negotiations between partners from different context cultural backgrounds.

H_{1a}: Bargaining dyads with cultural differences will realize lower profits than bargaining dyads from the same background.

Satisfaction – Satisfaction as a negotiation outcome measure is dependent upon participants' expectations. As these expectations differ across societies, the participants in intercultural negotiation are facing more challenges in their relationship than those from similar cultural backgrounds. Anderson and Narus (1990) state that “satisfaction is a focal consequence of working partnerships” (p. 46). As discussed earlier, cultural differences enhances the obstacles faced by participants to develop such a working relationship. Participants from the same cultural background, *ceteris paribus*, are likely to reach an agreement more easily and as such derive higher level of satisfaction from their deal (Geringer & Hebert, 1991). The current research, hence, proposes that partners from different cultural backgrounds feel less satisfied than those from the same cultural background.

H_{1b}: Bargaining dyads with cultural differences will realize lower perceived levels of satisfaction than bargaining dyads from the same background.

Trust – Trust is based on “cultural-ethnic similarity” (Rinehart et al., 2004, p. 30). Similar cultural backgrounds allow for a similar understanding of expectations and rules underlying the negotiation. As an initial categorization of trustworthiness of a partner is formed

early in a negotiation process (Geyskens et al., 1999), similar cultural background allow for immediate classification and assessment of the partner and, hence, facilitates trust building. Such assessments for a partner from a different cultural background require additional information – a costly process both in terms of time and money commitment. Furthermore, negative previous experiences and the resulting prejudices can aggravate the trust building process. While a negative experience with a partner from the same cultural background is likely to be attributed to personal and company specific traits and issues, a similar situation with a partner from a different country is easily interpreted as national flaws. As such, the study expects that trust is lower in mixed-context culture relationships than in those with partners from the same cultural background.

H_{1c}: Bargaining dyads with cultural differences will realize lower perceived levels of trust than bargaining dyads from the same background.

Opportunism – Opportunistic behavior is more likely in situation of information asymmetry and high uncertainty (Williamson, 1993). In intercultural negotiations, participants are faced not only with the situation of negotiating a deal but also with traits, beliefs and behaviors that differ from their own (Brett, 2007). Hence, when dealing with partners from a different cultural background, complexity and uncertainty of a negotiation increases (Mintu-Wimsatt & Gassenheimer, 2000). Similarly, participants dealing with partners from their own culture are more aware of the expectations these partners put forward. The potential ramifications of opportunistic behavior are more apparent. The current study, therefore, expects that negotiating participants from different cultural backgrounds are more likely to

expect and act opportunistically than those participants dealing with partners from their own cultural background.

H_{1d}: Bargaining dyads with cultural differences will realize higher perceived levels of opportunism than bargaining dyads from the same background.

H_{1e}: Bargaining dyads with cultural differences will realize actual opportunistic behavior more often than bargaining dyads from the same background.

3.3.2 Moderating Effects of Culture in Negotiations

The second aspect of this study is the investigation of the moderating effect of culture on the relationship of certain negotiation dimensions and the outcome of joint profits. Gelfand and Dyer (2000) posit that research is needed to investigate the moderating effect of culture. In the following, this study hypothesizes the direct effect of several negotiation dimensions followed by the indirect effect culture has on each. Figure 4 provides a graphic depiction of this aspect of the study.

Satisfaction – Customer satisfaction is often regarded as an antecedent of customer loyalty (Ribbink, Riel, Liljander, & Streukens, 2004; Stank, Goldsby, Vickery, & Savitskie, 2003) and profits (Anderson, Fornell, & Rust, 1997; Homburg, Wieseke, & Hoyer, 2009). Research has shown that customer satisfaction lead to more purchases (Anderson & Fornell, 2004). Similarly, studies in the field of international joint ventures have found that greater parent company satisfaction resulted in higher performance of the joint venture (Geringer & Hebert, 1991). Although previous studies have used satisfaction in combination with profits as

a negotiation performance outcome (Graham et al., 1994), the current study proposes that satisfaction is also an antecedent of joint profits in the context of negotiations: Greater levels of satisfaction lead to higher joint profits in negotiations.

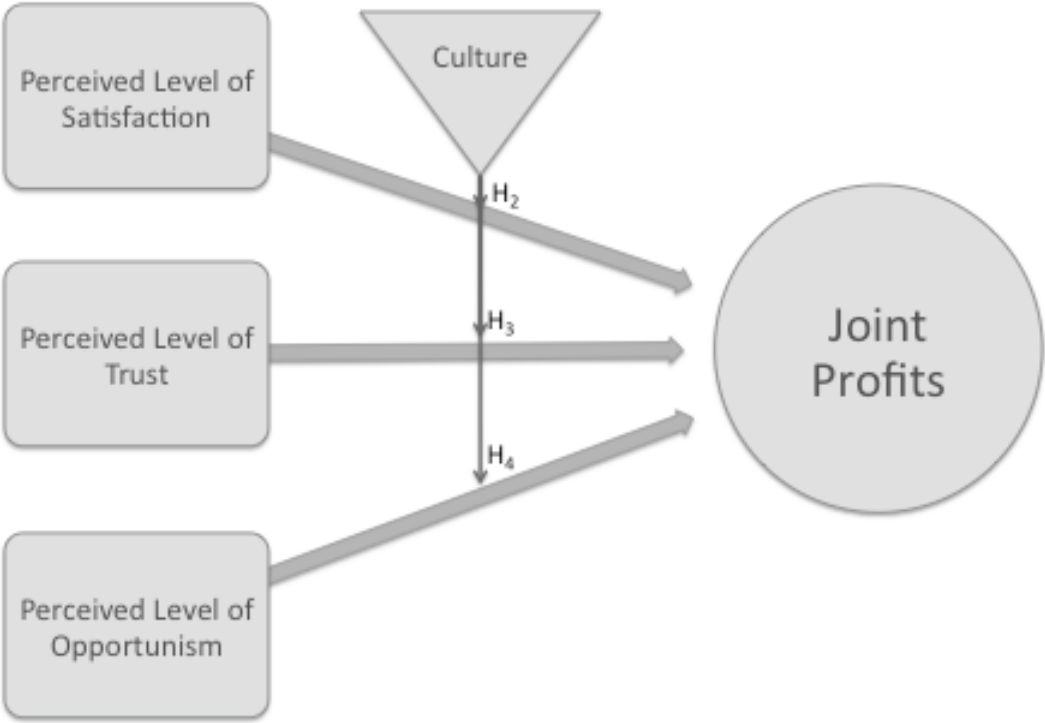


Figure 4: Moderating effect of culture

Alternative perspectives exist on the derivation of satisfaction based on the underlying cultural context. On the one hand, countries that place a great emphasis on profits and monetary compensation like the U.S.A. associate higher profit levels with a feeling of achievement (Hofstede, 1983b). In Japan, on the other hand, a country that places a higher value on the relationship and its long-term prospects (Brett & Okumura, 1998), satisfaction is

likely to be derived from various dimensions and the effect of joint profits is less pronounced. This likely translates into additional friction between partners in negotiations when they originate from different backgrounds. Geringer et al. (1991) found that cultural differences between partners in joint ventures led to lower correlations between joint venture parents' satisfaction and the joint venture's performance. Following this line of argument, the current study proposes that culture moderates the effect of perceived level of satisfaction on joint profits in negotiations.

H₂: Cultural difference within bargaining dyads lead to a weaker effect of perceived level of satisfaction on joint profits than in bargaining dyads from similar cultural backgrounds.

Trust – Trust is an integral part of negotiations (Schurr & Ozanne, 1985) and essential for constructive dialogue between the involved parties (Pruitt, 1981). Trust in the partner and, hence, in the relationship or negotiation influences joint profits (Langerak, 2001). It has been suggested that trust enables participants in relationships to strive for integrative deals in which the mutual gains outweigh their individual profits (Anderson & Narus, 1990). Mohr and Spekman (1994) found statistical significance for a positive association of trust and (satisfaction of) profits.

Curall and Inkpen (2002) stressed that there is a need for a better understanding of culture in the context of trust. Ueltschy et al. (2007) found differences in the perception of the importance of trust by supply chain partners from a high context culture as opposed to those from a low context culture. Combining this argument with the expected positive relationship

between trust and joint profits, this study posits that culture moderates the effect that perceived level of trust has on joint profits.

H₃: Cultural difference within bargaining dyads lead to a weaker effect of perceived level of trust on joint profits than in bargaining dyads from similar cultural backgrounds.

Opportunism – Opportunism, or the threat thereof, implies systematic hazards to the relationship (Williamson, 1993). Participants in negotiation that expect their partners to behave opportunistically need to hedge as a means to deal with the introduced uncertainty. These participants are faced with three options: 1) They can choose not to continue the negotiation with the current partner but in certain situations that is infeasible; 2) They can choose to develop a contract that controls every potential hazard that might arise (Williamson, 1993). This option is rather costly, both in terms of time and money, and often unrealistic; 3) The final option implies a monetary trade-off. Similar to the problem of lemons in the secondary car market, the threat of cars that will just be able to drive off the lot but die three weeks later reduces the price of all cars, good or bad (Akerlof, 1970). This last option is the most applicable scenario in the case at hand and, hence, I expect that greater perceived levels of opportunism lead to greater joint profits.

Different cultural backgrounds results in varying approaches to understanding self and group interests (Brett, 2007; Hall, 1976; Hofstede, 1983a). We extend this argument into the context of opportunism and its effect on profits. Depending on the cultural background, opportunism is perceived as more or less acceptable in society: i.e., negotiators from low context cultures are more likely to take actions to protect themselves (Lee, Yang, & Graham,

2006). Therefore, this research proposes that culture influences the effect of opportunism on joint profits.

H₄: Cultural difference within bargaining dyads lead to a weaker effect of perceived levels of opportunism on joint profits than in bargaining dyads from similar cultural backgrounds.

3.4 Methodology

To pre-test the experimental design for validity of constructs, a trial was run in an undergraduate class: 23 undergraduates and 1 Ph.D. student participated during this in-class session. The analysis of this data resulted in good factors. The session resulted in the adjustment of the time from for the complete experiment: Originally I had estimated the time for the experiment for 60 minutes. After the test run, I reduced the time frame to 40 minutes as participants reached agreements quicker.

3.4.1 Subjects

For the current study, I attempted to recruit 100 students (50 pairs) to participate in the experiment. I only approached graduate students in the business school, both M.B.A. and Ph.D. students, as these participants are more likely to have previous work experience and, hence, mimic actual management behavior. In addition, MBA students are the managers of the future while Ph.D. students have an academic understanding of the intricacies of business interactions.

Participants were recruited from a pool of 250 full-time MBA students. Two waves of email invitations were sent out to the students. In addition, two professors made verbal announcements in their classes: one in a first year core MBA class and the other in an elective attended by both first and second year MBA students. In addition, about 100 Ph.D. students from the same university's business school were invited by email to take part in the experiment. As compensation, lunch was offered as well as prizes for the best performances during the experiment. In three sessions, 90 students participated in the experiment. 80 of the 90 students were recruited from the first year MBA class, 5 were second year MBA students and 5 were Ph.D. students.

3.4.2 Task

The data is collected using a negotiation simulation of buyer-seller dyads. The negotiation game used by Pruitt and Lewis (1975) is expanded using Carter and Stevens' (2007) experiment as a guideline. The original simulation required a buyer and a seller to negotiate the prices of three different products (Alpha, Beta, and Gamma). The pay-offs are asymmetrically distributed allowing participants to gain higher profits if they derive an integrative deal. For example, for product Alpha, the seller can achieve a higher pay-off than the buyer. The pay-off scheme for product Beta is distributive: a gain for one party results in a proportional loss for the other parties. For product Gamma, the buyer can achieve a higher pay-off. In the ideal negotiation deal, the seller can negotiate higher overall profit by accepting a lower price (and slightly lower profits) on product Gamma in favor for a higher price (and significantly higher profit) for product Alpha (and vice versa for the seller): a mutually profitable trade-off. These profit trade offs are detailed in Table 11.

In addition, the current study introduces two levels of product quality (high Q_h and low Q_l). The buyer has no means to control the level of quality upon receipt, however, has a preference for high quality goods. Profit schemes differ according to the delivered quality (see Table 11). The participant enacting the buyer has to make the decision as to whether s/he trusts the seller to deliver the product as promised or to negotiate prices for the low quality product. The seller in this set-up has the option to negotiate a price for the high quality good but to deliver low quality – significantly increasing his/her profits. As shown in Table 11, prices are listed as letters ranging from A to N and are for the specified number of units. The profit column represents the profit the company will make at this particular price.

3.4.3 Procedure

Subjects are invited to participate in a half-hour experiment that is entirely voluntary. After a short introduction to the experiment (refer to Appendix C), they are paired up in teams of two (dyad). When possible, participants are assigned to mixed or same cultural background teams in order to create sufficient variance in the data.⁵ The subjects are then randomly assigned the role of buyer and seller within each dyad. Role-appropriate instruction sheets are given out that include a price list and associated profits for each product as depicted in Table 11 (please refer to Appendices A and B for the complete experiment information set for buyer and seller respectively). The instructions also contain background information about the company participants are asked to represent and the number of products they are to acquire. The subjects spend 10 minutes studying the material and developing a negotiating strategy. They are informed that they can use part or all of the information on the instruction sheets to

⁵ This also reduced the potential of confounding the results due to previously formed friendships.

develop their arguments for the negotiation. Participants are unaware of their partners' pay-off scheme and explicitly asked not to share the information until after they finished the experiment and the questionnaire. Next, the pairs start the negotiation process.

Table 11: Price-profits for buyer and seller

Seller

Alpha price per 1000 units

Beta price per 1000 units

Gamma price per 1000 units

| Price | Profits | |
|-------|----------|---------|
| | High | Low |
| | Quality | |
| A | \$2,000 | \$3,250 |
| B | \$1,750 | \$3,000 |
| C | \$1,500 | \$2,750 |
| D | \$1,250 | \$2,500 |
| E | \$1,000 | \$2,250 |
| F | \$750 | \$2,000 |
| G | \$500 | \$1,750 |
| H | \$250 | \$1,500 |
| I | \$0 | \$1,250 |
| J | -\$250 | \$1,000 |
| K | -\$500 | \$750 |
| L | -\$750 | \$500 |
| M | -\$1,000 | \$250 |
| N | -\$1,250 | \$0 |

| Price | Profits | |
|-------|---------|---------|
| | High | Low |
| | Quality | |
| A | \$1,200 | \$1,950 |
| B | \$1,050 | \$1,800 |
| C | \$900 | \$1,650 |
| D | \$750 | \$1,500 |
| E | \$600 | \$1,350 |
| F | \$450 | \$1,200 |
| G | \$300 | \$1,050 |
| H | \$150 | \$900 |
| I | \$0 | \$750 |
| J | -\$150 | \$600 |
| K | -\$300 | \$450 |
| L | -\$450 | \$300 |
| M | -\$600 | \$150 |
| N | -\$750 | \$0 |

| Price | Profits | |
|-------|---------|---------|
| | High | Low |
| | Quality | |
| A | \$800 | \$1,300 |
| B | \$700 | \$1,200 |
| C | \$600 | \$1,100 |
| D | \$500 | \$1,000 |
| E | \$400 | \$900 |
| F | \$300 | \$800 |
| G | \$200 | \$700 |
| H | \$100 | \$600 |
| I | \$0 | \$500 |
| J | -\$100 | \$400 |
| K | -\$200 | \$300 |
| L | -\$300 | \$200 |
| M | -\$400 | \$100 |
| N | -\$500 | \$0 |

Buyer

Alpha price per 1000 units

Beta price per 1000 units

Gamma price per 1000 units

| Price | Profits | |
|-------|---------|--------|
| | High | Low |
| | Quality | |
| A | \$0 | -\$500 |
| B | \$100 | -\$400 |
| C | \$200 | -\$300 |
| D | \$300 | -\$200 |
| E | \$400 | -\$100 |
| F | \$500 | \$0 |
| G | \$600 | \$100 |
| H | \$700 | \$200 |
| I | \$800 | \$300 |
| J | \$900 | \$400 |
| K | \$1,000 | \$500 |
| L | \$1,100 | \$600 |
| M | \$1,200 | \$700 |
| N | \$1,300 | \$800 |

| Price | Profits | |
|-------|---------|---------|
| | High | Low |
| | Quality | |
| A | \$0 | -\$750 |
| B | \$150 | -\$600 |
| C | \$300 | -\$450 |
| D | \$450 | -\$300 |
| E | \$600 | -\$150 |
| F | \$750 | \$0 |
| G | \$900 | \$150 |
| H | \$1,050 | \$300 |
| I | \$1,200 | \$450 |
| J | \$1,350 | \$600 |
| K | \$1,500 | \$750 |
| L | \$1,650 | \$900 |
| M | \$1,800 | \$1,050 |
| N | \$1,950 | \$1,200 |

| Price | Profits | |
|-------|---------|----------|
| | High | Low |
| | Quality | |
| A | \$0 | -\$1,250 |
| B | \$250 | -\$1,000 |
| C | \$500 | -\$750 |
| D | \$750 | -\$500 |
| E | \$1,000 | -\$250 |
| F | \$1,250 | \$0 |
| G | \$1,500 | \$250 |
| H | \$1,750 | \$500 |
| I | \$2,000 | \$750 |
| J | \$2,250 | \$1,000 |
| K | \$2,500 | \$1,250 |
| L | \$2,750 | \$1,500 |
| M | \$3,000 | \$1,750 |
| N | \$3,250 | \$2,000 |

Subsequent to the negotiation, the students are asked to fill out a three-page questionnaire (please refer to Appendices A and B). The questionnaire consists of two parts: the first part contained questions regarding the experiment, their feelings of trust and satisfaction. In the second part, participants were asked to provide personal background information. In order to introduce an incentive for participants to strive for the highest possible outcome, they can earn prizes depending on their performance in the negotiation.

3.4.4 Variables

Culture – Culture, the main independent variable, is measured by noting the nationality (‘birth country nationality’) of the participants. Hall’s (1976) distinction between high and low context culture is used to differentiate nationalities. Hall’s distinction is more appropriate in the current setting, as his discrete measures can be tested more easily in experimental settings than Hofstede’s (1983b) cultural dimensions that are measured along a continuous scale (Brett, 2007). Participants are assigned to pairs according to their classification into high or low context cultures. The study at hand tests two different pairings: same-context culture participants and mixed-context culture participants.

Profit – Joint and individual profits are measured directly during the experiment. Individual profits are based on the performance of each individual across all three products. Joint profits, on the other hand, are calculated based on the profits of both buyer and seller across all three products. As participants are asked to maximize their individual profits, these are reflected in joint profits. Profits by (individual) product are an inappropriate outcome

measure as the experiment is design asymmetrical implying that higher profits for one product can be used to make concessions in the price of another, potentially less profitable product. This increases the incentive for participants to actively engage in the negotiation and not just choose a middle ground.

Both individual and joint profits fall into three categories, namely, agreed, expected and actual (realized) profits. *Agreed profits* are based on the negotiated prices and quality level across all three products. *Expected profits* are what the buyer expected to earn. Buyers are asked to indicate the quality level they expect the seller to deliver. Although the buyer negotiated certain price-quality ratios, those in dyads that agreed to high quality face the risk of a potentially cheating (not truthfully behaving) partner. In a limited number of instances, the buyer expected low quality when s/he had bargained for high quality. In these circumstances, expected profits for the buyer is lower than agreed profits. *Actual (or realized) profits* are computed by taking into account the quality delivered by the seller. On the seller side, actual and expected profits are the same, but they may differ for the buyer. Again, these profits are across all three products.

Satisfaction – Perceived level of satisfaction is measured during the follow-up interview. The study uses a 4-item scale developed by Graham, Mintu et al. (1994). Participants are asked to rate the items on a 5-point Likert scale ranging from satisfied (1) to dissatisfied (5). For analysis purposes and ease of interpretation, I reversed the scaling of this variable in the latter part of this study.

Trust – Perceived level of trust is measured in the follow-up interview using a 5-item scale developed by Hill et al (2009). This scale is supplemented by the trust scale of Spake and Bishop (2009). Participants are asked to rate each item on a 5-point Likert scale ranging from completely agree (1) to completely disagree (5). Again, to facilitate the interpretation of the results, the scales are reversed.

Opportunism – Perceived level of opportunism (*perceived opportunism*) is measured in the follow-up interview using a 4-item scale developed by Graham, Mintu et al. (1994). This measure looks at the generic perception of how well the partner is willing to make concessions in the negotiation. As a negotiation is ideally a-give-and-take, both buyer and seller can target a mutually beneficial agreement or just follow their own agenda with a focus on self-interest irrespective of their partners' demands. Hence, this measure applies to both the buyer and the seller (see Table 19).

In addition, I measure buyer's expectation of his/her partner's potentially opportunistic behavior (*expected opportunism*). Finally, *opportunistic behavior* (by the seller) is directly observed during the experiment. Assuming the dyad negotiated the sale of at least one high quality product, the seller has the chance to 'cheat' by delivering low quality instead of high quality and, thereby, increase her/his individual profits.

Controls – The survey collects control variables for gender, date of birth and time spent outside of the USA.

3.5. Results

3.5.1. Description of the Data

Participants: In three sessions, 90 students participated in the experiment. 80 students were participants from the first year MBA class, 5 were second year MBA students and 5 were Ph.D. students. The first session had 34 and the second 44 first year MBA students that took part the experiment. The third session consisted of a mix of students from the three subject pool groups. Two observations were removed from the final data set due to contradicting data⁶. The final data set consisted of 88 observations, the equivalent of 44 dyads.

Participants were asked that the experiment would take between 30 to 40 minutes. However, those who needed it would be given additional time. Nobody participating in the experiment requested additional time and every dyad reached a mutual agreement within the allotted time.

Cultural background: Overall, 65.9% of subjects were US citizens at the time of the experiment, while 34% were foreigners. This split is very similar in both buyer (68% versus 32%) and seller (64% versus 36%) groups. The ratio is slightly different when looking at the citizenship at birth: 59% were born U.S. Americans; 61% in the buyer and 57% in the seller group. From those born abroad, the majority (25 out of 36) are from Asia (12 from East Asia – China, Taiwan, Korea, Japan, Thailand, Singapore – and 13 from India/Pakistan). The rest was born in countries across the world (5 South Americans, 2 from the Arabian Peninsula, 1

⁶ Buyer and seller reported no or differing quality levels for agreed quality level in negotiation. As such, no valid derivation of opportunistic behavior, expected opportunistic behavior, etc., can be derived.

African, 1 Canadian, 1 Caribbean and 1 European). 51% of all dyads are between partners of different cultural background, meaning that in the majority of cases one partner is from a high context culture like Asia or South America while the other partner is from a low context culture like the USA or Northern Europe.

Data was collected from 44 dyads. 19 of these were between same context culture teams. This implies that the participants were from a low context culture like the US, northern Europe or Israel (Brett, 2007). In 17 of these dyads, both participants were from low context cultures (e.g. U.S.-U.S. or U.S.-U.K.), while in two, both participants originated from high context cultures (e.g. India-India, China-Taiwan). 25 of the formed dyads were in mixed-context culture pairs. This implies that the participants in these teams came from one low context culture like the U.S. and one high context culture like China, India, South America or the Arabic peninsula (except Israel) (Brett, 2007).

Table 12: Gender by culture

| | | Same Culture | | Mixed Culture | | Total | |
|---------------------------|---------------|--------------|-----|---------------|-----|-------|--------|
| Buyer | Male | 9 | 10% | 14 | 16% | 23 | 26% |
| | Female | 10 | 11% | 11 | 13% | 21 | 24% |
| Supplier | Male | 14 | 16% | 16 | 18% | 30 | 34% |
| | Female | 5 | 6% | 9 | 10% | 14 | 16% |
| Total (individual) | | 38 | 43% | 50 | 57% | 88 | 100.00 |
| Total (dyad) | | 19 | | 25 | | 44 | |

Table 12 displays the distribution between male and female participants for both buyer and seller by context culture groups: 53 (60%) participants were male, 35 (40%) female. In the buyer group, 23 were male (21 female), while in the seller group 30 participants were male (14 female). In case of the buyer, nine male individuals were in same-context culture dyads and 14

in mixed-culture dyads, while ten and eleven women, respectively. In case of the seller, 14 male were in same- and 16 in mixed-context culture dyads compared to five and nine women, respectively.

Level of quality: Table 13 displays the distribution between quality level and same- versus mixed-context cultures: about 89% (39 of 44 dyads) of the participants negotiated the sale of at least 1 high quality product and 11% (5 of 44 dyads) negotiated the sale of only low quality products. On average, the dyads negotiated prices for 1.93 high quality and, hence, 1.07 low quality goods in each negotiation. Table 14 provides a more detailed overview of the different numbers of high quality negotiated. As can be observed, only eight dyads negotiated the sale of only one high quality product. The vast majority, 31 out of 44 or 70.5%, negotiated prices for two or more high quality products.

Table 13: Quality level by culture

| | Same | | Mixed | | Total | |
|--|-----------------|-----|-------|-----|-------|------|
| | Context Culture | | | | | |
| At least 1 high quality product | 17 | 39% | 22 | 50% | 39 | 89% |
| Only low quality products | 2 | 5% | 3 | 7% | 5 | 11% |
| Total (dyad) | 19 | 43% | 25 | 57% | 44 | 100% |

Table 14: Distribution of negotiated quality

| Product | N | Percentage |
|---------------------|-----------|-------------|
| Low quality | 5 | 11% |
| 1 high quality | 8 | 18% |
| 2 high quality | 16 | 36% |
| All high quality | 15 | 34% |
| Total (dyad) | 44 | 100% |

Table 15 shows that 8 out of 10 participants negotiating the sale of only low quality are male. This distribution is even more apparent on the buyer side. Every buyer in dyads who

chose only low quality goods is male. Citizenship and citizenship at birth do not impact the choice of high versus low quality goods: 30% of U.S. citizen chose low quality goods as opposed to 35% who negotiated the sale of at least one high quality product.

Table 15: Gender by negotiated quality of products

| | | At least 1 high quality product(s) | | Only low | | Total | |
|---------------------------|---------------|------------------------------------|------|----------|------|-------|------|
| Buyer | Male | 18 | 23% | 5 | 50% | 23 | 26% |
| | Female | 21 | 27% | 0 | 0% | 21 | 24% |
| Seller | Male | 27 | 35% | 3 | 30% | 30 | 34% |
| | Female | 12 | 15% | 2 | 20% | 14 | 16% |
| Total (individual) | | 78 | 100% | 10 | 100% | 88 | 100% |

Information asymmetry (opportunistic behavior): In the case of high quality products, there is the option for the seller to behave opportunistically (*cheat*) by delivering a product in low quality although the dyad agreed on high quality during the negotiation. I measured both the buyer's expectation that the seller cheats (expected opportunistic behavior) as well as the actual (seller's) opportunistic behavior. 18% of the buyers expected the seller to deliver lower than agreed quality while 28% of the sellers actually cheated. In four cases (9% of all buyers), the buyer correctly predicted the outcome, meaning that the buyer expected the seller to deliver low quality although high quality was negotiated and the seller delivered low quality. However, in three cases (7%), the buyer suspected the seller to cheat when s/he performed as promised and delivered high quality. Finally, in seven instances (16%), the buyer was unsuspecting of the seller's intention to cheat.

In terms of honest behavior, the split between same- versus mixed-context culture is evenly distributed. However, Table 16 shows that in the majority of cases (73%), cheating

occurred in mixed-context culture dyads rather than same context culture. Investigating the split between U.S. national versus foreigners, I find that 73% of sellers that behave opportunistically (cheated) are U.S. citizens while 56% of them were born U.S. citizens. In 28 instances (64% of all sellers, 72% of sellers in dyads with high quality product negotiations), the seller delivered high quality when promised. 68% of these are male, 61% are U.S. citizen and 57% were born U.S. citizen. Furthermore, Table 17 shows that of the 11 sellers who cheated, 73% are male. Overall, in cases where the seller behaves opportunistically, the number of high quality products negotiated was 2.54. In contrast, in those instances when the seller behaves honestly, only 2.04 products are negotiated (only considering those dyads that negotiated for at least one high quality product). This difference is statistically significant (ANOVA at 5.7% level).

Table 16: Opportunism by culture (dyads)

| | | Honest | | Cheat | | Total | |
|-----------------------|------------------------|--------|------|-------|------|-------|------|
| Same Mixed | Context Culture | 16 | 48% | 3 | 27% | 19 | 43% |
| | | 17 | 52% | 8 | 73% | 25 | 57% |
| Total | | 33 | 100% | 11 | 100% | 44 | 100% |

Table 17: Opportunism by gender

| | | Honest | | Cheat | | Total | |
|---------------|---------------|--------|------|-------|------|-------|------|
| Buyer | Male | 17 | 26% | 6 | 27% | 23 | 26% |
| | Female | 16 | 24% | 5 | 23% | 21 | 24% |
| Seller | Male | 22 | 33% | 8 | 36% | 30 | 34% |
| | Female | 11 | 17% | 3 | 14% | 14 | 16% |
| Total | | 66 | 100% | 22 | 100% | 88 | 100% |

Profits: In this study, expected, agreed and actual profits are recorded for both the individual as well as the dyadic level. Table 18 provides an overview of the complete data set. Individual agreed profits have an average mean of \$2,406. By group, I find that buyers

negotiated slightly higher profits (individual agreed profits) than sellers but an ANOVA test shows that there is no statistically significant difference between the means. The individual expected profits of buyers are slightly lower than those of the sellers, \$2,290.9 and \$2,696.6 respectively, a difference in means marginally significant at 10% level. This result is due to the set-up of the experiment providing greater control to the seller. In terms of individual actual profits, again buyers realized lower profits than sellers; the difference in means significant at the 5% level. Individual actual (same as individual expected profits) buyer profits are higher than agreed profits. These findings are partially driven by the set-up of the experiment as the seller has control over quality and this impacts to some extent profits. A comparison of buyer profits shows that although there appears to be a difference in individual actual profits between those who choose only low quality products (\$1,350) and those who chose at least one high quality product (\$2,258), this difference is not statistically significant (at the 10% level).

Table 18: Description of profits (joint and individual)

| | Variable | N | Mean | Std. Distribution | Min. | Max. |
|---------------|-----------------------------|----------|-------------|--------------------------|-------------|-------------|
| Buyer | Individual agreed profits | 44 | 2,559.09 | 1,177.86 | -400 | 4,800 |
| | Individual expected profits | 44 | 2,290.91 | 1,188.82 | -500 | 4,600 |
| | Individual actual profits | 44 | 2,154.55 | 1,215.64 | -400 | 4,600 |
| Seller | Individual agreed profits | 44 | 2,253.41 | 1,085.28 | 100 | 4,550 |
| | Individual expected profits | 44 | 2,696.59 | 1,061.72 | 700 | 4,550 |
| | Individual actual profits | 44 | 2,696.59 | 1,061.72 | 700 | 4,550 |
| Total | Joint expected profits | 88 | 4,967.05 | 925.12 | 2,450 | 7,000 |
| | Joint actual profits | 88 | 4,794.32 | 799.73 | 2,150 | 6,250 |
| | Joint agreed profits | 88 | 4,792.05 | 768.04 | 3,400 | 6,250 |

Joint agreed profits amount to \$4,792, statistically significantly lower than the joint expected profits of \$4,967. Similarly, joint actual profits is statistically significantly different

from joint expected profits (at 5% level) but does not differ from joint agreed profits.

Table 20 provides an overview of pairwise correlation between the main variables. For the variable expected opportunistic behavior, only buyer data is available, while for opportunistic behavior, only seller data is used. The factor of perceived opportunism and opportunistic behavior only correlate 0.287. This is an indication that the two are measuring distinct features. The factor opportunism is relating to the willingness of the partner to compromise in the negotiation and to consider both negotiators' positions. Opportunistic behavior refers to the seller's choice of delivering low quality when s/he promised high quality products. As discussed earlier, there is real correlation between expected opportunism and opportunistic behavior. Some correlation is present between the factors of trust and opportunism (-0.534) but it is still within acceptable ranges (Hair, Anderson, Tatham, & Black, 1998).

Table 19: Correlation table

| | I | II | III | IV | V | VI |
|--------------------------------------|--------|--------|--------|-------|-------|-------|
| Joint actual profits (I) | 1 | | | | | |
| Individual actual profits (II) | 0.261 | 1 | | | | |
| Factor trust (III) | -0.037 | 0.069 | 1 | | | |
| Factor satisfaction (IV) | 0.148 | 0.410 | 0.350 | 1 | | |
| Factor opportunism (V) | 0.007 | 0.091 | -0.534 | 0.265 | 1 | |
| Expected opportunistic behavior (VI) | -0.075 | -0.009 | -0.351 | 0.099 | 0.224 | 1 |
| Opportunistic behavior (VII) | -0.224 | -0.034 | -0.270 | 0.043 | 0.287 | 0.323 |

3.5.2. Hypothesis Testing

Table 20: Measurement properties

| | Loading | Mean | SD |
|---|----------------|-------------|-----------|
| <i>Satisfaction (CR = 0.879)</i> | | | |
| If an agreement was reached, how satisfied are you with that agreement? | 0.896 | 2.841 | 0.829 |
| How satisfied are you with the agreement relative to your pregame expectations? | 0.858 | 2.659 | 1.049 |
| How satisfied are you with your individual profits? | 0.851 | 2.625 | 0.938 |
| How satisfied are you with your performance during the game? | 0.837 | 2.602 | 0.965 |
| <i>Trust (CR = 0.935)</i> | | | |
| * Corporation can be trusted completely. | 0.902 | 2.557 | 1.173 |
| * Corporation can be counted on to do what is right. | 0.914 | 2.489 | 1.155 |
| * Corporation is a company that I have great confidence in. | 0.932 | 2.523 | 1.104 |
| * Corporation can be relied upon. | 0.944 | 2.602 | 1.045 |
| I am willing to deal with * Corporation again. | 0.707 | 3.023 | 0.947 |
| * Corporation keeps promises it makes. | 0.776 | 2.609 | 0.998 |
| I believe the information * Corporation provides | 0.746 | 2.614 | 1.044 |
| <i>Perceived Opportunism (CR = 0.722)</i> | | | |
| Rate * Corporation's bargaining strategies on the following scales: | | | |
| Accommodating to exploitive | 0.820 | 2.568 | 0.980 |
| Honest to deceptive | 0.821 | 2.352 | 1.051 |
| Unbiased to biased | 0.765 | 3.011 | 1.000 |

* refers to either Buyer or Seller depending on participant's role in the negotiation

In the first hypothesis, I proposed that intercultural negotiations results in lower joint profits (H_{1a}), satisfaction (H_{1b}) and trust (H_{1c}) while also leading to higher perceived levels of opportunism (H_{1d}) and more opportunistic behavior (H_{1e}). The level of unidimensionality of the factors “satisfaction”, “trust” and “perceived opportunism” are assessed by means of standard confirmatory factor analysis. The factor loadings, mean and standard deviation of each item as well as the Cronbach’s Alpha are reported in Table 20. As this study uses existing scales, the suggested cut-off value is 0.70 (Hair et al., 1998): it is met by all three factors. I tested this hypothesis using ANOVA tests – some on a sub-sample (buyer, seller) basis and

some on the dyad-level. Dyad-level analysis implies that factor scores for each individual are average across dyads (Kenny, Kashy, & Cook, 2006).

Table 21: ANOVA joint actual profits by dyad (same vs. mixed-context culture)

| Source | Partial SS | df | MS | F | Prob > F |
|---------------------|----------------------|-----------|-------------------|-------------|--------------|
| Between Groups | 2,464,416.39 | 1 | 2,464,416.39 | 4.08 | 0.050 |
| Within Groups | 25,356,663.20 | 42 | 603,730.075 | | |
| Total | 27,821,079.50 | 43 | 647,001.85 | | |
| R ² | 0.089 | | | | |
| Adj. R ² | 0.067 | | | | |
| Root MSE | 777.001 | | | | |
| Number of obs. | 44 | | | | |

Table 22: Descriptives of joint profits by dyad (same vs. mixed-context culture)

| Joint Profits | N | Mean | SD | Min | Max |
|---------------|-----------|-----------------|----------------|--------------|--------------|
| Same CC Team | 19 | 5,065.79 | 678.039 | 3,850 | 6,250 |
| Mixed CC Team | 25 | 4,588.00 | 843.638 | 2,150 | 5,950 |
| Total | 44 | 4,794.32 | 804.364 | 2,150 | 6,250 |

For *Hypothesis 1a*, the main dependent variable is joint profits. The output in Table 21 shows, that at the 5% level, joint profits is significantly influenced by cultural background of the parties involved in the negotiation. Participants in mixed-context dyads have statistically significantly different outcomes than the participants with the same cultural background. Table 22 provides an overview of the different means for both groups: overall joint profits in same-context teams is above \$5,065 while in mixed-context teams these only amount to \$4,588 – providing support for *H_{1a}*. In addition, the results reported in Table 24 provide additional support for this claim as they show a statistically significant negative impact of cultural differences on joint profits as well as interaction effects of culture with trust and perceived opportunism.

In H_{1b} , I hypothesize that participants in mixed-context culture dyads are less satisfied with the negotiation than participants with the same cultural background. However, as reported in Table 23, there are no significant differences between the two groups. Similarly, I find no support for H_{1c} , that mixed-context cultural teams trusted each other less than their same-context culture counterparts. I only find partial support for H_{1d} that mixed context culture dyads are expecting more opportunistic behavior from their counterparts. Using perceived opportunism, I find no statistically significant difference between the two groups. However, the measure of expected opportunistic behavior provides additional insights. Using only the buyer sub-sample⁷, I find that at the 10% level (Prob > F = 0.097), buyers are more wary in mixed-context culture settings than in same context culture setting that their partner will behave opportunistically. H_{1e} hypothesizes that sellers in mixed-context culture pairs are more likely to behave opportunistically. The ANOVA test provides no statistically significant support for this relationship.

Table 23: ANOVA satisfaction by dyad (same vs. mixed-context culture)

| Source | Partial SS | df | MS | F | Prob > F |
|---------------------|---------------|-----------|-------|-------------|--------------|
| Between Groups | 0.2440 | 1 | 0.244 | 0.58 | 0.450 |
| Within Groups | 17.618 | 42 | 0.419 | | |
| Total | 17.862 | 43 | 0.415 | | |
| R ² | 0.089 | | | | |
| Adj. R ² | 0.067 | | | | |
| Root MSE | 0.648 | | | | |
| Number of obs. | 44 | | | | |

The first step in dyadic relationships is the investigation of potential *non-independence* of observations (Kenny et al., 2006). The nonparametric chi-square test showed that the observations are not independent of each other but rather vary by dyad (as opposed to each

⁷ I use only the buyers in this sub-sample as they are “expecting” a certain behavior from the seller. The seller does not expect a certain behavior but rather provides the actual behavior in the situation.

observation individually). This requires further analyses to account for the non-independence. Hence, rather than using a standard OLS to estimate the relationship between satisfaction, trust, perceived opportunism and opportunistic behavior on joint profits in the dyads, I use a fixed effects model with between effects for the groups (dyads) (Kenny et al., 2006). The complete model, as shown in the results Table 24, has a reasonably good fit (Prob > F = 0.059)

Table 24: Between group effects model of joint actual profits and dyads (same vs. mixed-context culture)^{8,9}

| Joint actual profits | Coefficients | Std. Err. | t | P>t | |
|-----------------------------------|---------------------|--------------------|--------------|---------------|-----------------------|
| Satisfaction | 182.184 | 303.821 | 0.60 | 0.553 | |
| Trust | 734.736 | 502.779 | 1.46 | 0.153 | |
| Perceived opportunism (PO) | 1,103.481 | 498.738 | 2.21 | 0.034 | |
| Opportunistic behavior | -480.632 | 292.326 | -1.64 | 0.109 | |
| Cultural differences (CD) | -431.133 | 229.868 | -1.88 | 0.069 | <i>H_{1a}</i> |
| Satisfaction*CD | -171.981 | 401.436 | -0.43 | 0.671 | <i>H₂</i> |
| Trust*CD | -1,041.630 | 539.279 | -1.93 | 0.062 | <i>H₃</i> |
| PO*CD | -1,251.582 | 540.271 | -2.32 | 0.027 | <i>H₄</i> |
| Constant | 5,156.667 | 174.736 | 29.51 | 0.000 | |
| R ² within | - | | | | |
| R ² between | 0.328 | | | | |
| R ² overall | 0.190 | | | | |
| F(8, 35) | 2.130 | Prob > F | 0.059 | | |
| SD | 730.951 | | | | |
| N of observations | 88 | | | | |
| N of groups | 44 | Grouping variable: | Dyad | | |
| Observation per group | 2 | | | | |

Table 24 provides the basis for the testing of the next hypotheses. The direct effect between perceived satisfaction and joint profits is insignificant. *H₂* proposes that the relationship between satisfaction and joint profits is moderated by culture. Using same- versus

⁸ Gender, age and time spent in the USA as a percentage of life-time do not have a significant effect on the results when included in the model (please refer to Appendix E). As the model loses power when they are included due to the limited sample size of only 44 dyads, I only report on the variable of interest.

⁹ I used the Hausman test to check for potential endogeneity issues of trust, satisfaction, perceived opportunism and cultural differences in the model but found no statistically significant effect.

mixed-context culture variable to create an interaction effect with satisfaction, I find no statistically significant effect.

The results in Table 24 show marginal support for a moderating effect of culture on the relationship between trust and joint profits (H_3). Cultural differences in the dyad result in a lower increase in profits as trust increases as opposed to dyads with participants from the same cultural background. Previous studies suggested that greater perceived levels of opportunism are associated with lower joint profits. Although I find statistically significant results, they, surprisingly, indicate the reverse relationship between the two variables: greater perceived levels of opportunism lead to greater joint profits with the in H_4 proposed moderating effect of culture. As hypothesized in H_4 , cultural differences in a dyad moderate the effect of opportunism on joint profits: they result in smaller increases in profits than in same-context dyads.

3.6. Discussion

This study has three key findings. First, it provides additional insights for the growing field of international negotiations. Second, it looks at the effects of culture as a moderator on the relationship between satisfaction, trust and opportunism on profits. Third, it investigates the relationship between perceived opportunism and opportunistic behavior in an experimental setting. Overall, I find that culture is an important factor to consider when dealing in an international context in line with previous studies in the field of negotiations. The unique setting of perceived and actual opportunistic behavior provides new and interesting insights both into negotiation behavior, in general, as well as negotiating internationally that firms and

their managers can use to achieve a competitive edge.

This research provides support for the impact of culture in cross-culture negotiations (Brett, 2007). As one of only a handful of studies, it investigates mixed culture dyads and compares them to same culture dyads. The initial hypothesis addressed the effect of same-versus mixed-context culture on both negotiation factors (satisfaction, trust, perceived opportunism and expected opportunistic behavior) as well as negotiation outcomes (profits and actual opportunistic behavior). I find that cultural difference have a statistically significant effect on the level of joint profits negotiated (H_{1a}). Additional support for this result can be found when looking at individual profits as the dependent variable in the regression (Table 25). Profits are lower in mixed-context culture teams than in dyads with the same cultural background. Participants in the experiment on some level are not as engaged in finding a better solution when negotiating with someone from another cultural background. There are three potential explanations for this. First, the participants may be reluctant to provide the required additional information to someone they perceive as different. Due to the nature of the experiment, this translates into lower profits. Second, participants might not want to threaten the other negotiator by being a tough bargaining if s/he is from a different cultural background. The underlying assumption in the second setting is that the partner coming from a different cultural background does not understand the full implications of the negotiation behavior as someone from the same cultural background. Third, someone from the same cultural background is likely to understand the negotiation behavior with its expected intricacies better than someone with a different background (Gelfand & Christakopoulou, 1999). The arising uncertainties from negotiating in mixed-context culture dyads can lead to being faced with

different approaches translating into lost opportunities and missed profits. In either of the just described cases, cultural differences between participants originating from different background results in lower financial performance, supporting the findings of previous studies that similarities between negotiation partners lead to greater profits (Brett & Okumura, 1998).

The results also show that satisfaction (H_{1b}), trust (H_{1c}) and perceived opportunism (H_{1d}) levels are not impacted by the cultural context of the dyad. Mixed-context culture teams do not statistically differ significantly from same-context culture dyads. Although previous studies have argued that cultural similarities increase the likelihood of reaching a satisfying conclusion in negotiations (Geringer et al., 1991), I do not find support for this hypothesis. The reason for the insignificant results may be attributed to the limited sample size of just 44 dyads – providing too few observations for significant findings for this relationship. Similarly, previous research argues that trust is based in part on cultural similarities between partners (Rinehart et al., 2004). Cultural differences require additional time investments to gather more information about the partner to assess their trustworthiness (Geyskens et al., 1999). Surprisingly, I do not find significant differences in the perception of trust between same- versus mixed-context cultures. In terms of perceived levels of opportunism, the degree to which one participant judges his/her partner's willingness to compromise versus behaving solely for his/her self-interest, is also not impacted by the context of the dyad. I expected that due to the increased complexity and uncertainty of culturally diverse dyads (Mintu-Wimsatt et al., 2000), overall levels of perceived opportunism are higher. However, participants' assessments of the partner's willingness to engage in the relationship do not appear to be impacted by the cultural composition of the teams.

Nevertheless, buyers expect partners from a different cultural background to behave opportunistically more often than partners from the same cultural background (H_{1d}). This implies that, to some extent, participants are influenced in their expectations and decisions by the cultural background of their partner. Surprisingly, although this expectation of cheating is present more often in mixed- than same-context culture dyads, the study does not show such an effect in actual opportunistic behavior (H_{1e}). This implies that although people are inclined to project that someone from a different background is more likely to act opportunistically, people do not actually behave according to this scheme. I presume the expectation of cheating is due to the inherent suspicion most people have towards the unfamiliar and unknown, but participants, when faced with the choice, base their opportunistic behavior on factors other than cultural difference.

Table 25: Between group effects model of individual actual profits and dyads (same vs. mixed-context culture)

| Individual actual profits | Coefficients | Std. Err. | t | P>t |
|-----------------------------------|---------------------|--------------------|--------------|---------------|
| Satisfaction | 80.204 | 123.009 | 0.65 | 0.519 |
| Trust | 385.426 | 203.562 | 1.89 | 0.067 |
| Perceived opportunism (PO) | 512.538 | 201.925 | 2.54 | 0.016 |
| Opportunistic behavior | -101.404 | 118.355 | -0.86 | 0.397 |
| Cultural differences (CD) | -194.035 | 93.067 | -2.08 | 0.044 |
| Satisfaction*CD | 174.164 | 162.530 | 1.07 | 0.291 |
| Trust*CD | -563.695 | 218.339 | -2.58 | 0.014 |
| PO*CD | -620.963 | 218.741 | -2.84 | 0.007 |
| Constant | 2557.382 | 70.746 | 36.15 | 0.000 |
| R-square within | 0.057 | | | |
| R-square between | 0.408 | | | |
| R-square overall | 0.087 | | | |
| F(8, 35) | 3.01 | Prob > F | 0.011 | |
| SD | 295.942 | | | |
| N of obs. | 88 | | | |
| N of groups | 44 | grouping variable | | Dyad |
| Obs per group: | 2 | | | |

Second, the role of culture as a moderator is considered. I investigated the relationship of satisfaction, trust, perceived opportunism, and opportunistic behavior on joint profits and the moderating effect of culture on them. Although a previous study found significant results in the context of joint ventures (Geringer et al., 1991), the results of this research show no statistically significant impact of cultural differences in the bargaining dyads on the relationship between satisfaction and joint profits (H_2). Furthermore, the positive association of trust and joint profits is only marginally significant when using 90% confidence interval: greater trust implying great joint profits when controlling for a moderating effect of cultural difference in the relationship. Table 25, a robustness check shows that in the case of individual profits rather than joint profits as dependent variable, the relationship between trust and individual profits is statistically significant. In both regressions (Table 24 and 25), the negative interaction term between cultural difference and trust is statistically significant (H_3). Culture is moderating the relationship between the dependent variable and trust, indicating that in mixed-context cultures the slope of the association of trust and joint profits is less pronounced than in same-context cultures. Differences in cultural background are likely to introduce uncertainty into the relationship that translates into a less immediate trust building. The general notion that greater trust results in greater financial performance is moderated by culture, thereby, to some extent, overriding the direct effect (Langerak, 2001). Keppel and Wickens (2004) suggest that the interaction effect is, in such situations, a more accurate depiction of the relationship. The current study underscores the need for a better understanding of culture in the context of trust (Curall & Inkpen, 2002). The support for hypothesis H_3 highlights the need for buyers and sellers in international relationships to be aware of the impact of cultural differences as it can impact their financial results. Firms can achieve a potential competitive advantage and impact

their long-term outlook as a business by being proactive. Recognizing the potentially detrimental effect of cultural differences on their financial performance in a negotiation allows these participants to address the issues by, for example, using negotiators more familiar with the partner's cultural background.

Surprisingly, perceived opportunism, the degree to which one negotiator judges his/her partner willingness to engage in a mutual beneficial outcomes and respond to the former's interest, leads to higher joint profits while previous research indicated lower profits (Lee et al. 2006). There is one plausible explanation: the less accommodating the partner appears, the greater the need to discuss alternative options, thereby, opening up the opportunity to discover potentially greater joint profits (due to the asymmetric profits schemes of buyer and seller). This finding implies that perceived opportunism is not necessarily detrimental to a relationship but rather provides a healthy atmosphere for mutually beneficial negotiations. I do find support for the hypothesis that participants' cultural background moderates the relationship between perceived opportunism and joint profits (H_4). Although perceived opportunism leads to greater joint profits in general, the increase in profits is less pronounced in mixed-context culture dyads than in negotiations with partners from similar cultural backgrounds. Cultural differences, hence, reduce the beneficial impact of perceived opportunism on the performance outcome as participants appear to engage less in finding a better deal and more inclined to attribute some of the perceived level of opportunism on the fact of (cultural) differences in the relationship. Buyers and sellers in international relationships who are aware of this potentially detrimental effect can take actions. Being proactive and aware of the situation, they can counter the potential complacency arising from the cultural differences by using negotiators

familiar with the partner's cultural background. This can provide them with a competitive advantage.

The third major finding relates to the option of delivering a product of lower than agreed upon quality. I want to briefly discuss the implication of opportunistic behavior. To my knowledge, this is the first study to actually model information asymmetry in this fashion that allows some of the participants (the sellers) to use the given information to their advantage. Although perceived opportunism has been studied in the field of transaction cost economics (David & Han, 2004; Rindfleisch & Heide, 1997), actual opportunistic behavior is difficult to observe. Using an experimental study allows the researcher to measure actual opportunistic behavior, expected opportunistic behavior and perceived opportunism and compare the findings. Using the argument of individual rationality (Smith, 1991), one expects buyers in the current set-up to choose low quality products as this provides them with the same level of information as the seller, eliminating any potential information asymmetry in the relationship and the opportunity for the seller to behave opportunistically. However, I find that the majority of dyads choose at least one high quality product in their negotiation.

Choosing only low quality products appears to be the rational choice for the buyer in the current experiment as it eliminates the information asymmetry in the relationship due to the seller's superior knowledge of the quality level of the product. However, as seller, participants are more inclined to negotiate high quality products as it provides them with the opportunity to deliver low quality and, thereby, generate higher individual profits. Surprisingly though, I find that not only do the majority of dyads choose to negotiate the sale of at least one high quality product, but also, the majority of sellers chooses not to cheat. I find significant results that a

greater number of high quality products negotiated increases the likelihood of the seller to default and deliver low quality. The incentive to cheat is greater as a greater number of high quality products imply greater individual profits for the seller (if s/he cheats).

I looked closer at the underlying dynamics of hypothesis H_{1a} and I find that cultural difference has a statistically significant effect on the level of joint profits negotiated. In pairs with negotiators from the same cultural background, these profits are higher than in mixed-context culture dyads. When investigating this relationship in more depth using sub-samples of the buyer and seller and their individual profits, only the buyer's side is of importance. The ANOVA results reported in Table 26 and Table 27 show that there is significantly different individual profits on the buyer side, while sellers' individual profits are unaffected by culture of their partner. This suggests that the information asymmetry appears to interact with cultural difference. The seller who has more complete information in the negotiation is not influenced in his/her profits due to the buyer's cultural background. The buyer, however, when faced with the uncertainty of not knowing the outcome of the negotiation, negotiates prices more carefully with a partner from a different cultural background than with someone from the same background. This supports earlier reasoning that similar cultural backgrounds provide better grounds for mutual assessment.

Table 26: ANOVA individual actual profits by dyad (mixed vs. same-context culture) for buyer

| Source | Partial SS | df | MS | F | Prob > F |
|---------------------|--------------------|-----------|-------------------|------------|--------------|
| Between Groups | 5655427.75 | 1 | 5655427.75 | 4.1 | 0.049 |
| Within Groups | 57888663.20 | 42 | 1378301.50 | | |
| Total | 63544090.90 | 43 | 1477769.56 | | |
| R ² | 0.089 | | | | |
| Adj. R ² | 0.067 | | | | |
| Root MSE | 1174.01 | | | | |
| Number of obs. | 44 | | | | |

Table 27: ANOVA individual actual profits by dyad (mixed vs. same-context culture) for seller

| Source | Partial SS | df | MS | F | Prob > F |
|---------------------|--------------------|-----------|-------------------|-------------|--------------|
| Between Groups | 1292388.64 | 1 | 1292388.64 | 1.15 | 0.290 |
| Within Groups | 47179600.00 | 42 | 1123323.81 | | |
| Total | 48471988.60 | 43 | 1127255.55 | | |
| R ² | 0.027 | | | | |
| Adj. R ² | 0.004 | | | | |
| Root MSE | 1059.87 | | | | |
| N | 44 | | | | |

3.6.1 Limitations and Suggestions for Future Research

One potential limitation of the current study is its sample size of only 44 dyads. This might increase the potential for Type II errors in the study. For future publication of this essay, additional information will be gathered from the part-time MBA program here at Maryland. The set-up of the experiment makes the administration in a classroom possible and as such allows the experimenter to collect a greater number of observations in a limited time. In addition, the number of issues addressed in the experiment (global negotiation, buyer-seller interaction, information asymmetry, opportunistic behavior) provides a broad base for integration of the experiment into the class schedule in the field of supply chain management. Greater sample size will also allow me to distinguish not only between same versus mixed context cultures but also within the same context culture groups: low-low versus high-high.

In addition, future research should consider the length of relationship between participants. Although the study attempted to separate friends from each other, the majority of participants in the study knew each other for at least nine months. Future experiments can ask in the follow up question how long the subjects have know each other. Alternatively, data from

participants who just met can be used as a control group and the two groups can be compared. If no difference in means between these groups is present, I can conclude that participants lengths of previous relationship with their partner has no effect (or alternatively, has an effect) on the negotiation behavior and outcomes.

The experiment provides a new base for researchers in the field of negotiation to further investigate the impact of information asymmetry on negotiation behavior and outcomes. Again, the simple set-up of the experiment that allows the collection of multiple observations simultaneously is of great advantage.

3.7 Conclusion

Cultural differences impact human interaction in various ways. This study and its findings underscore and emphasize the need in global supply chains to be aware of the potential issues and opportunities that can arise due to cultural differences. Culture has both direct and indirect effects in negotiations. I find that it directly influences dyads' joint profit levels. In addition, this serves as a moderator that reduces the strength of the relationship between trust and joint profits. Unexpectedly, the results showed that perceived opportunism increases joint profits: participants' perception of their partners' willingness to negotiate in a reciprocative manner does not lead to greater profits. Rather, the perceived unwillingness to give an inch resulted in more in-depth discussion and exploration of opportunities ultimately leading to higher profits.

In addition, the study provided unique insights into the setting of information asymmetry in a business negotiation environment – a situation buyers and sellers in real-life

face frequently. Unexpectedly, I find that participants do not follow the rational choice but that an inherent level of trust is present in these negotiations. Not only do buyers make themselves vulnerable by choosing high quality products, but also the majority of sellers actually followed through on their promises and forewent profits in favor of honest behavior. However, along this study's expectations, the results do show that cultural differences impact the perception and manner in which participants deal with information asymmetry.

Chapter 4: Summary and Conclusion

4.1 Summary

In this dissertation, I investigated the impact of culture in international buyer-supplier relationships from two distinct viewpoints (the written and the spoken negotiation) and two methodologies (an archival data and a behavioral experimental study). Although there has been an increase in the number of studies in recent years that looked at intercultural issues, the impact of cultural differences in buyer seller relationship is not well understood (Kaufmann & Carter, 2006). In times of increasing numbers of global supply chains, a better grasp on the effects of cultural differences can provide businesses with opportunities for cost savings as well as competitive advantages. Therefore, I addressed the following research questions in this dissertation:

What is the effect of differences in the cultural background of buyer and supplier on their contractual relations?

and

How does cultural distance effect international negotiations?

What is the moderating effect of cultural differences on negotiations?

Both studies use the framework of transaction cost economics (TCE) as theoretic lens. Williamson (1979) proposed that uncertainty, asset specificity and frequency influence the decision to source from the market or produce in-house under assumption of bounded

rationality of parties involved and the resulting potential for opportunism. In the following decades, the theory has been applied to various studies in field of strategic management and industrial organizational economics (Geyskens et al., 2006; Rindfleisch & Heide, 1997). In the first study, I argue that the dimension of uncertainty can be operationalized using cultural differences. In the second study, the issue of culture and opportunism is looked at in more detail. In both studies, two sets of hypotheses are derived that relate and investigate cultural difference to outcomes in buyer-supplier relationships.

The second chapter details the effect of culture in contractual buyer supplier agreements using archival data. A large number of relationships translate into contracts between partners, but very few studies have investigated the effect of cultural differences on these written agreements. Contracts are adjusted based on the needs and requirements of specific partners in the relationship. The current study took contractual data from a European multinational company and investigated the impact of culture on buyer-supplier relationships using Hofstede's four culture dimensions: power distance, masculinity, individuality and uncertainty avoidance. The main finding was that contract completeness increases as the cultural gap between the buyer and supplier widens. The results for individual culture dimensions on contract completeness, measured per buyer-supplier pair, were mixed. With regard to contract length, only average masculinity scores had a positive effect on it, while the other culture dimensions and the measure of cultural distance were insignificant. Cultural distance impacted the option of renegotiation but the individual dimensions failed to have any effect. Finally, asset specificity had the expected positive effect on the level of contract completeness and the option to renegotiate, while more frequent transactions result in lower levels of contract

completeness, shorter contracts and fewer options to renegotiate.

The third chapter investigated the impact of cultural differences in the context of dyadic buyer-supplier relationships. More specifically, the study focused on the effect of culture and cultural differences in negotiation. It also addressed the issue of culture as a moderating variable. The study used an experimental design to investigate these issues. In the simulation negotiation, participants, classified by their country of origin, are asked to take on the role of either buyer or supplier. They negotiate prices and quality levels for three products. This study found that cultural differences within the negotiation dyad reduced joint profits when compared to those participants in same cultural background dyads. I observed that cultural differences weaken the effect of trust and opportunism on joint profits. Overall, this study concluded that cultural differences as encountered in day-to-day business interactions in global supply chains impose greater challenges compared to partners from the same cultural background.

4.2 Conclusion

Overall, both studies conclude that culture and cultural differences have a significant effect on intercultural buyer-supplier relationship. Businesses can gain significant advantages when understanding these effects and, hence, should be both aware of cultural differences as well as take active steps to influence these differences to their advantage. The first step to recognize the effect of culture: this can already change the attitude and behavior of participants involved. Second, especially in case of negotiations, firms engaged in these settings can

potentially counter some of the negative effects by using negotiators from a similar cultural background.

In addition, this dissertation research refines and enhances the understanding of transaction cost economics from the angle of cultural differences. The studies further explore the different dimensions of transaction cost economics. The first study provides additional support for Williamson's proposed relationships between uncertainty, asset specificity and frequency on transaction costs. In addition, the research investigated different measures of transaction cost. These findings can be use to guide future research in the field of TCE. The second study provides insights into the dynamics between perceived opportunism and actual opportunistic behavior. To my knowledge, this relationship has not been investigated in the field of buyer-supplier relationships before, although it is realistic depiction of the real world.

4.3 Suggestions for Future Research

Overall, the research demonstrated that the field of intercultural buyer-supplier relationships is in need of further investigation. Although research in the past two decades has grown tremendously, the impact of culture and cultural differences in day-to-day buyer supplier interaction is not well understood. The current study provides some suggestions of how to approach the issue.

The first study raises additional questions with regard to which specific contract terms are included in more culturally different relationships than in contracts between culturally similar partners. Future research – using the same data set – can investigate more closely which dimensions of a contract are used in different cultural pairings. Especially, a further analysis of

sub-sets of the data (e.g. by product categories) allows for the comparison of seemingly similar contracts.

With regard to the second study, few studies have looked at mixed-context cultures. As global supply chain interactions take place between partners from different countries, these are the kind of relationships that need to be investigated in detail. The previous focus on comparison of dyads from different countries provides initial insights but does not address most of the issues faced by buyers and suppliers in today's global economy. Hence, the next step is to look at mixed-context culture dyads in a more nuanced fashion than the current study does by investigating difference between dyads for e.g. US-China versus US-India versus US-Spain. It is likely that different mixed-culture dyads emphasize different aspects in negotiations.

In addition, future research should focus on the distinction of perceived, expected and actual opportunism. The current research provides a stepping-stone to investigate various aspects of information asymmetry in buyer-supplier relationships. In this context, culture could be investigated in more detail. Differences in dyads can be looked at more closely. For example, does it matter whether the high or the low context culture participant has a competitive advantage due to the information asymmetry?

Appendix A – Experiment Buyer

Buyer Information - Case

You are a member of the purchasing team for Buyer Corporation, a company that produces computers and technical equipment. Your company has done quite well in the last two quarters. Because of this, you are quite confident about your firm's long terms prospects.

Your company is currently developing a new product. For this new product, you, as buyer for Buyer Corporation, need to source three components. You would like to find a supplier for the three components as to get the new product well and fast on its way. In addition, it would help with your performance review and purchase commission. You currently earn commission on the profit Buyer Corporation makes on each of the purchases you negotiated, with the amount varying as a function of the particular component and profits achieved for the firm.

Generally, Buyer Corporation sources from suppliers around the world. Seller Corporation is one of a few suppliers that have pre-qualified for actual negotiations for the three components and you have contacted them to enter into negotiations about the sale of the three components for the new product. Your goal is to negotiate some or, preferably, all of this business.

Buyer Corporation demands:

- 1,000,000 units of Alpha components to be delivered over the next 3 months.
- 1,000,000 units of Beta components to be delivered over the next 3 months.
- 1,000,000 units of Gamma components to be delivered over the next 3 months.

The specifications for all three components are familiar to Seller Corporation, and their firm's engineers have held discussions with your company's engineers about how these components can be manufactured for a new product that your firm has under development. Seller Corporation's engineers forecast no difficulty in meeting Buyer Corporation's demand.

Seller Corporation has the option of supplying each component at a low or high quality level. The higher quality component is significantly more expensive to produce and, hence, the pay-off tables between high and low quality components differ. Overall, better quality will reflect itself over time in terms of profits due to a better brand image.

This quality difference is not observable upon inspection by your firm. This implies that your company has no means to control the level of quality of the component upon receipt. You are required to accept the product delivered without being able to enforce the level of quality agreed upon during negotiations. However, the actual quality delivered will reflect upon the profits and commissions you as well as your negotiation partner will receive.

The follow table shows how changing prices for each quality level and each product impact your firm's profits. Prices are displayed as letters (A-N). Each letter is equivalent to a certain profit (loss) for you as well as Seller Corporation. You may negotiate any letter price that you think will help you negotiate a successful contract with Seller Corporation. Bear in mind, however, that you will earn negative commission on all negative profit sales you made.

Please do not share the following information with Seller Corporation!

Alpha price per 1000 units

Beta price per 1000 units

Gamma price per 1000 units

| Price | Profits | |
|-------|--------------|-------------|
| | High Quality | Low Quality |
| A | \$0 | -\$500 |
| B | \$100 | -\$400 |
| C | \$200 | -\$300 |
| D | \$300 | -\$200 |
| E | \$400 | -\$100 |
| F | \$500 | \$0 |
| G | \$600 | \$100 |
| H | \$700 | \$200 |
| I | \$800 | \$300 |
| J | \$900 | \$400 |
| K | \$1,000 | \$500 |
| L | \$1,100 | \$600 |
| M | \$1,200 | \$700 |
| N | \$1,300 | \$800 |

| Price | Profits | |
|-------|--------------|-------------|
| | High Quality | Low Quality |
| A | \$0 | -\$750 |
| B | \$150 | -\$600 |
| C | \$300 | -\$450 |
| D | \$450 | -\$300 |
| E | \$600 | -\$150 |
| F | \$750 | \$0 |
| G | \$900 | \$150 |
| H | \$1,050 | \$300 |
| I | \$1,200 | \$450 |
| J | \$1,350 | \$600 |
| K | \$1,500 | \$750 |
| L | \$1,650 | \$900 |
| M | \$1,800 | \$1,050 |
| N | \$1,950 | \$1,200 |

| Price | Profits | |
|-------|--------------|-------------|
| | High Quality | Low Quality |
| A | \$0 | -\$1,250 |
| B | \$250 | -\$1,000 |
| C | \$500 | -\$750 |
| D | \$750 | -\$500 |
| E | \$1,000 | -\$250 |
| F | \$1,250 | \$0 |
| G | \$1,500 | \$250 |
| H | \$1,750 | \$500 |
| I | \$2,000 | \$750 |
| J | \$2,250 | \$1,000 |
| K | \$2,500 | \$1,250 |
| L | \$2,750 | \$1,500 |
| M | \$3,000 | \$1,750 |
| N | \$3,250 | \$2,000 |

What quality level (hi = high) or lo = low) and price did you negotiate?

_____ Alpha _____ Beta _____ Gamma

What time did you finish the negotiation?

Survey

Instructions: Please answer the questions as **honestly** as possible. Although some of the questions may seem similar, it is important to answer all of them. **Remember, there are no right or wrong answers** and all information you provide will remain **strictly confidential**. Thank you for your help!

1. What level of quality do you think Seller Corporation ended up delivering? (hi = high quality, lo = low quality)

_____ Alpha _____ Beta _____ Gamma

| | Satisfied | | | | Dissatisfied |
|---|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 2. If an agreement was reached, how satisfied were you with that agreement? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. How satisfied are you with the agreement relative to your pregame expectations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. How satisfied were you with your individual profits? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. How satisfied were you with your performance during the game? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Mutual problem | | | | Self-interest |
| | 1 | 2 | 3 | 4 | 5 |
| 6. Were you more interested in solving your mutual problem or more self-interested? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Completely agree | | | | Completely disagree |
| | 1 | 2 | 3 | 4 | 5 |
| 7. Seller Corporation can be trusted completely. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Seller Corporation can be counted on to do what is right. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Seller Corporation is a company that I have great confidence in. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Seller Corporation can be relied upon. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. I am willing to deal with Seller Corporation again. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Seller Corporation keeps promises it makes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Seller Corporation is not always honest with you. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. I believe the info Seller Corporation provides. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. I find it necessary to be cautious when dealing with Seller Corporation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Seller Corporation is genuinely concerned that my company succeeds. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. I trust that Seller Corporation keeps my firm's best interest in mind. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Rate your **own** bargaining strategies on the following scales:

| | 1 | 2 | 3 | 4 | 5 | |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| 18. Accommodating | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Exploitive |
| 19. Honest | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Deceptive |
| 20. Unbiased | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Biased |

Rate **Seller Corporation's** bargaining strategies on the following scales:

| | 1 | 2 | 3 | 4 | 5 | |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| 21. Accommodating | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Exploitive |
| 22. Honest | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Deceptive |
| 23. Unbiased | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Biased |

| | Completely agree | | | Completely disagree | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 24. Group welfare is more important than individual rewards. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. Managers should make most decisions without consulting subordinates. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. It is important to have job requirements and instructions spelled out in detail so that employees always know what they are expected to do. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. Meetings are usually run more effectively when they are chaired by a man. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. Group success is more important than individual success. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. It is frequently necessary for a manager to use authority and power when dealing with subordinates. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. Managers expect employees to closely follow instructions and procedures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. It is more important for men to have a professional career than it is for women. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. Being accepted by members of your work group is very important. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 33. Managers should seldom ask for the opinions of employees. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. Rules and regulations are important because they inform employees what the organization expects of them. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. Men usually solve problems with logical analysis; women usually solve problems with intuition. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 36. Employees should only pursue their goals after considering the welfare of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 37. Managers should avoid off-the-job social contact with employees. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | Completely agree | | | Completely disagree | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 38. Standard operating procedures are helpful to employees on the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 39. Solving organizational problems usually requires an active forcible approach which is typical of men. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 40. Managers should encourage group loyalty even if individual goals suffer. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 41. Employees should <i>not</i> disagree with management decisions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 42. Standard operating procedures are important for employees on the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 43. It is preferable to have a man in a high level position rather than a woman. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 44. Individuals may be expected to give up their goals in order to benefit group success. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 45. Managers should <i>not</i> delegate important tasks to employees. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Personal Information:

45. Are you (*please circle one*): (a) Female (b) Male
46. Are you (*please circle one*): (a) U.S. citizen (b) Not a U.S. citizen
47. What was your nationality at birth: _____
48. If you live part of your life outside of the USA, please specify:
 Where: _____
 How long: _____
49. Year of birth: _____
50. Was either of your parents born outside of the USA? (*please circle one*)
 (a) No, both parents were born in the USA
 (b) Yes, one parent in _____
 (c) Yes, both parents in _____
51. Previous work experience in years: _____
52. Title of your last job: _____
53. Ethnic Background (*please circle one*): (a) African American/Black
 (b) American Indian
 (c) Asian/Pacific Islander
 (d) Caucasian/White
 (e) Latino/Hispanic
 (f) Other: _____

Appendix B – Experiment Supplier

Seller Information – Case

You are a member of the account team for Seller Corporation, which supplies high tech components to computer and technical equipment manufacturers. Your company, however, has done quite well in the last two quarters. Because of this, you are quite confident about your firm's long terms prospects. You, personally, would like to win more sales, as it would help with your performance review and sales commission. You currently earn commission on the profit you make on each sale, with the amount varying as a function of the particular product and profits achieved for the firm.

One of your customers, Buyer Corporation, has contacted you to enter into negotiations about the sales contract of three components for a new product of theirs. Your goal is to negotiate some or, preferably, all of this business. You are one of a few suppliers that have been pre-qualified for actual negotiations for the components.

Buyer Corporation Demands:

1,000,000 units of Alpha components to be delivered over the next 3 months.

1,000,000 units of Beta components to be delivered over the next 3 months.

1,000,000 units of Gamma components to be delivered over the next 3 months.

The specifications for all three components are familiar to your firm, and your firm's engineers have held discussions with people at Buyer Corporation about how these components can be manufactured for a new product that Buyer Corporation has under development. Your company engineers forecast no difficulty in meeting Buyer Corporation's demand.

You have the option of supplying each component at a **low or high quality level** to Buyer Corporation. The higher quality component is significantly more expensive to produce and, hence, the pay-off tables between high and low quality components differ. Overall, better quality will reflect itself over time in terms of profits due to a better brand image of Buyer Corporation.

This quality difference is ***not observable*** upon inspection by Buyer Corporation. This implies that Buyer Corporation has no means to control the level of quality of the component. They will have to accept the product delivered without being able to enforce the level of quality agreed upon during negotiation. However, the actual quality delivered will reflect the profits and commissions you and your negotiation partner will receive.

The follow table shows how changing prices for each quality level and each product impact your firm's profits. Prices are displayed as **letters (A-N)**. Each letter corresponds to a certain profit (loss) for you as well as Buyer corporation. You may negotiate any letter price that you think will help you negotiate a successful contract with Buyer Corporation. Bear in mind, however, that you will earn negative commission on all negative profit sales you made.

Please do not share the following information with Buyer Corporation!

Alpha price per 1000 units

| Price | Profits | |
|-------|--------------|-------------|
| | High Quality | Low Quality |
| A | \$2,000 | \$3,250 |
| B | \$1,750 | \$3,000 |
| C | \$1,500 | \$2,750 |
| D | \$1,250 | \$2,500 |
| E | \$1,000 | \$2,250 |
| F | \$750 | \$2,000 |
| G | \$500 | \$1,750 |
| H | \$250 | \$1,500 |
| I | \$0 | \$1,250 |
| J | -\$250 | \$1,000 |
| K | -\$500 | \$750 |
| L | -\$750 | \$500 |
| M | -\$1,000 | \$250 |
| N | -\$1,250 | \$0 |

Beta price per 1000 units

| Price | Profits | |
|-------|--------------|-------------|
| | High Quality | Low Quality |
| A | \$1,200 | \$1,950 |
| B | \$1,050 | \$1,800 |
| C | \$900 | \$1,650 |
| D | \$750 | \$1,500 |
| E | \$600 | \$1,350 |
| F | \$450 | \$1,200 |
| G | \$300 | \$1,050 |
| H | \$150 | \$900 |
| I | \$0 | \$750 |
| J | -\$150 | \$600 |
| K | -\$300 | \$450 |
| L | -\$450 | \$300 |
| M | -\$600 | \$150 |
| N | -\$750 | \$0 |

Gamma price per 1000 units

| Price | Profits | |
|-------|--------------|-------------|
| | High Quality | Low Quality |
| A | \$800 | \$1,300 |
| B | \$700 | \$1,200 |
| C | \$600 | \$1,100 |
| D | \$500 | \$1,000 |
| E | \$400 | \$900 |
| F | \$300 | \$800 |
| G | \$200 | \$700 |
| H | \$100 | \$600 |
| I | \$0 | \$500 |
| J | -\$100 | \$400 |
| K | -\$200 | \$300 |
| L | -\$300 | \$200 |
| M | -\$400 | \$100 |
| N | -\$500 | \$0 |

What quality level (hi = high) or lo = low) and price did you negotiate?

_____ Alpha _____ Beta _____ Gamma

What time did you finish the negotiation?

Survey

Instructions: Please answer the questions as **honestly** as possible. Although some of the questions may seem similar, it is important to answer all of them. **Remember, there are no right or wrong answers** and all information you provide will remain **strictly confidential**. Thank you for your help!

1. What level of quality do you intend to deliver to Buyer Corporation? (hi = high quality, lo = low quality)

_____ Alpha

_____ Beta

_____ Gamma

| | Satisfied | | | | Dissatisfied |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 2. If an agreement was reached, how satisfied were you with that agreement? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. How satisfied are you with the agreement relative to your pregame expectations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. How satisfied were you with your individual profits? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. How satisfied were you with your performance during the game? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Mutual problem | | | | Self-interest |
| | 1 | 2 | 3 | 4 | 5 |
| 6. Were you more interested in solving your mutual problem or more self-interested? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Completely agree | | | | Completely disagree |
| | 1 | 2 | 3 | 4 | 5 |
| 7. Buyer Corporation can be trusted completely. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Buyer Corporation can be counted on to do what is right. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Buyer Corporation is a company that I have great confidence in. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Buyer Corporation can be relied upon. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. I am willing to deal with Buyer Corporation again. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Buyer Corporation keeps promises it makes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Buyer Corporation is not always honest with you. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. I believe the information Buyer Corporation provides. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. I find it necessary to be cautious when dealing with Buyer Corporation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Buyer Corporation is genuinely concerned that my company succeeds. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. I trust that Buyer Corporation keeps my firm's best interest in mind. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Rate your **own** bargaining strategies on the following scales:

| | 1 | 2 | 3 | 4 | 5 | |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| 18. Accommodating | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Exploitive |
| 19. Honest | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Deceptive |
| 20. Unbiased | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Biased |

Rate **Buyer Corporation's** bargaining strategies on the following scales:

| | 1 | 2 | 3 | 4 | 5 | |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| 21. Accommodating | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Exploitive |
| 22. Honest | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Deceptive |
| 23. Unbiased | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Biased |

| | Completely agree | | | Completely disagree | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 24. Group welfare is more important than individual rewards. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. Managers should make most decisions without consulting subordinates. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. It is important to have job requirements and instructions spelled out in detail so that employees always know what they are expected to do. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. Meetings are usually run more effectively when they are chaired by a man. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. Group success is more important than individual success. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. It is frequently necessary for a manager to use authority and power when dealing with subordinates. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. Managers expect employees to closely follow instructions and procedures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. It is more important for men to have a professional career than it is for women. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. Being accepted by members of your work group is very important. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 33. Managers should seldom ask for the opinions of employees. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. Rules and regulations are important because they inform employees what the organization expects of them. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. Men usually solve problems with logical analysis; women usually solve problems with intuition. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 36. Employees should only pursue their goals after considering the welfare of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 37. Managers should avoid off-the-job social contact with employees. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | Completely agree | | | Completely disagree | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 38. Standard operating procedures are helpful to employees on the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 39. Solving organizational problems usually requires an active forcible approach which is typical of men. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 40. Managers should encourage group loyalty even if individual goals suffer. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 41. Employees should <i>not</i> disagree with management decisions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 42. Standard operating procedures are important for employees on the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 43. It is preferable to have a man in a high level position rather than a woman. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 44. Individuals may be expected to give up their goals in order to benefit group success. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 45. Managers should <i>not</i> delegate important tasks to employees. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Personal Information:

45. Are you (*please circle one*): (a) Female (b) Male
46. Are you (*please circle one*): (a) U.S. citizen (b) Not a U.S. citizen
47. What was your nationality at birth: _____
48. If you live part of your life outside of the USA, please specify:
 Where: _____
 How long: _____
49. Year of birth: _____
50. Was either of your parents born outside of the USA? (*please circle one*)
 (a) No, both parents were born in the USA
 (b) Yes, one parent in _____
 (c) Yes, both parents in _____
51. Previous work experience in years: _____
52. Title of your last job: _____
53. Ethnic Background (*please circle one*): (a) African American/Black
 (b) American Indian
 (c) Asian/Pacific Islander
 (d) Caucasian/White
 (e) Latino/Hispanic
 (f) Other: _____

Appendix C – Email Invitation to Participate in Experiment

Dear ... student,

I am hereby inviting you to take part in my dissertation research during a Pizza luncheon on **DAY, DATE**, 2010 at **TIME in room XXX**. If you can make it, please RSVP by DAY-1 morning (even maybes) so I know how much Pizza to order.

The experiment will take about 30 minutes. I am investigating negotiation behavior of managers and their outcomes. This is part of my dissertation and I greatly appreciate your help. I invite you as you are part of the student body in the business school.

Results from this study will be used to help with the current ongoing research in field of buyer-supplier negotiations. Better understanding of these processes will allow us to provide guidelines for such settings.

Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. Once the negotiation game is completed, any contact information you have provided will be deleted and never connected with your answers in any way. The participation in this negotiation game is voluntary. However, you can help very much by taking half an hour to share your experiences by participating. If you are interested in additional information, please contact me at dribbink@rhsmith.umd.edu.

Sincerely,

Dina Ribbink

BTW: For those of you who already took part, I am sorry to inform you that you are not eligible for a second try.

Appendix D - Introduction to Experiment

Dear student,

Thank you for your help in this study that investigates negotiation behavior of managers and their outcomes. This is part of my dissertation and I greatly appreciate your help. I invited you as you are a student in the business school and train to be a manager in the future.

Results from this study will be used to help with the current ongoing research in field of buyer-supplier negotiations. Better understanding of these processes will allow us to provide guidelines for such settings.

You will be asked to assume the role of either Buyer or Supplier and negotiate the sale of three goods in assigned pairs. All needed information is provided to you in the hand-outs. You will have about 10 minutes to read the instructions. Please negotiate the deal to the best of your abilities and record your answers on the sheets provided. Once you reach an agreement, you will be asked to fill out a short questionnaire. Please keep in mind there are no right or wrong answer.

If you would like to participate in the chance to win one of several gift cards (prizes) based on your performance in the negotiation game, please fill out your name in the sheet up front.

Thank you for taking the time to participate and help me out with my dissertation.

Appendix E – Extended between group effects model

Appendix Table 1: Extended between group effects model of joint actual profits and dyads (same vs. mixed-context culture)

| Joint actual profits | Coefficients | Std. Err. | t | P>t |
|-----------------------------------|---------------------|--------------------|----------|---------------|
| Satisfaction | 264.086 | 307.314 | -0.86 | 0.396 |
| Trust | 644.754 | 507.283 | -1.27 | 0.213 |
| Perceived opportunism (PO) | 1003.562 | 496.222 | 2.02 | 0.051 |
| Opportunistic behavior | -461.920 | 300.830 | -1.54 | 0.134 |
| Cultural differences (CD) | -473.107 | 241.653 | -1.96 | 0.059 |
| gender | -241.028 | 305.626 | -0.79 | 0.436 |
| Time in US (as % of life) | -85.504 | 478.177 | -0.18 | 0.859 |
| Satisfaction*CD | 945.439 | 546.000 | 1.73 | 0.093 |
| Trust*CD | -110.027 | 407.405 | -0.27 | 0.789 |
| PO*CD | -1162.701 | 539.315 | -2.16 | 0.038 |
| Constant | 5395.203 | 479.028 | 11.26 | 0.000 |
| R ² within | - | | | |
| R ² between | 0.330 | | | |
| R ² overall | 0.2102 | | | |
| F(8, 35) | 1.62 | Prob > F | 0.143 | |
| SD | 751.612 | grouping variable | dyad | |
| N of observations | 87 | min | 1 | |
| N of groups | 44 | avg | 2 | |
| Observation per group | 2 | max | 2 | |

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