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**CHOICE OF NEGOTIATION
COMMUNICATION MEDIUM:
THE IMPACT OF INDIVIDUAL PROCESSING
STYLES AND CULTURAL CHARACTERISTICS
ON NEGOTIATOR SATISFACTION**

BY

CLARE SEVERN

**IN FULFILMENT OF THE DEGREE OF M. PHIL
EUROPEAN BUSINESS MANAGEMENT SCHOOL
UNIVERSITY OF WALES, SWANSEA**

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DECLARATION

I hereby certify that this work has not been accepted in substance for any degree, and is not currently being submitted in candidature for any degree other than M. Phil at the European Business Management School, University of College of Swansea, Wales.

CandidateDate ..13 June '03.....

STATEMENT ONE

This is to certify that the work submitted in this thesis has been carried out entirely by the candidate, except where specific reference is made to other authors, under the supervision of Dr. A. C. Simintiras and Dr. N. Reynolds, Lecturers in Marketing, European Business Management School, University College of Swansea, Wales.

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ABSTRACT

The Internet offers the possibility to perform cross-cultural sales negotiations online. Recent work on sales negotiation has focused on how to negotiate successfully in the cross-cultural environment. Yet, while the rise in Internet use makes the prospect of 'virtual' negotiations a reality, the existing research on cross-cultural negotiations focuses on face-to-face interactions, while research on negotiations online remain limited to its technical aspects, such as network support systems.

Whilst much is known about how to facilitate the success of face-to-face negotiations, little research has been carried out concerning the impact that the change of medium will have on the sales negotiation process. Consequently, little is known about the impact of removing direct interaction on the success of (virtual) negotiations. A fundamental aspect of negotiation success, for example, is that the more satisfied a negotiator is with the process of a negotiation, the more satisfied a negotiator is with the outcome of the negotiation (Suh: 1999).

This research looks at the existing literature on cross-cultural negotiations and Internet negotiations and develops propositions to investigate the impact of changing the communication medium of negotiation on negotiation success. In order to test the propositions, a simulation experiment, using students at University of Wales Swansea was used. The final sample consisted of 60 students from two distinctly different cultural groups (British and Greek). Participants were asked to record their satisfaction levels for three different aspects of the negotiation (process, outcome and communication medium) when using two different communication mediums to conduct the negotiation.

The results indicated that changing the negotiation communication medium had a statistically significant impact on negotiators' satisfaction. The findings, managerial implications and directions for future research are discussed.

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1. INTRODUCTION

1.1. BACKGROUND AND IDENTIFICATION OF THE RESEARCH GAP

1.1.1. THE CHANGING NATURE OF BUSINESS NEGOTIATIONS

Business on both a local and international scale depends on negotiations; they are an everyday factor of the business world, and their importance shows on the bottom line of every company's accounts (Shapiro and Janowski 2001). Without successful sales negotiations, businesses will ultimately fail. Unfortunately, negotiations breakdown with disturbing regularity (Neale and Bazerman 1985, Bazerman 1986). Thus it is only through increased understanding of business negotiations that organisations can continue to strive for success.

In this day and age, with fast transportation links, and with an increasing number of obscure destinations becoming more accessible, the world is becoming a 'smaller' place. Similarly, the increase in the number of international mergers and acquisitions has resulted in an increase in the use and importance of cross-cultural negotiations. Not only are large multinational corporations taking part in cross-cultural sales negotiations, but small and medium sized enterprises are also taking advantage of the more interconnected world and entering into cross-cultural negotiations (Cyber Atlas 2001a). It is important to recognise that negotiation, a task that is already considered to be one of the most difficult in business, becomes even more difficult when accompanied by the complexity of culture (Tse, Francis and Walls 1994). The added intricacy of cross-cultural negotiations means that additional characteristics need to be considered in the business negotiation, such as cultural norms and values.

Not only has the world 'shrunk' due to the speed and ease of transportation and communication, the Internet has also fuelled the increase in cross-cultural contact. Use of the Internet has expanded exponentially over the past 5 years (Cyber Atlas 2002a). Recent figures suggest that over 450 million people are already on the Internet, and projected figures for 2004 are set to break the 700 million mark (Cyber Atlas 2002b). Recent projections for Internet use indicate that Internet users will top 1 billion by 2005 (Cyber Atlas 2000a). Originally only used for communication, the

Internet now has a much wider scope and is used for a variety of tasks, all of which are becoming more commonplace as users are adapting to the Internet as part of their everyday lives (Cyber Atlas 2000b). This has resulted in the emergence of the Internet as a business tool.

As the world continues to go 'online' many aspects of business are also entering the 'virtual' world (Jupiter Research 2001). Business-to-business e-commerce is expected to deliver up to 40% of all business transactions by 2005 (Cyber Atlas 2001b). The increased use of the Internet for business presents organisations with an opportunity to save time and money in a number of ways. Organisations are using the Internet as a means of obtaining business transactions such as online orders and online purchases. In addition, organisations have the opportunity of using the Internet as a communication tool for more complex business transactions such as online meetings and negotiations. Organisations can utilise the Internet to reduce costs, rather than, incur the expense of time lost in travelling to and from business negotiations, the cost of transportation to such meetings and hosting negotiations, negotiations could be hosted online.

1.1.2. THE INTERNET AS A COMMUNICATION MEDIUM FOR NEGOTIATIONS

Due to the complexity of negotiations, scholars have focused their attentions on various aspects of the phenomenon, investigating and producing substantial research on various facets of negotiations. To date negotiation research has focused on;

- Negotiation models such as; auctioning, bartering/haggling, open and closed transactions (Johannessen *et al* 1997; Money 1998; George *et al* 1998; Kersten *et al* 1999; Balakrishnan and Eliashberg 1995)
- Negotiation participants, buyers, sellers, individuals, organisations (Ang *et al* 2000)
- Negotiation strategies, for example, co-operation, dominance (Tinsley and Pillutla 1998; Adler *et al* 1992; Koperczak *et al* 1992)

- Negotiation styles, such as accommodating, avoiding, competing, compromising, collaborating (Bercovitch and Houston 2000; Campbell *et al* 1998; Salacuse 1998; Pearson and Stephan 1998)
- Negotiation behaviour process and/or outcomes, for instance, consideration of task and non-task related aspects of negotiation (Simintiras 2000; O'Connor and Adams 1999; Kopelman and Olekans 1999; Brett *et al* 1998; Kristensen and Garling 1997; Martin and Herbig 1997; Bui and Shakun 1996; Graham *et al* 1994)
- Success factors including objective and subjective measures (Nair and Stafford 1998, Gulbro and Herbig 1996a); and
- Cultural influences, such as, context and the cultural characteristics of the negotiation (Triandis *et al* 2001; Heydenfeldt 2000; Seng Woo and Prud'homme 1999; Brett and Okumura 1998)

Although there has been research into online and computer based negotiations, these have concentrated on the systematic processes and procedures involved in negotiations (Koperczak *et al* 1992, Sycara 1996, Zlotkin and Rosenschein 1991). Computer-aided negotiation support systems and other similar packages have also been developed for use over the Internet (one such example being Interneg¹). However, these systems are quantitative in nature and aim to evaluate the 'fairest' negotiation outcome. Two or more parties input data into a computer programme. The computer programme then calculates the optimum solution to the problem using the data provided by the 'negotiating' parties (Kersten and Lo 2001). Although in essence this is negotiating using the Internet, it does not utilise the communication medium to its full capacity as the systems have no means of including the 'human' factor involved through the interaction that takes place during face-to-face negotiations and leads to the building of long term relationships.

The capacity of the online environment as a means of communication is shown in the commonplace use of online chat rooms, which allow a more 'human' means of communication than just utilising email and programming to determine an optimum solution. These methods of using the Internet help to retain human interaction by

¹ <http://interneg.org/>

ensuring a more personal process to business negotiations. The Internet can be used as the actual medium with which negotiators communicate, rather than just a method of transporting data. By using email and chat-room technology, negotiators are able to communicate effectively and develop relationships with negotiating partners through more personal means of interaction, yet they can still be in different time zones and/or on a different continent. Online negotiations using such means of communication enable a degree of qualitative interaction to remain as part of the negotiation while making use of the available technology.

If businesses are to use the Internet as a communication medium for negotiation, it is important to understand how the characteristics of the negotiator, which have been considered in the face-to-face setting transfer to the online environment.

1.1.3. INFLUENCE OF NEGOTIATORS CHARACTERISTICS ON THE NEGOTIATION PROCESS

As mentioned previously, there have been many areas of investigation into negotiations, many of these have focused on the negotiators on both an individual and cultural level (Triandis *et al* 2001; Heydenfeldt 2000; Ang *et al* 2000; Simintiras 2000; O'Connor and Adams 1999; Kopelman and Olekans 1999; Brett *et al* 1998; Kristensen and Garling 1997; Martin and Herbig 1997; Bui and Shakun 1996; Graham *et al* 1994). Luxmoore (2000) has described culture as one of the most pervasive variables in negotiations. Differences in culture can be as obvious as different languages, which may affect negotiations through the different meanings attached to words and/or phrases (Francis 1991). There are more hidden differences that can impact on the individuals taking part in negotiations and the negotiation itself. Research has shown, for example, that individuals from different cultures use different styles of negotiation (Triandis *et al* 2001; Heydenfeldt 2000; Seng Woo and Prud'homme 1999; Brett and Okumura 1998; Brett *et al* 1998).

Culture can also affect negotiations at a more individual level, for example through cognitive development, as cognition is experience driven and as such related to the upbringing and background of the individual (Halford and McCredden 1998).

Therefore, differences in opportunities for learning and differences in the external environment will result in cognitive differences. Culture impacts on how an individual processes information, for example, cultures can be broken down into high context and low context cultures (Hall and Hall 1990). High context cultures use non-verbal cues and contextual information during communications, and therefore negotiations (Triandis 1994). Low context cultures use more explicit messages in communication (Hargie *et al* 1994, Morris *et al* 1998). Culture also influences individual processing styles and preferences, which in turn are likely to influence negotiations. For example culture influences the display rules for emotions (Keating 1994). Both are likely to affect the way in which individuals from different cultures adapt to the change in communication medium where non-verbal cues are absent (or at least greatly reduced).

Whilst the task-related aspects of the negotiation process will start to take place, the change in the communication medium used may affect the way negotiations occur and how successful they are judged to be.

1.1.4. NEGOTIATION SUCCESS

Traditional methods of evaluating the success of negotiations can still be used to investigate online negotiations. Research into negotiation success looks at both the negotiation process and the negotiation outcomes and can be measured using both objective and subjective measures (Calatone *et al* 1998; Spiro and Weitz 1990; Rubin and Brown 1975).

Negotiation process success is predominantly influenced by individuals' attitudes towards others within the negotiation and the relationship that develops between parties (Spiro and Weitz 1990). Negotiation outcome success includes perceptions of participants' achievement (Gulliver 1979). The importance of both process and outcome success can be influenced by culture (Hofstede 1984); for example in terms of outcome, some cultures place great precedence on achieving the highest personal gains (Gefland and Christakopoulou 1999). In terms of process, some cultures will

place more emphasis on developing a relationship than reaching a specific agreement (Schuster and Copeland 1998). Negotiation outcome success can easily be measured objectively (Graham 1986, Fisher and Ury 1981, Weitz 1978), however, these measures are extremely context specific (e.g. fair joint gains). Negotiation process success is more difficult to measure objectively, long term measures such as sustainable business relationships can be used. As it is not easy to measure objectively for 'standard' negotiations, research often uses of negotiator satisfaction with both the process and outcome as a proxy measure for negotiation success (Dwyer and Walker 1981). The method used to communicate during negotiations is likely to influence the perception of negotiation success.

1.2. THE PURPOSE OF THE STUDY

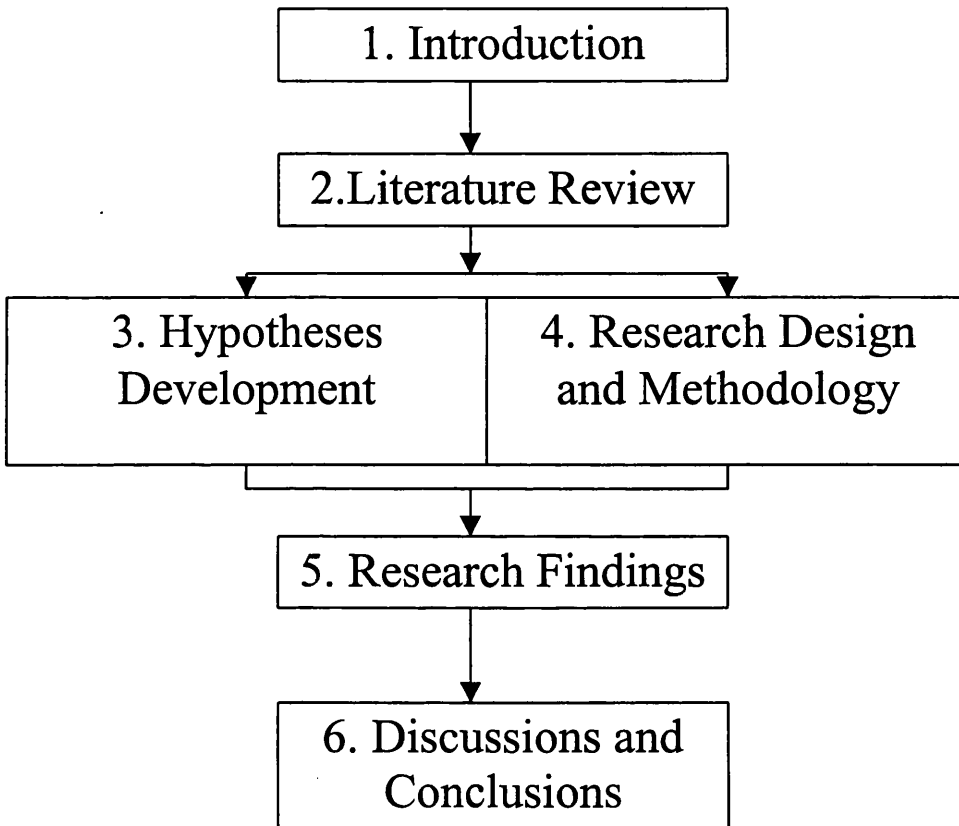
As indicated above, the majority of research pertaining to sales negotiation focuses on the face-to-face interaction. Current research using the Internet as a communication tool has yet to address the impact of communicating over the Internet on negotiations. It is the purpose of this research to bridge this gap by addressing the impact of changing the negotiation medium from the traditional face-to-face environment to the Internet environment. The purpose of this study is multifaceted:

- To investigate the impact of communication medium on negotiation success, looking at negotiator satisfaction as a measure of success.
- To investigate the effect of the identifiable processing types (e.g. cognition, precision and emotion) on negotiator satisfaction levels when compared across the two communication mediums (Internet and face-to-face).
- To investigate the effect of the identifiable cultural characteristics of negotiators on their satisfaction with negotiations using the two communication mediums.

1.3. STRUCTURE OF THE THESIS

The structure of this study is as follows:

EXHIBIT 1.1 STRUCTURE OF THESIS



The literature review presents relevant information from the current research and details the gap in the literature. It discusses business negotiations and how success is established, the influences on negotiations and subsequently their success, from an individual and cultural perspective. The hypotheses emanating from the literature review are presented in chapter three, and form the basis for this research study. The methodology section outlines how the practical investigation and experimentation was carried out, and also provides a discussion of the data analysis presented in chapter five. The final chapter discusses the findings of the research and how these findings could potentially impact on the business world as well as future research.

2. LITERATURE REVIEW

2.1. INTRODUCTION

This chapter examines the literature on cross-cultural business negotiations, looking particularly at how the communication medium has an impact on negotiation success. Specifically it considers how individual processing styles and cultural characteristics are pertinent to the communication medium used and have an impact on the success of both the process and outcome of negotiation. To achieve this the literature review is presented in three parts. First, negotiation itself is overviewed, i.e. what a negotiation is, what it is defined as and the negotiation context (in terms of perception, information processing and reaction) is examined. The second section of the literature review considers how success is measured. The different aspects of negotiation success – process and outcome – are examined, as are the types of measures that can be used – objective and subjective. This section also looks at negotiator satisfaction in some depth, specifically it considers how negotiation satisfaction is used to measure negotiation success and why this subjective measure is considered suitable for measuring the success of negotiations. Once a general overview of negotiations and the measurement of negotiation success have been given, the third section of the literature review looks at how the cultural characteristics of the negotiator and their individual processing styles impact on negotiations. How both are affected by differences in communication medium will be considered. The literature chapter closes with a concise summary.

2.2. BUSINESS NEGOTIATIONS

Since negotiation is such an important aspect of business success, in terms of the effect that negotiations have on profits, negotiation is an area that should be understood as fully as possible for businesses to benefit from the advantages of successful negotiation outcomes. Negotiation itself is an intricate process and involves many different aspects including behaviours, processes, outcomes, participants, and of course, profit (Bui and Shakuna 1996). More specifically negotiation is defined as a

process with at least two parties involved (Gulbro and Herbig 1996b), the aim of which is to reach some form of agreement on matters of mutual interest (Heydenfeldt 2000). Negotiation involves a process of 'give-and-take' (George *et al* 1998), it refers to the deliberate interaction of two or more parties attempting to define or redefine the terms of their interdependence (Heydenfeldt 2000). Negotiations involve tangible items, such as quantity sold or price, but also involve intangibles, for example, the need to 'keep face' (Lewicki *et al* 1997). As negotiation is defined as a process, to understand what negotiation is, it is necessary to look at the different aspects of the negotiation process.

2.2.1. ELEMENTS OF NEGOTIATION PROCESS

There are many models that attempt to explain the process of business negotiations (Johannessenn *et al* 1997, Money 1998, George *et al* 1998, Kersten *et al* 1999, Balakrishnan and Eliashberg 1995). These models examine the elements of the negotiation process, and the way in which these interact. Gulbro and Herbig (1996a) have broken down the process of negotiation into three elements: perception, information processing and reaction. All three of these elements are constantly interacting with one another.

Negotiators perceptions during negotiations derive from, for example, their negotiating partners, or the negotiating environment and relate predominantly to non-task related functions, or aspects of the negotiation which have no relation to the actual topic of the business negotiation. These non-task related functions can be broken down into the following:

- i) *Status distinction*, that depends on factors such as rank, age, gender, education and refers to the relative status of negotiators (Rao and Schmidt 1998)
- ii) *Impression formation accuracy*, that is formed during the initial contact between parties, and whether it is favourable or not (Graham 1983)
- iii) *Interpersonal attraction*, or the feelings of liking or attraction between the negotiating parties (Ang *et al* 2000).

Perceptions are often culture bound, for example, Graham and Herberger (1983) have stated that cultural differences in status distinction plays an important role, and its influence can be so pervasive that it does not only dictate what is to be said but how it is said.

The information processing that is carried out by negotiators is a predominantly task related function (i.e. is directly related to the task at hand) and relates to the exchange of information. This refers to the format and the amount of information that is exchanged between parties (Dawar *et al* 1996). The actual exchange of information is dependent on a variety of influences. For example, cultural norms of information exchange (e.g. whether information is translated implicitly or not), individual thought processes, as well as the interpretation of non-verbal information (such as emotions) can all impact on the exchange of information.

Another predominantly task related function of negotiation are the reactions experienced by negotiators. These may be examined by considering:

- i) *Persuasion and bargaining strategies*, that is how negotiators modify their expectations of, and offers to, the other negotiating party (Hawrysh and Zaichkoswsky 1989), and
- ii) *Concession making and agreements*, or the negotiators' initial positions and their final agreement point, taking into account any concessions made (Kristensen and Garling 1997)

Reactions can be both emotional and analytical in nature. Persuasion, bargaining, concession making and agreements are fundamentally analytical in nature, as the trade-off between initial and counteroffers must be made (Kristensen and Garling 1997). However, these can be influenced by the emotional characteristics of negotiation, for example, the desire to make greater concessions in a negotiation when interpersonal attraction between negotiators is significant (McGuire 1986).

2.2.2 NEGOTIATION AND THE ONLINE BUSINESS ENVIRONMENT

Much of the sales negotiation literature focuses on negotiations in a face-to-face environment. In addition, increasing globalisation has resulted in an increased volume of face-to-face negotiations between members of different cultures (George *et al* 1998). To date, the majority of research into cross-cultural negotiation has considered the impact of different factors on face-to-face negotiations. However, rises in the use of the Internet for business interactions, and the impact of changing the communication medium on cross-cultural negotiations indicate that use of the Internet as a business tool is likely to proliferate. Yet the Internet as a business negotiation tool has not yet been fully addressed in the current research literature. Research has focused on negotiations that are conducted in a face-to-face, physical environment, paying little attention to the 'virtual' world. Face-to-face negotiations provide many forms of information exchange through which people can communicate, e.g. tone of voice, facial features, body language, eye contact (Kersten, Koszegi, and Vetschera 1999), which cannot be carried out over the Internet. In contrast, 'virtual' negotiations (written exchanges, either in real time, such as chat rooms, or delayed time, such as emails) do not provide the large variety of opportunities for information processing as information can only be conveyed in the written format. Information that negotiators want communicated must be transcribed and conveyed in a 'verbal' form. There is little research on 'virtual' negotiation, and what literature there is, focuses entirely on the technology involved, and the value of negotiation support systems (Kersten and Noronha 1999a, and Kersten and Noronha 1999b).

Currently, business-to-business e-commerce stands at a staggering \$336 billion and looks set to rise to over \$6 trillion dollars by 2005 (Jupiter Research 2001). The astounding success of business-to-business commerce is set to increase not only in terms of sales revenue, but also in terms of percentage of overall sales. At present a mere 3% of business-to-business commerce is carried out online², but this is set to rise to over 40% over the next 5 years (Cyber Atlas 2001a). Yet while the use of the online environment is predicted to increase, research into understanding business in this environment remains scarce.

Practically, the traditional benchmarks of higher profits and joint gains have been reflected in negotiation support software. Negotiation support software is a tool that allows for more efficient solutions to be reached (D'Ambra *et al* 1998). This software is most useful to mediators and negotiators in one-time bargaining sessions, finding more optimal solutions than human negotiators can generally find on their own (Blecherman 1999). The technology works by carrying out a negotiation simulation, giving the most appropriate final outcome (suggesting the fairest and most efficient solutions) once both sides have entered the appropriate data in terms of costs, profit objectives, timescales, personnel involved/availability etc (Kresten and Noronha 1999). With the success of the Internet, negotiation support software has also been developed for online negotiations (for example; Interne³), these have been developed along the same lines as the more traditional negotiation support software.

In today's business world, however, the need to maintain alliances with customers and suppliers is essential. With increasingly competitive markets, it is often more important to maintain relationships, rather than go for the best one-off financial deal. In order to look at how the process of negotiating over the Internet contributes to building long-term business relationships, research needs to move beyond negotiation support software. With advances in technology occurring at a staggering rate (Cyber Atlas 2000), the process of Internet negotiation needs to be developed to increase satisfaction levels, in order to give businesses an edge over their competitors who may not have progressed to online negotiation transactions. If negotiation over the Internet is to be introduced successfully, then the process must be as effective as possible and create a positive framework from which to develop and maintain long-term business relationships.

² Defined as any sale made by a business to a business where either the terms of the transaction are agreed upon online, or the majority of terms or item features are configured online.

³ <http://interneg.carleton.ca/interneg/>

2.3. NEGOTIATION SUCCESS

There are different methods of assessing the success of negotiations. In turn these different methods can be influenced by different dynamics. For example, the different cultural values of individuals will impact on the negotiating style adopted. In return, the negotiating style adopted will impact upon how successful a business negotiation is perceived to be in terms of; a) the negotiation process, b) the negotiation outcome, or c) both the process and outcome.

2.3.1. PROCESS SUCCESS

Success with the negotiation process is predominantly influenced by an individual's attitudes towards others within the negotiation and the relationship that develops between parties (Spiro and Weitz 1990). When negotiators adopt particular styles of negotiation, then those involved are likely to be satisfied with the process of the negotiation and the process is likely to be considered as fair (Tanner 1996). The resulting outcome of this successful negotiation process might be a sustained business relationship. A successful process can be of long term benefit even if the transaction associated with a particular negotiation is not profitable, if it leads to continued business success in terms of long term potential sales revenue, continued business interaction or sustained business partnerships.

2.3.2. OUTCOME SUCCESS

Success with the negotiation outcome includes perceptions of participants' achievement (Gulliver 1979). Outcome success can be analysed, for example, in terms of profit, concessions or joint gains. Profit maximisation has long been considered a reliable method of assessing the success of a negotiation (Rubin and Brown 1975). However, this method of assessment tends to ignore the fact that the most successful outcome of a negotiation may be one in which both parties may attain higher profits, if both parties are successful at the negotiating table (Thompson and Hastie 1990). Although not mutually exclusive, this assessment can also overlook the need for continued business success, if profits are made at the expense of the other negotiating

party they are likely to be unwilling to enter into a sustained business relationship. Joint gains are also used as an effective method to gauge negotiation success. However, this method of evaluation also has its downside, as it is not unknown for there to be a situation where neither party realises any profit (Thompson and Hastie 1990). For example, joint gains may be an effective method of assessing success when analysing marginal social costs, where it is unlikely that there is profit to be made. One important influence on judging the success of a negotiation outcome is culture, as different cultures will look for different outcomes (Hofstede 1984). For example, individualistic cultures place great precedence on achieving the highest personal gains; therefore profit maximisation would be an outcome looked for by individualistic negotiators (Gefland and Christakopoulou 1999). In contrast, collectivist cultures place more emphasis on all parties reaching acceptable levels of achievement, as such joint gains would be of greater importance than exclusive profit maximisation as an outcome within these types of culture (Pruitt and Lewis 1975).

2.3.3. OVERALL SUCCESS

Success with both process and outcome can be measured by perceptions of fair joint gains (Evans and Belramini 1987) and/or with the establishment of a sustainable business relationship (Schuster and Copeland 1998). The last two criteria are interrelated; if the negotiators are satisfied, then it is more likely that a business relationship will develop from the negotiations (Suh 1999). However, while joint gains and sustained relationships these measures of success are obviously relevant, Dwyer and Walker (1981) advocate the use of negotiator satisfaction as a proxy measure for the success of sales negotiations. Satisfaction can relate to the process, the outcome or both, and as such, negotiation satisfaction has become an important surrogate measure for effective negotiations, particularly for building and maintaining long-term business relationships (Calantone *et al* 1998).

2.3.4. NEGOTIATION SATISFACTION

Satisfaction is an elusive concept, and at present there is little consensus in research relating to how people derive satisfaction from events or objects (Olaniran 1996). Satisfaction is however, a socio-emotive behaviour (Sanchez-Burkes *et al* 2000;

Hecht 1978; 1984; Marston and Hecht 1988) described as the total of an individual's negative and positive feelings towards events or objects (Wanous and Lawler 1972; Bailey and Pearson 1983). While there is no generally accepted definition of satisfaction, Giese and Cote (2000) found that most definitions of satisfaction in the literature encompass three elements:

- i) *Response* to any given situation, which can be either emotional or cognitive
- ii) *Focus*, which refers to the response experienced by individuals related to a given situation or a particular focus of the situation, for example, expectations and the subsequent 'real' experience
- iii) *Time*, the response to the focus occurs at a particular time in the experience, for example, after a negotiation, after a decision is made, after the decision is carried through to fruition (Giese and Cote 2000)

Looking more closely at satisfaction in terms of negotiation success, for a negotiation to be successful, all parties must be satisfied with the actual negotiation process, as well as the outcome of the negotiation (Adler and Graham 1989). The outcome of negotiation is enhanced when parties are satisfied with the process of the negotiation (Suh 1999). Low process satisfaction is related to an unwillingness to maintain business relationships. High process satisfaction positively influences the long-term prospects for a business relationship (Zhang and Fitzsimmons 1999). When participants are not satisfied with the negotiation process, then the resulting agreement is less optimal in terms of joint gains (Ting-Toomey and Kurogi 1998). At the extreme, dissatisfaction with the negotiation process can result in a complete breakdown in negotiations (Gulbro and Herbig 1996a). Although the actual outcome of a negotiation may not be acceptable to an individual, if the process through which the agreement was reached was reasonable, then those involved in the negotiation may be satisfied by the outcome (Tanner 1996). Thus it is important to reconcile satisfaction with the process of a negotiation, and not just to associate satisfaction with the outcome of a negotiation.

2.3.4.1. COGNITIVE AND AFFECTIVE ASPECTS OF SATISFACTION

The successful outcome of a business negotiation can be the result of satisfaction with psychological elements (e.g. interpersonal attraction) and/or satisfaction with rational element (e.g. profit maximisation) (Wertheim 1998). Failure to reach the 'optimal' outcome or best alternative can stem from intangible factors such as comfort with the conflict situation, negotiators perceptions, assumptions made about the attitudes and expectations about the other, or the decisions each makes about trust (Liao and Fonstad 1997). Consequently, when a negotiator is able to interpret his/her counterpart's behaviour, they are likely to be more comfortable in the negotiation, and more satisfied with the negotiation process. Since satisfaction is a mixture of cognitive and emotive reactions to situations, if we look more closely at the underlying concepts of satisfaction (i.e. cognition and emotion), we are better able to asses the significance of different satisfaction levels for the different types of communication medium. Prior research has shown that emotions and cognition are interrelated (Arnold 1960, Izzard 1977). The extent to which satisfaction with the negotiation process, outcome or both occurs, will be dependent on how satisfying the rational and affective driven decision-making factors are.

Rationality, in terms of negotiation, is the effective use of the available information concerning both the issues under negotiation, and the likely behaviour of a negotiating partner (Bazerman and Neale 1991). A rational decision is one that maximizes the negotiator's interests (Neale and Bazerman 1991). Rational decision-making requires the analysis, and effective use, of available information (Nicholson 1991). Slight differences in the meaning of the information may alter the rational choice and rational decisions often depend on fine-grained information processing (precision) (Viswanathan 1997). Rationality, as defined above, is universal, the 'information' that is processed, is not, however. For instance, high context cultures process more non-verbal information than low context cultures. The importance and type of information processed by an individual in order to reach a rational decision is reliant on the cognitive structures of that individual (Gelfand and Christakopoulou 1999).

The affective aspects that negotiators experience will have significant effects on the ways in which they process information surrounding the negotiation itself. This

includes the way in which they interpret their negotiating partner's actions and motives. Culture influences the emotions that are expressed and how these expressed emotions are interpreted (Izzard 1980, Goddard and Wiezbicka 1998). Due to this, culture, through the interplay of emotions, will have an impact on how satisfactory the negotiator finds the negotiation process and/or outcome. In addition, given that satisfaction is dependent on both emotions and cognition (Oliver 1993), it is necessary to examine how both are affected by the negotiation context, in particular by different forms of communication medium.

2.3.4.2. SATISFACTION WITH THE COMMUNICATION MEDIUM

The communication medium used to negotiate is likely to influence all aspects of the negotiation (i.e. the satisfaction level associated with the process and outcome satisfaction). In a face-to-face negotiation, the communication cues available to the negotiator include tone of voice, body language, eye contact and other non-verbal cues as well as the actual words spoken (i.e. verbal cues) (Kresten and Noronha 1999). These non-verbal cues contribute to both emotional (e.g. genuineness of smiles as an indication of liking) and cognitive (e.g. subtle differences in speech that indicate a person might be lying) elements of communication within the negotiation process (Poggi *et al* 2000). The extent to which non-verbal cues are available to the negotiators is dependent on the communication medium used. Face-to-face communication allows unlimited non-verbal cues to be used (Usunier 1999), telephone communication limits non-verbal cues to the voice (e.g. tone of voice, length of silences), while online communication reduces 'noise' by removing non-verbal cues⁴ (Liao and Fonstad 1997; Olaniran 1996). As the extent to which non-verbal cues are used by negotiators depends on the degree to which they use non-verbal cues in everyday communications, that is, their cultural norms, the negotiator's satisfaction with the communication medium is likely to be partially dependent on the availability of these cues. Consequently, the next section examines cultural

⁴ Emoticons, such as :- (to indicate unhappiness can be used, however, these have to be included explicitly and consciously by the message sender. Emoticons, unlike many non-verbal cues, are voluntary indications of the state of mind of the sender; they do not provide the receiver with more information about the sender than the sender permits.

characteristics and individual processing styles and their impact on the negotiation process.

2.4. THE IMPACT OF CULTURAL AND INDIVIDUAL INFLUENCES ON NEGOTIATIONS

Negotiation is not a process that can be standardised throughout the world, and business people have to be aware of the different influences on business negotiations (Calatone *et al* 1998). Due to the intricate nature of negotiation, there are potentially many factors influencing it; these can affect some or all of the elements within the negotiation process described previously (i.e. perceptions, information processing and reactions). This literature review however, concentrates on negotiators cultural characteristics and their processing styles.

2.4.1. CULTURE'S IMPACT ON NEGOTIATIONS

It has been said that the most pervasive variable in sales negotiations is culture (Luxmore 2000). The values and principles considered important by the negotiator's culture have an impact on negotiation (Volkema 1999). If negotiators associate similar values with a given set of behaviours then the cognitive structures of the negotiators are likely to be similar (i.e. individuals will associate similar behaviours with negotiations) (Botschen and Hemetsberger 1998). Individual's experiences will affect their interpretation of the behaviour of other negotiators from other cultures. These behaviours will relate to several elements of negotiation including: goals (contract or relationship?), attitudes to process (win/win or win/lose?), personal styles (formal or informal?), style of communication (direct or indirect?), time sensitivity (high or low?), emotionalism (high or low?), agreement form (specific or general?), risk taking (high or low?) (Salacuse 1998, Graham *et al* 1994). Overall, however, the negotiator's behaviour will lead to one of five basic negotiating styles. These have been categorised by Thomas Kilmann (1974) as; avoiding⁵ conflict altogether,

⁵ low assertiveness and low cooperativeness, conflict is avoided at all cost in an attempt to maintain group harmony, the goal is to "delay"

competing⁶ with others to 'win' a negotiation, collaborating⁷ in an attempt to join forces with others, accommodating⁸ others, allowing them to get what they want, compromise⁹, a combination of all four styles. These negotiation styles, along with cultural and individual characteristics will also influence a negotiator's attitude towards aspect of negotiation that indicate if a negotiation is successful.

More and more alliances are taking place on an international level and cultures are 'clashing' on a more daily basis. Therefore, it is appropriate to examine further the volatile impact of culture on negotiations. Since business conducted on an international scale is increasing, so are cross-cultural interactions with people at both individual and organisational levels (Kale and Barnes 1991). As such the need to exert influence over someone else with a distinctly different value system and background has also increased (Lewicki *et al* 1999). Consequently, the need to understand the significance of differences among cultures has become paramount to business, as these differences can impede the smooth resolution of negotiation situations (Morris *et al* 1998).

Culture consists of patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols (symbols refers to representational images, signs, words, and any nonverbal depictions of reality), constituting the distinctive achievements of human groups, including their embodiment in artefacts (Kluckhohn 1951). Throughout the literature, authors agree that culture is learned by individuals, it is not inherited (Boyd and Richerson 1985; Hofstede 1984; Kohls 1979; Tylor 1871).

This learning process is taught on both a conscious level, and an unconscious one (Ackerman 1998). Cultures are unique, and although they may be similar in different parts of the world, there will always be small subtle differences (Dorffman and Howell 1988). It should be noted that culture is a collective phenomenon meaning that

⁶ high assertiveness and low cooperativeness, there is little concern for others' goals, the purpose is to "win"

⁷ high assertiveness and high cooperativeness, the aim is problem solving and integration, the goal of the negotiation is to "find a win-win situation" maximizing joint gains

⁸ low assertiveness and high cooperativeness, sacrificing one's own goals for the sake of others, the objective of this negotiation style is to "yield"

⁹ negotiators are interested in their own goals as well as the other parties, there is moderate assertiveness displayed by negotiators and moderate cooperativeness, the ideal solution would be to "find a middle ground"

it is associated with groups of people, rather than individuals (Hofstede 1980). Culture aids in the overall effectiveness of living, as it indicates to people courses of action that proved to be effective in the past for the group (Parekh 2000). Culture manifests itself in several different ways. It affects language and concepts, what people consider important and how they behave, and communication forms. Each of these is examined below in the context of negotiation.

2.4.1.1 LANGUAGE AND CONCEPTS

Differences in culture can be as obvious as different languages and customs. Yet, it would be inappropriate to assume that because it is easy to spot a different language, there are not hidden differences that may affect a cultural exchange (i.e. where two cultures interact with one another and exchange information in an implicit and/or explicit manner). Business negotiations can be greatly affected by the different meanings attached to words or phrases; this often results in misunderstandings (Francis 1991). Misunderstandings in lexical equivalence (where words are translated literally between languages) have been extensively documented in much of the marketing literature, and there are many anecdotal stories of *faux pas* made in advertisements (Hoyer and MacInnis 1997). However, to ignore the less overt aspects of meaning, specifically the concepts, rather than the words used to describe concepts, can also be a mistake (Martin and Herbig 1997). If concepts are understood differently then this is likely to impact on the level of understanding that negotiators from different cultures have (Usunier 1999). Although two people may be using the same words to talk about an issue, their conceptual meaning may well be very different. For example, the Spanish language is more detailed in describing 'beauty' than English, whereas English is more accurate in describing 'waiting'. Within one culture it would be easy to detect the subtle differences in meanings due to the many words we could use to describe a single object. However, an outsider would find it more difficult to pick out the subtleties in the differences between meanings as a multifaceted concept in one language may only have a simple translation and meaning in their own language (Fatt 1998).

2.4.1.2 HOFSTEDE'S DIMENSIONS OF CULTURE

Negotiation research has looked at cultural differences and the impact of culture on negotiations. Much of the research involving culture has used the cultural distinctions made by Hofstede's (1984) investigation of over 40 cultures. Culture is a multi-dimensional concept, within which Hofstede initially identified four bipolar components. The main dimensions of culture identified by Hofstede are often used as the basis for distinguishing between cultures. Below are brief overviews of these concepts, and how they impact on negotiation:

Individualism/Collectivism – This concept relates to the relationship that an individual has with other members of his/her society (Hofstede 1984, Hui and Triandis 1986, Ting-Toomey 1992). Generally speaking, individualism reflects a standpoint that everyone should look after themselves and his/her nuclear family only. Ties with other members of society are weak. Examples of individualistic countries are the US and UK. Collectivism on the other hand reflects the view that people are integral members of a larger cohesive group. The welfare of the group is of utmost importance, and it should be put before the needs of the individual. Examples of collectivist countries are Pakistan and Indonesia (Hofstede 1984, Hui and Triandis 1986, Ting-Toomey 1992). Those from an individualistic culture prefer a competing style of negotiation, they want to compete with others to demonstrate that they are the best at negotiating and getting others to accommodate to their wants (Pearson and Stephan 1998). This confrontational style also demonstrates their desire to achieve their own, perhaps selfish goals, rather than helping others to achieve their differing goals (Gelfand and Christakopolus 1999). Collectivist cultures are more cooperative in nature, but this does not necessarily, however lead to collaboration (Ting-Toomey 1988, Trubisky *et al* 1991). Instead, collectivist cultures are more likely to adopt an avoiding or accommodating style during conflicts and negotiations (Rahim 1992, Morris *et al* 1998).

Masculine/Feminine – This concept describes whether society holds values that are traditionally masculine or feminine (Hofstede 1994, Kersten *et al* 1999, Newman and Nollen 1996). A masculine culture describes whether or not gender roles are obviously distinct within a society. In a masculine society, men are meant to be

aggressive, assertive and focused primarily on economic success. Women, on the other hand, are perceived as more modest, tender and concerned with quality of life rather than material success. Examples of masculine countries are Japan and Mexico. A feminine culture describes a society in which gender roles are 'fuzzy' or overlap to a greater extent. In societies such as this men and women are both concerned with the quality of life and concentrate on nurturing roles, as well as aspects of economic success. Examples of feminine cultures are Sweden and Norway. Masculine societies are likely to be more aggressive in their approach to business negotiation and adopt a competitive style. Proving their ability will be a priority for negotiators from a masculine society (Kolb and Putnam 1997). In contrast, more feminine societies are likely to adopt a compromising approach to negotiation (d'Estree and Babbitt 1998).

Uncertainty Avoidance – This concept is used to ascertain whether or not societies will act favourably towards uncertainties inherent in daily life. It refers to the extent to which members of cultures feel threatened by the prospect of the unknown. (Hofstede 1991, Brock *et al* 2000, Griffith *et al* 2000). In a weak uncertainty avoidance culture, the prospect of uncertainty is not seen as a problem, in fact it is an everyday occurrence, and people are not likely to avoid situations of uncertainty. Examples of weak uncertainty avoidance cultures are Singapore and Denmark. Strong uncertainty avoidance cultures are uncomfortable with uncertainty and will try to avoid unpredictable situations at all costs. Here the unknown is feared, routine and normality are desired (Hofstede 1984, Brock *et al* 2000, Griffith *et al* 2000). Examples of strong uncertainty avoidance cultures are Greece and Portugal. Strong uncertainty avoidance cultures are adverse to situations in which many factors are unknown, negotiations present unknown possibilities, and an avoiding negotiation strategy is likely to be adopted (Paszowska 1998).

Power Distance – This aspect of culture describes whether or not the distance between the most powerful and least powerful members of groups is accepted and expected, and whether unequal capabilities are allowed to develop into inequalities (Hofstede 1984, Dawar *et al* 1996, Schuler and Rogovsky 1998). In large power distance societies inequalities are maintained, it is acceptable for the most powerful members of a society to be revered and respected. Examples of large power distance countries are Mexico and Malaysia. In small power distance societies, hierarchical systems

based on such inequalities are deemed unacceptable. Examples of small power distance countries are Israel and Austria (Hofstede 1984, Dawar *et al* 1996, Schuler and Rogovsky 1998). Those cultures that demonstrate a tendency for large power distance are likely to have an accommodating approach to negotiations, as they will be accustomed to accepting orders from more 'powerful' parties due to fear of reprimand (Watson 1991). It is likely that those from a small power distance culture are likely to adopt a collaborative negotiating strategy, as they are accustomed to there being little difference among members and a more consultative relationship between members within society (Paszowska 1998).

2.4.1.3 HIGH/LOW CONTEXT CULTURES

Another field of research that aims to make distinctions between cultures is that of contextual research; high context or low context cultures. Different cultures place different levels of importance on the framework of social behaviour and interaction (Lachman *et al* 1994). Cultures vary in the amount of attention paid to the context of what is said rather than actual content (Triandis 1994). Contextual information includes the level or tone of voice, eye contact made, body posture, and physical contact (Miyahara *et al* 1998).

In high context cultures, people make extensive use of contextual information, this has been attributed to the fact that in-groups (groups with which there are strong ties and associations) are large with strong bonds between members, as such messages do not need to be spelled out (Triandis 1994). Those from a high context culture use numerous non-verbal cues to exchange information about a situation (Ting Toomey *et al* 1991). Collectivist cultures are often classed as high context cultures due to the greater amount of shared knowledge, as a result, different assumptions are made as to the amount of information a verbal or written message carries (Ting Toomey and Gao 1991). These high context cultures use more non-verbal communication since this non-verbal communication is often stronger than the verbal communication that accompanies the behaviour (Ting Toomey 1992). Collectivist cultures, such as China, have more demarcations for in- and out- groups. Collectivist cultures will share much detailed information within their in-groups, and more information can be transmitted

through covert and/or implicit messages (Keating 1994). This system of internalised messaging means that information can be withheld (sometimes accidentally) from non group members (Francis 1991). This method of communication, using much non-verbalised information coding, means that those who are not used to such methods of communication or who are not familiar with the overall background and knowledge, are not aware of the real meaning of the communication. Therefore, they can miss essential information contained within the undertone of the message (Hall and Hall 1990).

In contrast, low context cultures pay little attention to the contextual message (Morris *et al* 1998). Instead, they need to 'spell out' messages as there are so few members within an individual's in-group, and as such, there is a distinct lack of prior knowledge (Hargie *et al* 1994). Low context cultures use more direct methods of communicating. Information is passed on in explicit form, non-verbal cues are not as important and often incidental, and thus are not used expressly to communicate information (Hofmann 2000). Individualistic cultures are often classed as low context cultures, much less previous knowledge is assumed, and as a result, communications are much more explicit as the meanings of behaviours are not ingrained. Non-verbal communication carries less weight than more explicit communication. Individualist cultures, such as the UK, do not differentiate out-groups and in-groups to such a great extent as collectivist cultures, and their attitudes towards groups are more flexible (Feather 1994). Individualist communication style is direct; information that individuals want passed on to others is sent in plainly coded messages, details are verbalised, and contextual cues are rarely used to convey information.

Generally, high context communication exchanges have been found to be more satisfactory than low context exchanges (Suh 1999). However, if different cultures have different preferences for communication context then this is likely to impact on the satisfaction that they gain from the communication medium used during negotiation situations. For example, those from a culture that prefers high context communication are less likely to adapt to the 'virtual' communication medium of the Internet as readily due to their reliance on implicit information. Hence, not being able to "read" all of the contextual information normally present in a face-to-face negotiation will be considered as a disadvantage (Hofner 2000).

Although culture has a pervasive influence, the individual characteristics that negotiators bring to the “negotiating table” are also likely to impact extensively on negotiations of any sort. Each culture has different definitions and preferences for the influences described below, which in turn will impact on the process of negotiation (Graham *et al* 1994).

- Protocols – the degree to which formality is important to the negotiation process (Kayworth and Leidner 2000)
- Concept of time – for example, in the US time is a commodity which needs to be spent wisely, but in more traditional societies (especially those with hot climates) where the pace of life is slower, then time is a more abstract concept (Heydenfeldt 2000)
- Definition of negotiation – each culture has a different definition of negotiation, the difference between definitions impact to some greater or lesser extent on the negotiation process (Loo 2000)
- Nature of the agreement – what its purpose is, the final document or a building block (Schuster and Copeland 1999)

Culture can shape business negotiations by influencing the goals that are aspired to and by determining the behavioural strategies that are used to achieve those goals (Kopelman and Olekans 1999, Parnell and Kedia 1996). Cultural differences also contribute to an individual’s cognitive and emotional development, these are discussed below.

2.4.2 INDIVIDUAL PROCESSING STYLES AND THEIR IMPACT ON NEGOTIATION

2.4.2.1 THE WAY WE THINK

Cognition describes the processes involved in organising sets of knowledge, derived from past experience, that categorise and guide the processing of related information contained in an individual's experiences (Nishida 1999). Cognition develops through interaction with various systems such as environment and language (Genter and Medina 1998). There are various types of cognitive schema¹⁰, including person schema, self- schema and event schema or scripts (Taylor and Crocker 1981). Person schema contains knowledge about different types of people. People tend to be classified by their dominant personality trait, in some instances these person schema are linked to cultural stereotypes or prejudices, for example, Americans are loud and brash. Therefore in a negotiation situation, it might be assumed that a loud/outgoing American person would display an aggressive negotiating behaviour and not use an accommodating negotiation strategy. Self-schema on the other hand, contains knowledge about self. Self-schemas organise and guide the process of self-related information contained in individuals' experiences. For example, individuals will relate past experiences of negotiations situations to present situations in order to better organise information relating to the current negotiation situation. These schema will be influenced by the cultural background of the individual and may include concepts of time or negotiation protocols. Event schema or scripts are concerned with information about the appropriate sequence of events in common situations. These often include specific steps to take in given situations and rules for behaviour associated with the event. For instance, culture specific definitions of negotiation and the aim of negotiation agreement would influence the behaviours associated with the negotiation, e.g. in a culture where joint gains are important, it would be expected that negotiators make concessions in order to reach an agreement.

¹⁰ The organization of knowledge about a particular concept. The schema contains the features or attributes that are associated with a category membership

Self-schemas are cognitive generalisations derived from past experience that organise and guide the processing of self-related information. They are heavily influenced by social experiences, often shared by entire cultures (Strauss and Quinn 1998). An example of self-schema includes a negotiation situation when a bargainer may make concessions. As such, individual's self-schema will have an impact on the interpretation of their behaviour "I am reasonable." "I am trying to get the best price for both parties." Event schemas, such as a negotiating schema, provide cognitive warehouses of information, preconceptions and proper actions relating to a particular type of event (Brett and Okumura 1998). This databank stores strategies that can be used to structure sequences of behaviour. The process and outcome of negotiation can be considered within this framework as cognitive decision-making tasks (Gelfand and Christakopolou 1999). Hence, individuals construct mental representations of the conflict situations, the issues and their opponents.

2.4.2.2 THE WAY WE FEEL

Emotions have been defined as the '...pre-wired internal processes of self maintenance...' (Ekman 1984). However, emotions are considered more as social practices that have been channelled by our understanding of the world and construal of the self (Markus and Kitayama 1991). Emotions are socially shared and collectively enacted scripts (Campos, Campos and Bartlett 1989). Consequently, emotions are believed to relate to individual functioning by helping solve specific problems of social life, such as forming attachments, rectifying injustices, or negotiating social status (Morris and Keltner 2000). Emotions can be conceptualised at three levels; language, facial expressions and the amount of emotion displayed.

The linguistic concept of emotion refers to the literal meaning of words such as anger - anger for instance may have different (or multiple) meanings in another language, so although we may say that we felt anger, someone from another culture may misinterpret our emotion (Wierzbicka 1999). This misinterpretation of language could be critical in a non-verbal environment where only language is used to express emotions. For example, in an online environment a statement would need to be made if a negotiator wanted to show that they were angry, whereas in a face-to-face

environment tone of voice and body language, i.e. non-verbal cues, could be used to express emotions. Linguistic concepts of emotions would have to be correctly interpreted and translated in order to fully understand the emotional concepts involved within a negotiation exchange (Sullivan 1998).

At another level, different cultures have distinct interpretations for facial expressions, thus some interpretations of facial expressions may not translate (Ekman 1980, 1984, Lutz and White 1986). For example, the Tasaday tribe does not have a word for anger, as they believe the concept to be irrelevant to their society (Nance 1975). As such, if a photograph were shown to them of someone in a state of anger, they would not define the emotion as anger. In a face-to-face negotiation environment, different categorisations of facial expressions may add confusion to the negotiation situation due to different interpretation of facial expressions.

There also exists 'guidelines' for experiencing emotions, that is for regulating everyday emotional expression by determining norms for 'emotional behaviour' (Ekman 1972), and the display rules for emotions (Keating 1994). These are likely to effect negotiations due to acceptable (and unacceptable) emotional display rules. Different cultures may be uncomfortable with or offended by different levels of emotion displayed by negotiating partners, as such, negotiators must be aware of these display rules.

2.4.3 INTERACTION OF CULTURE WITH COGNITIVE AND EMOTIVE EXPERIENCES

Culture consists of an intricate balance of factors, which are constantly interacting with one another evolving the cultural dynamic of groups. This equilibrium consists of both cognitive and emotive experiences, moulded by the cultural dynamic. These experiences dictate, through the many types of representation, the way in which information is interpreted (Hall 1959). It is cultural values and norms that determine for groups what is important and what is appropriate. These norms and values provide cultural groups with templates (for interpreting situations, and the behaviours of others) and sequences of appropriate action (scripts) (Brett and Okumura 1998).

Negotiation can be understood as a particular situation in which cognitive decision-making takes place; hence cognition (which is culture bound) has an impact on the negotiation process (Kopelman and Olekans 1999). Cognitive schema dictates one's own behaviour, and also how the behaviour of others is interpreted. Cognitive development is experience driven and depends on an individual building up information about their external environment, the procedures and systems in the external environment, and strategies that can be used to cope with both (Halford and McCredden 1998). Therefore, differences in opportunities for learning and differences in the external environment will result in different cognitive structures. As such, individuals from different cultures will have different perspectives on the same situation and this will influence their approach to the negotiation (Graham *et al* 1994). Consequently, cultural differences, through the formation of a society's norms and values, play a major part in shaping an individual's external environment, and result in individuals from different cultural groups having different templates for interpreting and responding to the same situation (Brett and Okumura 1998). As such, culture affects the way people think (George *et al* 1998). However, it is not only the rational elements of knowledge and information processing that are affected by culture; emotions are also moulded by culture.

Hofstede's dimensions of culture have also been used to look at emotional experiences. Those from individualistic cultures, for example, experience more 'ego-focused' emotions¹¹ such as anger and pride. Whereas, those from collectivist cultures are controlled more by 'other-focused' emotions¹² such as sympathy and indebtedness (Markus and Kitayama 1991). However, cross-cultural studies also show that culture affects emotion in three ways (Izzard 1980; Russell 1991; Schimmack 1996): through the kinds of events that cause us to experience emotions, via the expression of emotion through cultural display rules, and by the actions caused by the emotion (what to do after experiencing an emotion). Emotions can rarely be removed from the situation in which they are experienced. When individuals perceive an event, their culture will influence the way in which events are appraised in relation to emotional values and experiences. Thus, culture's opportunity to influence the transmission of emotion begins as stimulus events are appraised (Keating 1994). Since culturally

¹¹ Ego-focused emotions i.e. that have the individual's internal attributes as the primary referent.

defined eliciting situations and behaviour responses are included as part of the definition of emotions, emotional terms can convey covert cultural ideologies (D'Andrade 1987). Therefore, facial muscle movements, compatible with feeling states, are refracted or reflected by cultural lenses by filtering the emotions shown on the face. While there is evidence for the universal experience of moods and emotions, culture influences the expression of emotion through cultural display rules or norms prescribing which kinds of feelings can and should be displayed or expressed in various kinds of contexts (Ekman 1980 1984, Lutz and White 1986).

2.5. SUMMARY OF THE LITERATURE REVIEW

The literature available relating to business negotiation in a cross-cultural environment is extensive, and offers wide-ranging hints and tips concerning what to and what not to do in a diverse variety of situations (Kersten *et al* 1999, Money 1998, George *et al* 1998, Johannessenn *et al* 1997, Balakrishnan and Eliashberg 1995). Although there has been some initial analysis into online and computer assisted negotiations, there is little research into online real-time negotiations. It is therefore necessary to conduct research into Internet negotiations to determine negotiators' satisfaction with the medium, as well as the feasibility of using the Internet as a business negotiation tool. The literature review discussed research pertaining to cross-cultural sales negotiations in both off- and online environments, and highlighted the impact of cultural and individual characteristics on negotiation situations and participants. Also discussed within the literature review were methods of assessing negotiation success. The literature covered has provided an analysis of the issues relating to the study's objective – to investigate the impact of individual and cultural characteristics on negotiator satisfaction (as a measure of negotiation success) when compared across the two real-time environments of face-to-face and Internet business negotiations. The next chapter formulates specific hypotheses for testing.

¹² Other focused emotions i.e. emotions that have another persons' attributes as the primary referent.

3. HYPOTHESES DEVELOPMENT

3.1. RESEARCH PURPOSE

Due to the phenomenal rise of the Internet as a communication medium it is prudent for businesses to investigate this area of communication in terms of negotiations. This will enable organisations to develop effective strategies to increase satisfaction with the process of online business negotiations in order to help establish and sustain business relationships. As satisfaction is cognitive and affective in nature, it is reasonable to infer that satisfaction is affected by individuals' processing styles, i.e. by an individuals need for cognition, (precision – being another aspect of cognition) and emotion. In addition, as culture has been shown to influence both behaviours and emotions, its influence on satisfaction also needs to be taken into account. Within the context of the present study, satisfaction has been broken down into three facets: negotiation process satisfaction, negotiation outcome satisfaction and satisfaction with the negotiation communication medium. It extends the literature review by developing specific hypotheses to test and is followed by the research design chapter that shows how the testing will take place. This study aims to investigate the effect of different negotiation contexts (online/face-to-face) on satisfaction with the negotiation.

3.2. HYPOTHESES

3.2.1. EFFECT OF A CHANGE IN COMMUNICATION MEDIUM ON SATISFACTION

The change in the communication medium from face-to-face to Internet negotiations will have a fundamental effect on satisfaction. Communication mediums that are rich in information (i.e. where information is transmitted in more than one form, for example, what is said, how it is said, body language, tone of voice) are more satisfying, in general, than communication mediums that are low in information (i.e. where information is not transmitted in more than one form, for example, written communication) (Irani 1998). Therefore, all negotiators are likely to have greater satisfaction with negotiations that are conducted using a communication medium that

is rich in information (i.e. face-to-face communication which transmit much information in the form of verbal cues and body language), rather than communication mediums that are low in information (i.e. Internet communication where messages are transmitted in written form). Thus it can be hypothesised that:

H_{1a}: Negotiation process satisfaction will be greater when negotiating face-to-face than when negotiating online.

H_{1b}: Negotiation outcome satisfaction will be greater when negotiating face-to-face than when negotiating online.

H_{1c}: Communication medium satisfaction will be greater when negotiating face-to-face than when negotiating online.

3.2.2. EFFECT OF CULTURAL CONTEXT ON SATISFACTION

Cultures can be classed as high and low context, where context refers to the focus of the communication process itself. Participants from high context cultures are more aware of, and attuned to, non-verbal cues than individuals from low context cultures (Hofmann 2000; Gulbro and Herbig 1996b; Hall 1976). Negotiators from high context cultures are likely to rely on non-verbal communication to a greater extent than their low context counterparts (Buttery and Leung 1998). Those from low context cultures would be expected to adapt better to a negotiation environment that removed non-verbal cues (Hofner 2000). Thus it can be hypothesised that:

H_{2a}: Negotiators from high context cultures will have higher levels of negotiation process, outcome and communication medium satisfaction in a face-to-face negotiation than negotiators from a low context culture.

H_{2b}: Negotiators from low context cultures will have higher levels of negotiation process, outcome and communication medium satisfaction in an online negotiation than negotiators from a high context culture.

H_{2c}: The change in satisfaction across negotiation mediums will not be consistent across high and low context cultures according to the communication medium used.

3.2.3. EFFECT OF CULTURAL CHARACTERISTICS ON SATISFACTION

Cultural characteristics are likely to impact on negotiation satisfaction. Hofstede (1984) identified four cultural characteristics individualism/collectivism, masculinity/femininity, uncertainty avoidance and power distance, which will be considered in this study. Looking first at individualism/collectivism, individualist cultures do not differentiate out-groups and in-groups to such a great extent as collectivist cultures, and their attitudes towards groups are more flexible (Feather: 1994). Individualistic communication style is direct. Collectivistic communication uses more covert and implicit messages (Keating 1994). As such, collectivist individuals are likely to be less comfortable with the low context communication used in Internet negotiations. The cultural characteristic of masculinity/femininity is complex. Previous research has shown that feminine cultures tend to be more affective in nature (Flett *et al* 1986). As such the more high context nature of face-to-face communication that allows individuals to experience more affective stimuli is likely to be preferred by feminine cultures.

The third of Hofstede's (1984) measures, uncertainty avoidance, is also likely to impact on negotiator satisfaction. Low uncertainty avoidance cultures are not as threatened by the prospect of risk and uncertainty as high uncertainty avoidance cultures. In Internet negotiations, where precise details can be revisited, uncertainty can be avoided, as such Internet negotiations are expected to be a less threatening situation than a face-to-face negotiation for those from a high uncertainty avoidance culture. Compared to the Internet negotiation, face-to-face negotiations will have a higher degree of uncertainty associated with them as participants will not have the ability to look back on the negotiations in a written format and find out exactly what has been said. In addition, face-to-face negotiations, although more information is available (non-verbal as well as verbal cues) there is a greater likelihood that these will be misinterpreted, as the negotiator may not be familiar with the particular norms

of their negotiation partner. This in turn will increase uncertainty. As face-to-face negotiations have a greater potential for uncertainty, it suggests that the low uncertainty avoidance cultures will be more likely to prefer face-to-face negotiations than those from a more high uncertainty avoidance culture. Power distance is likely to impact on satisfaction levels. In face-to-face negotiations the power distance of the negotiators is likely to be more apparent, as such those who display a tendency towards a large power distance are likely to feel more intimidated by the situation. Internet negotiations will remove this barrier to communication, individuals with small power distance, are unlikely to be affected by the change in communication medium as relative power distance is unlikely to be a concern. Thus it can be hypothesised that:

H_{3a}: During face-to-face negotiations, satisfaction will be positively related to the level of collectivism, femininity, low uncertainty avoidance and low power distance.

H_{3b}: During online negotiations, satisfaction will be negatively related to the level of collectivism, femininity, low uncertainty avoidance and low power distance.

H_{3c}: The influence of the level of cultural characteristics on process, outcome and communication medium satisfaction will differ according to the communication medium used.

3.2.4. EFFECT OF INDIVIDUAL PROCESSING STYLES ON SATISFACTION

While high context communication mediums are generally more satisfactory than low context communication mediums (Suh 1999), individual characteristics such as need for precision (Viswanathan 1997), need for cognition (Cacioppo and Petty 1982), and the need for emotion (Raman *et al* 1995) are also likely to have an impact on the satisfaction derived from the different communication mediums. Internet negotiation allows participants to look back on what has been 'said' and keep track of previous offers and reference points more effectively. The ability to look back on a situation affords negotiators with the opportunity to 'strategise' to a greater extent. This gives

negotiators the opportunity to think about the problem more, and to perform more detailed fine-grained processing of the situation. Although issues can be revisited verbally in face-to-face negotiations, exact reiteration of previous verbal exchanges is not possible, and the time delay that is more acceptable in 'virtual' communication exchanges is not present and time cannot always be spent processing information. Communication mediums that are less prone to emotional exchange allow individuals to ignore the 'emotional noise' within the negotiation process¹³. These negotiation exchanges can be considered more cognitive in nature, disregarding the affective aspects of communication exchange. Thus communications that allow less emotional noise (Internet negotiations) will appeal to individuals who are more cognitive in nature. In contrast, individuals who have relatively high emotional needs are likely to prefer more affective communication situations where non-verbal cues are available. These mediums allow more subtle exchanges of information to occur such as body language, facial expressions and tone of voice (Booth-Butterfield and Booth-Butterfield 1990). It could be argued that high context communication will be favoured over low context communications by the individuals. Thus it can be hypothesised that:

H_{4a}: During face-to-face negotiations, process, outcome and communication medium satisfaction will be positively related to an individual's need for emotion, and negatively related to an individual's need for cognition and precision.

H_{4b}: During online negotiations, process, outcome and communication medium satisfaction will be positively related to an individual's need for cognition and precision, and negatively related to an individual's need for emotion.

H_{4c}: The influence of the individual's processing styles on process, outcome and communication medium satisfaction will differ according to the communication medium used.

¹³ Second International Conference on Web-Management in Diplomacy, Feb 2002

3.3. OVERVIEW OF HYPOTHESES

The following table presents a synopsis of the hypotheses to be investigated as part of this research. It gives a basic overview of the hypotheses described earlier in the chapter.

TABLE 3.1 SYNOPSIS OF HYPOTHESES

H_1	Satisfaction will be greater for face-to-face negotiations than for internet negotiations.
H_2	Negotiators from high context cultures will differ from negotiators from low context cultures in their level of satisfaction with face-to-face and Internet negotiations.
H_3	The cultural characteristics of the negotiators will influence their level of satisfaction with face-to-face and Internet negotiations.
H_4	The individual processing styles of the negotiators will influence their level of satisfaction with face-to-face and Internet negotiations.

The preceding discussion has highlighted a number of factors that may influence the satisfaction of negotiators. Having established the research questions to be addressed by this study, the following chapter discusses how these hypotheses were introduced into a negotiation simulation. The experiment background, subjects, setting, data collection, reliability, measurement and procedures are all described.

4. RESEARCH DESIGN AND METHODOLOGY

The literature review has shown that there is a distinct lack of investigation into the Internet as a negotiation tool for cross-cultural business interactions. Extensive research has been carried out in relation to face-to-face negotiations (Triandis *et al* 2001, Bercovitch and Houston 2000, Heydenfeldt 2000, Ang *et al* 2000) both in terms of intra- and inter-cultural interactions. In recent years, with advances in technology, research papers have also appeared concerning the effectiveness of computer mediated negotiation systems, and with the emergence and growing importance of the Internet, this research has evolved to examine online negotiation support systems (Huang 1996, Bui 1994, Kilgour *et al* 1991). However, these systems lack the ability to create relationships among individuals. The majority of these studies have examined effectiveness of business negotiation in terms of profit maximization, and the concept of satisfaction has been largely ignored.

This study extends the current research on cross-cultural negotiations by using Internet communications. Suh (1999), Calatone *et al* (1998), and Adler and Graham (1989) have all established that the greater the satisfaction derived from a negotiation, the more optimal the outcome of the negotiation. This research focuses on this pivotal argument and aims to determine the comparative effectiveness (in terms of satisfaction) of Internet and face-to-face sales negotiations.

The objective of the following chapter is to set out the methodology used to test the hypotheses discussed previously. By investigating satisfaction levels, as the result of business negotiation simulations, it is hoped to establish a foundation as to the validity of using online business negotiations instead of face-to-face negotiations for business negotiations. The process and outcome of business negotiations are important contributing factor to establishing and maintaining successful business relationships. Determining whether or not online business negotiations are satisfactory enough to warrant further research, and business experience in the field, is the ultimate goal of this research.

4.1 RESEARCH DESIGN

The research design is experimental in nature, and looks to incorporate the satisfaction that negotiators experience with the process and outcome of a sales negotiation, as well as satisfaction associated with the communication medium. This research compares the satisfaction levels that negotiators experience when using two different communication mediums (face-to-face and 'virtual' negotiations). Questionnaires and simulations of business negotiations were used to assess satisfaction levels with the two different mediums.

The main data collection instrument consists of 3 questionnaires. Questionnaires were administered to participants both before the experiment, and after each business negotiation simulation. Each negotiation simulation was based on Kelley's (1966) negotiation matrix. Negotiation simulations were used to better control the negotiation environment. Real life business negotiations are open to many uncontrollable factors, which will indirectly and directly influence the negotiation environment and therefore the process of negotiation and resultant outcomes. By using negotiation simulations many external influences can be controlled, such as length of negotiation, outcome of negotiation (i.e. price band A – see Appendix 1), complexity of negotiation, cultures, and number of people involved in the negotiation.

To test the research hypotheses, the negotiation simulation experiments used can be broken down into the two factorial design shown (table 4.1). Results from the experiments can be considered along the dimensions of

- Contextual cultures (i.e. high or low context cultures)
- Cultural characteristics (Hofstede's dimensions of culture)
- Processing styles (i.e. 'Need for's)

A total of 60 individuals participated in the business negotiation simulations. Two cultural groups, one high context and one low context were selected to take part in the negotiation. The two cultures chosen to take part in the research were significantly different along three of the four dimensions of culture as described by Hofstede

(1984). Appendix 2 shows where the two countries scored according to Hofstede's dimensions of culture. Participants were grouped to a contextual cultural group (high/low) based on their nationality (British – low context culture, Greek – high context culture).

TABLE 4.1 MAKE UP OF NEGOTIATORS PARTICIPATION IN INTERNET AND FACE-TO-FACE NEGOTIATIONS ACCORDING TO NATIONALITY

		Communication Medium	
		Face-to-Face	Virtual
Culture	Greek	29	29
	British	31	31

4.2 SUBJECTS AND SETTING

Due to the large number of simulations involved it was decided that the experiments would be too intrusive in real business surroundings. In addition, the local business environment does not offer the diversity of cultural mix needed for the investigation, and therefore, has limited scope for cross-cultural negotiation situations. In addition, as culture is the main classification variable, a homogenous a group as possible is preferable in order to remove (or equalise) exogenous factors (Reynolds *et al* 2003). Mann (1980) has also previously advocated the use of students in order to minimise variance on age, gender and socio-economic status. As Abramson *et al* (1993) also point out; students are not far off from being the young executives of tomorrow; they often have relevant work experience, and on graduation will become employees. Hence, in order to undertake this experiment, university students, instead of business people, were used in the business negotiation simulations. This was acceptable, as the focus of the study is the process of the negotiation and the impact of the communication medium, rather than the negotiation outcome.

Since a large number of participants were needed for this experiment, a readily available source of participants was recruited by using students from a UK university. The university student base also offered the possibility of accessing different cultural

groups, and relatively large samples from some of those cultural groups. For this research, students were taken from two cultures with distinctly different cultural characteristics (as defined by Hofstede's (1984) four dimensions of culture). Greek and British cultures were compared for the purpose of this investigation, these two cultures are distinct from each other along three of Hofstede's identified dimensions (individualism/collectivism, power distance and uncertainty avoidance). British and Greek cultures, while also differing on the masculine/feminine dimension, are closer on this dimension than on the other three dimensions (see Appendix 2).

None of the participants had previously taken part in any sales negotiations at a national or international level or taken any courses relating to sales negotiations. All 60 of the participants in the negotiation were aged between 18 and 41, 42 males and 18 females took part in the experiment representing 70% and 30% of the final sample accordingly. An incentive to take part in the experiment was provided by the opportunity to win a prize in a prize draw. No financial reward was offered, and the prize was won through a raffle, rather than performance during the negotiation.

4.3 DATA COLLECTION

The main data collection method used was questionnaires. Three questionnaires were administered to participants, the initial questionnaire was handed out prior to any negotiation taking place; the other questionnaires were administered after each negotiation simulation. The aim of the first questionnaire was to establish individuals' preferences for processing styles and the four characteristics of culture as defined by Hofstede (1984). Questions were related to the following scales: need for precision (NFP), need for cognition (NFC), and need for emotion (NFE). The three scales were mixed so as to disguise the true focus of the questions. All three scales were administered using a 7-point Likert scale. In addition, mixed in with these statements were statements relating to Hofstede's four dimensions of culture (Kale and Barnes 1991) (for a full version of the primary questionnaire see Appendix 3). The questionnaire administered to participants after each negotiation contained questions relating to how negotiators felt about negotiations, their negotiating partner and their satisfaction with the negotiation. These questions were broken down into sections

referring to negotiation outcome, negotiation process and communication medium used. (For a full version of the post-negotiation questionnaire see Appendix 4).

4.4 PROCEDURE

The negotiation experiments were advertised in undergraduate lectures, on notice boards, through emails and in postgraduate labs. After participants had shown interest in taking part in the experiment, an appointment was arranged to take part in the two negotiations one after the other. All participants were informed at this stage that there would be a prize for taking part, and that the prize would be won through a prize draw, and not on the results of their performance in the experiment.

When participants arrived at their appointment they were given a questionnaire to fill in. There was no time limit to complete this questionnaire. Questions included demographic and psychographic questions. All participants were told that their participation in the experiment would be recorded on to minidisk in the face-to-face situations, and saved on disk during the Internet negotiations. Consent was gained to use this data in the present and any future research by the department. All of the participants were assigned the role of seller within the negotiation simulation in order to reduce variation. Participants were randomly assigned which method of communication to be used first, i.e. face-to-face or Internet. All participants were assigned to negotiate with the same buyer, which further reduced variation in the negotiation simulation.

The negotiation simulation used is based on Kelley's negotiation matrix (Kelley 1966), where participants have to negotiate for the price of three different products. The negotiation game is simple enough to be learned quickly, but complex enough to last more than a few minutes. Each negotiator received an instruction sheet, including price lists and associated profits corresponding to each price level (see Appendix 1). Participants were then allowed 15 minutes to read the information and plan their negotiation strategies (i.e. negotiators can plan to pursue a strategy of joint gains or to maximize individual profit). After completion of the negotiation simulation,

participants were asked to fill in a questionnaire relating to their satisfaction with the negotiation.

The seller was told that they worked for a world-renowned manufacturer and wanted to sell to a similarly reputed retailer. A business relationship would be highly profitable for both parties, at the present time no business relationship exists between the two parties, and a 'deal' hinges on this meeting, the seller was also told that they were not the only manufacturer in talks with the retailer at the present time. Sellers were told that they must attempt to develop a business relationship with the buyer; their task was to sell a bulk order of three different products to the prospective buyer. Participants were told that the three products could be sold as individual orders, or as a 'group deal'. Sellers were informed that face-to-face negotiation must be concluded within 30 minutes, Internet negotiations must be concluded in 45 minutes, and a deal must be reached or the negotiation would be considered null and void. Participants were also told that as the seller, they must make the first offer in order to start the negotiation (for a full version of the instructions see Appendix 1).

The seller then met with the buyer, and the sales negotiation ensued. After the allocated time, if a deal had not been reached, the negotiation was called to a halt. Participants then filled in a questionnaire relating to the negotiation simulation questions including sections on satisfaction in relation to the process, outcome and communication medium used in the sales negotiation simulation (see Appendix 4). The participants were then briefed on their next negotiation, using the communication medium they have not yet used. Participants were again given 15 minutes to read the instructions. The instructions given were similar to the previous sales negotiation, the only change being the products being sold, and the profit levels associated with each sales bracket. After the second sales negotiation the participants were again asked to fill in a questionnaire relating to the satisfaction in relation to the process, outcome and communication medium used in the sales negotiation simulation.

4.5. VERIFICATION OF SCALES

Cronbach's alpha was used to ascertain how the set of variables used within the research measured a single uni-dimensional latent construct e.g. satisfaction with the process, or need for cognition. When data have a multidimensional structure, Cronbach's alpha will usually be low. When data have a uni-dimensional structure, Cronbach's alpha will usually be high (a reliability coefficient of .70 or more is generally considered to be acceptable).

4.5.1. RELIABILITY OF INDIVIDUAL CHARACTERISTICS SCALES

Initially, the three scales used during the pre-simulation questionnaire, relating to 'Need fors' were tested to verify their uni-dimensionality. The three scales were tested for reliability using Cronbach's alpha (see Appendix 5 for the reliability analysis of the three scales.) The reliability of the Need for Precision scale was .6966. The reliability of the Need for Cognition scale was .7524. The reliability of the Need for Emotion scale was .8334. As such, we can assume that all three scales represent reliable uni-dimensional constructs.

4.5.2. RELIABILITY OF SATISFACTION SCALES

The three scales used in the post-simulation questionnaire, relating to process, outcome and communication medium satisfaction were tested to verify their uni-dimensionality. Again, the scales were tested for reliability using Cronbach's alpha (see Appendix 6 for the reliability analysis of the satisfaction scales.) The reliability of the process satisfaction scale was .7950. The reliability of the outcome satisfaction scale was .7149. The reliability of the Internet communication medium satisfaction scale was .6980. As such, we can assume that all three satisfaction scales represent reliable uni-dimensional constructs.

4.6. PROPOSED DATA ANALYSIS

4.6.1. PAIRED T-TESTS

A paired t-test is a statistical test that is performed to determine if there is a statistically significant difference between two means. The procedure involves calculating a "difference score" for each subject. A test statistic called "t" is then calculated. This t score is a measure of how far apart the average difference score is from zero in standard units. The larger the t value the more likely it is that the difference score is not zero and hence the difference between the means is reliable and/or significant. A t-test often matches our intuitions about when a result can be trusted. It is more likely that a difference between two means is reliable when:

- The difference between the means is large
- The amount of variation in the scores is small
- The size of the samples are large

The paired t test matches these intuitions since the value of t will be the largest when these three conditions are met. A paired t-test is generally used when the following conditions apply:

- Two means are being compared
- Within-subject design is being used
- Measurements are normally distributed
- The data are measured on an interval or ratio scale

The most important results are the p value and the confidence interval. The p value answers the question: If the "treatment" had no effect, what is the chance that random sampling would result in an average effect as far from zero? Test results are interpreted differently depending on whether the p value is small or large. If the p value is small, then it is unlikely that the "treatment" effect observed is due to a coincidence of random sampling. The idea that the treatment has no effect can then be rejected. If the p value is large, the data do not give any reason to conclude that the

“treatment” had an effect. This is not the same as saying that the treatment had no effect. This means that there is no *evidence* of an effect.

Paired T-tests will be carried out to determine if there is a statistically significant difference between process, outcome and communication medium satisfaction means for the two communication mediums.

4.6.2. INDEPENDENT T-TESTS

An independent t-test is similar to the paired t-test. An independent t-test is generally used when the following conditions apply:

- Two means are being compared
- Between-subjects design is being used
- Measurements are normally distributed
- The data are measured on an interval or ratio scale

Again, the most important results are the p value and the confidence interval. The p value answers the question: If the populations really have the same mean, what is the chance that random sampling would result in means as far apart as observed. If the p value is small, then it is unlikely that the difference observed is due to a coincidence of random sampling. The idea that the difference is a coincidence can be rejected, and conclude instead that the populations have different means. If the p value is large, the data do not give any reason to conclude that the overall means differ. Even if the true means were equal, you would not be surprised to find means this far apart just by coincidence. This is not the same as saying that the true means are the same. This means that there is no *evidence* that they differ.

Independent t-tests will be carried out to determine if there is a statistically significant difference between high and low context cultures in relation to Hofstede’s dimensions of culture.

4.6.3. MANOVA ANALYSIS

Multiple analysis of variance (MANOVA) can detect mean differences among a number of different groups on several different measures while protecting for chance findings. It is used to see the main and interaction effects of variables on multiple dependent interval variables. MANOVA uses one or more categorical variables as predictors, like ANOVA. However, unlike ANOVA, there is more than one dependent variable. Where ANOVA tests the differences in means of the dependent interval, MANOVA tests the differences in the vector of means of the multiple interval dependents. There are many potential purposes for MANOVA:

- To compare groups formed by categorical independent variables on group differences in a set of dependent variables.
- To use lack of difference for a set of dependent variables as a criterion for reducing a set of independent variables to a smaller number of variables.
- To identify the independent variables which differentiate a set of dependent variables the most.

MANOVA analysis should be used over ANOVA analysis when the dependents are correlated. This is because ANOVA only tests differences in means, whereas MANOVA is sensitive not only to mean differences but also to the direction and size of correlations among the dependents.

MANOVA analysis will be carried out to determine if there is a statistically significant difference within the test group (i.e. if the British and Greek samples differ) in relation to Hofstede's dimensions of culture.

4.6.4. CORRELATION ANALYSIS

When two variables vary together, there is covariation or correlation. The correlation coefficient, r , quantifies the direction and magnitude of correlation. Correlation is not the same as linear regression, but the two are related. Linear regression finds the line that best predicts Y from X . Correlation quantifies how well X and Y vary together.

Correlation calculations do not discriminate between variables, but rather quantify the relationship between them. The correlation coefficient (r) is used to interpret the results of this statistical test. The correlation coefficient, r , ranges from -1 to +1.

Value of r	Interpretation
$r = 0$	The two variables do not vary together at all.
$0 > r > -1$	The two variables tend to increase or decrease together.
$r = 1.0$	Perfect correlation.
$-1 > r > 0$	One variable increases as the other decreases.
$r = -1.0$	Perfect negative or inverse correlation.

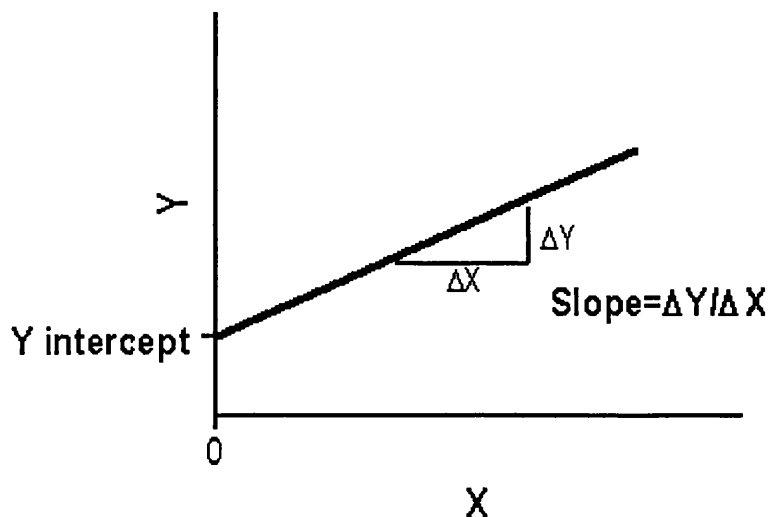
The p value determines how often this could occur. The p value answers the question: If there is no correlation between variables in the overall population, what is the chance that random sampling would result in a correlation coefficient as far from zero. If the p value is small, then it is unlikely that the correlation is a coincidence. If the p value is large, the data do not give any reason to conclude that the correlation is real. There is no *evidence* that the correlation is real and not a coincidence.

Correlation analysis will be carried out to determine if there are relationships between cultural characteristics and processing styles and process, outcome and communication medium satisfaction across the two means of interacting.

4.6.5. REGRESSION ANALYSIS

Regression analysis determines the relationship between two variables, X and Y . For each experimental unit, both X and Y is known. The goal of regression is to find the line that best predicts Y from X . Regression does this by finding the line that minimizes the sum of the squares of the vertical distances of the points of the line. In some situations, the slope and/or intercept are meaningful. In other cases, the regression line is used to determine new values of X from Y , or Y from X .

The slope of a regression analysis quantifies the steepness of the line. It equals the change in Y for each unit change in X. The Y intercept is the Y value of the line when X equals zero. It defines the elevation of the line.



The value R^2 is a measure of goodness-of-fit of the regression. The value R^2 is a fraction between 0.0 and 1.0, and has no units. An R^2 value of 0.0 means that knowing X does not help you predict Y. There is no linear relationship between X and Y, and the best-fit line is a horizontal line going through the mean of all Y values. When R^2 equals 1.0, all points lie exactly on a straight line with no scatter. Knowing X lets you predict Y perfectly. The value of r^2 (unlike the regression line) would be the same if X and Y were swapped. So, r^2 is the fraction of the variation that is shared between X and Y. Adjusted r^2 will be used during this research as it is not sensitive to the number of points within the data, i.e. it corrects for sample size. Adjusted r^2 is recommended when sample size is small, as r^2 is likely to vary more.

Multicollinearity is when there is a high correlation between variables in a regression equation. This results in unacceptable uncertainty (large variance) in regression coefficient estimates. Specifically, the coefficients can change drastically depending on which terms are in or out of the model and also the order they are placed in the model. A rule of thumb is that problems of multicollinearity are likely to occur if any of the correlations between any of the independent variables are greater than .60. If

this is the case, the best courses of action are either to remove one of the correlated variables from the model, or to create a compound variable by adding the correlated variables together or performing a factor analysis. The effect of multicollinearity was anticipated due to the potential for a high degree of multicollinearity that would produce unacceptable uncertainty (i.e. large variance) in regression coefficient estimates.

Regression analysis will be carried out to determine to what extent relationships exist between cultural characteristics and processing styles and process, outcome and communication medium satisfaction across the two means of interacting.

4.7. SUMMARY OF DATA ANALYSIS

The table below presents a summary of the analysis to be carried out as part of this research.

TABLE 4.2 SUMMARY OF ANALYSIS

	Statistical Analysis	Looking at
H_1	Paired T-tests	Differences in negotiator satisfaction rating compared across the different mediums
H_2	Independent T-tests	Differences according to Hofstede's dimensions of culture compared across the two cultural groups
	MANOVA Analysis	Differences according to Hofstede's dimensions of culture across the test group
	Independent T-tests	Differences in negotiator satisfaction rating compared across the different mediums compared across the two cultural groups
H_3	Correlation Analysis	Determining the relationship between cultural characteristics and negotiator satisfaction across the different mediums
	Regression Analysis	The extent of the relationship between cultural characteristics and negotiator satisfaction across the different mediums
H_4	Correlation Analysis	Determining the relationship between individual processing styles and negotiator satisfaction across the different mediums
	Regression Analysis	The extent of the relationship between individual processing styles and negotiator satisfaction across the different mediums

Having established the reliability of these scales, and discussed the statistical analysis to be carried out, the subsequent chapter presents the results of the data analysis carried out to investigate the hypotheses proposed in chapter three.

5. RESEARCH RESULTS

This chapter presents the research results. It starts by looking at the descriptive statistics, and then moves on to test the research hypotheses.

5.1. DESCRIPTIVE STATISTICS

5.1.1. CULTURAL CHARACTERISTICS

The descriptive statistics for the cultural characteristics for each sample are given in Table 5.1 below. The table shows that the high context culture had greater scores for the constructs of individualism/collectivism and power distance, where as the low context culture had greater scores for the constructs of masculinity/femininity and uncertainty avoidance. This does not correlate with the scores collated by Hofstede (1984) displayed in Appendix 2.

TABLE 5.1. CULTURAL CONSTRUCTS ACCORDING TO SAMPLE GROUP

	<i>British (Low Context Culture)</i>		<i>Greek (High Context Culture)</i>		<i>Overall</i>	
	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>
<i>Individualism/Collectivism</i>	4.18	0.75	4.33	0.88	4.25	0.81
<i>Masculinity/Femininity</i>	3.00	0.89	2.69	0.88	2.85	0.89
<i>Uncertainty Avoidance</i>	4.53	1.19	3.95	1.26	4.25	1.25
<i>Power Distance</i>	4.21	0.95	4.36	1.13	4.28	1.03

1 = Strongly Disagree, 4= Neither Agree nor Disagree, 7 = Strongly Agree

5.1.2. INDIVIDUAL PROCESSING STYLES

The descriptive statistics for individual processing styles for each sample are given in table 5.2 below. The table shows that the high context culture had greater scores for all three individual processing styles.

TABLE 5.2. *INDIVIDUAL PROCESSING STYLES ACCORDING TO SAMPLE GROUP*

	<i>British (Low Context Culture)</i>		<i>Greek (High Context Culture)</i>		<i>Overall</i>	
	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>
<i>Need for Precision</i>	4.09	0.41	4.13	0.57	4.11	0.49
<i>Need for Cognition</i>	4.77	0.68	5.02	0.46	4.90	0.60
<i>Need for Emotion</i>	4.20	0.77	4.59	0.90	4.39	0.85

1 = Strongly Disagree, 4= Neither Agree nor Disagree, 7 = Strongly Agree

5.1.3. SATISFACTION LEVELS

The descriptive statistics for the six measures of satisfaction for each sample are given in Table 5.3 below. This table shows that both the low and the high context groups are slightly dissatisfied with the Internet as a communication medium, while they are somewhat satisfied with negotiating in a face-to-face environment. When negotiation process satisfaction is considered, both negotiation mediums are slightly dissatisfying for both groups, however, the negotiation outcome is slightly satisfying.

TABLE 5.3. LEVELS OF PROCESS, OUTCOME AND COMMUNICATION
MEDIUM SATISFACTION

	<i>British (Low Context Culture)</i>				<i>Greek (High Context Culture)</i>			
	<i>Face-to-Face</i>		<i>Internet</i>		<i>Face-to-Face</i>		<i>Internet</i>	
	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>	<i>Mean</i>	<i>S.d.</i>
<i>Process</i>	3.61	0.32	3.68	0.46	3.61	0.38	3.66	0.35
<i>Outcome</i>	4.98	0.87	4.89	0.97	5.06	0.87	5.11	0.69
<i>Communication Medium</i>	5.33	0.72	3.56	1.15	5.35	0.80	3.65	1.23
<i>Average</i>	4.64	0.64	4.04	0.86	4.67	0.68	4.14	0.76

1 = Strongly Disagree, 4= Neither Agree nor Disagree, 7 = Strongly Agree

5.2. HYPOTHESIS ONE: EFFECT OF CHANGE IN COMMUNICATION MEDIUM ON SATISFACTION LEVELS

The fundamental hypothesis of this research is that levels of process satisfaction, outcome satisfaction and satisfaction with communication medium differ according to the communication medium used (Internet or face-to-face negotiations), as well as the individual and cultural characteristics of the negotiators. The first set of hypotheses that is considered examine the difference in satisfaction levels over the two mediums.

H_{1a}: Negotiation process satisfaction will be greater when negotiating face-to-face than when negotiating online.

H_{1b}: Negotiation outcome satisfaction will be greater when negotiating face-to-face than when negotiating online.

H_{1c}: Communication medium satisfaction will be greater when negotiating face-to-face than when negotiating online.

Paired T-tests were used to determine if there was a statistically significant difference between satisfaction means for the two communication methods used. As hypotheses 1a – 1c are directional, the T-tests used are one-tailed. Table 5.4 below shows these results. The result indicates that overall, the method used to communicate does not significantly effect negotiators' satisfaction associated with the process or outcome.

Not surprisingly however, the method used to communicate strongly effects the satisfaction related to communication medium. Thus, these findings do not support hypotheses H_{1a} or H_{1b} . However, hypothesis H_{1c} is supported by these initial findings.

TABLE 5.4. TEST TO ESTABLISH THE EFFECT OF METHOD OF COMMUNICATION ON SATISFACTION

	<i>Satisfaction Mean (Range 1 – 7)</i>		<i>Significance Level</i>
	<i>Internet</i>	<i>Face-to-Face</i>	
<i>H_{1a}: Process</i>	3.670	3.610	.266
<i>H_{1b}: Outcome</i>	4.997	5.020	.841
<i>H_{1c}: Communication Medium</i>	3.602	5.344	.000**

** Significant at the .001 significance level

5.3. HYPOTHESIS TWO: EFFECT OF CULTURAL CONTEXT ON SATISFACTION

In order to carry out this research two distinct cultural groups were examined (from high and low context cultures), which according to Hofstede's (1984) measures would differ significantly along the measures for: individualism/collectivism, power distance, and uncertainty avoidance, and differ slightly along the measure for masculinity/femininity (see Appendix 2 for graphs displaying differences along Hofstede's dimensions of culture). These two distinct groups were used with the aim of establishing as large a gap in cultural characteristics as possible within the constraints of the cultural groups available, in order to help determine the affect of cultural characteristics on satisfaction levels. MANOVA analysis was carried out to establish if the two groups differed overall.

Table 5.5 shows the results of the MANOVA analysis. The overall test for the differences between the two groups is significant only when $\alpha = .10$. The results suggest that the characteristics of masculine/feminine, power distance and

individualism/collectivism do not differ between the two groups. However, the groups do differ in their levels of uncertainty avoidance.

TABLE 5.5. TEST TO ESTABLISH OVERALL DIFFERENCES RELATING TO HOFSTEDE'S DIMENSIONS OF CULTURE BETWEEN THE HIGH AND LOW CONTEXT CULTURE (WILK'S MULTIVARIATE TEST OF SIGNIFICANCE)

<i>Effect</i>	<i>Value</i>	<i>F</i>	<i>Hypothesis DF</i>	<i>Error DF</i>	<i>Significance of F</i>
<i>Wilks</i>	.859	2.259	4.000	55.00	.074

	<i>Value</i>	<i>F</i>	<i>Hypothesis DF</i>	<i>Significance of F</i>
<i>Masculine/ Feminine</i>	.926	2.154	4.000	.126
<i>Power Distance</i>	.991	.246	4.000	.783
<i>Uncertainty Avoidance</i>	.882	3.622	4.000	.033
<i>Individualism/ Collectivism</i>	.960	1.130	4.000	.330

Hypotheses to be tested here are:

H_{2a}: Negotiators from high context cultures will have higher levels of negotiation process, outcome and communication medium satisfaction in a face-to-face negotiation than negotiators from a low context culture.

H_{2b}: Negotiators from low context cultures will have higher levels of negotiation process, outcome and communication medium satisfaction in an online negotiation than negotiators from a high context culture.

H_{2c}: The change in satisfaction across negotiation mediums will not be consistent across high and low context cultures according to the communication medium used.

As some differences are apparent between the two cultural groups, it is possible to test whether negotiators from high context cultures will differ from negotiators from low context cultures in their level of satisfaction with face-to-face and Internet negotiations. The results of the independent t-test carried out comparing the different

communication mediums are displayed in tables 5.6 and 5.7. The results in table 5.6 does not support the hypothesis, none of differences in means are statistically significant. The results in table 5.7 also show that the difference in satisfaction levels due to the change in communication medium¹⁴ is not statistically significant.

TABLE 5.6. TEST TO ESTABLISH THE DIFFERENCE IN SATISFACTION LEVELS BETWEEN HIGH AND LOW CONTEXT CULTURES

	Satisfaction Mean (Range 1 – 7)		Independent T-test for Equality of Means
	Low Context Culture (British)	High Context Culture (Greek)	Significance Level (1-tailed)
<i>H_{2ai}: Face-to-Face Process Satisfaction</i>	3.613	3.607	.474
<i>H_{2aii}: Face-to-Face Outcome Satisfaction</i>	4.981	5.062	.360
<i>H_{2aiii}: Face-to-Face Communication Medium Satisfaction</i>	5.335	5.353	.462
<i>H_{2bi}: Internet Process Satisfaction</i>	3.684	3.655	.394
<i>H_{2bii}: Internet Outcome Satisfaction</i>	4.890	5.110	.160
<i>H_{2biii}: Internet Communication Medium Satisfaction</i>	3.561	3.647	.390

¹⁴ The effect of the change in communication medium is calculated by taking the satisfaction score when communicating over the Internet away from the satisfaction score when communicating face-to-face for each of the different types of satisfaction tested.

TABLE 5.7. TEST TO ESTABLISH THE EFFECT OF CHANGE¹⁵ IN COMMUNICATION MEDIUM ON SATISFACTION LEVELS BETWEEN HIGH AND LOW CONTEXT CULTURES

	<i>Satisfaction Mean (Range 1 – 7)</i>		<i>Independent T-test for Equality of Means</i>
	<i>Low Context Culture (British)</i>	<i>High Context Culture (Greek)</i>	<i>Significance Level (2-tailed)</i>
<i>H_{2ci}: Effect of Change in medium on Process Satisfaction</i>	-0.007	-0.005	.834
<i>H_{2cii}: Effect of Change in medium on Outcome Satisfaction</i>	.009	-0.004	.554
<i>H_{2ciii}: Effect of Change in medium on Communication Medium Satisfaction</i>	1.774	1.707	.867

Thus, the hypothesis about differences in satisfaction due to cultural context are not supported by this data analysis, this may be due to the lack of differentiation between the two cultures as shown by the MANOVA results. However, it is still possible to investigate the effect of each specific cultural characteristic on negotiator satisfaction by looking at, for example, the impact of the level of each of Hofstede (1984) measures on satisfaction levels.

5.4. HYPOTHESIS THREE: THE EFFECT OF CULTURAL CHARACTERISTICS ON SATISFACTION

The data collected from the pre-simulation questionnaire can be used to assess the impact of cultural characteristics on negotiation satisfaction. Data were collected relating to an individuals' preference for the constructs of masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism. It was hypothesised that during face-to-face negotiations, an individual's preference for collectivism, femininity, low uncertainty avoidance and low power distance would

¹⁵ The effect of the change in communication medium is calculated by taking the mean satisfaction score when communicating over the Internet away from the mean satisfaction score when communicating face-to-face for each of the different types of satisfaction tested

have a positive effect on process, outcome and communication medium satisfaction. Whereas an individual's preference for masculinity, individualism, high uncertainty avoidance and high power distance would have a negative effect. Specifically, the hypotheses to be tested are:

H_{3a}: During face-to-face negotiations, satisfaction will be positively related to the level of collectivism, femininity, low uncertainty avoidance and low power distance.

H_{3b}: During online negotiations, satisfaction will be negatively related to the level of collectivism, femininity, low uncertainty avoidance and low power distance.

H_{3c}: The influence of the level of cultural characteristics on process, outcome and communication medium satisfaction will differ according to the communication medium used.

5.4.1. SATISFACTION WITH FACE-TO-FACE NEGOTIATIONS

To investigate these hypotheses, a correlation analysis was initially performed to investigate if there were any significant correlations between cultural factors and satisfaction levels during face-to-face negotiations. The results in table 5.8 show the correlation analysis between each of the cultural characteristics considered, and the different satisfactions measured when negotiating face-to-face. The results indicate that there is no statistically significant correlation between an individual's preference for the constructs of masculinity/femininity, individualism/collectivism, and power distance and any of the satisfactions measured. An individual's preference for the construct of uncertainty avoidance is shown to be statistically significant when correlated with process satisfaction only.

TABLE 5.8. CORRELATION OF CULTURAL CHARACTERISTICS AND SATISFACTION WHEN COMMUNICATING FACE-TO-FACE

		Process Satisfaction	Outcome Satisfaction	Communication Medium Satisfaction
Masculinity/ Femininity	Pearson Correlation	-.050	.087	-.134
	Significance (2-tailed)	.770	.507	.307
Individualism/ Collectivism	Pearson Correlation	.051	.097	-.053
	Significance (2-tailed)	.698	.462	.689
Power Distance	Pearson Correlation	.129	-.121	-.181
	Significance (2-tailed)	.326	.329	.165
Uncertainty Avoidance	Pearson Correlation	.274*	-.086	.135
	Significance (2-tailed)	.034	.512	.304

*Significant at the .05 significance level.

The individual's preference for masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism are stable characteristics, as such a stepwise linear regression analysis looking at the relationship between them all and negotiator satisfaction can be considered. This regression analysis will reveal to what extent the cultural characteristics of masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism impact on satisfaction during face-to-face negotiations. Regression analysis was carried out using all three types of satisfaction measured. Only satisfaction with the process showed any significant data. As such, only process satisfaction regression analysis is shown. The proposed model for this data analysis is as follows:

$$\text{Face-to-Face Process Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + \varepsilon$$

Where:

- α = A constant
- $b_1\chi_1$ = Effect of Masculinity/Femininity
- $b_2\chi_2$ = Effect of Power Distance
- $b_3\chi_3$ = Effect of Uncertainty Avoidance
- $b_4\chi_4$ = Effect of Individualism/Collectivism
- ε = Other untested factors contributing to process satisfaction

Stepwise regression analysis performed on process satisfaction, shown in table 5.9 indicates that an individual's preference for the construct of uncertainty avoidance explains approximately 5.9% of process satisfaction. Process satisfaction is at a base

level of 3.285¹⁶; this level of satisfaction is expected to decrease by 0.121 per “unit” of preference for uncertainty avoidance. Therefore, as preference for uncertainty avoidance increases (i.e. tends towards high uncertainty avoidance), face-to-face process satisfaction decreases. These results partially contradicts hypothesis H_{3a}.

TABLE 5.9. REGRESSION ANALYSIS OF CULTURAL CHARACTERISTICS AND PROCESS SATISFACTION WHEN COMMUNICATING FACE-TO-FACE

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.274 ^a	.075	.059	.3377

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	3.285	21.104	.000
<i>Masculinity/ Femininity</i>	.005 ^a (Beta In)	.036	.971
<i>Individualism/ Collectivism</i>	.020 ^a (Beta In)	.159	.875
<i>Power Distance</i>	.007 ^a (Beta In)	.956	.343
<i>Uncertainty Avoidance</i>	-.121 ^b	-2.173	.034

a. Predictors in the model: (Constant), Uncertainty Avoidance

b. Excluded Variables: Masculinity/ Femininity, Individualism/ Collectivism, Power Distance

Face-to-Face Process Satisfaction = 3.285 - .121 Uncertainty avoidance

5.4.2. SATISFACTION WITH INTERNET NEGOTIATIONS

It was hypothesised that during Internet negotiations, an individual’s preference for the constructs of collectivism, femininity, high uncertainty avoidance and low power distance would have a negative effect on process, outcome and communication medium satisfaction. Whereas an individual’s preference for the constructs of individualism, masculinity, high power distance and low uncertainty avoidance would have a positive effect. To investigate these hypotheses, a correlation analysis was

¹⁶ “I was satisfied with the method used to communicate” = (3) Disagree Slightly (4) Neither Agree nor Disagree

initially performed to investigate if there were any significant correlations between cultural factors and satisfaction levels during Internet negotiations. The results in table 5.10 show the correlation analysis between each of the cultural characteristics considered and the different satisfactions measured when negotiating face-to-face. The results indicate that there is no statistically significant correlation between an individual's preference for the constructs of masculinity/femininity, individualism/collectivism, and uncertainty avoidance and any of the satisfactions measured. An individual's preference for the construct of power distance is shown to be statistically significant when correlated with process satisfaction and communication medium satisfaction.

TABLE 5.10. CORRELATION OF CULTURAL CHARACTERISTICS AND SATISFACTION WHEN COMMUNICATING OVER THE INTERNET

		Process Satisfaction	Outcome Satisfaction	Communication Medium Satisfaction
Masculinity/ Femininity	Pearson Correlation	-.152	-.224	.038
	Significance (2-tailed)	.247	.085	.774
Individualism/ Collectivism	Pearson Correlation	-.090	.070	.167
	Significance (2-tailed)	.496	.593	.203
Power Distance	Pearson Correlation	-.334**	.057	.343**
	Significance (2-tailed)	.009	.663	.007
Uncertainty Avoidance	Pearson Correlation	.151	.071	.053
	Significance (2-tailed)	.249	.589	.685

**Significant at the .01 significance level.

As the individual's preference for masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism are stable characteristics, as such a stepwise linear regression analysis looking at the relationship between them and negotiator satisfaction can be considered. This regression analysis will reveal to what extent the cultural characteristics of masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism impact on satisfaction during Internet negotiations. Regression analysis was carried out using all three types of satisfaction measured. Only satisfaction with the process and communication medium satisfaction showed any significant data. As such, only process and communication medium satisfaction regression analysis are shown. For process satisfaction the proposed model for this data analysis is as follows:

$$\text{Internet Process Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + \epsilon$$

Where:

- α = A constant
- $b_1\chi_1$ = Effect of Masculinity/Femininity
- $b_2\chi_2$ = Effect of Power Distance
- $b_3\chi_3$ = Effect of Uncertainty Avoidance
- $b_4\chi_4$ = Effect of Individualism/Collectivism
- ϵ = Other untested factors contributing to process satisfaction

Stepwise regression analysis performed on process satisfaction, shown in table 5.11, indicates that an individual's preference for the construct of power distance explains approximately 9.6% of process satisfaction. Process satisfaction is at a base level of 4.236¹⁷; this level of satisfaction is expected to increase by 0.132 per "unit" of power distance. Therefore, as an individual's preference for the construct of power distance increases (i.e. tends towards high power distance), Internet process satisfaction increases. These results only partially support hypothesis H_{3b}.

TABLE 5.11. REGRESSION ANALYSIS OF CULTURAL CHARACTERISTICS AND PROCESS SATISFACTION WHEN COMMUNICATING OVER THE INTERNET

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.334 ^a	.112	.096	.3880

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	4.236	19.633	.000
<i>Masculinity/ Femininity</i>	-.167 ^a (Beta In)	-1.360	.179
<i>Individualism/ Collectivism</i>	-.025 ^a (Beta In)	-.193	.848
<i>Power Distance</i>	.132 ^b	2.699	.009
<i>Uncertainty Avoidance</i>	.161 ^a (Beta In)	1.310	.196

a. Predictors in the model: (Constant), Power Distance

b. Excluded Variables: Masculinity/ Femininity, Individualism/ Collectivism, Uncertainty Avoidance

$$\text{Internet Process Satisfaction} = 4.236 + .132 \text{ Power Distance}$$

¹⁷ "I was satisfied with the negotiation process" = (2) Neither Agree nor Disagree (5) Agree Slightly

A similar analysis was carried out for communication medium satisfaction using the model below.

$$\text{Internet Communication Medium Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + \varepsilon$$

Where:

α	=	A constant
$b_1\chi_1$	=	Effect of Masculinity/Femininity
$b_2\chi_2$	=	Effect of Power Distance
$b_3\chi_3$	=	Effect of Uncertainty Avoidance
$b_4\chi_4$	=	Effect of Individualism/Collectivism
ε	=	Other untested factors contributing to communication medium satisfaction

Stepwise regression analysis performed on process satisfaction, shown in table 5.12, indicates that an individual's preference for the construct of power distance explains approximately 10.2% of communication medium satisfaction. Communication medium satisfaction is at a base level of 1.918¹⁸; this level of satisfaction is expected to increase by 0.393 per "unit" of power distance. Therefore, as an individual's preference for the construct of power distance increases (i.e. tends towards high power distance), Internet communication medium satisfaction increases. These results only partially support hypothesis H_{3b}.

¹⁸ "I was satisfied with the communication medium used during negotiations" = (1) Strongly Disagree
(2) Disagree

TABLE 5.12. REGRESSION ANALYSIS OF CULTURAL CHARACTERISTICS AND COMMUNICATION MEDIUM SATISFACTION WHEN COMMUNICATING OVER THE INTERNET

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.343 ^a	.118	.102	1.1189

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	1.918	3.083	.003
<i>Masculinity/ Femininity</i>	.053 ^a (Beta In)	.429	.669
<i>Individualism/ Collectivism</i>	.103 ^a (Beta In)	.814	.419
<i>Power Distance</i>	.393 ^b	2.781	.007
<i>Uncertainty Avoidance</i>	.043 ^a (Beta In)	.348	.729

a. Predictors in the model: (Constant), Power Distance

b. Excluded Variables: Masculinity/ Femininity, Individualism/ Collectivism, Uncertainty Avoidance

Internet Communication Medium Satisfaction = 1.918 + .393 Power Distance

5.4.3. SATISFACTION WITH NEGOTIATIONS WHEN CHANGING COMMUNICATION MEDIUM

It was hypothesised that an individual's preference for the constructs of masculinity/femininity, individualism/collectivism, power distance and uncertainty avoidance would effect satisfaction levels when changing communication medium. To investigate these hypotheses, a correlation analysis was initially performed to investigate if there were any significant correlations between cultural factors and change in satisfaction levels. The results in table 5.13 show the correlation analysis between each of the cultural characteristics considered and the different satisfactions measured when changing communication medium. The results indicate that there is a statistically significant correlation between process satisfaction and communication medium satisfaction and power distance. The results also indicate a relationship between outcome satisfaction and masculinity/femininity.

TABLE 5.13. CORRELATION OF CULTURAL CHARACTERISTICS AND SATISFACTION WHEN CHANGING COMMUNICATION MEDIUM

		Process Satisfaction	Outcome Satisfaction	Communication Medium Satisfaction
Masculinity/ Femininity	Pearson Correlation	-.108	.296*	.095
	Significance (2-tailed)	.411	.022	.470
Individualism/ Collectivism	Pearson Correlation	-.131	.027	.154
	Significance (2-tailed)	.317	.839	.239
Power Distance	Pearson Correlation	-.438**	-.170	.353**
	Significance (2-tailed)	.000	.193	.006
Uncertainty Avoidance	Pearson Correlation	-.082	-.150	-.025
	Significance (2-tailed)	.534	.251	.487

*Significant at the .05 significance level.

**Significant at the .01 significance level.

As the individual's preference for masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism are stable characteristics, as such a stepwise linear regression analysis looking at the relationship between them and negotiator satisfaction can be considered. This regression analysis will reveal to what extent the cultural characteristics of masculinity/femininity, power distance, uncertainty avoidance and individualism/collectivism impact on satisfaction when changing communication medium. Regression analysis was carried out using all three types of satisfaction measured. All three types of satisfaction showed significant data. All regression analysis is shown. The proposed model for this data analysis is as follows:

$$\text{Change in Process Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + \varepsilon$$

Where:

- α = A constant
- $b_1\chi_1$ = Effect of Masculinity/Femininity
- $b_2\chi_2$ = Effect of Power Distance
- $b_3\chi_3$ = Effect of Uncertainty Avoidance
- $b_4\chi_4$ = Effect of Individualism/Collectivism
- ε = Other untested factors contributing to process satisfaction

Stepwise regression analysis performed on process satisfaction, shown in table 5.14 indicates that an individual's preference for the construct of power distance explains approximately 17.8% of the change in process satisfaction across the mediums. Process satisfaction is at a base level of .813, i.e. participants were more satisfied by the process of negotiations over the Internet; this level of satisfaction is expected to

decrease by 0.176 per “unit” of power distance. Therefore, the difference between the levels of Internet and face-to-face process satisfaction found with respondents who tended towards high power distance is greater than that found with respondents who tended towards low power distance. These results only partially support hypothesis H_{3c}.

TABLE 5.14. REGRESSION ANALYSIS OF CULTURAL CHARACTERISTICS AND PROCESS SATISFACTION WHEN CHANGING COMMUNICATION MEDIUM

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.438 ^a	.192	.178	.375

	<i>B</i> (Unstandardised Coefficient)	<i>T</i>	<i>Significance</i> (2-tailed)
<i>Constant</i>	.813	3.896	.000
<i>Masculinity/ Femininity</i>	-.128 ^a (Beta In)	-1.086	.282
<i>Individualism/ Collectivism</i>	-.047 ^a (Beta In)	-.384	.702
<i>Power Distance</i>	-.176 ^b	-3.709	.000
<i>Uncertainty Avoidance</i>	-.069 ^a (Beta In)	-.581	.564

a. Predictors in the model: (Constant), Power Distance

b. Excluded Variables: Masculinity/Femininity Individualism/Collectivism, Uncertainty Avoidance

Change in Process Satisfaction = .813 - .176 Power Distance

The same analysis was carried out for outcome satisfaction.

$$\text{Change in Outcome Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + \varepsilon$$

Where:

α	=	A constant
$b_1\chi_1$	=	Effect of Masculinity/Femininity
$b_2\chi_2$	=	Effect of Power Distance
$b_3\chi_3$	=	Effect of Uncertainty Avoidance
$b_4\chi_4$	=	Effect of Individualism/Collectivism
ε	=	Other untested factors contributing to outcome satisfaction

Stepwise regression analysis performed on outcome satisfaction, shown in table 5.15, indicates that an individual's preference for the construct of masculinity/femininity explains approximately 7.2% of the change in outcome satisfaction across the mediums. Outcome satisfaction is at a base level of -.824, i.e. participants were less satisfied by the outcome of negotiating over the Internet; this level of satisfaction is expected to increase by 0.297 per "unit" of masculinity/femininity. Therefore, the difference between the levels of Internet and face-to-face outcome satisfaction found with respondents who scored highly for masculinity is greater than that found with respondents who were more feminine. These results only partially support hypothesis H_{3c}.

TABLE 5.15. REGRESSION ANALYSIS OF CULTURAL CHARACTERISTICS AND OUTCOME SATISFACTION WHEN CHANGING COMMUNICATION MEDIUM

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.296 ^a	.088	.072	.864

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	-.824	-2.193	.032
<i>Masculinity/Femininity</i>	.297 ^b	2.362	.022
<i>Individualism/Collectivism</i>	-.041 ^a (Beta In)	-.317	.753
<i>Power Distance</i>	-.157 ^a (Beta In)	-1.260	.213
<i>Uncertainty Avoidance</i>	-.096 ^a (Beta In)	-.745	.459

a. Predictors in the model: (Constant), Masculinity/Femininity

b. Excluded Variables: Individualism/Collectivism, Power Distance, Uncertainty Avoidance

$$\text{Change in Outcome Satisfaction} = -.824 + .297 \text{ Masculinity/Femininity}$$

A similar analysis was carried out with communication medium satisfaction.

$$\text{Change in Communication Medium Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + \varepsilon$$

Where:

α	=	A constant
$b_1\chi_1$	=	Effect of Masculinity/Femininity
$b_2\chi_2$	=	Effect of Power Distance
$b_3\chi_3$	=	Effect of Uncertainty Avoidance
$b_4\chi_4$	=	Effect of Individualism/Collectivism
ε	=	Other untested factors contributing to communication medium satisfaction

Stepwise regression analysis performed on communication medium satisfaction, shown in table 5.16 indicates that an individual's preference for the construct of power distance explains approximately 11.0% of the change in communication medium satisfaction across the mediums. Communication medium is at a base level of -3.996, i.e. participants were less satisfied by the communication medium used during

Internet negotiations; this level of satisfaction is expected to increase by 0.526 per “unit” of power distance. Therefore, the difference between the levels of Internet and face-to-face communication medium satisfaction found with respondents who scored highly for power distance is greater than that found with respondents who scored low for power distance. These results only partially support hypothesis H_{3c}.

TABLE 5.16. REGRESSION ANALYSIS OF CULTURAL CHARACTERISTICS AND COMMUNICATION MEDIUM SATISFACTION WHEN CHANGING COMMUNICATION MEDIUM

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.353 ^a	.125	.110	1.448

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	-3.996	-4.962	.000
<i>Masculinity/Femininity</i>	.111 ^a (Beta In)	.904	.370
<i>Individualism/Collectivism</i>	.088 ^a (Beta In)	.697	.489
<i>Power Distance</i>	.526 ^b	2.878	.006
<i>Uncertainty Avoidance</i>	-.036 ^a (Beta In)	-.290	.773

a. Predictors in the model: (Constant), Power Distance

b. Excluded Variables:., Masculinity/Femininity, Individualism/Collectivism, Uncertainty Avoidance

$$\text{Change in Communication Medium Satisfaction} = -3.996 + .526 \text{ Power Distance}$$

5.5. HYPOTHESIS FOUR: THE EFFECT OF INDIVIDUAL PROCESSING STYLES ON SATISFACTION

5.5.1. SATISFACTION WITH FACE-TO-FACE NEGOTIATIONS

Data collected during the pre-simulation questionnaire can be used to assess the impact of individual processing styles on negotiation satisfaction. Data are collected relating to individuals need for cognition, precision and emotion. The fourth set of hypotheses relate to the effect of individual processing styles on negotiators

satisfaction. Specifically, it was hypothesised that during face-to-face negotiations, an individual's need for emotion would have a positive effect on process, outcome and communication medium satisfaction, due to the greater amount of information transmitted through non-verbal cues. Whereas during Internet negotiations, an individual's need for precision and cognition would have a positive effect as the negotiation would not be influenced by individual interpretation of non-verbal cues.

H_{4a}: During face-to-face negotiations, process, outcome and communication medium satisfaction will be positively related to an individual's need for emotion, and negatively related to an individual's need for cognition and precision.

H_{4b}: During online negotiations, process, outcome and communication medium satisfaction will be positively related to an individual's need for cognition and precision, and negatively related to an individual's need for emotion.

H_{4c}: The influence of the individual's processing styles on process, outcome and communication medium satisfaction will differ according to the communication medium used.

To investigate these hypotheses, a correlation analysis was initially performed to investigate if there were any significant correlations between individual factors and satisfaction levels during face-to-face negotiations. The results in table 5.17 show the correlation analysis between each of the individual characteristics considered and the different satisfactions measured when negotiating face-to-face. The results indicate that there is no statistically significant correlation between need for cognition and need for precision with any of the satisfactions measured. Need for emotion is shown to be statistically significant when correlated with communication medium satisfaction only.

TABLE 5.17. CORRELATION OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND SATISFACTION WHEN COMMUNICATING FACE-TO-FACE

		Process Satisfaction	Outcome Satisfaction	Communication Medium Satisfaction
Need for Cognition	Pearson Correlation	-.028	.053	.221
	Significance (2-tailed)	.829	.688	.090
Need for Precision	Pearson Correlation	-.106	.153	-.057
	Significance (2-tailed)	.420	.244	.663
Need for Emotion	Pearson Correlation	-.108	.178	.279*
	Significance (2-tailed)	.412	.174	.031

*Significant at the .05 significance level.

As the individual's needs for precision, cognition and emotion are stable characteristics a stepwise linear regression analysis looking at the relationship between them and negotiator satisfaction can be considered. This regression analysis will reveal to what extent the individual characteristics of need for precision, need for cognition and need for emotion impact on satisfaction during face-to-face negotiations. Regression analysis was carried out using all three types of satisfaction measured. Only satisfaction with the communication medium showed any significant relationship. As such, only communication medium satisfaction regression analysis is shown. The proposed model for this data analysis is as follows:

$$\text{Face-to-Face Communication Medium Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + \varepsilon$$

Where:

α	=	Constant
$b_1\chi_1$	=	Effect of Need for Precision
$b_2\chi_2$	=	Effect of Need for Cognition
$b_3\chi_3$	=	Effect of Need for Emotion
ε	=	Other untested factors contributing to communication medium satisfaction

Stepwise regression analysis performed on communication medium satisfaction, shown in table 5.18, indicates that need for emotion explains approximately 6.2% of communication medium satisfaction. Communication medium satisfaction is at a base level of 4.252¹⁹; this level of satisfaction is expected to increase by 0.249 per "unit" of

¹⁹ "I was satisfied with the method used to communicate" = (4) Neither Agree nor Disagree (5) Agree Slightly

need for emotion. Therefore, as need for emotion increases, communication medium satisfaction increases. These results only partially support hypothesis H_{4a}.

TABLE 5.18. REGRESSION ANALYSIS OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND COMMUNICATION MEDIUM SATISFACTION WHEN COMMUNICATING FACE-TO-FACE

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.279 ^a	.078	.062	.7323

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	4.252	8.475	.000
<i>Need for Precision</i>	.020 ^a (Beta In)	.154	.878
<i>Need for Cognition</i>	.124 ^a (Beta In)	.891	.377
<i>Need for Emotion</i>	.249 ^b	2.515	.031

a) Predictors in the model: (Constant), Need for Emotion

b) Excluded Variables: Need for Precision, Need for Cognition

Face-to-Face Communication Medium Satisfaction = 4.252 + .249 Need for Emotion

5.5.2. SATISFACTION WITH INTERNET NEGOTIATIONS

It was hypothesised that during Internet negotiations, an individual's need for emotion would have a negative effect on process, outcome and communication medium satisfaction, whereas an individual's need for precision and cognition would have a positive effect. To investigate these hypotheses, a correlation analysis was initially performed to investigate if there were any significant correlations between preference for individual processing styles and satisfaction levels during Internet negotiations. The results in table 5.19 show the correlation analysis between each of the individual characteristics considered and the different satisfactions measured when negotiating over the Internet. The results indicate that there is no statistically significant correlation between need for cognition, need for precision and need for emotion with communication medium satisfaction. Need for cognition and need for emotion are shown to be statistically significant when correlated with process satisfaction. Need for cognition is also shown to be statistically significant when correlated with outcomes satisfaction

TABLE 5.19. CORRELATION OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND SATISFACTION WHEN COMMUNICATING OVER THE INTERNET

		Process Satisfaction	Outcome Satisfaction	Communication Medium Satisfaction
Need for Cognition	Pearson Correlation	.261*	.269*	.001
	Significance (2-tailed)	.044	.038	.993
Need for Precision	Pearson Correlation	.081	-.017	.060
	Significance (2-tailed)	.539	.897	.648
Need for Emotion	Pearson Correlation	.005	.302*	-.136
	Significance (2-tailed)	.968	.019	.302

*Significant at the .05 significance level.

As the individual's needs for precision, cognition and emotion are stable characteristics a stepwise linear regression analysis looking at the relationship between them and negotiator satisfaction can be considered. This regression analysis will reveal to what extent the individual characteristics of need for precision, need for cognition and need for emotion impact on satisfaction during Internet negotiations. Regression analysis was carried out using all three types of satisfaction measured. Only satisfaction with the process and outcome showed any significant results. As such, only process satisfaction and outcome satisfaction regression analysis are shown. The proposed model for this data analysis is as follows:

$$\text{Internet Process Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + \varepsilon$$

Where:

α	=	Constant
$b_1\chi_1$	=	Effect of Need for Precision
$b_2\chi_2$	=	Effect of Need for Cognition
$b_3\chi_3$	=	Effect of Need for Emotion
ε	=	Other untested factors contributing to process satisfaction

Stepwise regression analysis performed on process satisfaction, shown in table 5.20, indicates that need for cognition explains approximately 5.2% of process satisfaction. Process satisfaction is at a base level of 2.794²⁰; this level of satisfaction is expected to increase by 0.179 per "unit" of need for cognition. Therefore, as need for cognition increases process satisfaction increases. These results only partially support hypothesis H_{4b}.

²⁰ "I was satisfied with the negotiation process" = (2) Disagree (3) Disagree Slightly

TABLE 5.20. REGRESSION ANALYSIS OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND PROCESS SATISFACTION WHEN COMMUNICATING OVER THE INTERNET

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.261 ^a	.068	.052	.3973

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	2.794	6.519	.000
<i>Need for Precision</i>	-.026 ^a (Beta In)	-.200	.842
<i>Need for Cognition</i>	.179 ^b	2.059	.044
<i>Need for Emotion</i>	-.129 ^a (Beta In)	-.920	.361

a. Predictors in the model: (Constant), Need for Cognition

b. Excluded Variables: Need for Precision, Need for Emotion

$$\text{Internet Process Satisfaction} = 2.794 + .179 \text{ Need for Cognition}$$

A similar analysis was carried out for outcome satisfaction.

$$\text{Internet Outcome Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + \varepsilon$$

Where:

α	=	Constant
$b_1\chi_1$	=	Effect of Need for Precision
$b_2\chi_2$	=	Effect of Need for Cognition
$b_3\chi_3$	=	Effect of Need for Emotion
ε	=	Other untested factors contributing to outcome satisfaction

Stepwise regression analysis performed on outcome satisfaction, shown in table 5.21, indicates that need for emotion explains approximately 7.5% of outcome satisfaction. Outcome satisfaction is at a base level of 3.674²¹; this level of satisfaction is expected to decrease by 0.381 per "unit" of need for emotion. Therefore, as need for emotion increases outcome satisfaction decreases. These results only partially support hypothesis H_{4b}.

²¹ "I was satisfied with the negotiation outcome" = (3) Disagree Slightly (4) Neither Agree Nor Disagree

TABLE 5.21. REGRESSION ANALYSIS OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND OUTCOME SATISFACTION WHEN COMMUNICATING OVER THE INTERNET

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.302 ^a	.091	.075	.8147

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	3.674	6.583	.000
<i>Need for Precision</i>	.071 ^a (Beta In)	.539	.592
<i>Need for Cognition</i>	.172 ^a (Beta In)	1.246	.218
<i>Need for Emotion</i>	-.381 ^b	2.412	.019

a. Predictors in the model: (Constant), Need for Emotion

b. Excluded Variables: Need for Precision, Need for Cognition

$$\text{Internet Outcome Satisfaction} = 3.674 - .381 \text{ Need for Emotion}$$

5.5.3. SATISFACTION WITH NEGOTIATIONS WHEN CHANGING COMMUNICATION MEDIUM

It was hypothesised that when changing communication medium, an individual's need for precision, cognition and emotion would have an unknown effect on satisfaction levels. To investigate these hypotheses, a correlation analysis was initially performed to investigate if there were any significant correlations between individual factors and satisfaction levels when changing communication medium. The results in table 5.22 show the correlation analysis between each of the individual characteristics considered and the different satisfactions measured when changing communication medium. The results indicate that there is no statistically significant correlation between need for cognition, need for precision and need for emotion with outcome satisfaction or communication medium satisfaction. Need for cognition is shown to be statistically significant when correlated with process satisfaction.

TABLE 5.22. CORRELATION OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND SATISFACTION WHEN CHANGING COMMUNICATION MEDIUM

		Process Satisfaction	Outcome Satisfaction	Communication Medium Satisfaction
Need for Cognition	Pearson Correlation	.281*	-.203	-.108
	Significance (2-tailed)	.029	.119	.412
Need for Precision	Pearson Correlation	.009	.163	.075
	Significance (2-tailed)	.943	.212	.571
Need for Emotion	Pearson Correlation	.096	-.114	-.242
	Significance (2-tailed)	.466	.386	.062

*Significant at the .05 significance level.

As the individual's needs for precision, cognition and emotion are stable characteristics; a stepwise linear regression analysis looking at the relationship between them and negotiator satisfaction can be considered. This regression analysis will reveal to what extent the individual characteristics of need for precision, need for cognition and need for emotion impact on satisfaction when changing from face-to-face communication medium to an online method of communication. Regression analysis was carried out using all three types of satisfaction measured. Only satisfaction with the process showed any significant data. As such, only process satisfaction regression analysis is shown. The proposed model for this data analysis is as follows:

$$\text{Change in Process Satisfaction} = \alpha + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + \varepsilon$$

Where:

- α = Constant
- $b_1\chi_1$ = Effect of Need for Precision
- $b_2\chi_2$ = Effect of Need for Cognition
- $b_3\chi_3$ = Effect of Need for Emotion
- ε = Other untested factors contributing to process satisfaction

Stepwise regression analysis performed on process satisfaction, shown in table 5.23 indicates that need for cognition explains approximately 6.3% of process satisfaction. Process satisfaction is at a base level of -.898, i.e. participants were less satisfied by the process of negotiating over the Internet; this level of satisfaction is expected to increase by 0.196 per "unit" of need for cognition. Therefore, the difference between the levels of Internet and face-to-face communication medium satisfaction found with

respondents who scored high for need for cognition is greater than that found with respondents who scored low for need for cognition. These results only partially support hypothesis H_{4c}.

TABLE 5.23. REGRESSION ANALYSIS OF INDIVIDUAL CHARACTERISTICS ('NEED FOR'S) AND PROCESS SATISFACTION WHEN CHANGING COMMUNICATION MEDIUM

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
.281 ^a	.079	.063	.401

	<i>B (Unstandardised Coefficient)</i>	<i>T</i>	<i>Significance (2-tailed)</i>
<i>Constant</i>	-.898	-2.078	.042
<i>Need for Precision</i>	.073 ^a (Beta In)	.563	.575
<i>Need for Cognition</i>	.196 ^b	2.233	.029
<i>Need for Emotion</i>	-.029 ^a (Beta In)	-.206	.838

a. Predictors in the model: (Constant), Need for Cognition

b. Excluded Variables: Need for Precision, Need for Emotion

$$\text{Change in Process Satisfaction} = -.898 + .196 \text{ Need for Cognition}$$

5.6. SUMMARY OF DATA ANALYSIS

This chapter provided an analysis of the results of the sales negotiation experiment. The initial analysis also shows that the cultural characteristics of power distance, uncertainty avoidance and masculinity/femininity impact on sales negotiations both in a face-to-face environment, when communicating over the Internet and when changing between the two mediums. This analysis did not provide any evidence in relation to the effect of an individual's preference for the construct of individualism/collectivism on sales negotiation in the face-to-face or online environment. The construct of individualism/collectivism did not show any statistically significant relationship relating to the change in communication medium.

The initial analysis shows that the individual characteristics of need for emotion and need for cognition impact on sales negotiations both in a face-to-face environment,

when communicating over the Internet and when changing between the two mediums. This analysis did not provide any evidence in relation to the effect of an individual's preference for need for precision on sales negotiation in the face-to-face or online environment. Need for precision did not show any statistically significant relationship relating to the change in communication medium.

The following chapter discusses further these findings and addresses the implications of the findings. Directions for future research are considered, and conclusions are drawn.

6. DISCUSSION AND CONCLUSIONS

6.1. INTRODUCTION

The objective of this research was to go some way towards bridging the gap between face-to-face and online negotiation research by looking at the use of the Internet as a communication tool. There are three prongs to this research:

- To investigate the impact of communication medium on negotiation success, looking at negotiator satisfaction as a measure of success.
- To investigate the effect of the identifiable processing types on negotiator satisfaction levels across the two communication mediums.
- To investigate the effect of the identifiable cultural characteristics on negotiator satisfaction levels across the two communication mediums.

The following chapter looks at how the results differ from expectations, following this, potential reasons for these differences are explored. It then goes on to discuss the business and theoretical implications of this research and the limitations of the research study. Finally, a concise conclusion of the research is given.

6.2. DISCUSSION OF RESEARCH RESULTS

The aim of this study was to assess the impact of individual and cultural characteristics on cross cultural sales negotiations using two communication mediums. Initial results of this study indicate that the change in the communication medium will impact on negotiator satisfaction, but only in relation to the communication medium. In addition, this study investigated the impact of three individual and four cultural characteristics on satisfaction levels across the Internet and face-to-face mediums. The results indicate that some of these factors impact on process, outcome and communication medium satisfaction to a greater or lesser

extent. As a result, these findings will be able to influence business strategies to better inform businesses about whom it is most appropriate to use in negotiations depending on the communication medium. They also indicate which communication medium to use for negotiations, depending on the culture and/or individual characteristics of the negotiating parties. Table 6.1 below gives a brief summary of the research findings.

TABLE 6.1 SYNOPSIS OF RESEARCH FINDINGS

H_1	(Process, Outcome and Communication Medium) Satisfaction will be greater for face-to-face negotiations than for internet negotiations.	P
H_2	Negotiators from high context cultures will differ from negotiators from low context cultures in their level of satisfaction with face-to-face and Internet negotiations.	X
H_3	The cultural characteristics of the negotiators (Individualism, Masculinity, Uncertainty Avoidance, Power Distance) will influence their level of satisfaction with face-to-face and Internet negotiations.	P
H_4	The individual processing styles of the negotiators (Need for Precision, Need for Cognition and Need for Emotion) will influence their level of satisfaction with face-to-face and Internet negotiations.	P

X Hypothesis not supported

P Hypothesis partially supported - where the hypothesis is partially supported bolded statements show where the hypothesis *is* supported

6.2.1. CHANGE IN COMMUNICATION MEDIUM AND SATISFACTION LEVELS

The results from this study indicate that there is no statistically significant difference in process and outcome satisfaction levels between Internet and face-to-face negotiations (Table 5.4). However, changing the communication medium significantly influences the satisfaction with the medium used to communicate. Generally speaking, participants derived less satisfaction from the communication medium when negotiating over the Internet. In spite of this, participants' satisfaction with the process and outcome of the experiment did not differ significantly when compared to the face-to-face environment. These results only partially support the first hypothesis, which proposed that face-to-face negotiations would be more satisfying than Internet negotiations for all of the satisfactions measured. The reason for this could be due to the inexperienced sample used. Although the participants would have negotiated in their personal lives, they did not have experience of negotiating in a business environment. As such, because they were unfamiliar with a negotiation situation they may not have found any difference with satisfaction associated with the process or

outcome. However, all the negotiators were familiar with communicating and could therefore give a more considered evaluation of the satisfaction they derived from the two different mediums. In addition, the negotiation simulation was simplistic and the situation slightly unrealistic, which could also have affected perceptions of the process and outcome of the negotiation. To overcome this issue, future research would be advised to use more experienced negotiators and/or real negotiations.

6.2.2. EFFECT OF CULTURAL CONTEXT ON SATISFACTION

Analysis showed that there was no statistically significant difference (at the .05 level) in overall cultural characteristics between the two cultural groups used to test the hypotheses (Table 5.6); however, analysis did show that the two cultures differed significantly on one of Hofstede's dimensions of culture: uncertainty avoidance (Table 5.5). Further analysis of the two groups found no support for the second hypothesis, which proposed that negotiator satisfaction would differ according to cultural context (i.e. high (Greek) or low (British)). This could be as a result of acclimatisation of Greek students to the British culture, this weakness could be overcome by using recently arrived participants or, if resources allowed, for negotiations to be carried out in multiple countries. In addition, a larger sample group could have been used to try and increase the range of scores for the data collected.

6.2.3. CULTURAL CHARACTERISTICS AND SATISFACTION

Hypothesis 3 proposed that an individual's level of the cultural characteristics of individualism/collectivism and masculinity/femininity would have a positive impact on satisfaction during face-to-face negotiations. It was also hypothesised that during Internet negotiations an individual's preference for the cultural characteristics of uncertainty avoidance and power distance would have a positive impact on satisfaction. Results indicate that these hypotheses are only partially supported.

Hypothesis 3a proposed that during face-to-face negotiations, satisfaction would be positively related to the level of collectivism, femininity, low uncertainty avoidance and low power distance. Investigations showed statistically significant evidence relating to an individual's level of the cultural characteristic of uncertainty avoidance.

Results presented in tables 5.8 and 5.9 show a negative link between uncertainty avoidance and face-to-face process satisfaction, i.e. higher levels of uncertainty avoidance have lower process satisfaction during face-to-face negotiations.

Hypothesis 3b proposed that during online negotiations, satisfaction will be negatively related to the level of collectivism, femininity, high uncertainty avoidance and low power distance. Investigations showed that the data analysis partially support hypothesis 3b, whereby in tables 5.10, 5.11 and 5.12, findings show that an individual's preference for the cultural characteristic of power distance has a positive effect on Internet process satisfaction and Internet communication medium satisfaction. This indicates that those who tend towards high power distance will have greater process and communication medium satisfaction for Internet negotiations, compared to those who tend more towards low power distance.

Hypothesis 3c proposed that the influence of the cultural characteristics on process, outcome and communication medium satisfaction would differ according to the communication medium used. In tables 5.13, 5.14, 5.15 and 5.16, analysis showed how cultural characteristics impact on negotiation satisfaction. Investigations showed that as an individual's level of the cultural characteristic of masculinity increases, it has a positive effect on outcome satisfaction levels when changing between the two communication mediums, i.e. will be less affected by the change in medium. Specifically, the difference between the levels of Internet and face-to-face outcome satisfaction found with respondents who scored highly for masculinity is lower than that found with respondents who were feminine. Therefore, those who tend towards femininity will be more dissatisfied by the outcome of the negotiation as result of the change in communication medium to Internet negotiations. Analysis also showed that as an individual's level of the cultural characteristic of power distance increases it has a positive effect on process satisfaction levels when changing between the two communication mediums, i.e. will be less affected by the change in medium. Specifically, the difference between the levels of Internet and face-to-face process satisfaction found with respondents who scored highly for power distance is less than that found with respondents who scored lower for power distance. Therefore, those who tend towards low power distance will be less dissatisfied by the process of the negotiation as result of the change in communication medium to Internet negotiations.

Significant results may not have been found due to the similarity in scores for the cultural characteristics. Table 6.2 below shows the range of scores for the sample group used. As can be seen from this table individualism/collectivism has the lowest range of scores. This could explain why it does not provide support for any of the hypotheses. A more diverse sample group could give a wider range of scores, which could potentially give a better basis for regression analysis. The subsequent results would be more robust and may provide support for the hypotheses described in this research.

TABLE 6.2 RANGE OF SCORES FOR CULTURAL CHARACTERISTICS

	Low	High	Mean	Range
Individualism/Collectivism	2.0	5.5	4.25	3.5
Masculinity/Femininity	1.0	5.0	2.85	4.0
Uncertainty Avoidance	1.5	7.0	4.25	5.5
Power Distance	2.0	6.5	4.28	4.5

1 = Strongly Disagree, 4 = Neither Agree or Disagree, 7 = Strongly Agree

6.2.4. INDIVIDUAL CHARACTERISTICS AND SATISFACTION

Hypothesis 4 proposed that an individual's need for emotion would have a positive impact on satisfaction during face-to-face negotiations and that during Internet negotiations an individual's need for cognition and precision would have a positive impact on Internet satisfaction. Results indicate that these hypotheses are only partially supported.

Hypothesis 4a proposed that during face-to-face negotiations, process, outcome and communication medium satisfaction would be positively related to an individual's need for emotion, and negatively related to an individual's need for cognition and precision. Investigations showed statistically significant evidence relating to an individual's need for emotion. Results presented in tables 5.17 and 5.18 show a positive link between need for emotion and face-to-face communication medium

satisfaction, i.e. those with higher need for emotion are more satisfied with the face-to-face communication medium, than those with a lower need for emotion.

Hypothesis 4b proposed that during online negotiations, process, outcome and communication medium satisfaction would be positively related to an individual's need for cognition and precision, and negatively related to an individual's need for emotion. Data analysis partially support hypothesis 4b, whereby in tables 5.19, 5.20 and 5.21, findings show how an individual's processing style impacts on negotiation satisfaction. Investigations showed that an individual's need for emotion has a negative effect on Internet outcome satisfaction i.e. those with higher need for emotion are less satisfied with the outcome of Internet negotiations, than those with lower need for emotion. In addition, results show a positive link between an individual's need for cognition and Internet process satisfaction, i.e. those with higher need for cognition are more satisfied with the process of Internet negotiations, than those with lower need for cognition.

Hypothesis 4c proposed that the influence of the individual's processing styles on process, outcome and communication medium satisfaction would differ according to the communication medium used. The results indicate (tables 5.22 and 5.23) that an individual's need for cognition will have a positive effect on process satisfaction levels when changing between the two communication mediums. Specifically, the difference between the levels of Internet and face-to-face process satisfaction found with respondents who scored highly for need for cognition is lower than that found with respondents who scored lower on need for cognition. Therefore, those who tend towards low need for cognition will be more dissatisfied by the process of the negotiation as result of the change in communication medium to Internet negotiations.

Significant results may not have been found due to the similarity in scores for the individual processing styles. Table 6.3 below shows the range of scores for the sample group used. As can be seen from this table need for precision has the lowest range of scores. This could explain why it does not provide support for any of the hypotheses. A more diverse sample group could give a wider range of scores, which could potentially give a better basis for regression analysis. The subsequent results would be more robust and may provide support for the hypotheses described in this research.

TABLE 6.3 RANGE OF SCORES FOR INDIVIDUAL CHARACTERISTICS

	Low	High	Mean	Range
Need for Precision	3.08	5.50	4.11	2.43
Need for Cognition	3.33	6.28	4.90	2.95
Need for Emotion	2.75	6.33	4.39	3.58

1 = Strongly Disagree, 4 = Neither Agree or Disagree, 7 = Strongly Agree

6.3. IMPLICATIONS AND LIMITATIONS

6.3.1. IMPLICATIONS

6.3.1.1. IMPLICATIONS FOR BUSINESS

The World Wide Web has revolutionized the way people communicate with one another. Although barely twelve-years old, the growth of the Internet has been prolific. Originally only used for communication, the Internet now has a much wider scope and is used for a variety of tasks, all of which are becoming more common place as users adapt to the Internet as part of their everyday lives. At the present time business-to-business (B2B) commerce stands at a staggering \$336 billion²² and looks set to rise to over \$6 trillion dollars by 2005. The astounding success of B2B commerce is set to increase not only in terms of sales revenue, but also in terms of percentage of overall sales. At present a mere 3% of B2B commerce is carried out online²³, but this is set to rise more than 40% over the next 5 years. With this increasing use of the Internet as a business tool it is important to understand the implications of this research and how it can be applied to the online business world.

Although aware of the possibilities of the Internet, only a handful of businesses realize the full potential that trading online could give them in terms of increased competitiveness and efficiency, as such, at the present time Internet purchases

²² According to research carried out by Jupiter Research (2001).

²³ Defined as any sale made by a business to a business where either the terms of the transaction are agreed upon online, or the majority of terms or item features are configured online.

represent just over 4% of the total purchases made²⁴. Despite this relatively small figure B2B sales revenue represents one third of web revenue²⁵. The Internet offers small and medium size enterprises the opportunity to enter the global market place and to compete directly with larger companies for global business. Online negotiations can potentially enable small and medium size enterprises (who previously could not have afforded to travel long distances to sell their products) to compete by using the more affordable facility of negotiating online. However, although technology has evolved and now incorporates online product design, project management, supply schedule coordination, and supply chain management, not everything can be done online. As such, there is still a distinct need for businesses to better their understanding of online negotiations in order to fully utilize the web as a strategic business tool. This particular study, as well as future studies into the area of online negotiations, has the ability to aid businesses in designing negotiation strategies, training negotiators and minimizing failure rates.

If businesses are aware of their employees' personal levels of cultural and individual characteristics, they can make a more informed decision as to who should be given tasks related to online business negotiations. Those who are likely to be dissatisfied with the online negotiation format, or those who are likely to have greater satisfaction with face-to-face negotiations can be identified and these strengths can be incorporated into a businesses negotiation strategy. Yet while it will not be possible to assess potential business partners' preferences for individual and cultural characteristics, the present research will still impact on 'unknown' negotiators. The general information derived from Hofstede's culture research, used in conjunction with the findings from the present study could be used to indicate, depending on the cultural group of potential business partners, whether they are likely to find online negotiations satisfactory. This information can then provide further information into the process of formulating a businesses negotiation strategy.

More specifically, the information identified in this study can also be related to training strategy. Those who are likely to derive greater satisfaction from Internet

²⁴ Taken from an article which can be found at:

http://cyyberatlas.internet.com/big_picture/demographics/article/0,132,10091_49821,00.htm

²⁵ Taken from an article which can be found at:

negotiations could be placed on different training schemes. For example, an online training programme could, concentrate on; touch-typing, negotiation process structure and language structure, whereas a face-to-face training programme could, for example, concentrate on; body language, tone and pace, and cultural display rules.

In addition, by using the information within this study to influence negotiation and training strategy businesses are likely to benefit from a better-informed work force. This will result in greater potential to more effectively deal in online negotiations, as a result of familiarity with the online negotiation environment, a greater awareness of expectations for themselves and their negotiating partner(s) as well as a more meaningful training and development programme that will identify and develop the skills needed for an online environment could be employed. This will impact on the bottom line of businesses by enabling them to minimize failure rates associated with online negotiations.

Table 6.4 below shows how businesses could use the findings from this research to enhance their use of the Internet as a business tool.

TABLE 6.4 EXAMPLES OF NEGOTIATION STRATEGIES

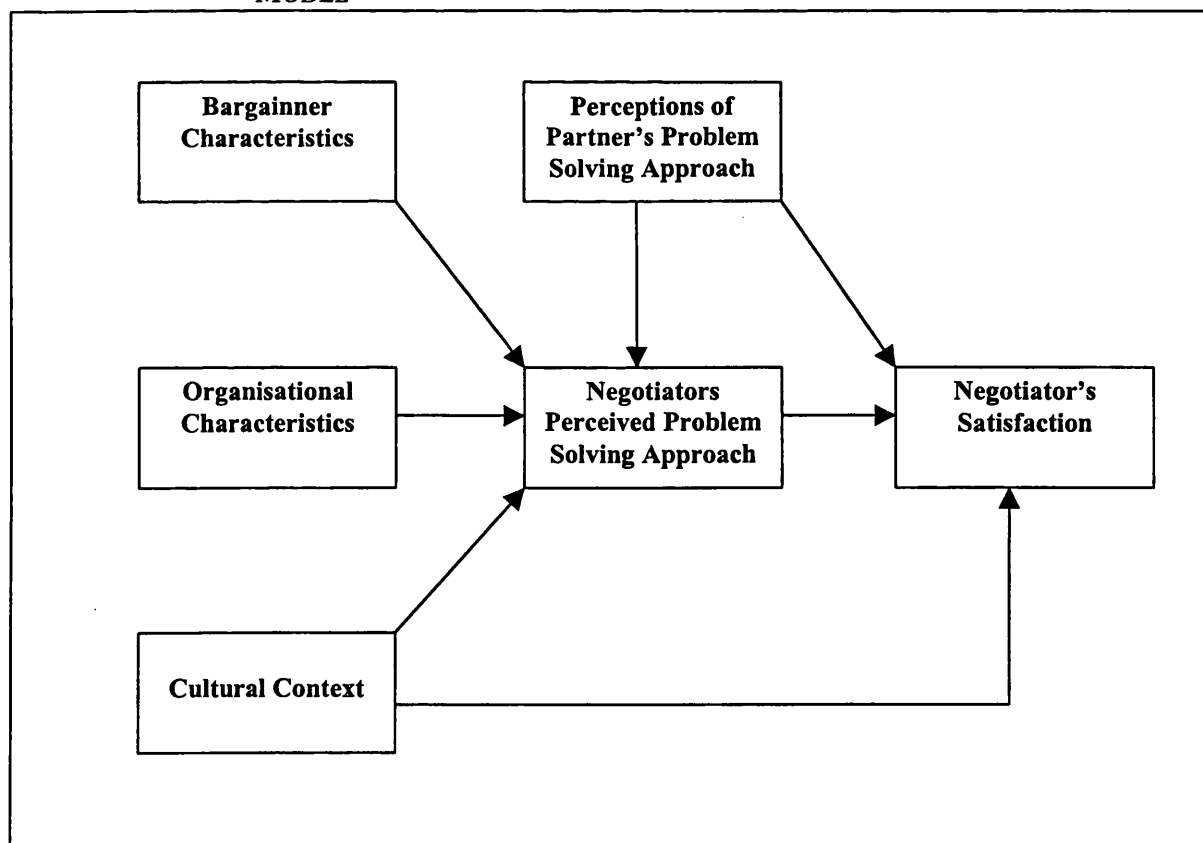
		Satisfying Communication Medium		Potential action to be taken by businesses based on information regarding the characteristics of potential negotiating partners and satisfaction levels with communication mediums.
		Online	Face-to-Face	
Individualism	Individualism	*	*	
	Collectivism	*	*	
Masculinity	Masculinity	✓	✓	If setting up a business negotiation with a masculine culture, either communication medium could potentially be used, as both methods of communication are satisfying. However if the culture tended towards femininity, face-to-face negotiation should be used.
	Femininity	-	✓	
Uncertainty Avoidance	High	-	✓	If setting up a business negotiation with a low uncertainty avoidance culture, either communication medium could potentially be used, as both methods of communication are satisfying. However if the culture tended towards high uncertainty avoidance, face-to-face negotiation should be used.
	Low	✓	✓	
Power Distance	High	✓	✓	If setting up a business negotiation with a high power distance culture, either communication medium could potentially be used, as both methods of communication are satisfying. However if the culture tended towards low power distance, face-to-face negotiation should be used
	Low	-	✓	
Need for Precision	High	*	*	
	Low	*	*	
Need for Cognition	High	✓	✓	If developing specialist negotiators, those with a high need for cognition could attend the either the online or off line negotiation course as either method of communication is satisfying. Those with a low need for cognition should attend the face-to-face negotiation course.
	Low	-	✓	
Need for Emotion	High	-	✓	If developing specialist negotiators, those with a low need for emotion could attend the either the online or off line negotiation course as either method of communication is satisfying. Those with a high need for emotion should attend the face-to-face negotiation course.
	Low	✓	✓	

* No conclusive evidence provided by this research

6.3.1.2. THEORETICAL IMPLICATIONS

The results uncovered by this research have gone part way to explaining process, outcome and communication medium satisfaction during Internet and face-to-face negotiations. However, the results do not fully explain the impact of external factors influencing satisfaction levels. Calatone, Graham and Mintu-Wimsatt (1998) proposed a multifaceted model (Exhibit 6.1) of negotiator satisfaction that is likely to explain why the factors analysed within this research project do not *fully* explain negotiator's satisfaction. Although cultural context and bargainer (individual) characteristics are key to the end result of negotiator satisfaction, other factors, such as negotiator perceptions and problem solving approach are also likely to influence the negotiator's satisfaction.

EXHIBIT 6.1 CALATONE, GRAHAM AND MINTU-WIMSATT (1998) CONCEPTUAL MODEL



However, the results of this study are important when considering negotiator satisfaction. Although they only partially explain negotiator satisfaction, these results provide evidence for the impact of both individual and cultural characteristics. In

order to validate these results further it is important to continue research into the other aspects of negotiation as outlined in Calatone *et al*'s (1998) model of negotiation. This should be done in order to investigate the dynamics of the model and verify the impact of the different facets on negotiator satisfaction and its subsequent impact on research pertaining to online negotiations.

6.3.2. LIMITATIONS OF THE STUDY AND AREAS FOR FURTHER RESEARCH

In spite of the results provided by this study, this research constitutes only a beginning. Although the methods used within this research to study the impact of the change in communication medium on satisfaction levels were valid, the research could have been improved given greater time and resources. The study's limitations and how these can be overcome are given below.

6.3.2.1. SAMPLE

Given the time constraints of the study a sample of only 60 participants was used. To further validate the results of this study, a larger and more diverse sample (i.e. different cultures) could be used.

Another sample limitation was that participants from the high context (Greek) culture could have 'acclimatised' to the low context (British) culture. This could be overcome by using participants who had only recently arrived in the UK or collecting data from different countries, this is likely to minimise the effect of acclimatisation.

Finally, the experimentation was carried out within a protected role-play environment and the external validity of this research has not been determined. Using a sample group from the business world (i.e. those more experienced within the area of business negotiations) or real business negotiations would help to validate the results of this study.

6.3.2.2. RESEARCH DESIGN

Due to the difficulty of finding a cultural mix of potential businesses negotiators, the present study lacks a certain degree of real life experience of negotiation situations. Kelley's (1966) negotiating game has been used extensively in the past to investigate negotiations within a variety of settings. However, if real businesses had been used, the external validity of this study may have been increased and the results could be more directly relevant to businesses.

In addition, although one buyer was used to maintain consistency throughout the experiment the use of experimental subjects as both buyers and sellers would enhance future research. The dynamic of negotiators within the negotiation situation could be analysed in terms of, for example, cultural distance or differences in the processing style. Another limitation of using a single buyer was that it was not possible to compare the results of single-cultural exchanges within the two settings (i.e. British - British and Greek - Greek). To further enhance the present research future studies could investigate this area.

6.3.2.3. SITUATIONAL FACTORS

The use of only English language during the questionnaires, instructions and negotiations could have impacted on the understanding of participants within the negotiation process, and affected the general satisfaction levels of those for whom English was not their first language. As such, any future research should investigate using native language questionnaires and possibly investigate the effect of both sides communicating in a language other than their first language.

6.4. CONCLUSIONS

Given that negotiation is such an important characteristic of successful businesses, and the prolific use of the Internet as a business tool, it is surprising to find that there is little research in online business negotiations. Much research in the area of negotiation covers face-to-face negotiations, and there is a growing body of research

relating to negotiation support systems. The preceding thesis, however, adds to the body of research associated with the under researched area of online business negotiations.

In addition to the specific implications outlined in the previous sections, it is hoped that this study will also serve to increase the interest in alternative means of business communications for practical business negotiations.

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8. APPENDICES

APPENDIX 1: INSTRUCTIONS FOR NEGOTIATION SIMULATIONS

APPENDIX 1.1: INSTRUCTIONS FOR INTERNET NEGOTIATION SIMULATION

This is a Role-Play Situation.

You are employed by a large manufacturer of mobile phones, with the mobile phone market in its current slump; this is an extremely important deal. Your company is under threat of closure if this large deal does not go through, and your job is most definitely under threat. You have been told that unless you do well in this negotiation you will be fired regardless of the profit you make for the company. You **must** maximize your profits!

As the seller, you must make the first offer in order to set the scene. You should use this opportunity to make sure that the buyer knows that you mean 'business'. However, you should not forget that there are other firms in the market with whom you are in direct competition, so don't let the sale get away!

The size of the order has already been decided and is **not** under discussion; the order size should be referred to as a 'large' or 'bulk' order. Offers for products should be given in terms of the code it has been assigned, for example, price level A.

A pen and paper have been provided if you need to make any calculations about payoffs between the three products, e.g. you could afford to drop the price of lower price products if the price of more expensive products remained the same.

The negotiation is to last no more than 45 minutes.

Negotiation Simulation (Internet):

THE SITUATION:

You have been given the task of selling three products to a buyer. Negotiations will take place over the Internet. The price of the three products can be negotiated individually, or collectively. The time allowed for this negotiation simulation is 30 minutes, if an agreement has not been reached within the time limit the negotiation will be halted, and any partial agreements will be considered null and void.

YOUR COMPANY:

The company that you represent is a world-renowned manufacturer of mobile phones and accessories; offering products that sell to the public across the board, from basic pay-as-you-go packaged phones to top of the range WAP, voice recognition phones. Your company is highly regarded internationally, due to its high level of network coverage, quality of handsets, and additional added value features, such as ring tones. At the present time you company deals with a variety of retailers as well as having your own direct sales channels.

YOUR BUYER:

The buyer that you are about to meet is a representative for one of the leading mobile phone shops within the target market. They have over 150 mobile phone 'superstores', all of which are celebrated for their good quality of service, and excellent value for money. There is potential to establish a long-term sales relationship with this international retailer that would put your company in an extremely lucrative position. Due to the buyer's size, reputation and recently published plans for expansion, the prospects for developing a long standing and high profile presence within the UK and international market places are excellent. At the present time, you have not yet entered into any negotiations, and do not have any form of business relationship. You are aware of the fact that there are other mobile phone producers who are in direct competition with you for this contract to supply mobile phones.

YOUR TASK:

You must attempt to develop a business relationship with the buyer. Your task is to sell a bulk order of three different products to your prospective buyer. Your aim is to maximise your profits. The three products can be sold as individual orders, or as a 'group deal'. The negotiation must be concluded within 30 minutes, and a deal must be reached or the negotiation is null and void. As the seller, you must make the first offer in order to start the negotiation.

THE PRODUCTS:**1. Basic Mobile Phone:**

This mobile phone is aimed at children who want to have mobile phones, but do not have the money (or the need) for the more expensive models. Its features are basic offering a choice of 5 ring tones, message sending facilities and 3 games. If you were to sell a large order of these basic mobile phones to the buyer, an example of the profit margin you would receive would be;

E.g. if you sold a large order of basic mobile phones to the buyer at price level E your company would receive a profit of £120,000

2. Middle of the Range Mobile Phone:

This product is aimed at those who use mobile phones mainly for 'pleasure use' as opposed to 'business use'. Its features are much the same as the basic model, but the handset is smaller with a greater talk and standby time facility. If you were to sell a large order of these middle range mobile phones to the buyer, an example of the profit margin you would receive would be:

E.g. if you sold a large order of middle range mobile phones to the buyer at price level C your company would receive a profit of £100,000

3. Top of the Range Mobile Phone:

This product is extremely high-tech and is aimed at the active businessperson who is always away from their desk. Its features include WAP, e-mail access, and small, lightweight design. If you were to sell a large order of these top range mobile phones to the buyer, an example of the profit margin you would receive would be:

E.g. if you sold a large order of top of the range phones to the buyer at price level H your company would receive a profit of £700,000

Profit Payoff Matrix (Seller):

	Bottom of the Range Mobile Phone	Middle of the Range Mobile Phone	Top of the Range Mobile Phone
<i>Price Sold At:</i>	<i>Profits:</i>	<i>Profits:</i>	<i>Profits:</i>
A	£0	£0	£0
B	£30,000	£50,000	£100,000
C	£60,000	£100,000	£200,000
D	£90,000	£150,000	£300,000
E	£120,000	£200,000	£400,000
F	£150,000	£250,000	£500,000
G	£180,000	£300,000	£600,000
H	£210,000	£350,000	£700,000
I	£240,000	£400,000	£800,000

RULES AND REGULATION:

- You should not reveal information relating to your profit pay-off matrix to your opponent, either during or after the negotiation.
- The seller always has to make the first price offer for each of the three products.
- The size of the order is not up for discussion. The order size has already been dictated by the buyer, and is not an area for negotiation.
- The buyer has also dictated the delivery dates that are required for the negotiation to be successful, and are extremely unlikely to be changed. This is not an area for negotiation.
- A price level must be agreed for all three products in order for a negotiation to be deemed successful
- It is acceptable to reach different price levels for each of the products considered.
- The time allowed for each negotiation simulation is 30 minutes, if an agreement is reached before this time limit, then the seller may leave the room. If an agreement is not reached within 30 minutes the simulation will be called to an end.
- The negotiation should take part in English.
- All three will be negotiated for within one negotiation, i.e. participants can make concessions between the products to come to an agreement.

APPENDIX 1.2: INSTRUCTIONS FOR FACE-TO-FACE NEGOTIATION SIMULATION**This is a Role-Play Situation.**

You are employed by a large manufacturer of electrical goods. The electrical goods market is being flooded with cheaper foreign imports, as such; this is an extremely important deal. Your company is under threat of closure if this large deal does not go through, and your job is most definitely under threat. You have been told that unless you do well in this negotiation you will be fired regardless of the profit you make for the company. You **must** maximize your profits!

As the seller, you must make the first offer in order to set the scene. You should use this opportunity to make sure that the buyer knows that you mean 'business'. However, you should not forget that there are other firms in the market with whom you are in direct competition, so don't let the sale get away!

The size of the order has already been decided and is not under discussion, the order size should be referred to as a 'large' or 'bulk' order. Offers for products should be given in terms of the code it has been assigned, for example, price level A.

A pen and paper have been provided if you need to make any calculations about payoffs between the three products, e.g. you could afford to drop the price of lower price products if the price of more expensive products remained the same.

The negotiation is to last no more than 30 minutes.

Negotiation Simulation (Face-to-Face):**THE SITUATION:**

You have been given the task of selling three products to a buyer. Negotiations will take place over the Internet. The price of the three products can be negotiated individually, or collectively. The time allowed for this negotiation simulation is 30 minutes, if an agreement has not been reached within the time limit the negotiation will be halted, and any partial agreements will be considered null and void.

YOUR COMPANY:

The company that you represent is a world-renowned manufacturer of mobile phones and accessories; offering products that sell to the public across the board, from basic pay-as-you-go packaged phones to top of the range WAP, voice recognition phones. Your company is highly regarded internationally, due to its high level of network coverage, quality of handsets, and additional added value features, such as ring tones. At the present time you company deals with a variety of retailers as well as having your own direct sales channels.

YOUR BUYER:

The buyer that you are about to meet is a representative for one of the leading mobile phone shops within the target market. They have over 150 mobile phone 'superstores', all of which are celebrated for their good quality of service, and excellent value for money. There is potential to establish a long-term sales relationship with this international retailer that would put your company in an extremely lucrative position. Due to the buyer's size, reputation and recently published plans for expansion, the prospects for developing a long standing and high profile presence within the UK and international market places are excellent. At the present time, you have not yet entered into any negotiations, and do not have any form of business relationship. You are aware of the fact that there are other mobile phone producers who are in direct competition with you for this contract to supply mobile phones.

YOUR TASK:

You must attempt to develop a business relationship with the buyer. Your task is to sell a bulk order of three different products to your prospective buyer. Your aim is to maximise your profits. The three products can be sold as individual orders, or as a 'group deal'. The negotiation must be concluded within 30 minutes, and a deal must be reached or the negotiation is null and void. As the seller, you must make the first offer in order to start the negotiation.

THE PRODUCTS:**1. Stereo Systems:**

The stereo system that the buyer is interested in is your top of the line system, with midi disk, CD, stereo, surround sound, as well as digital technology. If you were to sell a large order of these stereo systems to the buyer, an example of the profit margin you would receive would be:

E.g. if you sold a bulk order of these stereo systems to the buyer at price level B your company would receive a profit of £100,000

2. Electric Kettles:

This is your most basic model, and has no features beyond the fact that it is cordless, and has a water gauge on the side. If you were to sell a large order of these kettles to the buyer as a bulk order, an example of the profit margin you would receive would be:

E.g. if you sold a bulk order of electric kettles to the buyer at price level E your company would receive a profit of £120,000

3. DVD Players:

Your middle of the range DVD player, is a relatively basic model, with few additional features, but offers a compact presentation, being over 1/3 smaller than others in its price range. If you were to sell a large order of these DVD players to the buyer as a bulk order, an example of the profit margin you would receive would be:

E.g. if you sold a bulk order of DVD players suite to the buyer at price level G your company would receive a profit of £300,000

Profit Payoff Matrix (Seller):

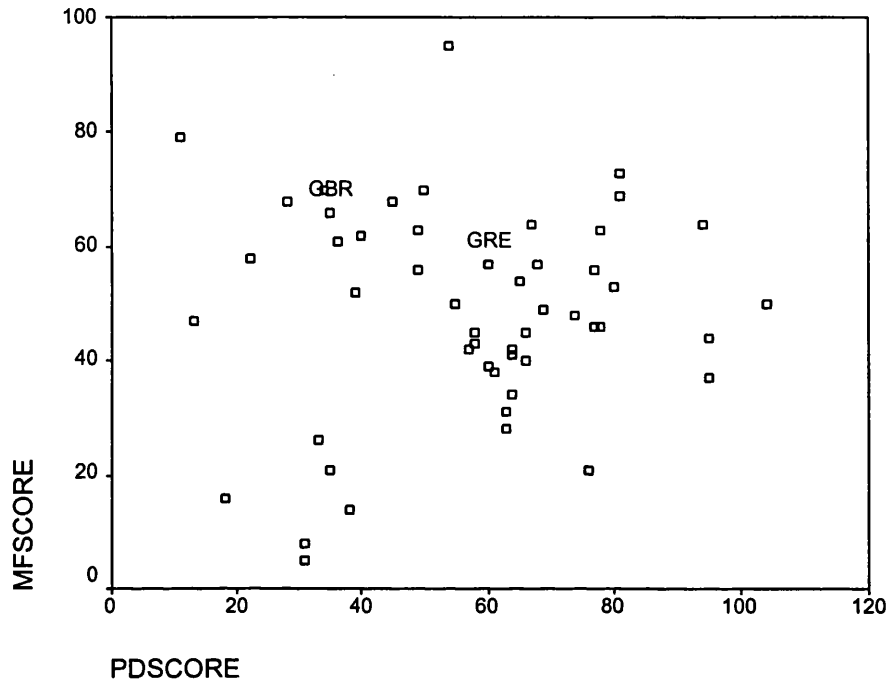
	STEREO SYSTEM	ELECTRIC KETTLE	DVD PLAYER
<i>Price Sold At:</i>	<i>Profits:</i>	<i>Profits:</i>	<i>Profits:</i>
A	£0	£0	£0
B	£100,000	£30,000	£50,000
C	£200,000	£60,000	£100,000
D	£300,000	£90,000	£150,000
E	£400,000	£120,000	£200,000
F	£500,000	£150,000	£250,000
G	£600,000	£180,000	£300,000
H	£700,000	£210,000	£350,000
I	£800,000	£240,000	£400,000

RULES AND REGULATION:

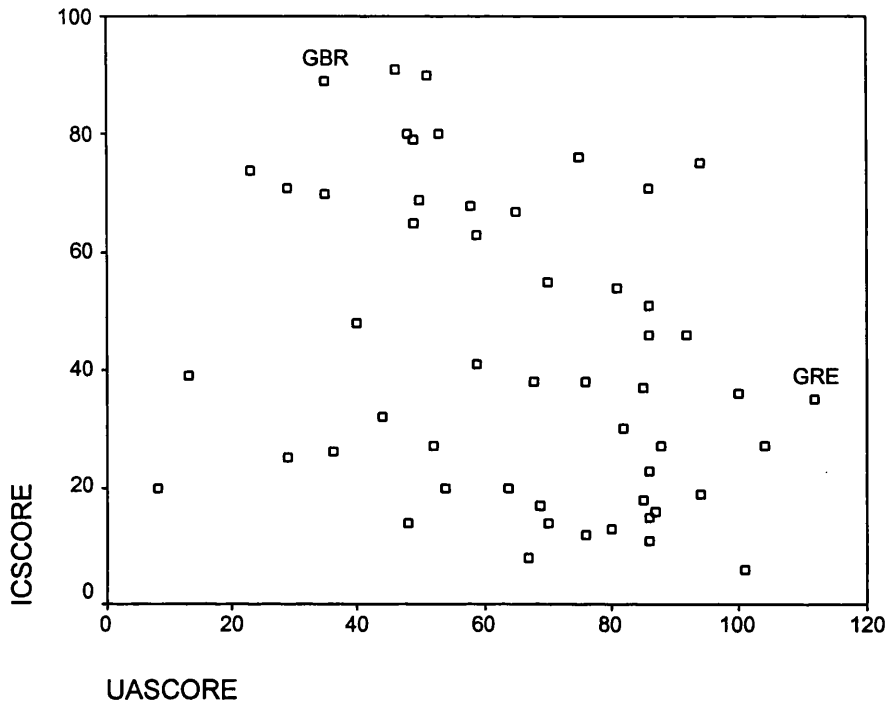
- You should not reveal information relating to your profit pay-off matrix to your opponent, either during or after the negotiation.
- The seller always has to make the first price offer for each of the three products.
- The size of the order is not up for discussion. The order size has already been dictated by the buyer, and is not an area for negotiation.
- The buyer has also dictated the delivery dates that are required for the negotiation to be successful, and are extremely unlikely to be changed. This is not an area for negotiation.
- A price level must be agreed for all three products in order for a negotiation to be deemed successful
- It is acceptable to reach different price levels for each of the products considered.
- The time allowed for each negotiation simulation is 30 minutes, if an agreement is reached before this time limit, then the seller may leave the room. If an agreement is not reached within 30 minutes the simulation will be called to an end.
- The negotiation should take part in English.
- All three will be negotiated for within one negotiation, i.e. participants can make concessions between the products to come to an agreement.

APPENDIX 2: HOFSTEDE'S DIMENSIONS OF CULTURE

APPENDIX 2.1: SCATTER PLOT SHOWING MASCULINITY/FEMININITY AGAINST POWER DISTANCE



**APPENDIX 2.2: SCATTER PLOT SHOWING INDIVIDUALISM/COLLECTIVISM AGAINST
UNCERTAINTY AVOIDANCE**



APPENDIX 3: PRE-SIMULATION QUESTIONNAIRE

Questions Prior to the Simulation:

Date of Birth:	Age:
Nationality:	Sex: M/F
Degree Scheme:	Ref. No.:

SECTION ONE

1.1 Do you use the Internet to communicate with any of the following (please tick all that apply):

- Friends from home
- Friends from university
- Academic staff
- Fellow students (for assignments)

	Everyday	More than 3 times a week	Less than 3 times a week	Once a week	Never	Other (Please Specify)
--	----------	--------------------------------	--------------------------------	----------------	-------	------------------------------

On average, how frequently do you use the Internet?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
						-

On average, how frequently do you use email/the Internet to communicate with friends from home?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
						-

On average, how frequently do you use email/the Internet to communicate with friends from university?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
						-

On average, how frequently do you use email/the Internet to communicate with academic staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
						-

On average, how frequently do you use email/the Internet to communicate with fellow students (for assignments)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
						-

1.7 Have you had any previous experience with negotiation, either at work, for courses or in other negotiating simulations, if so please detail them below:

SECTION TWO

Please indicate the extent to which you agree or disagree with each of the following statements.

	Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
Written rules and regulations tend to interfere with my productivity at university	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think approximate information is acceptable, whereas exact information is not necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like tasks that require little thought once I've learned them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to ignore the emotional aspects of situations rather than getting involved in them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinking is enjoyable when it does not involve exact information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find satisfaction in deliberating hard and for long hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel relief rather than satisfaction after completing a task that required a lot of mental effort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to anticipate and avoid situations where there is a likely chance that I will have to think in depth about something	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find little satisfaction in experiencing strong emotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
I like to be unemotional in emotional situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I am satisfied with my knowledge about issues as long as I am in the "ballpark"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like tasks which require me to look for small differences between things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The major emphasis should be on getting the job done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not find it interesting to learn precise information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would prefer a task that is intellectual, difficult, and important to one that is somewhat important, but does not require much thought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having considerable freedom to adopt my own approach to the job is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to anticipate and avoid situations where there is a likely chance of getting emotionally involved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a rough rather than exact idea of my opinions on various issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lower level employees are often afraid to express disagreement with their superiors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer my life to be filled with puzzles that I must solve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I look forward to situations that I know are less emotionally involving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
Experiencing strong emotions is not something I enjoy very much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning new ways to think does not excite me very much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to keep my feelings under control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I do not look forward to being in situations that others have found to be emotional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to express myself precisely, even when it is not necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not see the point in trying to discriminate between slightly different alternatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to have the responsibility of handling a situation that requires a lot off thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would prefer complex to simple problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to think about small, daily projects to long-term ones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More often than not, making decisions based on emotions just leads to more errors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Those in power should try to appear as powerful as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vague descriptions leave me with the need for information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually end up deliberating about issues even when they do not affect me personally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
The idea of relying on thought to make my way to the top appeals to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with information as long as it is more or less close to the facts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I really enjoy a task that involves coming up with new solutions to problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I tend to put things into broad categories as much as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinking is not my idea of fun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I feel relief rather than fulfilled after experiencing a situation that is very emotional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I only think as hard as I have to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rather than elaborate planning for life, I prefer to take each day as it comes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recognition at school is more important than a friendly atmosphere and fellow students' cooperation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy tasks that require me to be exact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to use precise information that is available to make decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's enough for me that something gets the job done; I do not care how or why it works	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
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I would rather be in a situation where I experience little emotion than one which is sure to get me emotionally involved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decisions made by individuals are usually of higher quality than decisions made by groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not like to have the responsibility of handling a situation that is emotional in nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A corporation should do as much as it can to solve societies problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The notion of thinking abstractedly is appealing to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The relationship among fellow students should not get in the way of the task that needs to be done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 4: POST-SIMULATION QUESTIONNAIRE

SECTION THREE: THE PROCESS

Thinking specifically of your experiences during the negotiation process only (NOT the outcome), please indicate the extent to which you agree or disagree with each of the following statements with respect to towards your negotiating partner:

	Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
3.1 I found my negotiating partner friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 I would like to meet with this person outside the negotiating situation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 My negotiating partner effectively communicated what their goals were	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 I felt that my partners negotiating style was open and honest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5 My negotiating partner was aggressive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6 I felt comfortable dealing with my negotiating partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7 I tried to meet all my goals in the negotiation, regardless of my partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8 I was honest during the negotiation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.9 I tried to help my negotiating partner understand what my goals were	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.11 I was satisfied with the negotiation process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.12 The negotiation process used by myself and the other party was efficient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.13 The negotiation process used by myself and the other party was coordinated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongly Agree
3.14	The negotiation process used by myself and the other party was fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.15	The negotiation process used by myself and the other party was understandable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.16	The negotiation process used by myself and the other party was satisfying.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION FOUR: THE OUTCOME

Thinking specifically of your experiences during the negotiation process, please indicate the extent to which you agree or disagree with each of the following statements with respect to the outcome of the negotiation (i.e. the results of the negotiation):

		Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongl Agree
4.1	I was satisfied with the quality of the outcome that I and the other party reached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2	I was satisfied by the outcome of the negotiation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3	I pursued a negotiation strategy with the aim of maximizing my own profits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.4	I felt that my partner pursued a negotiation strategy with the aim of maximizing their own profits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.5	I feel personally responsible for the solution (or outcome) that I and the other party reached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6	I am confident that the solution (or outcome) is optimal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7	I feel committed to the solution (or outcome)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8	The final solution (or outcome) mainly reflect my inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION FIVE: COMMUNICATION MEDIUM

Thinking specifically about the medium with which you used to communicate (i.e. face-to-face or Internet), please indicate the extent to which you agree or disagree with each of the following statements:

		Strongly Disagree	Disagree	Disagree Slightly	Neither Agree or Disagree	Agree Slightly	Agree	Strongl Agree
5.1	The conditions under which we communicated helped us to better understand each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2	When we disagreed, the communication conditions made it more difficult for us to come to an agreement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3	The conditions under which we communicated slowed down our communications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4	When we disagreed, our communication environment helped us come to a common position.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5	The conditions under which we communicated helped us share our opinions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.6	I could easily explain things in this environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.7	The communication conditions helped us exchange communications quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.8	There were ideas I could not relate to the other party because of the communication conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.9	Overall, I was satisfied with this method of communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 5: RELIABILITY OF INDIVIDUAL CHARACTERISTIC SCALES

TABLE 8.1. RELIABILITY OF NEED FOR PRECISION SCALE USING CRONBACH'S ALPHA

Item-total Statistics	Scale Mean if Item Deleted	Scale variance if Item Deleted	Corrected Item Total- Correlation	Alpha if Item Deleted
I enjoy tasks that require me to be exact	50.3103	44.5074	.0880	.6975
Vague descriptions leave me with the need for information	49.4483	48.9704	-.2015	.7348
I have a rough rather than exact idea of my opinions on various issues	52.2069	34.8842	.5161	.5707
I do not find it interesting to learn precise information	52.4138	37.6084	.3307	.6303
Thinking is enjoyable when it does not involve exact information	51.6897	37.8645	.3708	.6214
I tend to put things into broad categories as much as possible	50.7241	37.2069	.4086	.6097
I do not see the point in trying to discriminate between slightly different alternatives	51.8966	39.9532	.2893	.6480
I like to express myself precisely, even when it is not necessary	49.9655	50.8202	-.2859	.7727
I think approximate information is acceptable, whereas exact information is not necessary	52.2759	41.7783	.1259	.6952
I am satisfied with information as long as it is more or less close to the facts	50.2414	41.4039	.2322	.6644
I am satisfied with my knowledge about issues as long as I am in the "ballpark"	51.7241	39.8498	.2923	.6470
I like tasks which require me to look for small differences between things	50.5172	44.6872	.0303	.7155
I like to use precise information that is available to make decisions	49.4828	46.7586	-.0207	.7122

Reliability Coefficients

N of Cases = 60.0

N of Items = 13

Alpha = .6966

TABLE 8.2. RELIABILITY OF NEED FOR COGNITION SCALE USING CRONBACH'S ALPHA

	Scale Mean if Item Deleted	Scale variance if Item Deleted	Corrected Item Total- Correlation	Alpha if Item Deleted
I would prefer complex to simple problems	83.7667	103.9785	.3735	.7384
I like to have the responsibility of handling a situation that requires a lot off thinking	82.8333	110.0395	.2252	.7488
Thinking is not my idea of fun	82.9167	98.6540	.4769	.7282
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities	82.4333	98.9616	.6008	.7214
I try to anticipate and avoid situations where there is a likely chance that I will have to think in depth about something	82.6500	103.4856	.4674	.7332
I find satisfaction in deliberating hard and for long hours	84.2167	106.2404	.2124	.7517
I only think as hard as I have to	84.2333	98.7243	.4029	.7347
I prefer to think about small, daily projects to long-term ones	83.6000	106.9898	.2234	.7497
I like tasks that require little thought once I've learned them	83.7333	101.7243	.2987	.7454
The idea of relying on thought to make my way to the top appeals to me	83.0000	106.7797	.2365	.7486
I really enjoy a task that involves coming up with new solutions to problems	82.3833	105.9353	.4435	.7372
Leaning new ways to think does not excite me very much	82.3000	104.8237	.3201	.7422
I prefer my life to be filled with puzzles that I must solve	84.0167	101.8811	.4159	.7345
The notion of thinking abstractedly is appealing to me	83.2833	107.3590	.1835	.7537
I would prefer a task that is intellectual, difficult, and important to one that is somewhat important, but does not require much thought	83.4167	105.6370	.2437	.7487
I feel relief rather than satisfaction after completing a task that required a lot of mental effort	83.0000	106.2034	.1717	.7575
It's enough for me that something gets the job done; I do not care how or why it works	83.0500	97.0653	.4699	.7279
I usually end up deliberating about issues even when they do not affect me personally	83.1500	104.7059	.3179	.7424

Reliability Coefficients

N of Cases = 60.0

N of Items = 18

ALPHA = .7524

TABLE 8.3. RELIABILITY OF NEED FOR EMOTION SCALE USING CRONBACH'S ALPHA

	Scale Mean if Item Deleted	Scale variance if Item Deleted	Corrected Item Total- Correlation	Alpha if Item Deleted
I try to anticipate and avoid situations where there is a likely chance of getting emotionally involved	48.5000	82.4237	.6367	.8087
Experiencing strong emotions is not something I enjoy very much	47.8500	83.6551	.7013	.8056
I would rather be in a situation where I experience little emotion than one which is sure to get me emotionally involved	48.6000	85.7356	.6185	.8120
I do not look forward to being in situations that others have found to be emotional	48.7000	84.0102	.6792	.8072
I look forward to situations that I know are less emotionally involving	48.4667	87.4395	.5121	.8195
I like to be unemotional in emotional situations	47.9500	91.4720	.2651	.8405
I find little satisfaction in experiencing strong emotions	47.5167	89.1353	.4057	.8276
I prefer to keep my feelings under control	49.7333	90.7073	.3253	.8342
I feel relief rather than fulfilled after experiencing a situation that is very emotional	48.6167	88.6133	.3999	.8284
I prefer to ignore the emotional aspects of situations rather than getting involved in them	48.0667	83.9955	.5743	.8140
More often than not, making decisions based on emotions just leads to more errors	49.2167	90.8845	.3497	.8316
I do not like to have the responsibility of handling a situation that is emotional in nature	48.3167	85.4743	.5338	.8175

Reliability Coefficients

N of Cases = 60.0

N of Items = 12

Alpha = .8334

APPENDIX 6: RELIABILITY OF INDIVIDUAL CHARACTERISTIC SCALES

TABLE 8.4. RELIABILITY OF THE PROCESS SATISFACTION SCALE USING CRONBACH'S ALPHA

		Scale Mean if Item Deleted	Scale variance if Item Deleted	Corrected Item Total- Correlation	Alpha if Item Deleted
Internet	I was satisfied with the quality of the outcome that I and the other party reached	45.1333	42.9311	.4400	.7818
Internet	The final solution (or outcome) mainly reflect my inputs	45.0500	45.4042	.4545	.7791
Internet	I feel committed to the solution (or outcome)	44.7667	44.9616	.5232	.7727
Internet	I am confident that the solution (or outcome) is optimal	45.7667	42.3514	.4682	.7780
Internet	I feel personally responsible for the solution (or outcome) that I and the other party reached	44.7167	45.0201	.4739	.7770
Face-to-Face	I was satisfied with the quality of the outcome that I and the other party reached	45.0333	43.4565	.5126	.7719
Face-to-Face	The final solution (or outcome) mainly reflect my inputs	45.0167	43.5421	.4352	.7817
Face-to-Face	I feel committed to the solution (or outcome)	44.7833	44.5794	.5558	.7695
Face-to-Face	I am confident that the solution (or outcome) is optimal	45.5333	42.0836	.5221	.7703
Face-to-Face	I feel personally responsible for the solution (or outcome) that I and the other party reached	44.9500	45.8110	.3496	.7909

Reliability Coefficients

N of Cases = 60.0

N of Items = 10

Alpha = .7950

TABLE 8.5. RELIABILITY OF THE OUTCOME SATISFACTION SCALE USING CRONBACH'S ALPHA

	Scale Mean if Item Deleted	Scale variance if Item Deleted	Corrected Item Total- Correlation	Alpha if Item Deleted
Internet The negotiation process used by myself and the other party was efficient.	33.2333	69.0294	.3149	.7331
Internet The negotiation process used by myself and the other party was coordinated.	31.2667	71.3514	.3309	.7416
Internet The negotiation process used by myself and the other party was fair.	33.6167	67.7319	.4171	.7353
Internet The negotiation process used by myself and the other party was understandable.	34.0167	66.9658	.4397	.7219
Internet The negotiation process used by myself and the other party was satisfying.	31.5167	62.3218	.4240	.7543
Face-to- Face The negotiation process used by myself and the other party was efficient.	33.8500	67.7907	.5994	.7348
Face-to- Face The negotiation process used by myself and the other party was coordinated.	30.9333	70.8429	.4641	.7139
Face-to- Face The negotiation process used by myself and the other party was fair.	33.9167	66.9251	.4018	.7146
Face-to- Face The negotiation process used by myself and the other party was understandable.	34.4000	68.4475	.4314	.7215
Face-to- Face The negotiation process used by myself and the other party was satisfying.	30.8500	72.4347	.4659	.7476

Reliability Coefficients

N of Cases = 60.0

N of Items = 10

Alpha = .7149

TABLE 8.6. RELIABILITY OF THE COMMUNICATION MEDIUM SATISFACTION SCALE USING CRONBACH'S ALPHA

		Scale Mean if Item Deleted	Scale variance if Item Deleted	Corrected Item Total- Correlation	Alpha if Item Deleted
Internet	When we disagreed, the communication conditions made it more difficult for us to come to an agreement.	64.4333	71.9107	.3855	.6720
Internet	The conditions under which we communicated slowed down our communications.	65.1000	73.7186	.3384	.6786
Internet	When we disagreed, our communication environment helped us come to a common position.	63.9833	71.0675	.4629	.6621
Internet	The conditions under which we communicated helped us share our opinions.	63.9500	71.7771	.4282	.6667
Internet	I could easily explain things in this environment.	64.0833	65.0268	.5964	.6375
Internet	The communication conditions helped us exchange communications quickly	64.4833	68.3218	.4949	.6551
Internet	There were ideas I could not relate to the other party because of the communication conditions.	64.7167	71.7658	.4083	.6690
Face-to-Face	The conditions under which we communicated helped us to better understand each other.	62.5167	80.6607	.1473	.6988
Face-to-Face	When we disagreed, the communication conditions made it more difficult for us to come to an agreement.	63.4000	78.3119	.1595	.7018
Face-to-Face	The conditions under which we communicated slowed down our communications.	62.7167	82.6811	.0178	.7149
Face-to-Face	When we disagreed, our communication environment helped us come to a common position.	62.8333	79.4633	.2238	.6916
Face-to-Face	The conditions under which we communicated helped us share our opinions.	62.5667	77.5718	.2900	.6851
Face-to-Face	I could easily explain things in this environment.	62.5667	77.2328	.2728	.6867
Face-to-Face	The communication conditions helped us exchange communications quickly	61.9667	83.8972	.0080	.7084
Face-to-Face	There were ideas I could not relate to the other party because of the communication conditions.	62.6833	80.0845	.1480	.6997
Reliability Coefficients					
N of Cases = 60.0		N of Items = 15			
Alpha = .6980					