

**BUSINESS NEGOTIATION IN VIETNAM**  
**Relationship development between North American and Vietnamese negotiators**

by

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## **ABSTRACT**

This thesis studies some of the major factors affecting relationship development between Vietnamese and North American business people, including: the different status of foreigners, the economic needs of the Vietnamese, the unsettled environment, the different conception of working relationships and the importance of face. The focus of the empirical research is the relationship development between Vietnamese and North American negotiators. A review of the Vietnamese culture and the pertinent literature led to the formulation and thesis of three hypotheses with respect to: the most important issue for the Vietnamese negotiator, the type of relationship wanted by the Vietnamese negotiator, and the impact of status differential on the relationship. Two principal research methods were used to test these hypotheses. First, a questionnaire was distributed to business people attending business classes at the University of Economics of Ho Chi Minh City, Vietnam. Second, a series of interviews was conducted with Vietnamese and North American business people living and working in Vietnam.

The findings confirm that the Vietnamese emphasize the development of good working relationships with their negotiating counterparts. It should be noted, however, that the concept of a good working relationship is conceived differently than in North America. The second hypothesis is partially supported by the data; the Vietnamese negotiators seem to attach more importance to the evaluation of the trust of their partners, rather than to competitive or cooperative objectives. This is because the Vietnamese negotiators want to make sure they will not be in a situation in which they might lose face. This appears to be the main relationship objective of the Vietnamese negotiators. No conclusive evidence has

been found to endorse the third hypothesis. Although status differential affects the behavior of Vietnamese negotiators, it does not affect the way they develop relationships with their North American partners. Possibly, the special status of North American business people, and the similar basis of all business interactions, have led the Vietnamese to have specific relationship objectives when negotiating with North Americans, whatever their status might be.



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## **I - INTRODUCTION - motivation of the research**

Supposedly, the globalization of the economy has made the North American style of management the standard in most countries. However, cultural problems are the cause of many business failures (cultural shock, miscommunication, organizational structure or management style inappropriate to a local culture, etc.).<sup>1</sup> This is because organizational behavior is still dependent on national cultures (Chung 1991, Erez & Earley 1993). Companies who desire to do business in foreign countries need to understand local cultures and adapt to their way of doing business (Jaeger & Kanungo 1990). North American corporations are no longer economically and technologically dominant in the international marketplace; therefore bargaining power has shifted slightly from companies to local governments. Organizations in developing countries now have more choice and can require (to a certain degree) that foreign companies be more sensitive to their culture.

One business domain where culture has a strong impact is in negotiation (Fisher 1980, Kremenyuk 1991). Negotiation can be defined as "a process where at least two parties with different needs and viewpoints try to reach an agreement on matters of mutual interest" (Casse 1981:182). Negotiation is one of the most important international business skills (Adler 1986, McCall & Warrington 1984); and it is only once it has successfully taken place that the actual business transaction can begin. What makes international negotiation so complex, obviously enough, is the fact that the parties involved come from different cultures, and hence have different values, strategies, behaviors, and communication

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<sup>1</sup> *Avoid expatriate culture shock*; HR Magazine, July 1993, p 58-63. *Respecting other cultures*; Business & Economic Review, Oct-Dec 1992, p 22-23.

patterns (Adler 1986, Fisher 1980). While most business people today are aware that cultural differences exist and that they influence the way people negotiate, often they do not know how to handle such differences. They do not know how to behave, how to react, nor how to adapt their negotiation style in a cross-cultural situation. Often little information is available. Although some research has been done on the influence of culture in the negotiation process for major industrialized countries, there need to be more studies that focus on business negotiation in developing countries.

One of the most important aspects of international negotiation is the development of a relationship between the negotiating parties (Foster 1992, Fisher 1980, McCreary 1986, Okabe 1983, Webber 1969). Relationship development is influenced by culture; and the "content and form of relationships, and their initiation and regulation are more likely to be specified by the culture in which they are developed" (Gilmour & Duck 1986). In North America, establishing a strong working relationship is not a prerequisite to negotiation, but in most other cultures, especially in South-East Asia, it is (Foster 1992, Adler 1986, Fisher 1980, Okabe 1983, McCreary 1986). The objective of my research is to study relationship development in business negotiations in Vietnam, to help foreign businesspeople, especially North American businesspeople, to understand the way the Vietnamese conceive and build relationships in negotiation.

I chose Vietnam as the subject of my research for three principal reasons:

First, Vietnam is one of the fastest growing countries in the world,<sup>2</sup> strategically located in a high profile region. Vietnam is already the focus of much attention and is the recipient

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<sup>2</sup> The Asian Pacific Foundation: projected an 8% growth GDP for 1994, with an inflation rate of less than 4%. The Globe and Mail reported a 8.8% GPD growth in 1994.

of a lot of Foreign Direct Investment (FDI) now that full diplomatic relations with the US have been established. The value of foreign investments has risen by 500% from 1988 to 1993, to reach more than \$2.5 billion US in 1993,<sup>3</sup> and more than \$12 billion US in 1995. Vietnam attracts investment in energy, infrastructure, tourism and manufacturing.<sup>4</sup> It has some very large and untapped reserves of oil and gas; and major multi-national oil companies are hurrying to get the rights to exploit these resources.<sup>5</sup> Vietnam is also seeking up to \$8 billion US of investment to build up power, transportation, communications and water supply systems; and again, some major multi-national companies are already bidding for these projects.<sup>6</sup> Tourism is booming as well;<sup>7</sup> and manufacturing companies are very interested in investing in Vietnam as it has a cheap (approximately \$1 per day), and relatively educated (88% literacy rate) work force.<sup>8</sup> Although the country is still very poor, its large population (seventy million) makes it an attractive potential market for exporters.

Secondly, negotiations are exceptionally important in Vietnam. Foreign businesspeople are likely to spend a lot of time interacting with Vietnamese people. Many business transactions require negotiation with governmental offices; and according to the law, most investments have to be joint ventures with a local partner. While in "capitalist" countries foreign businessmen can negotiate directly with a company, in Vietnam they must have various authorizations from diverse ministries and governmental agencies (to do business

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<sup>3</sup> *Vietnam's Transition to a Market Economy*; East Asian Executive Reports, December 1993, p 25-29.

<sup>4</sup> Ibid.

<sup>5</sup> *Tapping the Tiger*; Far Eastern Economic Review, December 12 1991, p 54. *Viet Nam to see burst of exploratory drilling*; Oil & Gas Journal, August 2, 1993, p 30-31. *Viet Nam - attractive plays in a new geological province*; Oil & Gas Journal, March 14, 1994, p 78-83.

<sup>6</sup> *Hanoi to the world: Let's make a deal*; ENR, November 1, 1993, p 27.

<sup>7</sup> *Vietnam ripe for explosive hotel growth*; Hotel & Motel Management, January 10, 1994; p 6 and 23.

in Vietnam, to lease land, to hire local employees, etc.) because the country is a socialist state with a strong governmental presence. Moreover, as in other Pacific Rim countries, the people of Vietnam like to develop strong relationships with their business partners. Confucian and Buddhist values emphasize the development of strong relationships, even friendships, with business partners (Okabe 1983, McCreary 1986, Markus & Kitayama 1991). In addition, Vietnam is just opening its door to international business, meaning that the Vietnamese are still not used to capitalist management methods; developing strong working relationships with foreign partners is a way of controlling and understanding what the business transaction will be like (Vecchi 1991).

Finally, there are very few recent (since 1975) works available on culture, negotiation or doing business in Vietnam. This is most likely due to the fact that Vietnam has been isolated from the western world since the end of the Vietnam conflict in 1975. Since western business people have little experience doing business in Vietnam, studying the way the Vietnamese develop relationships in negotiation could be useful for the numerous North American business people that will go to Vietnam in the coming years. North American business people have notoriously had problems dealing with Asian cultures and nothing indicates that Vietnam will be an exception. A better understanding of the Vietnamese culture could ensure better business dealings, for Vietnamese and North American business people alike. In addition, this work could hopefully serve as a reference for further cross-cultural research on the Vietnamese business culture.

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<sup>8</sup> *Good Marker Vietnam*; CIO, October 15, 1995, p 58-63.



The organization of this paper is as follows: first, I will review the principal characteristics of the Vietnamese culture using the Hofstede (1980) and Hall (1976) models. I will then present my literature review concerning the influence of culture on relationship development in negotiation. In the third chapter, I will present the hypotheses that I will study. Then I will present my methodology. The fifth chapter will detail the results of my questionnaire's analysis. Finally, I will analyze the questionnaire's results and discuss them using additional information collected from observation and interviews. There will also be a short concluding chapter summarizing the research and investigating its limitations.

## **II - AN OVERVIEW OF THE VIETNAMESE CULTURE**

This chapter provides, a basic understanding of the Vietnamese culture. This is especially important for a study that focuses on the influence of culture on how relationships are conceived and developed in Vietnam. Vietnam is a large country and there are many cultural differences amongst its regions (e.g. the famous North-South divide).

Nevertheless, most Vietnamese people share a common heritage (religions, philosophies, history, language, etc.) that ensure a relative homogeneity. I will first review the most influential factors, such as religions, systems of thought and historical events that shaped the Vietnamese culture in its present form. Then I will expose the major cultural characteristics of Vietnam, using Hofstede's model (1980), with its four cultural variables, and Hall's model (1976) of High Context and Low Context cultures, and Polychronic and Monochronic time concepts.

### **A - Influential factors**

**Religions and Philosophies** - These elements are amongst the most important aspects of the Vietnamese culture. Most Vietnamese customs, traditions, values and behaviors are directly influenced by Buddhism, Confucianism and, to a lesser extent, Taoism. What makes the Vietnamese unique is that they "...do not follow one religion only, but a mixture of religions and religious philosophies." (Thuy 1976:12). Although I will present these three systems of thought separately, one has to remember that, over the centuries, they have become intertwined to constitute a "Vietnamese folk religion shared to some extent by all Vietnamese" (Jamieson 1993:11).

Buddhism is the predominant religion in Vietnam (estimated 90% of the population). It spread first from China (Mahayana school) to the north of Vietnam near 200 A.D., and then by means of Indian traders (Hinayana school) in the south between the third and fifth century to become the dominant religion in Vietnam after the tenth century. Buddhism values harmony with oneself, others and nature. There are three major characteristics of existence according to Buddhist thought: 1- impermanence: everything is constantly changing; 2- selflessness: the individual is seen as an aggregate of attributes which are impermanent and also constantly changing; 3- dissatisfaction, which is an inherent human condition. From these characteristics stem the Four Noble Truths: 1- pain and suffering are a part of the continuing cycle of birth and rebirth; 2- suffering is the result of attachment to the things of this world; 3- suffering could end by eliminating attachment; and 4- following the "Eightfold path" leads to the ridding of attachment and to the achievement of a state of peace called *Nirvana*. The "Eightfold path" consists of "right" belief - the renunciation of sensual pleasure and cruelty to any creature, the practice of moderation in speech, conduct, occupation, and effort, and the cultivating of a life based on meditation and contemplation. Buddhism also emphasizes self-control (to be in control of one's emotions), harmony and compassion (unity with all other beings).

Confucianism has a very strong influence in Vietnam. In fact, some historians argue that Neo-Confucianism became the dominant influence in Vietnam by the end of the nineteenth century (Jamieson 1993). Confucianism was also introduced by the Chinese during their rule over Vietnam (111 B.C. - 939 A.D.) but started to flourish only after the eleventh century. It is more a way of life - a code of behavior - than a religion. It encourages man to strive for goodness towards himself, his family and his community. Confucius taught that humankind is basically good, but that humans have to develop the nature of their

goodness to create harmony within society and within relationship. The foundation of harmony is found in adhering to the concepts of filial piety, *Hsiao*, *Shu*, and *Li* (Rutledge 1985). Filial piety defines a strict hierarchy of relationships (son to father, wife to husband, younger brother to older brother, citizen to emperor) that stratify society. *Hsiao* is the respect and obedience that the subordinate expresses to his superior. *Shu* is the essence of Confucianism and means "what you do not want done to yourself, do not do to others." *Li* is the way of "right" conduct, and is at the origin of the "face-saving" behaviors. Confucianism preaches the strict maintenance of social and family order to preserve harmony, and was used by the Chinese and Vietnamese rulers to impose their regimes. Also important in the Confucian philosophy is the concept of fate. Happiness, according to Confucius, is not only dependent upon being good but also upon understanding fate and being content with it. Although man must always try his best, he must accept what happens to him as life is already determined by Heaven. Everything is already written and therefore one cannot escape his destiny. "Life and death is a matter of fate, and to be rich or poor is up to Heaven" said Confucius.

Taoism is another major Vietnamese system of thought. Taoism originated in China near 600 B.C., and was introduced in Vietnam by the Chinese as well during their rule. Taoism praises the return to the simplicity of nature. To be happy, man must blend into the rhythm of nature and fit in perfect harmony with the *Tao* (the infinite way of the universe). Man is just a part of the universe as are all living creatures and lifeless matter, and man cannot exist independently of the laws of nature. Central to Taoism is the concept of *yin* and *yang*, representing the two basic interacting modes of what "is." *Yang* is masculine, active, dry, and positive. *Yin* is feminine, dark, cold, inactive and negative. To attain the *Tao*, one must practice thrift, humility and compassion. People must also strive for charity,

simplicity, patience, contentment and harmony with man and nature. In Vietnam, Taoism has also been associated with mystical superstitions characterized by the practice of magic, animism, astrology and other superstitious activities (Rutledge 1985).

**History** - Obviously, Vietnamese culture has been shaped by the historical events that Vietnam has experienced. The objective of this section is not to review of the Vietnamese history, but to see which key historical events shaped Vietnam and molded its culture. In retrospect, Vietnam, because of its unique geographical location, has always been subject to foreign influence. The Chinese, the Mongols, the Khmers, the Indians, the European powers of the Renaissance, the French, and then the Americans and the Russians, have all at one time in history, through conquests, wars, trade or missions, been present in Vietnam. The strength of the Vietnamese people is that, during these times, they were able to maintain a strong cultural and social identity, even while borrowing elements from the various foreign cultures and integrating them into their own (Lam 1987, Sharma 1988). For example, many will be surprised to find that the *Ao-dai*, the traditional dress of Vietnamese women, was not so traditional fifty years ago and is actually a European version of a local dress; however, none will deny that the Ao-dai is now universally recognized symbol of the Vietnamese culture (Lam 1987).

Definitely the most important historical event to mark Vietnam was the Chinese rule from 111 B.C. to 939 A.D., during which time the Chinese culture had a permanent influence on Vietnam. As we have seen above, the religions and philosophies in practice in Vietnam today were mostly introduced by the Chinese during their rule. Other cultural aspects such as language, social and political organizations, architecture, agricultural methods and arts were also strongly marked by the Chinese influence (SarDesai 1992, Cima 1989, Lam

1987). The Ming dynasty (1368-1644) also controlled Vietnam for approximately twenty years in the early fifteenth century. During that time, Chinese influence was stronger than ever, especially in the field of symbolic culture (language, arts, clothes, etc.), religion (emphasis of Neo-Confucianism) and governmental organization (Cima 1987). Notice that during the Chinese rules, Vietnam was limited to what is modern day north and central Vietnam. South Vietnam, which was under Cham and Khmer control until then, was gradually integrated in the Vietnamese kingdom much later between the fifteenth and seventeenth centuries.

Another key event was the European presence in Vietnam, which started in the sixteenth century and peaked during the French Colonization (1885-1954). Culturally, until the colonization, the only major influence of western civilization was the romanization of the Vietnamese language with the creation of *quoc ngu* in the seventeenth century by French missionaries. Classical Chinese or the Chinese-based Vietnamese writing *chu nom*, created around 800-900 A.D., was still used by the court and bureaucracy until the eighteenth century. However, because of its simplicity and its nationalist appeal (breaking from the Chinese influence), *quoc ngu* became the official language of Vietnam under the Emperor Quang Trung in the late eighteenth century. *Quoc ngu* was also instrumental in developing a high degree of literacy and a flourishing Vietnamese literature. The French invasion of Vietnam occurred in three stages: first in the South, then in Central Vietnam and then in the North. The southern part of the country not only stayed the longest under French rule, but it was also the least influenced by the Chinese rule. This partially explains the famous North-South divide of Vietnam, with the South being more “westernized” and liberal than the traditionally “conservative” North. The colonization had a definitive influence on the structural organization of Vietnam. The French introduced relatively

developed administrative and educational systems and a national infrastructure of transport and communications. Although mostly created for the exploitation of Vietnam, paradoxically this infrastructure helped in the social and cultural unification of a country that was until this time in a constant state of wars - against its neighbors (Chinese, Cham and Khmers), or internally between feuding factions. In addition, the French imported western lifestyle, ideals, customs and arts that are still more or less present today (Jamieson 1993, Lam 1987). Western education even developed a certain degree of individualism among the young local elite (Jamieson 1993), but I suspect that this "individualism" mostly disappeared during the years of turmoil and communism following the French colonization.

Vietnam's history is dominated by wars - against foreign invaders (Chinese, Mongols, and French), for conquest of the southern part of modern Vietnam (Cham and Khmers), and more recently against the US, Cambodia and China once more. Even during the Chinese rule and the French Colonization, Vietnamese independence movements were fighting these foreign invaders. The Vietnamese are very proud to have vanquished some of the strongest world powers. They refuse to be treated unequally by foreigners, and expect them to try to understand, appreciate and respect the Vietnamese culture, hence the saying: *Nhap gia tuy tuc* ("When you arrive into a new country, you have to follow the culture"). Although the Vietnamese have known many wars, none of them were more economically and socially devastating than the Indochina wars of 1945-1975 - the Vietnamese culture is bound to be marked by the stigma of them. Jamieson (1993) reports subtle changes in the attitudes and behaviors of Vietnamese people during these wars. For example, loyalty to the government, although traditionally important, was not as strong because of the many changes of government and leaders and constant internal feuding between political factions. Official authority did not have the impact it used to have. Also,

social and family behavioral norms were “not abandoned but redefined” (Jamieson 1993:301) during these wars to face the difficult and rapidly changing environment. Surely, the impact is still felt today.

United Vietnam has been a communist state since 1975. North Vietnam has been communist for twenty years longer. In theory, this transformation to a socialist society should have erased the majority of Vietnam's cultural characteristics. The regime, for example, rejected religions (including Catholicism, Buddhism and other cults), emphasized the equality of all citizens (contrary to the Confucianism hierarchy), tried to reform the role and form of family in the Vietnamese society (Cima 1989), and collectivized the cultivable land (in the traditional system, the self and social identity of the Vietnamese peasant came mostly from the land he owned (Houtart & Lemerminier 1984, Hickey 1964)). The communist government tried in 1975 to take up “the reconstruction at all levels: economic, social, political and ideological” (SarDesai 1992:98). Through all aspects of life, the communist ideology was enforced by the government during the later part of the 1970s. It certainly had some impact on the Vietnamese culture, and the future will tell us in which areas it did and how much. However, as in other communist countries (e.g. in Eastern Europe and in Africa), in Vietnam it seems that the communist ideology did not fundamentally affect the local culture. Already by the early 1980s, a wave of “reaction had risen...forcing a relaxation, and in some cases even a reversal, of rigid and dogmatic policies...” (Jamieson 1993:371). The failure of replacing the traditional Vietnamese values by socialist ones was explained by Swidler (1986) who states that traditional culture is still used despite the adoption of conflicting ideologies. Ideologies, such as communism, establish new styles or strategies of action (behaviors), but they have a limited influence



because of "...their taken-for-granted understanding of the world and [because] many daily practices still depend on traditional patterns" (Swidler 1986:279).

As we have seen, the Vietnamese culture has been characterized by the strong presence of Buddhism, Confucianism and Taoism, and numerous foreign influences, especially Chinese and French. It has also been deeply marked by continuous wars, of which the most consequential were the recent Indochina wars (1954-1975) which ended with the start of the communist era. These numerous influences gave the Vietnamese culture unique characteristics, that we will now expose using Hofstede's classification.

## **B - Hofstede's model**

In 1980 Hofstede created a multi-cultural model that identifies four variables: power distance, uncertainty avoidance, individualism and sex differentiation. These variables are the result of a mix of elements such as philosophies, religions, historic events and climate, and are supposed to reflect the characteristics of a culture. This model has been the subject of much criticism (Yeh 1990, Huo & Randall 1992), but it still is the most comprehensive framework available to identify and explain the characteristics of a culture. Since Hofstede did not study Vietnam, and to avoid some of the most flagrant flaws of his approach, I will develop my own evaluation of these four variables after providing a basic definition of each. This evaluation is based on several sources in the literature (Jamieson 1993, Cima 1989, Cohen 1990, Houtart & Lemerminier 1984, Lam 1987, Sharma 1988, Thuy 1976, and others) and on informal interviews with Vietnamese or Western academics and business people who recently lived and/or worked in Vietnam.

**Power Distance (PD)** - PD refers to the perception or mental representation of authority by the subordinate - how the less powerful members of organizations and institutions (like the family) accept and expect an unequal distribution of power. We can define PD in Vietnam to be high. "Village members [are] ranked in a strict hierarchy corresponding to named social status... Traditional Vietnamese [accept] the principle of social hierarchy and [care] passionately about face and relative status"(Jamieson 1993:31).<sup>9</sup> Sharma (1988) confirms that the Vietnamese society is very hierarchical. A century of French colonization (high PD context between locals and colonials) also encouraged a high PD. The influence of Confucianism is especially important on the PD variable. Confucianism puts a lot of emphasis on a "harmony" concept which strictly defines the social and family order and consequently determines the relations between people. "Children growing up in traditional the Vietnamese family... [learn] the importance of hierarchy, [learn] the rewards of submission to those of senior status" (Jamieson 1993:17). Thuy (1976) explains how family origin is a source of status. Not only will one's status in society be dependent on the status of his family, but also within one's own family, one has a different role depending on his place in his family (father, mother, grandfather, oldest son, younger son, etc.). A good example is the relationship between older and younger brothers; "Younger brothers [are] supposed to respect, obey and support older brothers" (Jamieson 1993:17). Education is also significant in determining status. Vietnamese people put a lot of emphasis on education and it is associated with social status (the higher your education, the higher your status) (Cima 1989, Thuy 1976). The fact that the educational system is based on continuous selections through difficult exams only reinforces the hierarchical status. The Vietnamese language further stresses the importance of status. Vietnamese, like

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<sup>9</sup> Jamieson's first chapter (of Jamieson 1993) *How the Vietnamese See the World*, describes the importance of social status in traditional Vietnamese villages, and the behaviors associated with one's social rank.

Japanese, uses different forms of address for different social status' (Thuy 1976). Instead of using a common "you," one's choice of pronoun is dependent upon the relative status between the interlocutor and the situation. For example, a Vietnamese will call an older man *Ong* (literally: uncle - very respectful) or *Anh* (lit. big brother - more intimate), a young girl *Co* (formal) or *Em* (lit: young sibling - informal), a older woman *Ba* (formal) or *Chi* (lit. older sister), etc.

**Uncertainty Avoidance (UA)** - UA refers to the degree of tolerance or intolerance one has toward incertitude and to the degree of control one wants to have over one's environment. This variable is of limited use in defining Asian cultures. On the one hand, Oriental cultures seem to have a high UA in the sense that their societies are highly structured and their philosophies (especially Confucianism) put a lot of emphasis on respect of status and social rules. On the other hand, the "fate" concept, predominant in most Confucian cultures, and the flexible conception of time, are indicators of a low UA. In fact, Hofstede and other authors realized this and created a new variable, unique to South-East Asian cultures, called **Confucian Dynamism (CD)** (Bond 1987, Hofstede & Bond 1988). This CD variable is characterized by both positive and negative elements of the UA variable, and is applicable in Vietnam. For example, Vietnamese people do not put a lot of weight on written contracts (low UA), but they are very superstitious (high UA) and a lot of their behaviors are dictated by their superstitions. As mentioned above, the concept of time is flexible (low UA), but the Vietnamese society is highly structured (high UA). Due to Confucianism, the fate concept is strong in Vietnam (low UA) (Thuy 1976), but Vietnamese are also very bound to tradition (high UA) (Sharma 1988).

**Individualism (ID)** - ID relates to the degree of freedom enjoyed by individuals within their family, social groups, work place, etc. It also reflects the responsiveness of the individual to the expectations of these groups (the higher the ID, the more freedom and the lower the responsiveness). The Vietnamese have a low ID. In Vietnam, the group of reference is the extended family, especially vertically (children, parents, grandparents...) but also horizontally (uncle, cousin...). The family is the priority for its members and many aspects of one's personal life (love, career) can be sacrificed for the ultimate good of the family. The importance of the family is very entrenched in the Vietnamese culture and many authors argue that the extended family is the base of the Vietnamese society (Sharma 1988, Cima 1989, Cohen 1990, Thuy 1976). Friends are also part of the group of reference (to a lesser degree though) but friendships are slow to build (Thuy 1976). Jamieson (1993) explains the complex interdependency of family members and how this affects the values and behaviors of Vietnamese: "Family relationships [are] models for social organization. Both child rearing practices and formal education [emphasize that one should] behave properly toward other family members" (Jamieson 1993:16). Thuy (1976) gives many examples of how the expectations of the family and of the social environment, can influence, if not dictate, the decisions of Vietnamese people. In addition to this concept of family, Buddhist values and Communism only add to the collectivist approach of the Vietnamese society. Of course, Communist propaganda emphasized the party over family as the group of reference, but I have explained already this propaganda was never successful in effectively reducing the importance of the family in the Vietnamese culture.

**Sex Differentiation (SD)** - SD is a measure of the degree of role differentiation between males and females. To a lesser extent, it also reflects the orientation of the individual and society towards materialism (high SD) and competitiveness (high SD). This variable

can be defined as medium - high in Vietnam. The Vietnamese society defines strict differences between sexes, although this differentiation is not expressed in the same way as in the Occident (they are less aggressive because of the “harmony” concept). Nevertheless, men and women have different roles and the men have most of the decision power (Jamieson 1993). Traditionally, men are the providers and figureheads of the family whereas the women stay home to take care of the house and children (Thuy 1976). Much of the origin of this SD is due to the Confucian ideology which establishes a social order in which a woman is inferior to a man. This traditional vision of the woman has been challenged during the recent wars as women have been more present in commercial activities (Sharma 1988). Also, the communist regime has allowed women to occupy more important positions in the Vietnamese society (Sharma 1988). Although the changes have been relatively limited in that man is still the head of the family (Thuy 1976), sex differentiation is not as strong as in other Confucianism cultures. Vietnam is not an openly competitive culture (Thuy 1976); Taoism, Buddhism and the harmony concept condemn the type of openly competitive behavior that one often finds in Occidental cultures. However, as we have seen in other Asian countries, competitiveness can be expressed in different ways.

Hofstede's variables can help us understand a wide range of beliefs, values, attitudes and behaviors. However, since communication and time concepts are central to the negotiation process, it is also useful to consider the Vietnamese culture using Hall's typology which emphasizes these concepts.

## **C - Hall's model**

Edward T. Hall, in his classic work Beyond culture (1976), defines two major cultural variables: the concept of time and communication style. According to him, these variables reflect and can explain many of the values, behaviors and social organizations present in a culture. Hall defines two types of time concepts: Monochronic time (M-time) and Polychronic time (P-time). M-time cultures see time as a linear and tangible asset that can be segmented, scheduled and "lost." P-time, on the contrary, is characterized by a circular and intangible view of time. "P-time systems stress involvement of people and completion of transaction rather than adherence to preset schedules" (Hall 1976:17). The conception of time in Vietnam is obviously P-time: "[The Vietnamese] conceive time as cyclic and recurrent... There is less pressure to accomplish things quickly" (Cohen 1990:87). In fact, the Vietnamese language has a very basic time structure - there is no past or present tense as expressed in Latin languages (Sharma 1988). Traditional values promoted by Confucianism (such as the fate concept) and Taoism (which advocates patience and following the flow of life) can explain the origins of this time concept. Vietnamese people do not attach much importance to occidental time-related concepts: "punctuality is neither often honored nor necessarily required... [The Vietnamese] will seldom be on time for social or business appointments" (Thuy 1976:44).

Hall also defines a range of communication styles from High Context (HC) to Low Context (LC). Hall notes that every type of communication is bound to its context and the amount of information contained within this context will vary across cultures. In HC communication, most of the information is either in the context or internalized in the communicators. In LC communication, most of the information is transmitted in the message itself. The Vietnamese culture is a High Context culture, like most other South-East Asian cultures

which have been influenced by Buddhist values (moderate speech and control of emotions) and by classic Chinese languages (Hall 1976:92). Vietnamese is a very subtle and highly contextual language and “[the particularity of the Vietnamese language] enables [it] to express psychological, affective or sensory shades of meaning” (Sharma 1988:64). The Vietnamese language has six tones; and each word has a different meaning depending on how it is pronounced. The language also reflects a number of cultural aspects (Thuy 1976) such as a limited time structure and high PD (use of different words depending of the relative status of the communicators). For example, as in Japan, “yes” does not have the same meaning that it does in North America: “[The Vietnamese “yes”] is non-committal and conveys only that what the speaker has said has been understood” (Cohen 1990:88). To keep the harmony between the parties the Vietnamese people will avoid saying “no” directly. In fact, this harmony concept is present in most of the communication and behavior of the Vietnamese people (Thuy 1976).

### **III- LITERATURE REVIEW**

The aim of this chapter is to review some of the key theories in cross-cultural negotiation and to provide the theoretical framework for the hypothesis presented in the next chapter. As noted before, the objective of this research is to study relationship development in business negotiation between North-American and Vietnamese business people. For this purpose, I will review five different subjects, that together will provide the background necessary for the conception of my hypotheses.

First, I will show how negotiation can be seen as a process of social interaction and relationship building. This section will demonstrate the impact of relationships on the negotiation process and outcomes, and therefore explain the focus of my research on relationships in negotiation. The second section will review some of the psychological factors affecting the development of relationships. I will then review the variables affecting the development of relationships, such as attraction, reasons for interaction, status, culture, and trust. The third and fourth sections will explain how culture affects needs, values, attitudes and human behavior, and will specifically show the impact of culture on international negotiation. Since the focus of this research is on the interaction between two different cultures, it is important that we know how cultures differ in the way they conceive and approach relationships and negotiations. The third and fourth sections will help define what cultural variables will affect the relationship development between two negotiating parties. Finally, I will briefly review the Vietnamese culture's impact on relationship development in negotiation in Vietnam.



## **A - Negotiation as a process of social interaction**

While there have been many studies focusing on different aspects of the negotiation process, all researchers agree that negotiation is a process of human interaction and communication.

Negotiation is “a cardinal illustration of social interaction” (Rubin & Brown 1975:18). It can be defined as a voluntary relationship between two or more parties that have a conflict of interest but have some degree of commonality of interest. Gulliver (1979) says that negotiation is composed of two processes: 1- a cyclical process of information, exchange and learning, and 2- a developmental process that moves the negotiation along (agenda, evolution along different steps). Sawyer & Guetzkow (1965) define five elements in negotiation: 1- the goals which motivate the parties to enter and stay in the negotiation, 2- the process: action and communication leading to 3- the outcomes; these elements are influenced by 4- the pre-existing background of cultural conditions and relations between the negotiators and by 5- specific situation conditions. Hendon and Hendon (1989) talk about the six stages of negotiation: prenegotiation, entry, establishing effective relationship, learning about the other party and adjusting, bargaining and concession-making, and reaching agreement. McCall & Warrington (1984) define the nature of negotiation as a mixed motive cooperative and competitive relationship between two or more parties with ostensibly incompatible expectations, that occurs in widely varying situations, and has interaction-dependent outcomes. Zartman (1976:7, 1978) sees negotiation as a basic process of decision making. Young (1991:1) also defines negotiation as “the process of joint decision-making.” Nierenberg (1968) and McCreary (1986) say that negotiators also want to satisfy personal needs, not related to the issues being negotiated, during negotiations. Pruitt & Carnevale (1993) emphasize the social aspect of negotiation and the influence of the cognitive process, the decision process, the

relationship and the interaction between the parties. Kremenjuk (1991) says that negotiation begins with the distribution of the individuals' characteristics, and this distribution is influential in the outcome of negotiations.

Another way of looking at the importance of the social interaction between the negotiating parties in the negotiation process is to analyze studies that have defined variables that influence the negotiation process.

Rubin and Brown (1975), in their famous book The Social Psychology of Bargaining and Negotiation, define four types of variables affecting the negotiation process: the structural context (social, physical and issues), the behavioral predisposition (personality and other individual characteristics), the interdependence of the negotiators (including power distribution) and the use of social influence strategy. The last three of those four categories are directly reflected in the relationships and interactions of the negotiators. Kremenjuk (1991) differentiates between 1- negotiator-controlled variables: type of strategy used, communication, and culture (face saving, values, interest, etc.); and 2- indirect and external variables: personal conditions (personality, needs, risk-taking, self-esteem, etc.), information available, and structural conditions (number of parties, time frame, etc.). Notice that both categories have variables affecting the personal relationship between the negotiators (communication, culture, and personal conditions). McCall & Warrington (1984) define four categories of variables influencing negotiation and its outcomes: behavioral predisposition, influence strategy and skills, situation influence, and environmental influence. It should be noted that the behavioral disposition reflects individual characteristics such as self-image, beliefs, needs, motives, perceptions, previous experience and background attitudes. These variables shape the information the negotiator seeks and discloses, and his intentions toward the negotiation, including the

type of relationship he wants to develop with the other negotiator(s). Gergen (1969) says that bargaining is influenced by the interaction goals, characteristics of the other negotiators, the interaction context and individual differences.

The studies mentioned in the above paragraphs show the importance of the relationship between the negotiators in the negotiation process. The following authors go on to define what they feel a positive relationship is: McCall & Warrington (1984: 17) say that the "...establishment of a certain degree of trust is a necessary prerequisite to any negotiation." Of course people, because of personal, situational and cultural reasons (as we will see later), have different concepts of relationships in negotiation. The same person may even look for different types of relationships in different negotiating situations. Fisher & Brown, in "Getting Together" (1988), say that the negotiators should aim for a working relationship that can deal with differences. This does not necessarily require approval of the other party's behavior and positions; it means that the relationship will be strong enough that it can overcome disapproval and non-shared values. Kremenjuk (1991) believes that trust is found in such working relationships and that they have a strong positive effect on negotiation. Rubin and Brown (1988) make a sharp differentiation between relationship issues and substantive issues (linked to the negotiation object); and believe that building a good relationship can be jeopardized by using relationship outcomes to get concessions on substantive issues.

## **B - Relationship development**

The following is a review of some of psychological factors affecting the development of relationships. It should be noted that many of the studies in this field come from Western countries and are therefore culturally and environmentally biased (Glimour & Duck 1986:42). Moreover, the majority of the works that I use for reference are not specific to relationships in negotiation, but apply to relationships in general. Still, these studies are useful in providing an understanding of the major variables affecting the development of a working relationship.

**Attraction theories** - Derlega & Winstead (1986) in their selected review of theories of interpersonal attraction, identify three categories of attraction theories:

1- *Reinforcement theories*. Byrne & Clore (1970, 1974), and Lott & Lott (1960, 1974). The basic premise of these theories is that we like people who provide us with rewards.

2 - *Exchange and Equity theories*. These theories use the reinforcement theory as a basic premise but go further in their analysis. Kelly and Thibaut's interdependence theory (1978) states that: 1- the rewards associated with the relationship must outweigh the costs incurred by each participant, and 2- that the individual will compare the relationship in question with alternative relationship(s) to determine his satisfaction. Rusbult's Investment model (1980) goes beyond this to suggest that commitment to a relationship is also influenced by the investment of time and effort in the relationship.

3 - *Cognitive Consistency theories*. Heider's Theory of Cognitive Organization (1958) and Newcomb's Balance theory (1961, 1971) are based on the premise that we possess a basic need for balance or consistency in our lives. Simply put, these theories state that our attraction to people / objects / ideas will be influenced by the disposition of people we

know. E.g.: if A likes B, and B likes C, then A should like C in order to achieve a balanced state of symmetry.

Derlega & Winstead also talk about a fourth category of theory, called developmental theories, but this category focuses on romantic relationships and therefore will not be touched upon in this paper.

One of the most famous theories about attraction and relationships is the Attraction paradigm: “..the attraction toward X is a function of the rewards and punishment associated with X.” (Byrne 1971). People will be attracted to a person they think will bring them rewards and avoid the ones associated with punishment. Byrne also maintains that different levels of attraction still exist in first-impression situations, where the reinforcement theory cannot be applied. Overt stimulus properties of X and beliefs associated with these properties (such as prestige or status) will influence the attraction towards X. These beliefs are generally based on past experiences with individuals with same apparent properties. However, with sufficient information, people do not rely on assumptions or stereotypes, but on actual information.

Berscheid and Hatfield Walster (1978) base their theory of interpersonal attraction on the reinforcement theory of Byrne & Clore (1970, 1974): “likes and dislikes are based on feelings associated with other individuals.” Expanding from Heider’s balance theory, they add that variables such as proximity (how close one lives to the other person), reciprocity of liking and similarity will also influence attraction. Similarity is considered to increase attraction, although people with differences in personality can complement each other, therefore creating attraction as well.

*Similarity* - Similarity is believed to be an important variable in attraction and the development of relationships. Byrne (1971) reasoned that perceived similarity in attitudes is a way of determining the rewards and punishments associated to the relationship. His research "...repeatedly found that the proportion of similar attitudes held by the hypothetical other exhibited a direct linear relationship to the amount of attraction the subject reported feeling towards the stranger" (Derlega & Winstead 1986: 12). Pornpitakpan (1993) did an extensive review of this similarity-attraction paradigm. She concludes that "when individuals were perceived as more similar in beliefs, attitudes, dialect style, demographic factors, socioeconomic class, they were viewed more favorably." She also says that similarity in communication style, attitude, activity preference, ethnocultural origin, personality, personal construct system, physical appearance, caste, and status, have proved to lead to attraction. However, not all the studies she reviewed supported the similarity-attraction paradigm, depending on the context of the relationship and the type of people involved. Similarity can even have a negative impact on attraction. Pornpitakpan says that the social-identity theory may explain these results. The social-identity theory states that people define themselves in relation to the group(s) to which they belong. Certain attributes are perceived as unique to the in-group members. Therefore out-group members who have similar attributes will not be considered attractive, even the contrary, since they threaten the in-group members' self-identity.

**Situation specific variables affecting relationship development** - The attraction theories discussed previously explain only part of the development of the relationship, other variables play a role as well. The following works show that relationship development is essentially an interactive process specific to the actors, situation and environment.

Gergen (1969) and Pruitt (1993) agree that the behaviors in exchange are interactive, and that the behavior of one actor will affect the other's behavior. Glimour & Duck (1986) say that relationships are above all affected by the personality of the actors and the social situation. Burgess & Huston (1979) say that personal characteristics (sex, age...), the content of interaction and the social environment will affect the development of a relationship. In negotiation, variables such as the reason(s) for interaction, respective status of the negotiators, the level of trust and the cultural differences will play a role in development of a relationship between the parties.

*Reasons for Interaction* - People negotiate because they can attain more by negotiating than by themselves (Hofstede 1989). The main reason for the interaction is the expected rewards associated with a successful negotiation. As we know, people are attracted to people that can bring them rewards (Gergen 1969, Byrne 1971, Lott & Lott 1960, 1974). Since people develop scenarios of interaction depending on the nature of interdependence between them, and since they develop rules for different kinds of relationships (Glimour & Duck 1986), we can assume that people, when starting a negotiation, have favorable attraction predisposition when the expected outcomes of the negotiation are positive (e.g.: a business negotiation). It is important to remember, however, that negotiators also have personal needs, not related to negotiation issues, that need to be satisfied by the interaction (Nierenberg 1968, Hofstede 1989). In the case where the interaction with the other negotiator(s) cannot satisfy those needs, it will certainly have a negative effect on the relationship between the negotiators.

*Status* - Status is the position or rank of a person in relation to others, or a relative rank in a hierarchy of prestige. Byrne (1971) says that without additional information, high

status and prestige have a positive effect on the level of attraction. He cites a number of studies reporting "a positive relationship between prestige as defined by socio-economic status and number of friendship choices received within a group" (Byrne 1971:120). Gergen (1969) explains that leaders and high-status persons have more freedom and flexibility in the way they behave and develop relationships (because they provide things that others cannot), but that deviant behavior from social norms will impact their status negatively and can reach a point where they will no longer be able to enjoy the advantages cited above. As we will see later, different cultures attach different levels of importance to status.

*Trust* - Trust is the "...confidence in or reliance on some quality or attribute of a person or thing, or on the truth of a statement" (Good 1988:33). It is an aspect of a personal relationship (Pruitt 1993:133). Cooperation between parties will increase with contacts, because it will acquaint them more with each other and help in the establishment of a relationship framework, which can ultimately increase trust among the players (Gambetta 1988). Trust is often based on reputation, and the ways in which reputation is defined is important (Good 1988). The interpretation of the reputation is dependent upon the interpreter and upon how he handles new information; the expectations of the interpreter, his stereotypes and his need for consistency will play a strong role in how he analyzes reputation. In cross-cultural situations, because of the differences involved, developing trust is more difficult.

*Culture* - Culture definitely affects relationship-building since culture affects the relationship needs, behaviors, values and attitudes of its members (Gergen 1969, Hall 1976, Hofstede 1980, and others). The content and form of relationship, and their initiations and



regulations are more likely to be specified by the culture in which they are developed (Glimour and Duck 1986). Of course, even within a culture there will be different types of relationships of different natures. However, cross-cultural relationships, in a work setting, can easily work because of the incentives of being successful (Glimour & Duck 1986). In the next sections, we will see in more detail the impact of culture on relationships and negotiation.

As we have seen in this section, many variables affect attraction and the development of relationships with other people. Some theories help predict some of the interaction, but many variables are specific to each situation. It will be the same for the strategies used by an actor to develop a relationship with another person. In review, it can be concluded that these strategies will be affected by 1- the relational goals of the actor -what kind of relationship he wants to develop in a specific situation (Derlega & Winstead 1986); 2- his culture and personal characteristics, which affect his behavior and his relational goals in a specific situation (Gergen 1969); 3- his degree of initial attraction towards the other actor - affected by perceived similarity, perceived trustworthiness, etc. (Derlega & Winstead 1986, Berscheid & Hatfield-Walster 1978); and 4- his drive for consistency in reaction to the other actor's own strategies (Rubin & Brown 1988).

## **C - Culture and cultural differences**

**Definition of culture** - There are several definitions of culture. While most of them include the same elements, the focus can be different. One of the most famous definitions is from Liton who defines culture as “the configuration of learned behavior and the results of behavior whose component elements are shared and transmitted by the members of a particular society” (Liton, 1945:32). Another definition cites culture as the sum of the experience of a specific group transmitted through values, beliefs, norms and attitudes that shape the behavior of its members. Culture shapes the individual and provides him with “a system of ideas that structures his subjective experience” (LeVine, 1984:20) and with a system of reference to interpret and react to his subjective reality. For Hofstede (1980), culture shapes the mind sets of human beings.

What is important is that most agree that a culture is socially transmitted and shared within a defined group or community, and that it determines: 1- conception of self and personality, including attribution, cognition and motivation- (Liton 1945, Markus & Kitayama 1991, Clark 1990, Gudykunst 1983, Hall 1979, Harnett & Cummings 1980); 2- values, norms and attitudes (Hofstede 1980, Liton 1945, Salacuse 1991, Adler 1986, Vertinsky 1990); 3- behavior (Liton 1945, McCall 1984, Vertinsky 1990); including 4- communication patterns (Adler 1986, Kremenjuk 1991, McCall 1984, Ting-Toomey & Korzeny 1989).

We will now look at how culture influences each of these four categories, and then briefly describe the limits of the influence of culture.

**Self and personality** - One of the best works available on the impact of culture on the self is from Markus & Kitayama (1991). Their study compares an *independent* construct of

the self, where people aim to be separate from others and express their unique inner attributes (as in Western cultures) and an *interdependent* construct of the self, where there is a fundamental relatedness of individuals to each other (as in Asian cultures). With an extensive review of the sociological, psychological and cross-cultural literature and with numerous examples, especially comparing North America and South-East Asia, they show how culture determines the construct of the self and therefore influences one's conception of individuality, relatedness to others, cognition, motivation and emotion. According to them, for an interdependent self, "others will be assigned much more importance...and will be relatively focal in one's own behavior" (Markus & Kitayama 1991:229). For example, a person with an interdependent self will 1- be more perceptive to others' needs, 2- have a need to know and understand their social surrounding, 3- have fewer feelings of anger towards in-group members, and 4- try to achieve socially-oriented goals.

Markus & Kitayama are not alone in stating that culture affects the self and other aspects of personality. "The culture within which a person is socialized, educated, and reinforced exerts a significant influence on that person's basic personality as reflected in attitudes and dispositions" (Harnett & Cummings 1980:83). Victor Barnouw (1969) discusses, from a psychological and anthropological perspective, the development of one's personality and its link to his culture. Clark (1990) says that there are three domains of cultural variation: relations to self, relations to authority and relations to risks. Serpell (1976), in Culture's Influence on Behavior, proves the influence of culture on motivation, cognition, personality and to a certain extent on language and patterns of thinking (the famous Whorf theory), although his analysis on that latter subject is inconclusive. However, Hall says that "the natural act of thinking is greatly modified by culture" (Hall 1976:9) and Phillips & Wright

(1977) have proved that there are cultural differences in probabilistic thinking. Okabe (1983) believes that there are differences in American and Japanese patterns of thinking.

As already mentioned, and related to one's "self," is one's concept of time and space, which is also influenced by one's culture. Hall (1976) defines two types of time / space concepts: Monochronic time (M-time) and Polychronic time (P-time). M-time is characterized by a linear and segmented conception of time, where schedules and promptness are valued. Obviously, this conception of time is prominent in most Western / Northern European countries. P-time, on the other hand, has a circular and more intangible vision of time, with little emphasis on deadlines or schedule activities. The P-time concept is found mostly in Southern Europe and the developing world. Other authors agree that culture influences the time concept (Webber 1969, Hofstede 1980, Adler & Graham 1989, Drunkman & al 1976).

**Values, attitudes and behavior** - The definition of Liton, cited earlier in this section, makes clear the inextricable link between culture and behavior. Certainly, one of the most famous studies of cultural influence on values and behavior is Hofstede's Culture Consequences (1980). Hofstede studied the influence of culture among IBM employees in more than fifty countries and revealed that the differences covered four dimensions: Power Distance (the extent to which the less powerful members of institutions accept and expect that power is distributed unequally), Individualism vs. Collectivism (the degree to which individuals are and want to be integrated into groups), Masculinity vs. Femininity (distribution of role among sexes and degree of competitiveness and aggressiveness), and Uncertainty Avoidance (the extent to which a culture programs its members to feel either comfortable or uncomfortable in unstructured situations). According to Hofstede, these

cultural dimensions reflect the influence of a culture on its members' values and behaviors. Ann Swidler (1986) says that values remain the major link between culture and action (behavior) and that "culture influences action by shaping a repertoire of habits, skills and styles from which people construct strategies of action." In Webber (ed. - 1969) different authors explain how the cultural environment of a society will influence the needs, beliefs and behaviors of its members. Hall (1976) also explains the importance of the culture-bound concepts of communication, and conception of time and space, on explaining physical behaviors (body rhythms and movements).

To understand the extent of the influence of culture on values and behaviors, one can also refer to all the literature devoted to cross-cultural management. Since Hofstede's study in 1980, there has been a growing field of research focusing on understanding and explaining cultural differences in management styles (Alder 1986, Chung 1991, Everett & al 1984, Harris & Moran 1982, Jaeger & Kanungo 1990, Leung 1992, Tse & al 1988 and 1990, Webber 1969 and others). One aspect of management behavior that also has a large impact on negotiation is decision making: "Prevailing values in cultures, if significantly different, imply different types of decision" (Ralston 1994:22). Many researchers have proven that statement (Adler 1986, Hofstede 1980, Leung 1992, Phillips & Wright 1977, Ralston 1994, Tse & al 1988). People from different cultures will have different ways of identifying problems, analyzing facts, generating alternatives and so on. They will also have different views of the world (fatalist or not), different degrees of risk adversity, attribution processes and self concepts that will also influence the way they make decisions (Hofstede 1980, Tse & al 1988, Phillips & Wright 1977, Ralston 1994, Ehrenhaus 1983).

**Communication** - "Communication is a culturally patterned system of behavior that makes possible human relations" (Ting-Toomey & Korzenny 1989). In fact, LeVine defines culture as "...a consensus in a community about the meaning of symbols, both verbal and nonverbal;" and this consensus is "substantially related to the importance of communication in social life" (LeVine 1984:68).

Ting-Toomey and Korzenny (1989) argue that culture and communication are acquired simultaneously and that culture provides the shared tacit knowledge that enables members to understand and communicate with one another; in other words, cultural values will be reflected in communications patterns. Communication is a manifestation of how culture influences power, social identity, politeness, respect, etc. (Ting-Toomey & Korzenny 1989:29). They also state that scholars (Scherer & Ekman 1985, St. Clair & Giles 1980, Hofstede 1980, Gudykunst 1986, Ochs & Schieffelin 1984 and 1986, and others) have demonstrated strong differences in verbal and non-verbal communication patterns among cultures.

Communication involves expectations, perceptions, choices, actions and interpretations; and it cannot be separated from culture (Condon & Yousef 1975:35). Communication is a process; and it is based on different backgrounds, assumptions and purposes. There are cultural differences in *verbal* communication -silence, voice tone, rhythms, small talk, etc. (Condon & Yousef 1975, Graham 1985, McCall & Warrington 1984). There are also cultural differences in *non-verbal* communication - gestures, eyes contact, etc. (Hall 1976, Condon & Yousef 1975, McCall & Warrington 1984). And even if there is mutual comprehension in verbal and non-verbal communication, *value* differences will be

present in the communication (Hofstede 1980, Serpell 1976, Condon & Yousef 1975, McCall and Warrington 1984).

One of the best illustrations of the link between communication and culture comes from Hall and his High Context Culture (HCC) / Low Context Culture (LCC) model (Hall 1976). Hall explains that communication is inextricably bound to its context, and that part of the information is coded in its context, not in the message. He identifies two types of cultures, HC and LC, which attach different levels of importance to context when coding a message. In HC communication, most of the information is either in the physical context or internalized in the person. In LC communication, it is the reverse, most of the information is in the message. This is a major cultural difference since, without the proper cultural knowledge, one cannot fully understand the communication of a foreign HC culture. This model resolves the mystery of the famous South East Asian "Yes" that means "No." Hall also expands this model to explain other differences in behaviors and attitudes.

Condon and Yousef (1975) did some interesting work on communication and status. They say that communication varies depending of the status of the communicators. Recognition of status and role affect the type of communication used and will be expressed as much non-verbally as it is verbally. Across cultures, this realization has great significance since people will not only communicate differently depending of the status of their interlocutor, but also different cultures will have different ways of recognizing and attributing status. A person dealing with a different culture will not only have to learn how to associate different status to different styles of communication, but he will also have to learn how to recognize the different status valued in this specific culture. This also exerts influence on one's

self concept and reference group, so these variables can change in different situations and locations (Condon & Yousef 1975).

**Limit of the influence of culture** - Obviously, although playing a crucial role, culture is not the only factor influencing one's personality, values and behaviors. Webber (1969) says that, although in general a person is affected by the culture of his society, other variables - physical factors, family, physical environment, education and experiences are also important determinants of one's needs, values and behaviors.

Illustrating the limitation of the influence of culture, is Ann Swidler's article "Culture in Action: Symbols and Strategies" (1986). She explains that culture shapes actions by defining what people want, but that values are not the only variable affecting behavior. According to Swidler, action is integrated in larger assemblages, which do not depend on one variable only, to be part of "strategies of action" (general way of organizing action). Culture has an independent causal role because it shapes the capacities from which such strategies are constructed, but it does not determine the ends to which these strategies are put. Also, "a culture is not a unified way that pushes action in a consistent direction, [but]... a tool kit from which actors choose different pieces for constructing lines of action" (Swidler 1986:277). This explains why, within a culture, how we do things (styles and strategies: strong influence of culture on tools and strategies) is more consistent than why we do them (the ends: limited influence of culture through end values).

In the same paper, Ann Swidler also puts culture into an historical and social perspective. She explains that culture does not always account for continuity, since culture changes. Culture interacts with the social structure of its society and its (relative) continuity depends



on the settled / unsettled periods in which the society in question evolves. She states that, in settled periods, "culture is intimately integrated with action since culture and structural circumstances seem to reinforce each other." However, in unsettled periods, culture has both the role of sustaining existing action strategies and creating new ones, appropriate for survival in such periods. In such periods, ideologies (political and religious) also help in establishing new styles or strategies of action. But ideological movements are not complete culture, since much of their taken-for-granted understanding of life is still dependent on traditional patterns. People develop new strategies, based on the existing cultural model and influencing ideologies, to learn new styles of self, relationships, cooperation, authority, etc. This theory certainly explains a lot of the transformation that communist countries have been through, and why the culture of these countries still emphasizes values or behaviors that are inconsistent with communist ideology.

#### **D - Negotiation in cross-cultural context: how culture affects the way people negotiate.**

In the previous section, I discussed the influence of culture on self, needs, values, attitudes and human behaviors. Now I will discuss the influence of culture on international negotiation (negotiation, of course, being influenced in part by one's needs, values and behaviors). "Different cultures have different negotiation styles" (Hawrysh & Zaichkowsky 1989:40). In the last fifteen years, the impact of culture on negotiation has been studied by many authors. First, I will provide specific examples of cross-cultural studies of negotiation. Second, I will focus on the impact of culture on relationship development. Then, I will use the work of Rubin and Brown (1975) to review how culture can influence negotiation. Finally, I will talk briefly about the limits of the influence of culture on negotiation.

## 1 - Cross-cultural negotiation studies.

*"The cultural difference...may turn out to be as important as that found in a certain contrasting sets of values that determine the hierarchy of negotiating objectives themselves, or as trivial as behavior mannerisms that subtly block confidence and trust. Even gestures and other non-verbal behavior may contribute to a psychological unease that makes communication more difficult. Differing forms of social amenities or notion of status and dignity can throw personal egos off balance. All these factors make an impact even before the substance of negotiation is addressed"*

Glen Fisher, 1980:8

Fisher (1980) says that the negotiation process is a study of social psychology, since it is an interplay of perception, interaction and information processing. In intra-cultural situations, this side of negotiation is implicit to the players, since they share identical psychological and behavioral predisposition. Therefore a large number of one-country studies of negotiations focus on game theory and other bargaining strategies (Fisher 1980). However, people of different cultures receive different mind programming so they do not share the same patterns of psychological behavior. Consequently the relationship between the parties can become a problem. Fisher defines five variables affecting cross-cultural negotiation:

- 1- Players and situations. Culture affects the way the negotiator views the negotiation process (forms, protocol, social setting...), the criteria used to select the negotiators, and the expectations of the negotiator's role and behavior.
- 2- Decision making styles. Fisher argues that culture influences people's personal decision making behavior, but also the way the executive structure of decision making is organized.

3- National character. People have culture-based patterns of personality, ethics, logic, arguments and emphasis on arguments.

4- Cross-cultural noise. For example, different gestures and proximity manner, communications style, and surroundings, can affect how messages are received by other negotiators. This leads to misinterpretation and, possibly, conflicts.

5- Interpreters and translators.

Weiss (1985 and 1994) uses a twelve-variable model to explain cultural differences in negotiation. He states that every negotiator belongs to a group or society with its own system of knowledge about social interaction, and in which negotiation rules and practices vary. This variance can be explained by studying the following twelve variables: 1- basic concept of the negotiation process (distributive, joint problem-solving, debate, contingency bargaining, or non directive discussion), 2- most significant type of issue (substantive, relationship-based, procedural, personal-internal), 3- selection of the negotiator (knowledge, negotiating experience, personal attributes, status), 4- individuals' aspirations (individual-community), 5- group decision making (authoritative-consensus), 6- concept of time (monochronic - polychronic), 7- risk-taking (high-low), 8- base of trust (external sanctions, reputation, intuition, shared experience), 9- concern with protocol (informal-formal), 10- communication complexity (low-high), 11- persuasion (direct experience, logic, tradition, dogma, emotion, intuition), and 12 - type of agreement (contractual-implicit). Of course, the choices or ranges given to these variables reflect different cultural emphasis, but they are not exclusive. E.g. if a negotiator emphasizes logical arguments, it doesn't mean that he will not use or be sensitive to arguments based on intuition or emotion. Moreover, because of personal differences, members of the same group can differ widely on certain dimensions.

Notice that both Fisher and Weiss's models are particularly influential in the field of cross-cultural negotiation. Salacuse (1991) and Moran & Stripp (1991) used Weiss's model to develop their framework for international business negotiations. I will actually partially base my hypotheses on Weiss's model.

Other studies also show the influence of culture on negotiation.

Adler, in her famous book International Dimensions of Organizational Behaviors (1986), says that the three areas key to the success of a negotiation (individual characteristics, situation, and strategies and tactics) vary considerably across cultures. She provides numerous examples and real-life illustrations to demonstrate how the role and the desired individual qualities of a negotiator, the contingencies of the negotiation (location, physical arrangements, duration, number and status of the participants), the relationship building, the exchange of information and the strategies used vary across cultures.

Hofstede (1989) defines four cultural characteristics affecting international negotiations: tolerance for ambiguity, emotional needs of the negotiators, basis for trust and the nature of control and decision making. For Acuff (1993), the four cultural factors influencing international negotiation are: the use of time, individualism vs. collectivism, role orderliness and conformity and patterns of communication. These four factors influence the following variables: the pace of negotiation, the negotiation strategies (opening, formalities, conflicts handling, concession patterns...), the personal relationship between negotiators (trust building and credibility), emotional aspects (sensitivity, loyalty, degree of emotions shown), decision making, and contractual and administrative factors (including protocol). McCall and Warrington (1984) say that variables such as the negotiation situation, the high or low context of the cultures involved (reference to Hall's model), the social structural constraints and the differences in time concept and cognitive structure, affect the

negotiation process in an international context. For Fisher and Brown (1988), the major factors are the pace of action, one's expectations of how others will behave and the norms and rules specific to the cultures.

As we have just seen, "substantial differences in bargaining styles exist across cultures" (Graham 1985 a:93). Many other authors agree that the process of negotiation is culturally determined (Foster 1992, Hofstede 1980, Adler 1986, Graham 1985 and 1994, Tse & al 1994, Hawrysh & Zaichkowsky 1989, Tung 1984, Fisher 1980, Weiss 1985 and 1994, Sawyer & Guetzkow 1965, Bartos 1967, and Harnett & Cummings 1980 to name a few).

I will now discuss in more detail the influence of culture on negotiating strategies, decision making and communication, as these elements are key to the negotiation process.

**Strategies** - Studies have proven that cultural differences influence the use of negotiating strategies such as: conflict resolution strategies (Tse & al 1994, Porat 1970), influence strategies and bargaining behaviors (such as the use of Yes or No, threats, punishment, promise, commitment, disagreement, questions, interruption, etc.) (Adler & al 1992, Graham 1985 a, Adler & Graham 1989), representational and instrumental strategies (Graham 1985 b), first offer and initial concessions (Graham 1985 a), and the Problem Solving Approach (Graham & al 1994, Adler & al 1992, Maxwell & Schmitt 1975).

Also linked to the use of strategies, culture has been identified as affecting: the perceived goal of the negotiation (Porat 1970), the importance given to different stages of the negotiation (Graham 1985 a, and see Hawrysh & Zaichkowsky 1989), the role of the negotiator (Graham 1985 a, Graham & al 1994), the cooperativeness, interpersonal

attraction and satisfaction of the negotiators (Adler & Graham 1989), and the duration of the negotiation (Adler & Graham 1989, Drunkman & al 1976).

**Decision making** - Decision making is an inherent part of any negotiation (McCall & Warrington 1984). Negotiators constantly have to make decisions in order to interpret the behaviors and communication of the other party, and to choose what move to make to attain the goal of the negotiation. In fact, Fisher (1980) and Hofstede (1989) consider “the nature of control and decision making to be one of the major characteristics affecting international negotiations” (Hofstede 1989:199). As we have seen in section C, the decision making process is definitely influenced by culture (Adler 1986, Hofstede 1980, Leung 1992, Phillips & Wright 1977, Ralston 1994, Okabe 1983, Tse & al 1988).

**Communication** - “Negotiation is essentially about communication” (Foster 1992:16).

Communication problems can lead to undesirable outcomes (Rubin & Brown 1975, Sawyer & Gueszkow 1965). In a cross-cultural setting, communication problems are aggravated by two factors: the variations of norms of behavior across culture and the misinterpretation in communication due to differences in world view and expectations (Francis 1991). “In cross-cultural negotiations, we might expect problems of communication caused not only by what is said but by how what is said is interpreted” (Adler & Graham 1989:519). Such problems can create major misunderstandings (Adler 1986, Graham & Adler 1989, Ehrenhaus 1983). Condon and Yousef (1974) identify four kinds of cross-cultural communication problems: language and language behavior, nonverbal behavior, values, and patterns of thought. We have seen previously how culture affects these four categories (Hall 1976, Ting-Toomey & Korzeny 1989, Condon & Yousef 1975, Graham

1985, McCall & Warrington 1984, Ehrenhaus 1983, Hofstede 1980, Okabe 1983, and others).

## **2 - Impact of culture on relationship development in negotiation**

We have seen in section A the importance of relationships in negotiation. To succeed in negotiation, Fisher and Brown (1988) call for the development of a good working relationship that "can deal with differences." However, that might be more difficult to attain in an international context. In cross-cultural negotiations, culture will not only affect how people build relationship, but also the expectations of each party concerning the type of relationship they want to develop. This can lead to three kinds of problems: the negotiators not understanding each others' messages related to relationship building, the negotiators not building relationships the same way, and / or negotiators not trying to build the same kind of relationship. Some North American people might say that even if the relationship does not develop well, it is not that important to the success of the negotiation. This is because the North American business culture does not put much emphasis on the development of a good relationship; but "...in most other cultures, a relationship must be established as a prerequisite to doing business, to negotiating. In the United States, this prerequisite is an anomaly" (Foster 1992:239). In fact, "*in international business, the relationship is perhaps the single most important aspect to consider*" (Foster 1992:239).

I will now use a real life example provided by McCreary in his book Japanese - US negotiations, a cross-cultural study (1986).

Upon his arrival in Tokyo, an American businessman was asked by his Japanese counterpart if he had visited Tokyo. The American manager answered that he did not have time for sight-seeing and that he would like to begin the negotiation. The Japanese

manager was trying to establish a phatic<sup>10</sup> communication, which would have enabled him to know the American negotiator better. According to McCreary (and Okabe 1983, and Markus & Kitayama 1991), Japanese people have a strong need, call *amae*, to develop relatively close and interdependent relationships with people they work with. The American negotiator, by refusing a phatic communication, indicated (via the Japanese way of thinking) that he was not interested in developing a trusting relationship with the Japanese party. He did not understand that the question was an attempt to build a good relationship (communication difference); and he did not know that the Japanese build working relationships at the beginning of a negotiation (behavior difference); nor that his Japanese interlocutor needed to develop such a strong relationship (difference in values and needs of the negotiators). Needless to say, the negotiation failed, because, among other reasons, the Japanese manager's relationship needs were not satisfied.

There is much evidence in section B that culture affects relationship development. Here is a short review of how culture affects relationship development.

As mentioned before, "[the] content and form of relationships, and their initiation and regulation are more likely to be specified by the culture in which they are developed" (Glimour and Duck 1986). Gergen (1969) and Pruitt (1993) agree that the behaviors in exchange are interactive, and the behavior of one actor will affect the other's behavior. And we know now that behavior is influenced by culture (section C). As we have reviewed previously, the concept of trust and building of trust are also partially affected by culture. We have seen that strategies of relationship development are influenced by: 1- the relational goals of the actor, 2- his culture and personal characteristics, 3- his degree of

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<sup>10</sup> Phatic: (adj) of, relating to, or being speech used for social or emotive purposes rather than for communication information (Marrian Webster's Collegiate Dictionary, 10<sup>th</sup> edition).



initial attraction, and 4- his drive for consistency in reaction to the other actor's own strategies. Obviously, culture directly affects the strategies used for developing a relationship (point 2), but also indirectly by affecting the relational goal of the actor (Hofstede 1980, McCreary 1986, Okabe 1983, Markus & Kitayama 1991) and his initial attraction to the other party since status does affect initial attraction (Byrne 1971, Gergen 1969) and the attribution of status is culture-bound (Condon & Yousef 1975).

Webber (1969) says that for most of the world, "friendship may not be essential, but mutual exchange of sentiment is." In the United States, business relationships are quite impersonal, but in cultures that are based on Judeo-Christian values people need a higher level of knowledge of the person with whom they are dealing (Webber 1969). Hofstede (1989) says that collectivist cultures have a need for stable relationships, so that negotiations can be carried out among persons who have become familiar with each other over a long time. Markus and Kitayama (1991) also stress that a person with an interdependent self (one from a collectivist culture) is more attentive and sensitive to others, and wants to know more about them. Many areas of the world emphasize the relationship, not the written agreement (Adler 1986); and people from these cultures will not reach an agreement, or will not respect it, if no solid relationship between the parties has been developed. Once more, these relationships do not need to be friendship relationships as conceived in the Western sense, but they have to be "good working relationships," in other words, personal relationships of trust and mutual respect that can deal with the various conflicts that the negotiators will face.

### 3 - The Rubin & Brown model.

The work of Rubin and Brown The social psychology of bargaining and negotiation (1975) is considered by many to be crucial in the history of research on negotiation. In their book, they develop a comprehensive model of the variables affecting negotiation. This model identifies four dimensions: structural variables, behavioral predisposition of the negotiators, interdependence and social influence and influence strategies. To integrate in a comprehensive fashion the studies that I have presented in the previous two sections, I will now explain how each of the categories of the Rubin and Brown model can be influenced by culture.

**Structural variables** - This category is composed of three main kinds of variables: social, physical and issue-related variables.

*Social variables* include factors such as the presence of audiences (they can affect the negotiators' accountability, need for positive evaluation, and loyalty and commitment to the audience's preferred position), third party involvement, the number of participants and parties. These variables are mostly situation dependent, however culture can play a part. Fisher (1980), Hofstede (1989) and Adler (1986) argue that, under specific situations, culture affects the number of participants and the involvement of third parties. According to Hofstede (1980, 1989), Power Distance should affect the degree of control and accountability exerted on the negotiator. He also says that Confucian Dynamism should lead the negotiator to persist in achieving his group's desired ends (commitment to the audience's preferred position).

*Physical variables* include location, physical arrangements, availability and use of communication channels and presence of time limits. Once more, the influence of culture is slight, but still present. Adler (1986) explains clearly how culture can influence

the choice of different negotiation sites and physical arrangements (mostly for relationship development reasons). However, culture has a definite impact on the concept of time (Hall 1976, Adler & Graham 1989, Drunkman & al 1976, Fisher & Brown 1988, McCall & Warrington 1984, Acuff 1993).

*Issues:* Rubin and Brown define three *issue components* of the bargaining structure: intangible issues (not related to the negotiation object such as maintenance of face, honor, reputation or status), the number of issues at stake and the incentive rewards and magnitude of each issue. The type and intensity of *intangible* issues will be dependent upon the cultures involved in the negotiation (Poortinga & Hendriks 1989, Adler 1986, Okabe 1983, McCreary 1986, Markus & Kitayama 1991).

**Behavioral predisposition** - This is certainly the category most influenced by culture. This category refers to all the individual characteristics of the negotiator: interpersonal orientation (degree of responsiveness to others, what Hofstede calls degree of individualism), personality (risk taking, self concept, attitudes, motives, values, beliefs), and background (age, religion, status, sex, etc.). Culture has been proved to influence the needs, values and beliefs of a person (Hofstede 1980, Adler 1986, Webber, 1969, Swidler 1986, Hall 1976, to name a few), and personality and interpersonal orientation (Hofstede 1980, Liton 1945, Markus & Kitayama 1991, Clark 1990, Gudykunst 1983, Hall 1979, Harnett & Cummings 1980, Serpell 1976, Barnouw 1969). Culture also has a direct impact on how people respond to individual background variables such as sex, status and age (Hofstede 1980 and 1989, Adler 1986). As cited in the previous section, culture is "the sum of the experience of a specific group transmitted through values, beliefs, norms and attitudes that shape the behavior of its members;" there should be no doubt of the influence of culture on negotiation through the behavioral predisposition of the negotiators.

**Interdependence** - Negotiation is a voluntary relationship, therefore it is also one of interdependence. Rubin and Brown define the main parameters affecting this interdependence as: power distribution between the parties, interpersonal orientation (IO) of the negotiators and their motivational orientation (MO) (competitive vs. cooperative). The IO and MO variables, as defined by Rubin and Brown, are quite similar to the Individualism-Collectivism and Masculinity-Femininity variables of Hofstede's 1980 study. In this study, Hofstede proves that the degree of responsiveness to others (IO) and the cooperative / competitive attitudes of a person (MO) are influenced by his culture (see Hofstede 1989 as well). Adler (1986) and Markus & Kitayama (1991) also confirm this statement. Culture also influences the concept of negotiation (Porat 1970, Weiss 1985 and 1994), the type of relationship the negotiator wants to develop (Okabe 1983, Hawrysh & Zaichkowsky 1989, McCreary 1986, Markus & Kitayama 1991, Weiss 1985 and 1994), the role of the negotiator (Adler 1986, Fisher 1980, Graham 1985 a, Graham & al 1994), and the perception and reaction to the distribution of power between the negotiators (Leung 1992, Hofstede 1980 and 1989).

**Social influence and influence strategies** - Negotiators are influenced by the information they obtain and they exert influence through the information they disclose. Therefore, the strategies negotiators use to exchange information and how they analyze the information they receive is critical in negotiation. Once more, culture has a strong mark on these variables.

First, studies have proven that negotiators from different cultures use different approaches and strategies when disclosing information or making moves in the negotiation (Hofstede 1989, Hendon & Hendon 199X, Tse & al 1994, Porat 1970, Adler & al 1992, Graham 1985 a and b, Graham & al 1994, Adler & Graham 1989, Maxwell & Schmitt 1975).

Second, culture puts emphasis on different types of logic and arguments (Fisher 1980, Weiss 1994, Adler 1986, Markus & Kitayama 1991, Okabe 1983, McCreary 1986, Hawrysh & Zaichkowsky 1989). Third, the attribution process, the decision making process and patterns of thought are culturally biased (Ehrenhaus 1983, Hall 1976, Adler 1986, Hofstede 1980, Leung 1992, Phillips & Wright 1977, Ralston 1994, Fisher 1980, Poortinga & Hendriks 1989). Finally, communication styles, used to transmit and interpret these strategies, are also influenced by culture (Hall 1976, Adler 1986, Ting-Toomey & Korzeny 1989, Condon & Yousef 1975, Graham 1985, McCall & Warrington 1984, Ehrenhaus 1983, Hofstede 1980, Okabe 1983, Adler & Graham 1989).

#### **4 - Limit of the influence of culture on negotiation.**

**Other variables affecting negotiation** - Of course, this review of the different cultural variables influencing negotiation does not mean that culture is the only, or the main, influence in every international negotiation. Culture does affect all the variables cited above, but its impact will have different degrees and will be dependent upon the negotiation situation. "Nationality or culture does have an important role to play but any generalization about the negotiation/culture nexus might require modification to account for age, gender and the negotiating environment" (Janosik 1987:391). Some negotiations, even in an international environments, are made in limited time and space settings where cultural differences do not have any significant impact (for example, an interaction in a public market between a tourist and a local shopkeeper). In other situations, one of the parties will have to conclude the negotiation, ignoring the fact that the other party's behavior does not satisfy his relationship needs (culturally based). That is what happened in business and politics in the 50's and 60's in negotiation between the US and developing nations (Adler 1986). The US was so dominant in the world economy at that

time that American negotiators could behave as if "at home" and still be successful, since their counterparts were often in need of American help, technology or products. Of course this situation has changed somewhat now, but this dependency of one party on the other still exists.

In addition, the environment, the corporate culture (Foster 1992), and personal differences -the ones not based on culture (such as sex, age, some needs, part of one's personality), will also affect international negotiation (Harnett & Cummings 1980). Rubin and Sander (1991) say that differences in culture exist and have a bearing on negotiation but they are not the only variables to consider. There are the personalities of the people involved (although they are in part affected by culture, see section C), the specific problem being negotiated, the unique interaction between the two negotiators and then finally, culture. They say that culture is often cited as the major consequence of international negotiation difficulty because it is the easiest to blame and they conclude that much of the difference passes for cultural when it could be something else. They argue that this problem is due to labeling and stereotyping which can lead to expectations and to self-fulfilling prophecy.

**A universal approach to negotiation?** - Some authors claim there are some universal components to the negotiation process. Hofstede (1989) defines common elements in all international negotiations. They are: 1- that there are two or more parties with partly conflicting interests, 2- with a common need for agreement because of an expected gain from such an agreement, 3- with an initially defined outcome, 4- a means of communication between parties, and 5- with control and decision making structures on either side by which either side's negotiating party is linked to its superiors. Gulliver (1979) says that all negotiation is composed of two processes --universals despite differences in interests,

ideas, values, rules and assumptions: 1- a cyclical process of information, exchange and learning, and 2- a developmental process that moves the negotiation along (evolution through the different steps of the negotiation).

Also proving a certain universality in international negotiation are the findings of Adler & al (1992), Graham & Adler (1989) and Graham & al (1994). These cross-cultural studies of negotiation find that the Problem Solving Approach (PSA - negotiation model based on information exchange) can be used successfully by various cultures.<sup>11</sup> However, there are cultural differences regarding the behaviors of the negotiators, and how they use and react to the use of the PSA model. The authors conclude that although the PSA model can be followed by most cultures studied, "...subtle differences in style may cause problems...to otherwise fruitful negotiations" (Adler & al, 1992:449). They also emphasize the importance of cultural differences on the decision making process when considering the applicability of the PSA model in different cultures (Graham & al 1994).

Bazerman and Neale (1991) identify two fields of research in negotiation: the economic and the behavioral approaches. The behavioral approach focuses on describing the behavior of the negotiators and is very situation specific. Economic models tend to assume rationality of action and focus on the outcomes that should emerge from rational action. The most common component of this approach is game theory. Obviously, since the partisans of this approach assume rational behavior from the negotiator, individual or cultural differences will not play a role in their analysis of negotiation, which could lead us to say that these economic models have universal pretensions. But there is empirical

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<sup>11</sup> The US, China, Canada, France, the former Soviet Union, Japan, Mexico, UK, Germany, Korea and Taiwan.

evidence that negotiator behavior does not conform to the rationality postulated in these models (Bazerman & Neale 1991:110). Fisher (1980) says that game theory models should not be considered universal as they are "valid" only domestically, since a shared culture minimizes the need to consider cultural and individual differences.<sup>12</sup> As we have seen previously, Rubin and Brown (1988) believe that culture affects only relationship issues, not the substantives ones. Under such argument, we could assume that since game theory mostly focuses on substantives issues, it is somehow universal. However, we have seen the importance of relationship in international negotiation, and any theory ignoring the relationship issues is bound to be too limited to be useful in an international context.

Although the influence of culture has its limits, we have seen in this section that it can influence the context of the negotiation (physical and social environment, time limits, etc.) and the personal orientation of the negotiator (behavior, beliefs and attitudes, issues priorities, logic patterns, style of decision making, preferred strategies, etc.). But it is the influence of culture on the relationship between the negotiating parties that is of particular interest to this study. Differences between the negotiators in such areas as motivational orientation, interpersonal orientation, type of relationship wanted, approach to relationship development and communication patterns, will increase the difficulty of developing a good working relationship, and hence may potentially impede the success of the negotiation. In the next section, we will review the literature concerning relationship development in business in Vietnam.

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<sup>12</sup> Note that game theory has two sides: the analytical (the main focus of the theories: analyzing negotiation strategies) and the descriptive, which is often abused since it never meant to predict actual negotiating behavior.



## **E - Cultural aspects of negotiation in Vietnam: relationship development**

We will now see how the Vietnamese culture influences the way Vietnamese people approach and conceive relationships in negotiation. However, since little research has been done recently on business negotiation in Vietnam, I will also use research conducted in other South-East Asian countries. Countries of South-East Asia, like those of Western Europe, West Africa or South-America, share some very strong historical, religious and philosophical influences that have created a "regional culture." "The Pacific Rim countries have in common ancient histories characterized by sophisticated cultural achievements, dynastic rule, and social stratification" (Acuff 1993:262). Also very important is the common influence of Confucianism and Buddhism on Vietnam and its neighbors. Although these countries are culturally unique (see the work of Everett & al 1984), there are certain cultural elements that are shared among the cultures of South-East Asia (Acuff 1993, Markus & Kitayama 1991), including Vietnam. Moreover, as we have seen in chapter II, the strong influence of the Chinese on Vietnam's culture gives us even more reason to believe that Vietnam will share numerous cultural elements with its neighbors. Some might call the results of such an approach "stereotypical," but stereotypes have their advantages. They help in dealing with the complexity of the world (Rubin & Sanders 1991) and this is exactly what I want I do here. I believe such information, used with prudence, can be useful in understanding how the Vietnamese conceive and develop relationships.

**Relationship development** - In a recent article on business in Vietnam,<sup>13</sup> the author explains that some of the difficulties of negotiating in Vietnam, are similar to those encountered when dealing with the rest of South-East Asia -- especially those difficulties

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<sup>13</sup> *Good Market. Vietnam*; CIO, October 15, 1995, p58-63.

regarding relationship development. Although we have to account for the uniqueness of the Vietnamese culture and the negotiating context, in general we can say that relationships in negotiation in Vietnam will be affected by the cultural elements presented below.

The importance of harmonious relationships is key in South-East Asian cultures: Already discussed in this paper are the concepts of interdependent self (Markus and Kitayama 1991) and collectivism (Hofstede 1980) that explain this importance. Vertinsky reinforces this notion: "According to most scholars, the prime distinction between Chinese and Western cultures appears to be the collective orientation of the former... A collective orientation implies an emphasis on relationships, harmony, order, and discipline" (Vertinsky & al 1990:857). The cultures in South-East Asia are all High Context Cultures (see Hall 1976) in which "the perception of the individual is inextricably bound to his relationships and the context in which they occur" (Hawrysh & Zaichkowsky 1989: 47). The origin of this phenomena is Confucianism, which emphasizes strict maintenance of social and family order to preserve harmony, role orderliness and conformity, and relationships based on loyalty to and identification with the group. "Getting to know one's negotiating counterpart is to bring orderliness and certainty to one's world" (Acuff 1993:263).

This concept of harmonious relationship is also seen to be emphasized in negotiation. Many researchers have proven this point (Acuff 1993, Markus & Kitayama 1991, McCreary 1986, Okabe 1983, Hawrysh & Zaichkowsky 1989, Tse & al 1994, Weiss 1985 and 1994). "Chinese negotiators normally pay more attention to maintaining a harmonious relationship" (Tse & al 1994:539). Moran & Stripp (1991) say that both Japanese and Chinese negotiators focus on relationship issues (earlier I presented the Japanese concept of *amae*

illustrated by McCreary). The long term view of business and the relatively high degree of trust required to "belong" also means that it will take longer for a relationship to build (Acuff 1993, Hawrysh & Zaichkowsky 1989). For the people of these cultures, not being able to develop a satisfactory relationship with their negotiating counterpart can be significant enough to halt the negotiation (McCreary 1986).

Other variables related to relationship building that are common to South-East Asian countries are:

**Communication** - All Pacific Rim countries have High Context languages (see Hall's model). Communication in these countries will be very context specific and hard to decode without the proper cultural training. Acuff (1993) also says that these HC languages value a reserved body language, silence and modesty. As we have seen in the previous section, different communication patterns affect the development of relationships since the negotiators might not understand each other's messages related to relationship building, and communication misunderstanding can affect the already established relationship.

**Face** - Face is an extremely important concept all over South-East Asia. Its direct impact will be found in high risk adversity (Adler & al 1992, Weiss 1985, Moran & Stripp 1991), conflict avoidance (Tse & al 1994, Hofstede 1989) and non-committing action or agreements (Weiss 1985, Moran & Stripp 1991, Adler & al 1992). Winning at the bargaining table can be unacceptable if it involves loss of face for either party (Hawrysh & Zaichkowsky 1989:50). Face is an important personal and professional issue for South-East Asian negotiators; the way they conceive and develop relationships will reflect this priority.

**Status** - "Chinese values [will] place greater weight upon ascribed rather than achieved status and upon diffused rather than specific status" (Vertinsky & al 1990:857). Status is

used to define the power relationship between the parties (Weiss 1985). Various authors suggest that status is a crucial factor when negotiating with Chinese cultures<sup>14</sup> (Adler & al 1992). Hawrysh & Zaichkowsky (1989) name numerous empirical studies describing the importance of status distinctions and their effect on negotiation in Japan. In these countries, as in Vietnam, relationships between people are strictly defined by each individual status (see chapter II). Negotiators must understand the difference in status among the parties in presence and conduct themselves appropriately (or it could cause a loss of face for one of the parties).

Obviously, business relationships in Vietnam will reflect the unique elements of the Vietnamese culture and environment. Two elements are worth noting here.

- Vietnam is still a communist country. Although the actual *Doi Moi* policy promotes economic reforms and market economy, the Vietnamese people have been living under a communist regime for at least twenty years. Unlike China which has been progressively and relatively open (business-wise) to the Western world, Vietnam has been entirely isolated from the capitalist world for twenty years. One of the major characteristics of a socialist economy is that the rules of free market do not apply, and therefore, much of the activity of business negotiation is non-existent. People who have lived and worked under a communist system might be unfamiliar with the activity of bargaining (Graham & al 1994). This lack of knowledge will certainly affect the way Vietnamese negotiators conceive and develop negotiation. For example, one author stated that Vietnamese negotiators use their knowledge and trust of the other party to complement their lack of business knowledge (Vecchi 1991).

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<sup>14</sup> By Chinese cultures, I mean all cultures strongly influence by the Chinese culture: PRC, Taiwan, Hong Kong, and to a lesser extend Vietnam and Korea.

- Vietnam is experiencing an unsettled period. The end of the Soviet block, the rapid economic growth of Vietnam, and the numerous social and economic changes that foreign investments, imports and tourism have brought are all factors contributing to a very unstable social, political and economic environment. As previously seen in Swidler's paper, culture defines "strategies of action." However, she states that in unsettled periods, culture's impact is limited and traditional values are unlikely to be valid predictors of action. This is especially true in Vietnam where people have to learn new values, skills and behaviors to survive the transition from a state-planned economy to a market economy. Therefore, the cultural variables affecting relationships and other aspects of negotiation might not be reflected as much in the Vietnamese's behavior as it is in those of their neighbors, whose societies are more stable.

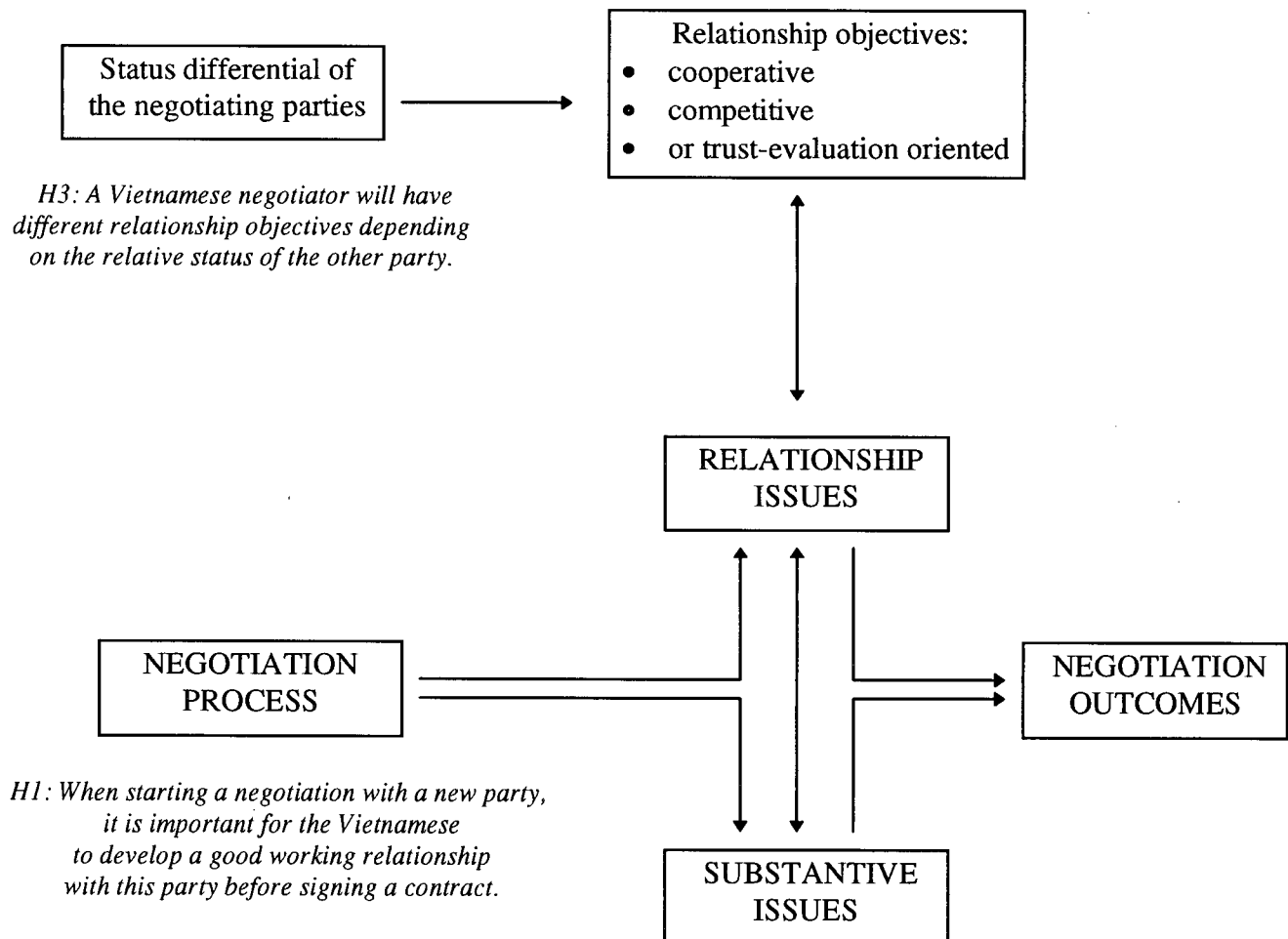
#### **IV - RESEARCH HYPOTHESES**

In this chapter three hypotheses about relationship development between North-American and Vietnamese negotiators are presented. They will cover the following areas of the negotiation process: the most significant type of issue in negotiation for Vietnamese people, (i.e. importance of the relationship in the negotiation vs. substantive issues), the type of relationship the Vietnamese negotiator wants to develop (objectives of the relationship), and the impact the status of the negotiators will have on the type of relationship developed. The first hypothesis is derived directly from Weiss' model (1985), in which the "significant type of issue" is one of twelve variables in negotiation affected by culture. The concept of developing a good working relationship in negotiation is often cited as one of the main cultural differences between eastern and western business people; and it has been identified as a source of many problems in cross-cultural negotiations between North American and Asian people (Vertinsky & al 1990, Hawrysh & Zaichkowsky 1989, Markus & Kitayama 1991, Acuff 1993). Since Vietnam shares, with other Pacific Rim countries, cultural elements that make relationship development (in those countries) an important component of negotiation, it seemed interesting to test the importance of relationship development for Vietnamese negotiators. The objective of the second hypothesis is to identify what kind of working relationship (cooperative, competitive, or trust-evaluation oriented) the Vietnamese negotiators want to develop. The third hypothesis aims to see if the relative status of the negotiators will affect the type of relationship the Vietnamese negotiator will want to develop. As noted, status differential is often cited as a major factor in Asian negotiation (Adler & al 1992, Hawrysh & Zaichkowsky 1989). Hofstede's 1980 study found that Asian cultures rank amongst those

with the highest scores of Power Distance (a cultural variable defining the importance of status in a society; a high PD means that there is a strong social emphasis on respecting people with higher status). In the same study, North American cultures obtained the lowest scores of Power Distance. This cultural difference accounts for some of the mistakes American businesspeople make when dealing with Asian countries (they may send young, low-status North American negotiators to Asia, to negotiate with old and high-status local business people) which can jeopardize the success of the negotiations (Adler 1986). The aim of my third hypothesis is to test whether status difference can affect the type of relationship developed, since, as we know, the state of the relationship between the parties will affect the outcome of the negotiation.

## GRAPHIC ILLUSTRATION OF THE HYPOTHESES:

*H2: In general, a Vietnamese negotiator will have relationship objectives that evaluate the trustworthiness of his counterparts, rather than objectives that are competitive or cooperative.*





The following hypotheses are based upon the theoretical framework and knowledge of the Vietnamese culture and business behavior that has been presented in the previous chapters. Inferences from other South East Asian cultures will be made, especially from the Chinese culture, since they share with Vietnam a common heritage that assures, to some extent, a certain homogeneity. The following discussion will also be based on behavioral and psychological theories in relationship development. Although these theories are culturally biased (to North America), and one must remember that relationship building will be different depending on the cultures involved (Gilmour 1986, Burgess & Huston 1979), these theories can at the least provide a framework and a reference point for the research.

### **Hypothesis 1 - Most important issue of the negotiation**

*H1: When starting a negotiation with a new party, it is important for the Vietnamese to develop a good working relationship with this party before signing a contract.*

I hypothesize that the Vietnamese people, like other South-East Asians, will perceive a good working relationship<sup>15</sup> with their counterparts as an important part of a successful business negotiation. It has been proven that South-East Asian negotiators place more importance on good personal relationships in negotiation, than do their Occidental counterparts (Acuff 1993, Markus & Kitayama 1991, Moran & Stripp 1991, McCreary 1986, Okabe 1983, Hawrysh & Zaichkowsky 1989, Tse & al 1994, Weiss 1985 and 1994). The

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<sup>15</sup> A “good working relationship” as defined by Fisher and Brown (1975): a working relationship that can deal with differences, and that is strong enough to survive disapproval and non-shared values. It does not necessarily imply the development of friendship, but presumes the establishment, to some degree, of a personal and trusting relationship.

origin of this emphasis on relationships stems from the influence of Confucianism and Buddhism, which emphasize harmony and a polychronic conception of time. These factors create a desire for harmonious and long-term business relationships. A long-term view of a business relationship implies that greater outcomes are expected; and Burgess and Huston (1979) have proven that when higher outcomes are at stake, more attention is given to the initiation and building of the relationship. Berscheid and Walster (1978) agree and also state that higher commitment is given to relationships with higher expected returns. Furthermore, South-East Asians view the relationship as an important outcome of the negotiation (whereas in most Western countries, the outcome is simply the contract). Adler states that "In many areas of the world [no doubt, including countries from the Pacific Rim] people keep commitments to people, not to contracts. People honor contracts if they like and respect the people with whom they are doing business" (Adler 1986:197). The development of a relationship can be seen by the negotiator as a personal reward - the satisfaction of a personal need (Markus & Kitayama 1991, McCreary 1986, Hawrysh & Zaichkowsky 1989).

As already noted, one finds in the Vietnamese culture the same predominance of Buddhism, Confucianism and Taoism values as in other South-East Asian cultures - values that emphasize harmony and can create the desire to build good long-term relationships (Cohen 1990). There is every reason to believe that the arguments made above are also valid concerning Vietnamese negotiators. Other aspects of the Vietnamese business culture lead one to believe that the Vietnamese will emphasize relationship building in negotiation. Although academic research on business behavior in Vietnam is still rare, there are already some business-oriented books and articles, often based on personal experience, discussing "how to do business in Vietnam." These works might lack the rigor

to demonstrate these hypotheses, but they offer useful insight on the Vietnamese business culture. One of these works (Robinson 1995) reports an interview with a successful Hong Kong businessman who has been doing business in Vietnam for over twenty years: "Build relationships first and you will be more successful and avoid problems down the line" (Robinson 1995:101). Another interviewee, a business journalist of the Vietnam Investment Review,<sup>16</sup> reports: "Never discuss business first, not even in the first meeting...The secret of success is to build up personal relationships" (Robinson 1995:98 and 101).

It is a well known fact that when negotiating with the Vietnamese one cannot expect business dealings to operate swiftly because, among other reasons, the Vietnamese like to know and trust the people with whom they do business. Vietnamese business people are looking for long term relationships with their foreign business partners (Gallagher 1995<sup>17</sup>). Relationships are built over time; and until they are established one cannot expect to accomplish much. As in the rest of Asia, American business people have trouble in Vietnam because they cannot establish the proper relationships with their negotiating counterparts.<sup>18</sup> One of the reasons for this is that, unlike Americans, the Vietnamese do not disassociate the individual from the economic equation. Therefore, developing an "interpersonal relationship is an important groundwork for a potentially rewarding business relationship" (Gallagher 1995). The fact that Vietnamese businessmen appreciate and

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<sup>16</sup> The "Business Weekly" of Vietnam - edited in Vietnam but owned and operated mostly by foreigners.

<sup>17</sup> Henry T. Gallagher is an American lawyer, President of Vietnam Enterprise Group Inc., a consulting firm helping American companies in the various operations needed to enter the Vietnamese market. Mr. Gallagher lived in Vietnam, speaks Vietnamese, and is married to a Vietnamese woman. The citations presented in this paper are excerpted from a series of articles written by Mr. Gallagher in the Vietnam Investment Review, in March 1995.

<sup>18</sup> *Good market. Vietnam*; CIO, 15 October 1995, p 58-63.

practice various "informal" activities (lunch, dinner and other entertainment), so that both parties can learn more about each other is an indication of this propensity towards developing better and deeper relationships. Yet another sign that Vietnamese negotiators might favor the development of good relationship, is the fact that, according to Gallagher, Vietnamese business people are uncomfortable signing a contract, and suspicious of them in general. This attitude is expressed in the traditional saying *But sa ga chet*, which means "once signed, the chicken is lost." According to Adler (1986), in such cultures the emphasis is placed on the relationship, not the contract, with respect to business agreements. The Vietnamese also place importance on developing a good business relationship because they feel that they can use their knowledge and trust of the other party to complement their lack of business knowledge (Vecchi 1991).

## **Hypothesis 2 - Type of relationship wanted by the Vietnamese negotiator**

### **(Relationship objectives)**

*H2: In general, a Vietnamese negotiator will have relationship objectives that cause him to evaluate the trustworthiness of his counterparts, rather than objectives that are competitive or cooperative.*

The type of relationship wanted by the Vietnamese negotiator will be defined by his goals concerning the relationship. Derlega and Winstead (1986) explain that, when initiating relationships, people have intentions and hopes, and strategies they employ to achieve the desired results. They also say that these strategies change depending upon the individual and situation. Yet, any of these strategies will have two components: there will be information searching - people will gather information as a basis for further interaction

(Derlega & Winstead 1986, Burgess & Huston 1979) and self-disclosure (Derlega & Winstead 1986). In short, for different relationship goals the negotiator will have different strategies, for which he will both seek and provide different kinds of information. One way of categorizing these "information strategies" is to classify them as those that are competitive, those that are cooperative and those that are trust-evaluation oriented. Since people try to be consistent in the way they relate information to the way they perceive and believe (Fisher & Brown 1988), we can say that these categories represent three types of relationship objectives (e.g. if one uses a competitive strategy, it is because he seeks to develop a competitive relationship with his negotiating counterpart). Of course, a negotiator may use more than one of these information strategies, and the same negotiator may use different strategies in different situations. However, I hypothesize that, in most situations, a Vietnamese business negotiator will emphasize a trust-evaluation oriented strategy, rather than one that is cooperative or competitive.

Using a trust-evaluation oriented strategy means evaluating how trustworthy the foreign negotiator is through knowledge of his personal and professional characteristics. The Vietnamese negotiator will try to get to know his counterpart's organization, his commitment and professional expertise, his values and attitudes, and look for the continuity and conformity (relative to the negotiation context) of his behavior and attitudes, etc. Certain aspects of the Vietnamese culture support the use of such a strategy, and the need for the Vietnamese to establish trusting relationships with their business partners. The Confucian Dynamism characteristics<sup>19</sup> of the Vietnamese culture (they do not attach a lot of importance to written contracts), and their traditional justice system based more on word

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<sup>19</sup> See chapter II, section B.

of honor than written law (Hickey 1964), indicate that the Vietnamese negotiator will want to trust the other party before doing business. Also, due to historical circumstances, the Vietnamese lack experience in a free market economy and access to information about foreign organizations. The Vietnamese negotiators can use their knowledge and trust of their negotiating counterparts to complement their lack of business knowledge and information (Vecchi 1991). In addition, the Vietnamese people have had rather bad experiences with foreigners throughout history, and also recently in business when Vietnam opened its door to the West (Robinson 1995). These are other reasons why the Vietnamese emphasize trust when developing a relationship with new foreign partners. In fact, Gallagher (1995) says that "mutual trust is the only way to get business done in Vietnam" and that a "sense of respect and trust in the foreigner...[are] the very traits that the Vietnamese businessman is looking for."

In a cooperative strategy, the negotiators try to learn about each other's needs in order to accommodate them (Adler & Graham 1989). The Vietnamese negotiator will want to develop a relationship that facilitates communication and cooperation; and will look for positive signs from the other party (in the reaction to cooperation, reciprocity of exchange, etc.). It might seem that this strategy is, in some aspects, similar to the trust-evaluation oriented strategy, but its emphasis is very different. A cooperative approach implies the development a good working relationship in order to facilitate cooperation on substantive issues. A trust-evaluation oriented strategy focuses uniquely on evaluating the personal and/or professional trustworthiness of the negotiating counterpart, and does not indicate whether the negotiator has a competitive or cooperative stance. It is also important to note that while some elements of the Vietnamese culture - such as the concept of harmony, the desire to avoid conflict, and the Buddhist and Taoism emphasis on cooperation -

indicate that relationship objectives should be group-oriented (cooperation) and harmonious, a cooperative strategy will not necessarily be chosen and if it is, the relationship might not be as harmonious as one might think. First, foreigners are not in-group members; therefore there is less incentive to cooperate with them. Moreover, history has shown the Vietnamese that foreigners have not been very cooperative with them; and this may limit the cooperativeness of the Vietnamese negotiator (although he will never admit it). Secondly, the harmony that the Vietnamese maintain with foreign businessmen is different from the harmony that is maintained between close family and friends. In business negotiation, this harmony can often be viewed as superficial, and the effects of disrupting it are not as serious. Therefore, the Vietnamese may choose to maintain the status quo (e.g. the Vietnamese will avoid contact if he has negative things to say) rather than "saying his mind" and possibly disrupting the harmony. He may also use various face-saving behaviors (e.g. do not say "no") instead of being truly cooperative. Lastly, being in a recent state of war for over fifty years might influence Vietnamese people to see negotiation more as a more competitive rather than cooperative process.

A negotiator using a competitive strategy is trying to place himself in a position of strength. He will gather information about his counterpart's positions and needs, exploit the weaknesses of his opponent, use his own advantages of information and situation to gain more, and generally conceive negotiation as a win-lose situation. As mentioned before, the recent experiences of the Vietnamese people might motivate them to be more aggressive and competitive. However, the Vietnamese culture is generally opposed to the disruption of harmony, to situations where one can lose face, and to openly aggressive behavior. It

has also been shown that the Vietnamese culture is not openly competitive.<sup>20</sup> Vietnamese people can have a competitive stance, but they avoid openly competitive behaviors, so they may not use a competitive information strategy and develop competitive relationships. However, they can be very competitive when dealing with substantive issues, while still having a more harmonious relationship.

### **Hypothesis 3 - Impact of status differential on the relationship objectives**

*H3: A Vietnamese negotiator will have different relationship objectives depending on the relative status of the other party.*

We already know that Vietnam is a society where social status is prized and respected. In Vietnam, social status is defined mostly by age, sex, education, professional occupation (position) and family of origin. The Vietnamese attach a lot of value and respect to social status and its consequential power in the relationship. In fact, the Vietnamese language associates different words and addresses to different statuses. The Vietnamese business culture and behaviors also reflect the respect of status differential in relations between people. In Vietnam, as in other Asian countries, one notices numerous status-based customs and behaviors (e.g. handing out business cards to know the status of the parties in presence, shaking hands first with the person of highest status, a subordinate or young person not contradicting an older person, etc.) (see Robinson 1995 and Thuy 1976 for many other examples).

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<sup>20</sup> Ibid.



Since the status differential influences the behavior of the Vietnamese negotiator, I hypothesize that status differential also influences the type of relationship he will pursue.

Here are some of the arguments supporting this hypothesis.<sup>21</sup>

Byrne (1971) says that, when developing a relationship, the status of the foreigner is an important variable of attraction. Status is linked positively with the desire to develop a relationship (i.e. the higher the status of the foreigner, the higher the desire to develop a relationship with him). However, this finding is applicable only in situations when there is no other information available about the foreigner.

In Vietnam, relations between people of different status are culturally defined. Therefore, in negotiation, the type of relationship developed will be dependent of the status differential between the negotiators. For example, a person of high status does not have to be "cooperative" with a person of lower status, or a person lower status will not dare have a "competitive" attitude with a person of higher status. It should be noted however, that this may not necessarily apply to negotiation with foreigners.

If status is linked to power (which is often but not always true), then we can say that status will affect (through power) the relationship outcomes (Gergen 1969). We know that the level of attention and commitment given to the initiation and building of a relationship is dependent upon the expected returns of a relationship (Burgess & Huston 1979, Berscheid & Walster 1978). Therefore it is possible that the type of relationship can be dependent upon the relative status of the negotiators.<sup>22</sup>

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<sup>21</sup> Notice that the hypothesis does not try to answer *how* status will influence the relationship objectives of the Vietnamese negotiator, but only *if* status *can* influence them. The arguments listed do not have to be consistent in the way they state how status could influence the relationship objectives.

<sup>22</sup> It should be noted that most of the theories used in this section are not specific to negotiation, but to relationship in general, and might have limited application in a negotiation context where relationship and substantive issues are at stake.

Leaders, and persons of power and high status have more liberties to deviate from social norms (Gergen 1969), and even more so in cultures emphasizing social status.' Since relationship goals are culture-based, then persons of high status might have different goals since they can deviate from social norms with some impunity. However, the Confucianism concepts of harmony and strict maintenance of social order are opposed to such actions. The use of status/power may also have an impact on relationship goals as people often react negatively to use of power (Gergen 1969) [and the notion that might equals right]. People have a tendency to react negatively to situations where they are dominated and have choices forced upon them. With a basic understanding of the history of Vietnam, one can see how the Vietnamese negotiator, of lower status, might want to develop a different type of relationship with his counterpart, because of his negative reaction to being in a position of dependency.

We have seen in Asian cultures, that in addition to having business needs, people also want to develop good working relationships with their negotiating counterparts in order to satisfy certain social needs. Living in a society that focuses on status, those in Vietnam may see the development of a good relationship with a person of higher status, as a source of pride (and increased status). A Vietnamese person negotiating with people of higher status might have different relationship goals simply because the development of a good and personal relationship with such people will bring him prestige and status.

## **V - RESEARCH METHODOLOGY**

Two research methods were used to study the hypotheses proposed in the previous chapter: a questionnaire and a series of interviews. To minimize the problem of acculturation, the aim of the research was to interview and distribute the questionnaire to Vietnamese business people who were living and working in a Vietnamese environment. Access to Vietnamese business people, living in Vietnam but coming to Canada for business, was too limited to provide a satisfactory sample. The research was therefore conducted in Ho Chi Minh City, Vietnam. Moreover, a field trip to Vietnam allowed me to collect various ethnographic information also relevant to the subject of study. In this chapter I will first introduce the environment in which the research took place, then discuss how the questionnaire was designed and distributed, and lastly present the qualitative information (interviews and observations). The next chapter will analyze the quantitative (questionnaire) and qualitative (interviews and observation) data collected during the field trip.

### **A - Research Context**

I left for Vietnam March 1st, 1995, for a ten week stay in Ho Chi Minh City. Through the University of British Columbia (UBC) and the University of Quebec in Montreal (UQAM), I had some personal contacts at two Vietnamese institutions, the University of Economics of Ho Chi Minh City (UEH) and the Center for Economic Studies and Applications (CESAIS). The University of Economics offers graduate and undergraduate programs in economics and business, and is the largest of its kind in Vietnam. The UEH has already developed many relationships with other international universities, including UQAM. CESAIS is one of

the four agencies in South Vietnam accredited by the SCCI (the Vietnamese minister of foreign investment) to evaluate foreign investments (by law all FDI have to get the approval from the SCCI - approval depending mostly on the evaluation reports from agencies like CESAIS). Most of their work is related to negotiation with foreign investors. CESAIS also does market research for local and foreign firms, and is affiliated with the University of Economics. I also had an official contact with the UEH as I was presenting a CIDA grant proposal for the Faculty of Commerce of UBC to the UEH and the University of Can Tho.

These personal contacts gave me many advantages:

- I was given assistance on how to do research in the Vietnamese context.
- I was given access to University's and CESAIS' resources: translators, computers, faxes, etc.
- I had access to both a large pool of students and professionals for the distribution of my questionnaire.
- I was introduced to important Vietnamese businessmen for interviews.
- I gave marketing seminars at both institutions and my frequent presence in these institutions enabled me to observe and experience business negotiations.
- The experience of presenting the UBC project gave me firsthand negotiating experience. I could observe and participate myself in the subject of my research.
- The support of both institutions was very valuable in increasing the status of my research, and therefore in increasing both the attention and quality of information I received from people.

Independently, I also developed contacts with foreign businessmen in Ho Chi Minh City (HCMC). The foreign business community is relatively small in HCMC, yet through going to

various receptions, restaurants, and through attending other activities, I was able to meet many Western businessmen that were doing business in Vietnam. These people were great sources of advice. Also, for most of my stay in Vietnam I rented a room from a Vietnamese family, in a house located in a traditional part of town (with few foreigners and foreign influence), where I had the opportunity to observe and experience Vietnamese customs and behaviors.

### **B - Questionnaire.**

The main tool I used to test the hypotheses was a questionnaire as it allowed me to test them both objectively and quantitatively. It was also easier to test hypotheses 2 and 3 through a questionnaire as I could manipulate the key variables (relationship objectives and status differential), which are hard to study on their own through interviews and observations. Although hypothesis 1 was also tested in the questionnaire, I relied as well on other research tools (interviews and observations) to test it.

**Design** - The English version of the questionnaire can be found in Appendix A. Besides ensuring that the questionnaire would satisfy my research needs, it had to be, for various cultural and practical reasons, relatively short (no longer than 15 to 20 minutes to complete), simple (explanations of how to fill the questions were provided), and respectful of the confidentiality of the respondents.

- *Respondent's characteristics* (adapted from Pornpitakpan 1993).

Questions 1 to 7 dealt with the general profile of the respondent: sex, age, nationality, education, years of working experience, type of company, and position within the

organization. Questions 8, and 12 through 15 evaluated the respondent's experience in dealing with North American business people, his familiarity with the North American culture and the frequency and type of travel abroad. Questions 9 to 11 assessed the respondent's perception of North American business people and business practices. Responses to questions 8 and on (except for questions 15 and 24) were answered on interval scales, where the respondents provided a rating on a scale from 1 to 5. This scaling system is often used in similar empirical studies (Tung 1984, Harnett & Cummings 1980, Pornpitakpan 1993). Moreover, the fact that it was used as a mean for answering the majority of the questions, made the questionnaire easier and quicker to answer.

- *Conception of status and relationship* (adapted from Harnett & Cummings 1980).

Questions 16 to 19 were concerned with the importance and conception of status (related to hypothesis 3). These questions also allowed me to check if the variables used to build the scenarios in question 24 were variables that the Vietnamese associated with status. Questions 20 to 23 focused on the conception of relationship (related to hypothesis 1).

- *Relationship objectives and impact of status differential* (hypotheses 2 and 3).

Question 24 presented varying scenarios of a hypothetical situation of negotiations between American and Vietnamese businessmen. Three scenarios were created, each one emphasizing a different status relationship between the American and the Vietnamese negotiators:

- 1 - American businessman's status = Vietnamese businessman's status.
- 2 - American businessman's status > Vietnamese businessman's status.
- 3 - American businessman's status < Vietnamese businessman's status.

There were three different questionnaires; and each was the same except for question 24.<sup>23</sup> Once the respondent had read whichever scenario he had been presented with, he was required to distribute one hundred points between seven different relationship objectives, attributing the most points to the objective considered the most important, etc... The relationship objectives were either cooperative, competitive or trust-evaluation oriented. Using these scenarios not only allowed me to test which relationship objectives were most important (hypothesis 2), but also if and how this ranking might change depending upon the status differential between the negotiators (hypothesis 3). Questions 25 and 26 further tested the impact of status differential on relationship development.

Manipulation of status differential. Conversations with my contacts, interviews, observations and my literature review of the Vietnamese culture, led me to choose the following variables as the key elements of status recognition in Vietnam: age, position/title in the company, reputation and/or experience in the industry. (The lower-status negotiators were younger, of lower hierarchical position, with less experience and/or less or no reputation in the industry, etc.) Apart from the different statuses of the negotiators involved, all scenarios were almost identical. In all scenarios, the negotiators were meeting for the first time, and the negotiation situation and importance were the same.

- *Importance of relationship in negotiation* (test hypothesis 1).

Questions 27 to 30 tested the importance of a good relationship when negotiating with North American businessmen.

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<sup>23</sup> The different questionnaires were distributed randomly among the sample population. There were a sufficient number of questionnaires distributed to ensure that at least thirty questionnaires (minimum number to assume normality) were answered for each type of scenario.

**Translation and Testing** - The questionnaire was written first in English. Then, it was translated to Vietnamese by a professional Vietnamese translator/interpreter working for CESAIS. Once translated into Vietnamese, it was then translated back to English by another professional Vietnamese translator/ interpreter working for an Australian company. I could not find a North American who knew Vietnamese well enough to do the translation back to English; however, the Vietnamese translator who did had been working in Singapore and Malaysia, and was therefore perfectly fluent in English. I then corrected with the first translator the areas where the second English translation differed from the original.

The Vietnamese language is highly contextual and much more complex than English. One English sentence can have several different meanings depending upon its context. I therefore had to test the questionnaire to ensure that the corrected Vietnamese translation would give me the results that I expected, but for various reasons, I could not run a pre-test session where respondents with profiles identical to the respondents of my sample would answer the questionnaires, so before distributing the questionnaire I presented it to a small group of Vietnamese academics (the Dean and Vice-Dean of the Faculty of Commerce of UEH, and the director of CESAIS). These persons were bilingual, experienced in writing and distributing questionnaires in Vietnam, and knew the subject of my research. They could accurately evaluate the cultural and linguistic appropriateness of the questionnaire. Few modifications were made under their supervision to obtain what would be the final version of the questionnaire.

**Sample and Distribution** - Ideally, I wanted the respondents of the questionnaire to be Vietnamese, living and working in Vietnam, and having at least a year of business



experience in an environment where they had interaction and/or negotiation with North Americans (or Westerners by default). For various reasons, distributing the questionnaire randomly among Vietnamese businesses in HCMC would have been extremely difficult; plus I was advised by my contacts, who had had past experiences in similar situations, that the rate of return would be low. Control over the proper execution of the questionnaire and the assurance of a high response rate (to assure the normality of the answers) were crucial to the success of the research. I therefore chose to distribute the questionnaire to professionals attending night classes at the UEH. Unfortunately, because of the recent opening of Vietnam and because of cultural reasons (Vietnamese senior executives and officials do not take classes in universities with lower-rank workers and younger students), I had no guarantee that the business professionals taking night classes at the UEH would have negotiation experience with North Americans.

The questionnaire was given to one hundred and twenty (120) professionals taking night classes at the UEH. In addition, I also distributed the questionnaire to one hundred and fifteen (115) full-time third and fourth year undergraduate business students. The questionnaire was distributed at the beginning of three classes. The Vice-Dean of the Faculty of Commerce or the director of CESAIS, both well-known high-status officials at the UEH, introduced me to the classes, described the subject of the questionnaire and explained how to fill it out. The students then answered the questionnaire; and we stayed in the classroom to answer any questions they might have. Once all the students were finished we collected the questionnaires.

### **C - Qualitative information.**

Staying in Vietnam for three months also allowed me to study the hypotheses using different research methods. While a questionnaire is an appropriate research tool for this kind of research, its quantitative results and limited context narrow the range of interpretation and understanding one can gain from such a tool. I thought the collection of ethnographic information, provided by interviews, narratives and field observations, could fill this gap by providing more depth to the study and to the interpretation of the questionnaire's results. Of course, this information was biased as it was based on subjective observation and collection. However, if properly analyzed<sup>24</sup> such information can be extremely useful. It should be noted, however, that most of the ethnographic information (interviews and some observations) I collected during my stay in Vietnam was confidential; and I therefore cannot provide a fully-transcribed text of the interviews.

### **Interviews.**

*Object of the interviews* - The objective of the interviews was to have Vietnamese and North Americans business people talk about their experiences in relationship development during negotiation. Appendix B shows the kind of information I wanted to obtain from these interviews. Ideally, there were three parts to an interview:

- 1- Personal questions about the respondents and their positions.
- 2 - A constructed narrative (if possible) where the interviewee described one or two of his experiences of relationship building.
- 3 - General questions concerning the respondent's conceptions of relationship in business negotiation.

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<sup>24</sup> Following the excellent advice given by Mishler, E. in Research Interviewing: Context and Narrative and Hammersley, M. & Atkinson, P. in Ethnography: Principles in practice.

(Notice that this approach provided the information necessary to analyze the interview while taking into consideration the motivation, situation and possible bias of the interviewee).

Such interviews were able to complement the questionnaire by researching the same subjects (emphasis on relationship development, reaction to status differential, etc...) in real-life situations and by providing an understanding of the general context of the relationship.

*Criteria of selection* - I wanted half of my respondents to be Vietnamese, the other half North American, so I could have information from both sides. I looked for North Americans (or Westerners by default) who worked in Vietnam in an area where contacts and negotiations with Vietnamese were frequent, and who had lived there for at least one year and therefore had a basic knowledge of the Vietnamese business culture. Similarly, I preferred Vietnamese businessmen or officials who had frequent negotiations with foreigners. I preferred to cover a wide range of age, background and industry to avoid being misled by negotiating variables that could be situation-specific. I met potential respondents through my contacts (Vietnamese and Westerners) and by attending various functions. To the potential interviewee I would present my research, make sure they satisfied my criteria and if they did and agreed to be interviewed, I would set up an appointment.

I held twelve interviews: five with North Americans, one with a European, five more with Vietnamese people, and one with a Vietnamese businessman who was working in Vietnam at the time, but who had been living in North America for more than twenty-five years. The interviewees' profiles covered a wide range of ages (mid 20's to late 50's), industries

(trade, consulting, banking, government, academic -some of which were private and some of which were public) and positions (middle managers to directors, professors). All were male, not by choice but because very few women are doing business in Vietnam. All the Westerners had been in Vietnam for more than a year; and all but two were relatively fluent in Vietnamese. All the Vietnamese respondents but one were living in Vietnam; and all but one spoke either English or French. All respondents had had frequent interactions and negotiations with either Westerners or Vietnamese business people.

*Interview contexts* - The length of interview varied from 40 min. to 1h30 min. Four were taped, the others not (the respondents preferred not to or it was really not appropriate). The interviews were held in the office or home of the interviewee, in such a way that we could talk for an hour or so without being disturbed. The interviews were in French or English, except for one that was conducted in Vietnamese (a professional interpreter was used).

### **Observations.**

Negotiation is an everyday process; and this is especially apparent in Vietnam where one can negotiate anything from the price of a pack of cigarettes, to the price of a hotel room, or the cost of a speeding ticket. Living and working with Vietnamese people for nearly three months provided me with many opportunities to observe and experience daily negotiating behavior and the cultural patterns of relationship development - this especially during the development of my relationship with my Vietnamese contacts. I also had formal negotiating experience while presenting the CIDA project to the University of Economics at HCMC and to the University of Can Tho. I noted all these observations and experiences in a journal. When pertinent, excerpts of these notes will be included in my analysis.

Although very subjective, this information provides real-life examples that can help in the interpretation of the questionnaire's results.

## **VI - DATA ANALYSIS**

This chapter will present the analysis of the data collected in Vietnam. The statistical analysis of the questionnaire was done on SPSS 6.1 for Windows (the detailed statistical results can be found in Appendix C). The qualitative data (interviews and observations) were analyzed according to ethnographic methods of data analysis. I will present here only the relevant statistical results, and none of the qualitative data for reasons of confidentiality. It should be noted that this chapter will only present these results and that their relevance will be explored in the next chapter. The organization of this chapter is as follows: first I will discuss the respondents' characteristics and compare the "student" and the "worker" samples. Then, I will analyze the rating-scale and scenario-based questions. Next I will look at the impact of selected variables on the respondents' answers. Finally, there will be a brief discussion of the analysis of the interviews and observations collected during my field trip in Vietnam.

### **A - Respondents' characteristics**

Of the 209 questionnaires, 98 were answered by workers and 111 by full-time students (with no formal work experience). With both samples at least 30 respondents answered each of the three different questionnaires. All of the respondents were Vietnamese - 52% of them male and 48% of them female. Full-time students did not answer questions 5, 6, 7 and 8 as they did not have work experience.

**Difference between the student and worker samples** - Of the student sample, 62% were female and the average age was 22 years old. Of the worker sample, 33% of the respondents were female and the average age was 28.8 years old. The average work experience of the worker sample was 6.6 years; and 60% had a Bachelor's degree, while 37% had only a high school diploma, and another 3% had a graduate degree. Of the worker sample, 26.8% worked for the government, 26.8% for trading companies, 21.6% were in manufacturing and 12.4% were in sales. Most of the working respondents (83%) were in a middle or junior management position. Ten percent were owners of their own businesses and 2.2% were top level management. Although 40% had no professional contact with foreigners, 30% had frequent or daily professional interaction with foreigners. Eighteen percent of the worker sample had traveled outside Vietnam, compared to 0% of the student sample.

Using the statistical methods described in section D (later in this chapter), the differences between the worker and student samples were analyzed. For rating-scale questions not related to the respondent's characteristics (9 to 11, 13, 16 to 23 and 27 to 30) there were very few differences between the two samples. Cross-tab and Chi-Square analyses show that, in question 9, workers found North American business norms slightly better than did the students; but both samples found them superior to Vietnamese business norms. Similarly, in question 16, both samples agreed that status and prestige were very important in life, but students seemed to agree less so than did the workers. In question 30 where it was asked if the answer to question 29 would be the same if the respondent's own interest were at stake, workers had a tendency to say yes more so than did the students. It was noted that, for all these questions, both samples had means that were not statistically different (i.e. no difference found with Independent t-tests); however the Cross-tab and Chi-

Square analyses determined interdependent relationships by studying the differences in the answers' distribution along the rating scale. Independent t-tests (that determine if the means of two groups are statistically identical) show significant differences only in questions 20 and 27. In question 20, students were slightly more suspicious than were workers of the intentions of friendly people. In question 27, they were more inclined than the workers to believe that it is important to have a good personal relationship with a foreign businessman before doing business with him.

Questions (24, 25 and 26) - the scenario questions - showed the following results:

scenario 1 - no significant difference at all between the worker and student samples.

scenario 2 - the students were more interested than the workers in developing a personal relationship with the North American businessman (objective F and question 26) and also favored the development of a stronger negotiating position (Objective C).

scenario 3 - the only noticeable difference was that students seemed to be more interested than the workers in developing a personal relationship with the North American businessman (question 26).

Although some differences were found between the worker and student samples, not once did these samples have noticeable opposing positions (both samples had basically the same point of view, but to varying degrees). Because of these strong similarities between the two samples, both were used in the analysis (all 209 questionnaires are referred to as "All\_Samples" in appendix C) as it is better to draw conclusions from a larger pool of respondents. This combined sample satisfied the requirements of the law of normality (more than 30 respondents for each questionnaire) and met the criteria required for the



questionnaire's respondents. One can therefore assume this sample to be fairly representative of the Vietnamese business community in Vietnam.

## **B - Rating-scale questions**

This section reviews the significance of the rating-scale questions, in which the respondents had to choose a value ranging from 1 to 5 (questions 9 to 14, 16 to 23 and 27 to 30). Since the range was from 1 through 5, I considered the value "3" to be neutral. Therefore the answers that had a mean whose confidence interval included the value 3 were also be considered "neutral" (i.e. non-significantly oriented to one extremity of the scale). To analyze these questions, I calculated the mean of each question and a confidence interval of 95%. The confidence interval indicated if the value "3" was a possible value for the mean. Another method was to code the answers in the following way: if the mean is inferior to 3 then we can code the answers as [1 & 2 = 1'] and [3, 4 & 5 = 2']. After a descriptive analysis, if more than 50% of the observations are 1', then the answer can be considered significantly oriented to lower extremity of the scale.<sup>25</sup>

For example: question 27 "how important do you think it is to have a good personal relationship with a foreign businessman in order to do business with him?" had a mean of 1.91, a 95% CI of (1.7876, 2.0394), and 1' (1 & 2) represented 77.8% of the cases. It can then be said that our respondents thought it important to have a good personal relationship with a foreign businessman in order to do business with him.

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<sup>25</sup> If Mean > 3 then code 1, 2 & 3 = 1' and 4 & 5 = 2', significant if 1' < 50% of the cases.

- Results

The respondents considered North American business norms and practices superior to those in Vietnam (question 9), and felt that North American business people were slightly better negotiators (Q10) and slightly more trustworthy (Q11) than Vietnamese business people.<sup>26</sup> However, few of these respondents had had business dealings with North Americans (Q12), were not very knowledgeable about North American customs and behaviors, (Q13) and had rarely traveled to western countries (Q14). In general, the respondents strongly agreed that status and prestige are very important in life (Q16). They also agreed that age is a determinant of knowledge (the older, the more knowledgeable - Q17),<sup>27</sup> that personal connections determines one's worth (Q18) and that professional position reflects one's professional abilities (Q19). They were slightly suspicious of other people's intentions (Q20 and 21) and agreed that doing favors for people who cannot return them is a waste of time (Q22). They did not think that they should deal with people of whom they do not approve (Q23).<sup>28</sup> The respondents also considered it important to have a good personal relationships with a foreign businessman in order to do business with him (Q27), but overall were not sure (neutral position) if their negotiating strategy would be affected by the degree of personal relationship which they had with a foreign businessman. They also said that they would be more likely to go to great length for a foreign business partner with whom they had a good relationship (Q29). However, they were not sure if this position would stay the same if their own interests were at stake (Q30).

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<sup>26</sup> Notice that only 45% of the respondents said that North American business people were more trustworthy than Vietnamese business people. The average is such because of the weight of the answers located at the extremity of the scale, but we can still question the significance of this mean since the majority of the respondents were neutral or opposed to that choice.

<sup>27</sup> Here too, the average is biased on one side of the rating scale (inferior to 3), but less than 50% of the respondents (48%) had their answers located on that side of the scale (values 1 and 2).

<sup>28</sup> Same observation as above for questions 20, 22 and 23.

## **C - Scenarios**

### *1 - Intra-scenario analysis*

In question 24, the respondents were asked to distribute one hundred points between seven objectives. The goal of this section is to determine, for each of the three scenarios, the importance given to each of these relationship objectives. First, for each of the scenarios, the mean and a 95% confidence interval were determined (see analysis section B) for each of the seven objectives. Then, the confidence intervals of all the objectives were compared to establish a ranking order (e.g. if objective A has the lowest component of its CI superior to the highest component of objective B's CI, then we can say that objective A is considered more important than objective B). Statistically speaking, the objectives that had overlapping confidence intervals were considered of identical importance.

- **Results**

#### Ranking of objectives:

Scenario 1 - the North American and the Vietnamese businessmen are of the same status.

1 - Evaluate the trustworthiness of the North American by developing knowledge of his professional characteristics (Objective B).

2 - Strengthen negotiating position (Obj C).

3 and 4 - Establish a comfortable atmosphere to facilitate communication (Obj D) and develop a personal relationship as a basis for a long-term relationship (Obj F).

5 - Evaluate the trustworthiness of the North American by developing knowledge of his personal characteristics (Obj A).

6 - Ensure that the Vietnamese's needs and image are respected during the negotiation (Obj G).

7 - Develop a personal relationship to facilitate the negotiation (Obj E).

The ranking, from first to last, was: B, C, D-F, A, G, E.

Using the confidence intervals (95%), the objectives were then classified into groups (objectives with intersecting confidence intervals). The groups were: objectives [B,C] first, then objectives [A,D,F], then objectives [A,F,G], and lastly objective [E].

Scenario 2 - the Vietnamese businessman is of higher status.

The ranking for this scenario was quite similar to that of scenario 1, except that objective G (make sure that own needs and image are respected during the negotiation) ranked 3rd.

The ranking, from first to last, was: B, C, G, D, F, A, E.

The confidence intervals grouping was marked by a conglomeration of the objectives in a central group, with objective B and E standing on their own at the extremities. The groups were: objectives [B], [A,C,D,F,G], [E]

Scenario 3 - the Vietnamese businessman is of lower status.

The ranking for this scenario was also similar to that of scenario 1, except that objective A (evaluate the trustworthiness of the North American businessman by developing knowledge of his personal characteristics) ranked 3rd.

The ranking, from first to last, was: B, C, A, F, D, G, E.

The confidence intervals grouping was also similar to that of scenario 1. The groups were: objectives [B,C], [A,C,D,F], [A,D,F,G], and [E].

## *2 - Inter-scenarios analysis*

The goal of this analysis was to establish if the importance attributed of to each relationship objective (in terms of number of points attributed to each) changed according to the scenario.<sup>29</sup> A Oneway Anova analysis was used, with the scenario as the independent variable and the objectives as the dependent variables. Also used were the Least Square Differential (LSD) and Duncan (Multiple Comparison) tests. The F probability in the Anova test indicated if there was a significant difference between the points attributed to the objective depending upon the scenarios (if  $F < 0.05$  then there was a difference between 2 or 3 scenarios). The LSD and Duncan tests also indicated if two or more groups were different at the 0.05 level; and in addition they indicated which groups were different. If there was a significant difference between two or more groups, then the scenario variable did affect the respondents' answers.

- **Results**

There were a couple of significant differences between the three scenarios.

First, the number of points attributed to objective E (try to develop a personal relationship to facilitate the negotiation) was significantly lower in scenario 1 (same status) than in scenario 2 (the Vietnamese businessman is of higher status).

Secondly, the number of points attributed to objective G (make sure that needs and image are respected during the negotiation) was significantly lower in scenario 1 than in scenario 2.

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<sup>29</sup> Note: the answers of questions 16 to 19 revealed that status is an important attribute for the Vietnamese; and that age, reputation and title of position determine status. These results confirm the pertinence of the scenarios used and the manipulation of the status differentials.

### *3 - Scenarios analysis - Ranking*

As well as looking at the total number of points attributed to each objective, the analysis also focused on how each respondent ranked the objectives. Instead of entering the number of points attributed to the objectives, I entered the ranking of the objectives -i.e. the objective having the most points was ranked as number one, etc... If two or more objectives had the same number of points, then they were given the same ranking. I entered how many times each objective was ranked as first, second, third, etc... This approach gives a better evaluation of the ranking of the relationship objectives, although it does not quantify the differences between each ranking as did the previous method. The same statistical methods used in part 1 and 2 were applied.

- Results

#### Ranking of objectives:

Scenario 1 - the ranking was: objectives C, B, F, D, A, G, E. The grouping of confidence intervals gave: objectives [B,C], [A,D,F,G], [E]. This was quite similar to the results of the previous analysis (part 1), except the ranking of objectives C and B.

Scenario 2 - the ranking was: objectives B, C, D, F, A-G, E. The grouping of confidence intervals gave: objectives [B], [A,C,D,F,G], [G,E]. The only noticeable difference with the previous analysis was objective G, which was ranked sixth as opposed to third.

Scenario 3 - the ranking was: objectives B, A, C, F, D, G, E. The grouping of confidence intervals gave: objectives [B], [A,C,D,F,G], [E]. This was quite similar to what was previously obtained, except for the ranking inversion of objectives A and C.

The inter-scenarios analysis indicated only that the ranking of objective C (strengthen

negotiating position) was significantly lower in scenario 1 (same status) than in scenario 2 and 3.

#### *4 - analysis of questions 25 and 26*

Questions 25 and 26, although being rating-scale questions, were also linked to the scenarios. They evaluated the respondent's reaction to the North American businessman described in the scenario. First, the same type of analysis used in section B was used to analyze the questions for each scenario. Then, a Oneway Anova method (see section C, part 2) was used for the inter-scenario analysis.

- **Results**

Scenario 1 - respondents found that the North American businessman described in the scenario was appropriate to the situation (Q25). They were only slightly interested in developing a relationship with him (Q26).

Scenario 2 - respondents found that the North American businessman described in the scenario was appropriate to the situation (Q25). They were also interested in developing a relationship with him (Q26).

Scenario 3 - same answers as in scenario 2.

No significant differences were found across scenarios.

#### **D - Independent variables**

The goal of this section is to find out if and how certain variables affected the answers of the questionnaire. The independent variables selected were: gender (Q3), education (Q4), industry in which the respondent worked (Q6), position in the organization (Q7),

frequency of professional contact with foreigners (Q8), perception of North American businessmen (Q9 to 11) and travel abroad (Q15). I did not use the age variable as 91.5% of the students were 23 or under and therefore any analysis using this variable would most likely show results similar to those already found in the analysis of the worker and student samples (section A). It should be noted that some of these analyses were limited due to the low number of observations for some variables. Also, for the industry, position and contact variables only the worker sample was used as the students did not fill out these questions.

### *1 - rating-scale questions*

To analyze the influence of an independent variable on a rating-scale question, a Cross-Tab analysis was used, with the dependent variable being the rating-scale question. The Chi-Square / Pearson tests done on the Cross-tab indicate if there was an interdependent relationship between the variables tested. If the significance of the Pearson test was lower to 0.05, then there was an interdependence between the independent variable and the dependent one. However the Chi-Square analysis does not work with low values, therefore the cells of the Cross-tabs that have a number of observations inferior to 5 ( $n < 5$ ) have to be coded to do the test. This code was achieved by joining two (or three if necessary) adjoining scales with low values. E.g. the Cross-tab of question 5 (Worker / Student - independent variable) vs. question 10 gave the following values:

students	value 1 (n=24)	2 (49)	3 (28)	4 (6)	5 (3)
workers	value 1 (n=21)	2 (41)	3 (26)	4 (8)	5 (1)

Since for the value 5, there were not enough observations ( $n=3 < 5$  and  $n=1 < 5$ ), value 4 and 5 were coded in a value called 4' which had for observations:  $n' = n_4 + n_5$ . The number of observations for the values 1, 2 and 3 stayed the same. This gave:



students	value 4' ( $6+3 = 9 > 5$ )
workers	value 4' ( $8+1 = 9 > 5$ )

This coding can be done on both the dependent variable and the independent variable.

For example, the independent variable education (question 4) had few observations for the values "Masters degree" and "Ph.D. and post-doctoral degree". Therefore, these values were joined to create a new value "graduate degree" for the purpose of the analysis.

Independent t-tests (when the independent variable had only two groups, like gender) or Oneway Anova and LSD tests (when the independent variable had more than two groups, like position) were used to determine the equality of the means of the different groups being studied. The rating-scale questions that were analyzed are: questions 9 to 11, 16 to 23 and 27 to 30. The results are show at the end of this section.

## *2 - Scenarios*

It was also interesting to observe the impact of the same variables listed previously in the answers given for question 24, to see if they influenced the points attributed to the relationship objectives. A Manova analysis was used to analyze the effect of the independent variables on the importance given to the relationship objectives. If the significance of F was lower to 0.05 for one of the relationship objectives, then the independent variable affected the points attribution of this objective. Independent t-tests (when the independent variable had only two groups) or Oneway Anova and LSD tests (when the independent variable had more than two groups) were also run to analyze in detail the objectives that showed significant difference during the Manova analysis. A similar approach was used to analyze the questions 25 and 26.

- Results

variable: gender (Q3)

The Cross-Tabs and the Independent T-tests analyses showed strong gender differences in questions 9, 10, and 11. In all three questions, Vietnamese females had a less positive perception of North American businessmen than did Vietnamese males.

The Manova analysis found that in:

Scenario 1 - the males gave less points than did the females to objective B (evaluate trustworthiness of the North American by developing knowledge of his professional characteristics) and G (make sure that own needs and image are respected during the negotiation), and more points to objective D (establish a comfortable atmosphere to facilitate communication).

Scenario 2 - no significant difference.

Scenario 3 - once more, the males gave less points to objective B than did the females.

variable: education (Q4)

This variable was coded into two groups: respondents with only a high school diploma and respondents with a university degree.

The Cross-Tabs analysis showed that in:

Question 9 - respondents having only a high school diploma had a better impression of North American business norms and practices than did other respondents.

Question 19 - respondents having only a high school diploma did not believe that a person's professional position reflects his true professional abilities to the same degree as did the other respondents (less so).

Question 20 - respondents having only a high school diploma were more suspicious of a person who appears friendly.

Question 30 - respondents having only a high school diploma were more likely to change their position if their own interests were at stake.

The Independent t-tests agreed with the results of questions 9 and 30.

The Manova analysis found that in:

Scenario 1 - no significant difference.

Scenario 2 - in question 25, respondents having only a high school diploma thought that the North American businessman was better choice for the negotiation than did the other respondents.

Scenario 3 - respondents having only a high school diploma gave less points to objective C (strengthen their negotiating position) and more points to objective G (make sure that own needs and image are respected during the negotiation) than did respondents having a university degree.

variable: industry (Q6)

This variable was coded into four groups: trade, manufacturing, government and services.

The Oneway Anova and LSD analysis found that in:

Question 19 - respondents working in the service industry believed that a person's position reflects his true professional abilities less so than did respondents working in the manufacturing industry.

Question 22 - respondents working in the service industry agreed more so than did respondents working in the trade sector, that doing favors for people who cannot do the same is a waste of time.

Question 30 - respondents working in the trade sector were firmer (their answers to

question 29 would stay the same even if own interests were at stake) than were respondents working in the manufacturing sector.

The Manova analysis found that in:

Scenario 1 - respondents working for the government gave more points to objective A (evaluate the trustworthiness of the North American by developing their knowledge of his personal characteristics) than did respondents working in the service and manufacturing industries. In question 26, respondents working for the government were less interested in developing a relationship with the North American businessman described in the scenario than were respondents working in the trade and service industries.

Scenario 2 - in question 26, respondents working in the service industry were more interested in developing a relationship with the North American businessman than were respondents working in the trade industry or for the government.

Scenario 3 - respondents working in the manufacturing industry gave many more points to objective F (try to develop a personal relationship as a basic for a long term relationship) than did any other groups.

variable: position (Q7)

This variable was coded in three groups: higher position, middle position and lower position.

The Oneway Anova and LSD analyses found in question 28 that respondents of a lower position had their negotiating strategies less affected by the degree of personal relationship than did the other groups.

The Manova analysis found that in:

Scenario 1 - respondents in middle positions gave more points to objective B (evaluate the trustworthiness of the North American by developing their knowledge of his professional characteristics) than did respondents in lower positions.

Scenario 2 - respondents in higher positions gave many more points to objective E (develop a personal relationship to facilitate the negotiation) than did the other two groups. Respondents in lower positions gave less points to objective G (make sure that own needs and image are respected during the negotiation) than did the other two groups.

Scenario 3 - respondents in middle positions gave more points to objective C (strengthen negotiating position) than the ones in higher positions. In question 26, respondents in middle positions were more interested in developing a relationship with the North American businessman than were respondents in higher positions.

variable: contact (Q8)

This variable was coded in three groups: respondents who had no contact, rare contact and frequent contact with foreign businessmen.

The Cross-tabs analysis showed that in question 28 respondents who had frequent contact with foreign businessmen were more willing to change their negotiating strategies (if they had a good personal relationship) than those who had no contact with foreign businessmen.

The Oneway Anova and LSD analyses found in question 29 that respondents who had no contact with foreign businessmen were less inclined to go to great lengths for a good foreign business partner than were respondents who had frequent contact.

The Manova analysis found no differences among the three groups across scenarios.

variable: perception (Q9 to 11)

Questions 9, 10 and 11 were coded to obtain one variable expressing respondents' perception of North American businessmen and business practices. There were three groups: respondents who have a favorable perception of North American businessmen and business practices, those whose perception was neutral, and those whose perception was unfavorable.

The Cross-tabs and Oneway Anova analyses found that in:

Question 16 - respondents with a favorable perception of North American businessmen found the role of status and prestige in life more important than did respondents with an unfavorable perception.

Question 27 - respondents with a favorable perception found it more important to develop a good personal relationship with a foreign businessman than did respondents with a unfavorable perception.

The Oneway and LSD analyses showed in question 23 that respondents with a favorable perception of North American businessmen agreed more so than did the respondents with a neutral perception, that one should not deal with people that one does not approve of.

The Manova analysis found that in:

Scenario 1 - respondents with a neutral perception gave more points to objective G (make sure that own needs and image are respected during the negotiation) than did the two other groups. In question 25 respondents with a favorable perception thought that the North American businessman was more appropriate for the negotiation than did any other groups.

Scenario 2 - In question 25 respondents with an unfavorable perception thought that the North American businessman was less appropriate for the negotiation than did the two

other groups. In question 26 respondents with a favorable perception were more interested in developing a relationship with the North American businessman than were respondents with unfavorable perception.

Scenario 3 - respondents with a neutral perception gave more points to objective E (develop a personal relationship just to facilitate the negotiation) than did respondents with a favorable perception.

#### variable: travel (Q15)

The independent T-tests found that in:

Question 9 - respondents who had not traveled had a better perception of North American business norms and practices than did respondents who had traveled.

Question 16 - respondents who had traveled thought that status is less important than did respondents who had not traveled (yet both groups still felt status is important).

Question 22 - respondents who had traveled agreed less so than did ones who had not, that doing a favor for people who cannot do the same is a waste of time.

The Manova analysis found no differences among the two groups in each of the scenarios.

### **E - Qualitative analysis**

I also collected various qualitative information, which I felt would complement the quantitative approach of the questionnaire. These interviews and observations were therefore analyzed according to the methods explained by, among others, Mishler in Research interviewing: context and narrative (1986), Finnegan in Oral traditions and the verbal arts: a guide to research practices (1992), and Hammersley and Atkinson in

Ethnography: principles and practices (1983). Pertinent results will be presented in the next chapter.

### *1 - Interviews*

The interviews were taped or notes were taken. The tapes were fully transcribed. The notes were copied in as much detail as possible immediately following the interviews. All possible details relating to the context of the interview or the interviewee were also added. In addition, information received prior to as well as after the interviews, concerning either the interviewees or the content of the interviews itself, were added to my notes. The interviews were analyzed upon my return from Vietnam, when I had finished collecting information and possessed a better understanding of the subject of the research. Each interview was analyzed considering all possible details: the context of the interview (location, time, relationship between interviewee and interviewer, status differential, etc.), the situation of the interviewee (what he could and could not say, the specifics of the situations he described, etc.), and his personality, needs, attitudes and beliefs (how he wanted to appear to the interviewer, his attitudes towards Vietnamese or North American people, etc.).

### *2 - Observations*

The observations were transcribed as soon as possible into my journal, with all the possible and relevant contexts and details related to the observations. Some situations were observed for just a few minutes, others were observed during a relatively long period of time (days, weeks) involving familiar people. Since the journal was maintained daily, I was able to come back to observations made previously and add new elements concerning these observations or the parties involved. I could also relate the observations to each



other, to my own experiences, to the experiences of others, and to the interviews. These observations were also analyzed upon my return from Vietnam, when there was no more information to collect and when my understanding of the subject was more elaborate. As with the interviews, these observations were analyzed considering their contexts, the impact of my presence on the event and my own biases as an observer.

## **VII - DISCUSSION and CONCLUSION**

In this last portion of the paper, the data presented in the previous chapter will be assessed to determine if and how it support the hypotheses. This analysis will be based mostly on the data previously analyzed; relevant data collected from the interviews and observations will also be used. Once each hypothesis has been presented, I will conclude this paper by discussing the majors elements affecting relationship development in negotiation in Vietnam. These comments, compiled from the literature, and interviews and observations made during my field trip, will integrate the results of this research in the larger context of negotiating in Vietnam.

### **A - Hypothesis 1**

*H1: When starting a negotiation with a new party, it is important for the Vietnamese to develop a good working relationship with this party before signing a contract.*

Various questions were used to test this hypothesis, and the answers to all of them supported, to varying degrees, that Vietnamese business people emphasize relationship development in negotiation.<sup>30</sup>

Almost all the interviewees emphasized the importance of having good working relationships between Vietnamese and foreign business partners. Two Vietnamese

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<sup>30</sup> See the analysis of questions 24, 26, 27 and 29.

businessmen, specializing in negotiation of Foreign Direct Investment in Vietnam, and who were knowledgeable in both the Vietnamese and North American cultures, told me that a good working relationship of mutual trust and respect was necessary in order to be successful in Vietnam. For them, doing business in Vietnam is highly unpredictable and complex; many problems can surface and a good relationship between partners is necessary to meet and face problems together. A North American interviewee with more than six years of experience in Vietnam, who participated in numerous business and academic negotiations, told of numerous examples in which negotiations failed because the relationships between the Vietnamese and foreign parties were inadequate, even if the Vietnamese parties in question could gain from the potential business deals. Three other successful Westerners told me that even if they did not have personal relationships with their Vietnamese partners, they did have good working relationships with them (although good working relationships in Vietnam are conceived differently than ones in North America - more details on this later in section D). One, an importer, said that once he has developed a good trusting relationship with his Vietnamese buyers, they stick with him; and good relationships are important in his business because of the kind of trust needed from his buyers. The second interviewee, a distributor of North American products, said that he obtained contracts even if he had a higher price than his competitors because of the good working relationships he established with his buyers. The third interviewee said that not having a good relationship might not necessarily stop the project, but it would make it much harder to achieve. He strongly suggested that North American business people coming to Vietnam should work on developing good and strong relationships with their Vietnamese partners.

However, there are limits to the importance of relationships in negotiation. Some answers on the questionnaire show that there are other issues at least as important as developing a good relationship with the foreign negotiator.<sup>31</sup> Some of the interviews indicated that one can be successful without establishing any personal or even good working relationships with Vietnamese partners. Two of my Western interviewees were fairly successful in their Vietnamese ventures, despite the fact that they did not have good personal or working relationships with their Vietnamese partners. However, they admitted that their Vietnamese business partners were extremely dependent upon their business and that their business relationships with these Vietnamese partners would end otherwise. Two Vietnamese interviewees also did not consider relationships very important in doing business with foreigners. The position of these two Vietnamese businessmen can be explained by the fact that their job functions limited their professional interactions with foreigners to only short and technical negotiations. Moreover, both seem to have had bad experiences dealings with foreigners in the past.

I also observed a couple of negotiations in which good working relationships were not established; and these negotiations were not terminated. The North American parties in question were not aware of the cues sent by the Vietnamese negotiators concerning relationship development or did not respond to them in the most appropriate fashion, thereby offending the Vietnamese parties. The negotiations still went on, but the Vietnamese parties never made any engagements and seemed to be fairly indifferent to the outcomes of the negotiations. My belief is that the projects were not terminated because of the potential gains they presented to the Vietnamese parties, and to avoid the

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<sup>31</sup> See the analysis of questions 24, 28 and 30.

loss of face that would come from openly rejecting the foreign parties. The lack of good working relationships (at least as conceived by the Vietnamese) did not end these negotiations, but I doubt that the Vietnamese parties would do anything to facilitate the negotiation and that the projects would be successful if difficulties arose along the way. To cite one of my Vietnamese interviewees, "If there is a good personal relationship then the partners will meet and face problems together. If not, then the Vietnamese might drop the foreign partner when there is a problem or when better opportunities arise." For example, despite the fact that I was a low-status foreigner and basically had nothing to offer to my Vietnamese contacts, they often went beyond their professional obligations to help me in various situations. I believe they did this because of the good relationships we developed. Some might think I received favorable treatment because I was introduced by a friend of one of them; it's possible. However, another person in a similar situation, who did not succeed in developing good relationships with his Vietnamese contacts had to leave Vietnam without accomplishing what he came to do.

In light of the amount of data supporting H1, we can say that the Vietnamese will attach a lot of importance to developing good working relationships with their foreign partners. This statement is supported by the data collected in the research questionnaire, interviews and observations, as well as by the general literature review of the Vietnamese and South-East Asian business cultures. However, although developing a good working relationship with a foreign partner is important to the Vietnamese businessman, it is not his only -or most important- concern. Also, it should be noted that what is considered a good working relationship by Vietnamese is different than in North America (I will have the opportunity to explore this factor in more detail later in this chapter). Finally, the needs of the Vietnamese, the unsettled economic and social situation in which they live, and their lack of

experience in business negotiation with Westerners, allows for much variation in the way each Vietnamese will rank the development of a good relationship with his foreign business partners.

## **B - Hypothesis 2**

*H2: In general, a Vietnamese negotiator will have relationship objectives that cause him to evaluate the trustworthiness of his counterparts, rather than objectives that are competitive or cooperative.*

The most significant finding gleaned from the testing of hypothesis 2 is that the two most important relationship objectives for the Vietnamese negotiators are respectively: 1- to evaluate the trustworthiness of the North American businessman by developing knowledge of his professional characteristics, and 2- to strengthen one's negotiating position to achieve one's negotiating objectives. These findings are consistent throughout all manipulations.<sup>32</sup> Although they are from different categories of objectives (trust-evaluation oriented and competitive), that which they hold in common is the underlying fear of losing face. Evaluating the trustworthiness of one's negotiating counterpart ensures that one will not lose face by being cheated by the other party or by having the project fail because of the incapacity of the other party to uphold his commitments. Making sure that one's position is respected is also an important way to keep face (there could be a loss of face if one receives less than what is expected or receives less than the other party).

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<sup>32</sup> See Chapter VI, C, 1.

Data supports the notion that the Vietnamese negotiator strives not to lose face and to make sure that his partner can be trusted. My interviewees, North Americans and Vietnamese alike, strongly felt that trust is one of the key elements in establishing a good working relationship in Vietnam. As I stated before, one of my Vietnamese interviewees, said that the development of good relationships involving mutual affection and trust are crucial to success in Vietnam. He emphasized that trust was the most important aspect of the negotiation. Most of the other interviewees shared the same point of view. Although personal characteristics can play an important role in establishing this trust, it seems that trust is based and evaluated mostly on professional elements. Five of my Vietnamese respondents, working in industries as diverse as finance, import/export, and transportation, liked to select their foreign partners and determine foreigners' professional credibility on elements such as reputation and financial abilities. If the foreign negotiator and his company fail to prove their technical abilities and financial capacities early on in the negotiation, there will be no deal. A Western interviewee told me that the trust that his Vietnamese buyers had in him was key in signing contracts, and that the reputation of his company and his own good reputation in Vietnam were important in establishing this trust.

Some argue that this focus on the financial abilities and reputation of a company as criteria of trust is due to past bad experiences and the fear of losing face. According to many of my interviewees and apparently to many in Ho Chi Minh City, in the early days of the *Doi Moi* (back in the late 80's and early 90's) many Vietnamese organizations had unpleasant experiences with "adventurous" Western companies and individuals that went to Vietnam for a quick profit and who thereby exploited Vietnamese people (due to their needs to do business despite a lack of knowledge in market economy). At least three of my Vietnamese interviewees cited this fact as the main reason for their suspiciousness of

foreign companies, their insistence on knowing the financial capabilities of a potential foreign partner and their preference in dealing with companies of international renown. In addition, the respondents of the questionnaire stated that they are slightly suspicious of people's intentions. Three Western interviewees confirmed the importance of face in negotiations; their Vietnamese negotiating counterparts constantly made sure that they would not lose face and they believed that this aspect of the Vietnamese culture dictates, to a large extent, behaviors in business negotiation.

Another factor that could explain the emphasis placed on the objectives central to this hypothesis is the Vietnamese lack of business knowledge. As we know, Vietnam has been an isolated communist country for decades and its people do not have an instinctive understanding of market economy rules. And they know it; the respondents admitted that they consider North American business norms and practices superior to those of the Vietnamese and that North American negotiators were more effective than Vietnamese negotiators. Three of my interviewees (Vietnamese and North American) mentioned that the general lack of business knowledge among Vietnamese is one of the key elements creating problems in negotiation with foreigners. This gives the Vietnamese even more reason to make sure that their foreign partners will not take advantage of them.

Although the questionnaire results do not entirely support H2, it would be inappropriate to reject this hypothesis altogether. Evaluating the trustworthiness of the foreign party is certainly one of the most important relationship objectives of the Vietnamese negotiator; but it is part of a larger goal. The Vietnamese negotiator wants to make sure that he will not be in a situation in which he might lose face. This is quite consistent with the literature concerning negotiation in South-East Asia, and it can be explained by two major



factors. First, the Vietnamese lack a general understanding of market rules and have suffered bad experiences because of this, which makes them more suspicious. Second, face is an important concept in Vietnam, as in the rest of South-East Asia and it will dictate many of the Vietnamese behaviors.

### **C - Hypothesis 3**

*H3: A Vietnamese negotiator will have different relationship objectives depending on the relative status of the other party.*

Apart from one exception, the statistical analyses do not provide any significant results supporting this hypothesis.<sup>33</sup>

In light of these invalidating results, one wonders if status is as important a variable in relationships in Vietnam as was postulated. It has been seen in the literature review of the Vietnamese culture that status is an important variable in relations in Vietnam, and the business literature cites numerous examples of how status influences business behaviors in South-East Asia. Even the questionnaire's respondents strongly agreed that status and prestige are important in life and they also agreed that doing favors for people who cannot return them (which can be interpreted as people of little power / low status) is a waste of time. One's status, manifested through external symbols such as age and wealth, will definitely influence the way Vietnamese people will perceive a person and behave towards him. One of my Vietnamese interviewees admitted that his compatriots, because of

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<sup>33</sup> See Chapter VI, C, 2.

their lack of business knowledge and lack of access to information, will sometimes rely on apparent symbols of status to judge the seriousness and trustworthiness of a foreign businessman. In fact, one of the reasons that the CIDA project I was presenting at the University of Ho Chi Minh City and the University of Can Tho received little attention from the members of these institutions was due to my relatively low status, which undermined the importance of the project. The following is a short story that illustrates the impact that status can have on determining relationships between people. I was lunching with a young subordinate of one of my Vietnamese contacts. He was very humble and respectful, asking few questions and listening attentively to my stories. At one point in the conversation he asked me my age, and we discovered that I was six months younger than he. He had thought that I was older, and as soon as he found out I was six months younger than he, his behavior changed quite suddenly. While still being very polite and respectful, he became more confident in his speech, started to give me advice on how to do things in Vietnam, and insisted on paying for lunch even though I had invited him.

In light of these arguments, we cannot say that status is of little importance despite the lack of support of hypothesis H3 in the test results. It is possible that the manipulation of the questionnaire was not successful for this hypothesis. An explanation can also be found somewhere else.

In business relationships, status is not the most important factor. One of my Vietnamese interviewees defined status as the social reputation that is associated with a job title and function; and although he agreed that status is important when dealing with people in Vietnam, he considered prestige - the social reputation that comes with real responsibility and power - as more important in Vietnam. In fact, a North American

interviewee told me that, although in a Vietnamese team the person with the most status is most likely to be the one that makes the decisions, one of his negotiating tactics is to identify the person on the Vietnamese team that has most power and knowledge - not necessarily the one with the most status - and to befriend him as he is often the one that influences the decision. Such comments lead one to believe that, although status will be an influential factor in determining the behaviors of the Vietnamese (e.g. to show respect to the person with higher status), the status of a person does not necessarily represent his power or real authority. There is another story illustrating this point: one day, I was invited to lunch by one of my Vietnamese contacts to celebrate a proposal presented by a North American businessman. The director of the Vietnamese organization was present at the lunch; in appearance he was the one in control. But, when the American left at the end of the lunch, the Vietnamese party started to talk about the project and the director was not included in the conversation and left. Apparently, the real power in this organization was held by two of the vice-directors, not by the director.

Another possible explanation is that status, although important in determining relationships between Vietnamese people, is not as important in relations with foreigners. According to most of my North American interviewees, foreigners, Westerners especially, have a different status than locals. Although factors such as age, title and position still matter, the status of a foreigner is not evaluated in the same way as it is for a Vietnamese. In general, all variables being equal, a foreign businessperson will have a higher status than a Vietnamese businessperson. This explains why the questionnaire's respondents thought that, across all scenarios, the North American businessmen described in the scenarios were an appropriate choice in the negotiation situations.

To summarize, status does affect the behavior of the Vietnamese people; and, as we have seen in the literature review of the Vietnamese culture, it also affects the type of personal relationship that will be developed between two Vietnamese people. However, it does not seem to affect the relationship objectives (at least not the ones that were presented to our respondents) that the Vietnamese have concerning their foreign business partners. In fact, two of my Western interviewees who had been living and/or negotiating in Vietnam for many years said that, although the behaviors can be different depending upon the status of the parties involved, *the content of the interaction stays the same*. I believe this can be explained mostly by two interacting factors. First, all negotiators have a similar reason for interacting,<sup>34</sup> therefore Vietnamese businessmen might have similar relationship objectives toward their negotiating counterpart, whatever his status. Second, foreigners are perceived by societies as out-group members, and this even more so for Westerners in Vietnam since it was isolated from the West for so long. Since people appraise out-group members differently than in-group members (Pornpitakpan 1993, Tajfel 1978), status might have less of an effect in relationship development between Westerners and Vietnamese than it does in relations between Vietnamese people. From the combination of these two factors, we can infer that Vietnamese negotiators will have specific relationship objectives when negotiating with Westerners, and that status does not affect these relationship objectives. This hypothesis is supported by the results we found in this section and in the previous section, which shows the predominant need of the Vietnamese to save face when negotiating with foreigners, across different negotiating situations and status differentials.

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<sup>34</sup> According to Hostede (1989), a universal characteristic of negotiation is the common need of the negotiator for an agreement because of the expected gain they will obtain from such an agreement.

## **D - Discussion**

This paper reveals some useful information about relationship development in negotiation in Vietnam. Of course, these results are bound by the limitations of the research methods employed to collect the data used in this analysis.<sup>35</sup> Nevertheless, the analysis provided us with formal and structured information on the subject of this research. Naturally, relationship development between Vietnamese and North American negotiators embodies much more than what was covered in these three hypotheses. This research would be incomplete without at least mentioning other major factors that influence relationship development between Vietnamese and foreign business people. Not surprisingly, these factors are the very same elements that differentiate Vietnamese business culture from North American business culture.

**Different status of foreigners** - As we have seen previously, foreigners are always seen as out-group members of a society, and therefore are often stereotyped and attributed specific status. However, this phenomena is enhanced in the case of North Americans in Vietnam because of this country's long isolation from the Western world. Some of my North American interviewees confirmed my own observations that Western businesspeople, especially North Americans, have a higher status in Vietnam than do local businesspeople (see section three of this chapter). For a Vietnamese, it is often a source of prestige to befriend a North American businessman. The results of the questionnaire (questions 9, 10, 11, 25 and 26) show positive attitudes concerning the development of

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<sup>35</sup> The most important limitations are: the relative inexperience of the questionnaire's respondents in negotiation with foreigners (although most Vietnamese public servants, workers and even business people are in a similar situation), the limitations of using a questionnaire (lack of context), the non-representation of the interviews, and the bias of my own observations.

personal relationships with North American businessperson. To summarize, it seems that Vietnamese people are inclined to develop personal relationships with North Americans.

**Economic needs of the Vietnamese** - Although Vietnam has one of the fastest growing economies in the world, with a GNP per capita of \$200,<sup>36</sup> it is also one of the poorest. Often, the Vietnamese negotiator will be in a situation in which he is dependent upon the other party for technology or capital. In such cases, the Vietnamese party will often continue the negotiation even if his relationship needs or other cultural-based needs are not satisfied. This kind of situation is quite common in developing countries. I have cited extracts from interviews showing that some Western businessmen were able to do business "their way" because their Vietnamese partners had no other alternatives. It should be noted however, that this kind of attitude does not necessarily facilitate the negotiation. Not surprisingly, Vietnamese negotiators react quite differently when they have alternatives, or when they have less of a need for the project to be successfully negotiated. I have seen the failure of a major investment project from a very large American company because the Vietnamese parties involved were constantly offended by the (unintentional) condescending behavior of the American negotiating team. Although the project was fairly large, there were already two similar foreign investments in Vietnam and the added value of a third investment was minimal.

**Unsettled environment** - Vietnam is going through an unsettled economic, political and social period. During such times, traditional Vietnamese cultural values are not valid predictors of people's actions (see Swidler 1986) since the Vietnamese have to develop

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<sup>36</sup> *Market information report on construction infrastructure development in Vietnam* (1994), Canadian Embassy of Vietnam, Hanoi, Vietnam.

new patterns of behavior to adapt to a market economy and its consequences. However, in Vietnam, there is no collective experience in this domain. Therefore, each Vietnamese is developing these new schema depending on his own background, education, personality, personal beliefs, experience, etc... The result is that there is a lack of consistency in the way Vietnamese people approach business negotiation. One of my Vietnamese interviewees, who has been living in both North America and Vietnam for the past twenty years, explained this phenomena very clearly. He said that, although there are stable and shared patterns of interaction between Vietnamese businesspeople, this is not the case when dealing with foreigners. Each will have his own way of negotiating and developing relationships with foreign businesspeople. For some, the traditional emphasis on good relationships between business partners is still important, others stress the personal gains that they can acquire from the deal, etc.

**Lack of common knowledge and experience in business negotiation<sup>37</sup>** - As explained above, there are no culturally defined and accepted rules of negotiating with foreign businesspeople. In addition, the Vietnamese do not know how to negotiate in a market economy. The negotiating experiences of the Vietnamese were developed during wars (win-lose negotiations) and during the centrally-planned economy (political-based negotiations). Many of my interviewees mentioned the fact that older Vietnamese people often negotiate as if they were in a war situation; there has to be a loser and there has to be a winner. As one of my interviewees said: "[The Vietnamese] have to have the last advantage, even if there is no advantage left." In such cases, negotiations will be long and meticulous. Also common to the Vietnamese is the lack of understanding of money-related

concepts. Many Vietnamese business people assume foreign business people and companies to be wealthy (it is a phenomena quite common in developing countries), however, contrary to most countries, they often do not understand how a company's wealth is created, how capital is acquired, etc... This can be troublesome in negotiation situations. At least three of my interviewees (two Westerners and one Vietnamese) mentioned negotiations that encountered difficulties because of such circumstances.

**Different conception of working relationships** - As stated before, the way Vietnamese business people conceive good working relationships is quite different from how North Americans do. The concept of a good working relationship in Vietnam includes some elements that are part of personal relationships or friendships in North America. Since the Vietnamese concept of relationships is influenced by Confucianism and Buddhism, it is quite similar to other South-East Asian countries. In general, a good working relationship will have the following characteristics:

- It will be harmonious. As always, face and harmony are crucial elements in relationship in Asia, and good business partners should not disrupt the harmony of the relationship. Problems are resolved, but they are not openly expressed.
- It will respect the status differential of the parties in question. Having a good working relationship is possible between people of different status, however the party of lower status must show the proper respect to the party of higher status. The informality present in most business relationships in North America is definitely not appreciated.

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<sup>37</sup> The elements listed in this paragraph affect the substantive issues of the negotiation, but they can create situations that will affect the relationship between the negotiators if the foreign party does not understand the causes of such problems.



- It will be friendlier and closer than business relationships are in North America. And the informal activities that Vietnamese businesspeople like to do with their partners will reflect this.

**The importance of face** - As in most South-East Asian cultures, face is a key concept in explaining the behaviors of the Vietnamese. We have already seen this in detail, so I will not repeat myself. I will just note this one particularity: the Vietnamese react extremely negatively to any form of condescension (conscious or otherwise), as it will cause loss of face. For example, although the Vietnamese know that they lack knowledge in business and might even talk about it, a foreigner must not openly broach that subject.

The variables listed above influence relationship development in negotiation between Vietnamese and North American businesspeople. Of course, these factors will change as the Vietnamese society develops and stabilizes, and as Vietnamese people gain more experience in business. The Vietnamese society will develop culturally based patterns of interaction with foreigners that will be collectively shared, as is the case in Japan or China. Approaches to negotiation and relationship development, while still being specific to Vietnam's cultural characteristics, should then be closer to those of Vietnam's neighbors.

Naturally, much work needs to be done to have a satisfactory understanding of the way the Vietnamese negotiate. First, it will be necessary to determine how the building of relationships between Vietnamese businesspeople and their partners evolves as Vietnam becomes a developed country. Second, this study focuses only on one aspect of negotiation; it does not consider the negotiating strategies used by the Vietnamese. To fully comprehend how the Vietnamese negotiate, we must study both how they approach

relationships *and* substantive issues in negotiation. Some of the findings of this research suggest <sup>38</sup> that the Vietnamese negotiate substantive issues differently than North Americans; and it would be interesting to investigate what kind of negotiating strategies the Vietnamese employ and how this will evolve with the maturation of the Vietnamese business environment.

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<sup>38</sup> See, in this section, "Unsettled environment", "Lack of common knowledge and experience in business negotiations" and "The importance of face."

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## **APPENDIX A - QUESTIONNAIRE - NEGOTIATION IN VIETNAM**

### **INTRODUCTION**

The objective of this research is to improve understanding between North American and Vietnamese businessmen. You will be asked various questions about yourself, your opinions and how you would react in certain situations. Please give us your straightforward and honest opinions when answering this questionnaire. You are free to make any assumptions you feel necessary. Please answer every question.

Your participation in this study is anonymous as the investigators will not know your name. No one else other than the investigators will have access to the data. There is no obligation to participate in this study --the participation is strictly voluntary. Once you finish and return the questionnaire, we assume that you agree to participate in this study.

We appreciate your time and effort. Should you have any questions, please contact Mr. Frederic Chanay at CESAIS (tel: 231-589). Thank you very much.

### **PART I - Respondents' Characteristics**

1 - Please indicate your age: \_\_\_\_\_

2 - Please indicate your nationality: Vietnamese ☐ Other: \_\_\_\_\_

3 - Please indicate your gender: Male ☐ Female ☐

4 - What is your level of highest education achieved so far? [Please check the appropriate box]

☐ Lower than a Bachelor degree

☐ Bachelor degree

☐ Master's degree

☐ Ph.D. or post-doctoral degree

5 - How many years of work experience do you have? \_\_\_\_\_

(Note: full-time students were asked not to answer questions 5 to 8)

6 - In which industry are you working?

- ☐ Trading
- ☐ Manufacturing
- ☐ Government
- ☐ Sales
- ☐ Financial services
- ☐ Other [please specify] \_\_\_\_\_

7 - Please indicate your position in your organization?

- ☐ Owner
- ☐ Top-level
- ☐ Upper-middle level
- ☐ Lower-middle level
- ☐ Junior
- ☐ Other

8 - How often do you have professional contacts with foreigners?

[Please circle the appropriate number]

None            1            2            3            4            5            Daily

## PART II - Perceptions and knowledge of North Americans.

9 - How do you rate North American business norms and practices as compared to Vietnamese business norms and practices?

North American norms	1	2	3	4	5	Vietnamese norms & practices are superior
----------------------	---	---	---	---	---	---

10 - How do you rate North American negotiators as compared to Vietnamese negotiators?

North American negotiators are more effective	1	2	3	4	5	Vietnamese negotiators are more effective
---	---	---	---	---	---	---

11 - In your opinion, how trustworthy are North American business people as compared to Vietnamese business people?

North American are more trustworthy	1	2	3	4	5	Vietnamese are more trustworthy
-------------------------------------	---	---	---	---	---	---------------------------------

12 - How often you had business dealings with North American business people?

Very often	1	2	3	4	5	Never
------------	---	---	---	---	---	-------

13 - How knowledgeable are you about North American customs and behaviors?

Very knowledgeable	1	2	3	4	5	Not at all knowledgeable
--------------------	---	---	---	---	---	--------------------------

14 - How much have you traveled to Western countries?

Frequently	1	2	3	4	5	Never before
------------	---	---	---	---	---	--------------

15 - If you have stayed or traveled abroad, please shortly indicate the countries, the length of time and the reasons of your travel in each country.

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### Part III - Status & Relationship check

Please tell us how much you agree with these general statements.

16 - In life it is very important to obtain status and prestige.

Strongly agree      1      2      3      4      5      Not agree at all

17 - The older you are, the more knowledgeable you are.

Strongly agree      1      2      3      4      5      Not agree at all

18 - A person's worth is determined by his connections with other people.

Strongly agree      1      2      3      4      5      Not agree at all

19 - A person's position in his job always reflects his professional abilities.

Strongly agree      1      2      3      4      5      Not agree at all

20 - Even people who appear friendly to you may be unreliable because they are mainly concerned with their own interest.

Strongly agree      1      2      3      4      5      Not agree at all

21 - Most people are not always straightforward and honest when their own interests are involved.

Strongly agree      1      2      3      4      5      Not agree at all

22 - Doing favors for people who are not in a position to return them is a waste of time.

Strongly agree      1      2      3      4      5      Not agree at all

23 - You should not have anything to do with people you do not approve of.

Strongly agree      1      2      3      4      5      Not agree at all

## **Part IV - Scenarios - Relationship Objectives**

### **Scenario 1: (Vietnamese and North American managers are of same status)**

ABC Corporation is a major American construction company. It is interested in building a trading center in Ho Chi Minh City (HCM City). It has sent a representative delegation on behalf of the company to negotiate the contract with the Vietnamese government and the potential Vietnamese joint venture partner, XYZ Inc.

Mr. Duc is the Director of the potential Vietnamese joint venture partner. He is a middle age man (45 to 50 years old), with an excellent reputation as a businessman in HCM City and is well respected for his many successful accomplishments. Mr. Duc has expressed a personal interest in meeting the representative of ABC Corp. upon his arrival in HCM City.

ABC Corp. has sent Mr. John Smith, the Director of ABC Corp. for all Asian operations, to Vietnam. Mr. Smith is the same age as Mr. Duc. He has developed contacts in many countries, including Vietnam, in his long and successful business career in Asia.

Mr. Duc and Mr. Smith are now meeting for the first time in Mr. Duc's office.

### **Scenario 2: (the Vietnamese businessman is of higher status)**

ABC Corporation is a major American construction company. It is interested in building a trading center in Ho Chi Minh City (HCM City). It has sent a representative delegation on behalf of the company to negotiate the contract with the Vietnamese government and the potential Vietnamese joint venture partner, XYZ Inc.

Mr. Duc is the Director of the potential Vietnamese joint venture partner. He is a middle age man (45 to 50 years old), with an excellent reputation as a businessman in HCM City and is well respected for his many successful accomplishments. Mr. Duc has expressed a personal interest in meeting the representative of ABC Corp. upon his arrival in HCM City.

ABC Corp. has sent to Vietnam Mr. Tim Bennett, the newly promoted manager of project development for Asia. Mr. Bennett is relatively young (30 to 33 years old) and it is his first time in Vietnam.

Mr. Duc and Mr. Bennett are now meeting for the first time in Mr. Duc's office.

**Scenario 3: (the Vietnamese businessman is of lower status)**

ABC Corporation is a major American construction company. It is interested in building a trading center in Ho Chi Minh City (HCM City). It has sent a representative delegation on behalf of the company to negotiate the contract with the Vietnamese government and the potential Vietnamese joint venture partner, XYZ Inc.

ABC Corp. has sent Mr. John Smith, the Director of ABC Corp. for all Asian operations, to Vietnam. Mr. Smith is 45 to 50 years old. He has developed contacts in many countries, including Vietnam, in his long and successful business career in Asia.

Mr. Tong is the manager of the foreign investment department of the DEF bank, a Vietnamese bank that ABC Corp. and XYZ Inc. are thinking of using to set up the Joint Venture. Mr. Tong is 35 years old and has held his present position since the creation of the bank 3 years ago. He has good experience working with Multi National Corporations.

Mr. Tong and Mr. Smith are now meeting for the first time in Mr. Tong's office.

\*\*\*\*\*

Please answer the following questions as if you were the Vietnamese businessman described in the above scenario:

24 - Below is a list of different objectives that the Vietnamese businessman might have for his first meeting with the foreign businessman. Please assign 100 points among the different objectives listed below, giving the most points to the objective that you consider the most important in this situation, etc. You can give a similar amount of points for two or more objectives, but only if you consider them of equal importance. Please, read all the objectives before assigning any points.

a - You will try to evaluate how trustworthy the North American businessman can be by developing your knowledge of his personal characteristics.

[i.e.- know his values and attitudes, his understanding and respect of the Vietnamese culture; look for continuity in his behaviors, values, and attitudes; etc.]

\_\_\_\_\_

b - You will try to evaluate how trustworthy the North American businessman can be by developing your knowledge of his professional characteristics.

[i.e.- know his technical expertise, his experience, his reputation, his commitment to the project, the organization for which he works, his knowledge of the Vietnamese law and economic systems, etc.]

\_\_\_\_\_

c - You will try to strengthen your negotiating position to achieve your negotiating objectives.

[i.e.- get information about the North American negotiation position, play on your strengths (access to license or other), convince him to make concessions by showing the advantages of dealing with you, etc.]

\_\_\_\_\_

d - You will try to establish a comfortable atmosphere to facilitate the negotiation through easier communication and conflict resolution.

[i.e.- be open and give information about your position, make concessions early in the negotiation, etc.]

\_\_\_\_\_



e - You will try to develop a personal relationship with the North American businessman to facilitate the negotiation.

[i.e.- invite him out, communicate on non-professional matters, try to be accepted by him; develop mutual understanding and respect, etc.]

\_\_\_\_\_

f - You will try to develop a personal relationship with the North American businessman to build a basis for a possible long term business partnership.

\_\_\_\_\_

g - You will make sure that your needs and image are respected throughout the negotiation and that they will be reflected in the final deal.

[i.e.- do not let the North American businessman gain more than you think he deserves, make sure that the importance of your position and organization is understood by the foreign businessman, etc.]

\_\_\_\_\_

total 100

\*\*\*\*\*

25 - Do you think the North American businessman is an appropriate choice to negotiate this project?

Very much appropriate 1 2 3 4 5 Not at all appropriate

26 - Would you be interested in developing a personal relationship with this North American businessman?

Very much 1 2 3 4 5 Not at all

## Part V - Test: Relationship and Negotiation Outcomes

27 - How important do you think it is to have a good personal relationship with a foreign businessman in order to do business with him?

Very Important 1      2      3      4      5      Not Important at all

28 - Will your negotiating strategy be affected by the degree of personal relationship you have with a foreign businessman?

Very much      1      2      3      4      5      Not at all

29 - Would you be more apt to go to great lengths for a foreign business partner with whom you have a good relationship than with one you do not?

Very much      1      2      3      4      5      Not at all

30 - Would your answer in question #29 be the same if your own interest were at stake?

Very much the same      1      2      3      4      5      Not the same at all

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

## **APPENDIX B - INTERVIEW APPROACH**

My approach and behaviors changed depending on the difference of status with the interviewee, the degree of mutual knowledge and whether the interviewee was Vietnamese or not. However, this check list (in note form) covers the kind of information I wanted to solicit from my interviewee.

### **Introduction of the Research:**

- The subject of the research is to develop an understanding of Vietnamese culture among Western businessmen.
- There is no better answer, no good or bad answer. If not comfortable answering a question, don't. I need answers that reflect what you really think and do.
- Confidentiality of the interview.

### **I - General questions**

- 1- Description: name, education age, work experience, language(s) spoken, work experience outside Vietnam.
- 2- Present job in Vietnam: functions, responsibilities, organization work for and its mission.
- 3- What kind of professional interaction you have with foreigners [or Vietnamese, this will be assumed for the rest of this form]
  - how often
  - formal vs. informal (examples)
  - what kind of persons (functions, age, experience, etc..)
- 4- Experiences in negotiation with foreigners.
  - how many and when
  - what kind of projects and organizations negotiated with
  - time frame of the negotiations
  - frequency of contacts

## II - Narrative of negotiation experience

### 1- Choice of the narrative(s).

- I would like to know about your experience in one or two of your business negotiation.
- Why did you choose this (these) negotiation(s) and in which way it is (they are) exceptional or typical, good or bad?

### 2- Description of the project in negotiation and the parties present

- What project was negotiated?
- What was your function and responsibility in this negotiation? The goal of your organization? The goal of the foreign organization in the project?
- Importance of the project for you and your organization?
- Perception of the foreign organization (e.g. reputation, wealth, experience in similar project. etc.)
- What was the age and experience of the foreigner negotiator(s)? Degree of authority in the project?

### 3- Description of the pre-negotiation, contacts, first meeting.

- How did you first learn about this project?
- When & how did you first meet the foreign negotiator(s)?
- Was he (they) introduced by someone else that you knew? appreciated?
- The first time you met, what happened? what was done?
- What was important for you to achieve during this first meeting?
- Was the first meeting important in setting the tone of the negotiation? Was it representative of the tone of the rest of the negotiation?

### 4- Outcomes of the negotiation (project).

- Did the project negotiation fail or succeed? (need criteria of success or failure)
- Did the get project started or not? It is still going on if it did?

### 5 - How the relationship affected the negotiation outcomes

- Can you please define the relationship you had with the foreigner(s)? (degree of friendship, comfort, extra-work relationship, still going on, etc.).
- Did you share any non formal activities? (define non-formal) What kind?

- Were you satisfied by the type of relationship developed?
- If relationship was positive, what contributed to its development, what did you like about the foreigner(s)?
- If relationship was negative, why, what stopped you from developing a good relationship?
- Were the project outcomes affected by the relationship, how? (if project went through good/bad times and was saved/failed because of the good/bad relationship)
- Did the project go through difficult times / failure because of unsatisfactory behavior or attitudes from you or the other party? What were the causes of that problem? (e.g. inadequate age, experience or technical competency, non compatible personality, etc.)

#### 6- Negotiating strategy and cultural adaptation

- Did you prepare yourself to deal with the foreigner negotiator(s)? Why or why not?
- If yes, how?
- In general - do you have the same approach with Vietnamese and with foreigners ? Why or why not? What are the differences?
- How do you think the foreigner negotiator(s) perceived and appreciated your approach to negotiation (cultural adaptation)?
- Was your negotiating strategy influenced by the type of relationship you had with the foreigner(s)? Of the status of the foreigners? (other variables?)

#### 7- Perception of the foreigner negotiator(s) and his negotiating approach.

- Do you feel the foreigner negotiator(s) was competent in the negotiation? Why or why not? (age, experience, understanding of your culture, technical knowledge...)
- Did you perceive the foreigner to be an adequate choice for this negotiation? Why or why not?
- How would you define the status of the foreigner? (examples, explanations)
- How much did you expect the foreigners to adapt to your culture and way of doing business? Why?
- How did the other party actually adapt to your culture? (examples)
- Did this satisfy you? Why or why not?
- Overall, were you satisfied with the behaviors and attitudes of the foreigner? (examples, reaction to them)

### **III - Conception of relationship in business negotiation**

#### **1- Conception of business relationship.**

- How do you define a good working business relationship?
- What characteristics are especially important for you in a business relationship?
- Do you think that you need to have a good personal relationship with a person in order to do business with him? (Define good and personal)
- Elements looked for in a business relationship (technical competency, willingness to succeed in the project, personal affinities, etc. see relationship objectives in the questionnaire)
- Will you try to get to know a person personally before or during negotiating with him? If yes, how will you get to know him?

#### **2- Status and Relationship.**

- On which characteristics do you define the status of a person? Is it the same for a foreigner?
- How would the difference of status between you and another businessman affect the development of a personal relationship? Professional relationship?

#### **3- Do you have any good personal relationships with a foreign business partner? (define personal and good)**

- description of the foreigner
- context of the business relationship.
- characteristics of the personal relationship.

#### **4- Difference between negotiation in Vietnam and the rest of Asia.**

In your opinion, what makes business negotiation in Vietnam different than in the rest of Asia?

#### **5- What advice you would give to a foreign businessman coming in Vietnam.**

(general and negotiation specific).

## **APPENDIX C - STATISTICAL RESULTS**

Here is a list of the variable names used in the statistical analysis, their signification and their corresponding question numbers in the questionnaire.

<b>Variable Name</b>	<b>Signification</b>	<b>Question Number</b>
AGE	age of the respondent	1
NATION	nationality	2
GENDER	gender	3
EDU	level of education	4
WORK_EXP	number of years of work experience	5
INDU	industry of work	6
POSITION	position in his/her organization	7
CONTACT	frequency of professional contacts with foreigners	8
PERCEP1	perception of North American businessmen	9
PERCEP2	perception of North American businessmen	10
PERCEP3	perception of North American businessmen	11
PERCEP4	frequency of dealing with North American people	12
PERCEP5	knowledge of North American culture	13
PERCEP6	frequency of travel in western countries	14
PERCEP8	combination of PERCEP1,2 and 3	-
TRAVEL	travel abroad	15
STATUS1	importance and conception of status	16
STATUS2	importance and conception of status	17
STATUS3	importance and conception of status	18
STATUS4	importance and conception of status	19
REL1	conception of relationship	20
REL2	conception of relationship	21
REL3	conception of relationship	22

REL4	conception of relationship	23
NEGO1	importance of relationship in negotiation	27
NEGO2	importance of relationship in negotiation	28
NEGO3	importance of relationship in negotiation	29
NEGO4	importance of relationship in negotiation	30
SCN	type of status scenarios (1,2 or 3)	N/A
PERC_A (also B to G)	number of points attributed to objective A system also valid for objectives B to G	24
PERC_A2 (also B2 to G2)	ranking attributed to objective A system also valid for objectives B to G	24
FEEL1	reaction to the North American businessman described in the scenario	25
FEEL2	reaction to the North American businessman described in the scenario	26
<p>Note: As explained in the chapter "Data analysis", some of these variables have been recoded for statistical purpose. In such cases, the variable name will be added an extension number, according to the number of values that have been recoded (i.e., if we recode two values of the variable FEEL1, then the name of this new variable will be FEEL1.2). Further explanations will be given when appropriate.</p>		



# 1- RESPONDENTS' CHARACTERISTICS - ALL SAMPLES (Chap 4A)

	Mean	Std Dev	Minimum	Maximum	Valid N
<b>AGE</b>	25.21	5.20	19	45	201
<b>PERCEP4</b>	4.56	0.86	1	5	206
<b>PERCEP6</b>	4.81	0.74	1	5	207

## GENDER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Male	1	106	50.7	51.7	51.7
Female	2	99	47.4	48.3	100.0
.	.	4	1.9	Missing	
Total		209	100.0	100.0	
Valid cases	205	Missing cases	4		

## NATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Vietnamese	1	206	98.6	100.0	100.0
.	.	3	1.4	Missing	
Total		209	100.0	100.0	
Valid cases	206	Missing cases	3		

## EDU

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
High School	1	122	58.4	59.5	59.5
Bachelor	2	79	37.8	38.5	98.0
Master	3	2	1.0	1.0	99.0
Ph.D or higher	4	2	1.0	1.0	100.0
.	.	4	1.9	Missing	
Total		209	100.0	100.0	
Valid cases	205	Missing cases	4		

## TRAVEL

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Never travel abroad	0	191	91.4	91.4	91.4
Did travel abroad	1	18	8.6	8.6	100.0
Total		209	100.0	100.0	
Valid cases	209	Missing cases	0		

## 2- RESPONDENTS' CHARACTERISTICS - STUDENT SAMPLE (Chap 4A)

	Mean	Std Dev	Minimum	Maximum	Valid N
<b>AGE</b>	21.97	1.16	19.00	25.00	106
<b>PERCEP 4</b>	4.72	0.79	1	5	109
<b>PERCEP 6</b>	4.96	0.38	1	5	110

### GENDER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Male	1.00	40	36.0	37.4	37.4
Female	2.00	67	60.4	62.6	100.0
	.	4	3.6	Missing	
	Total	111	100.0	100.0	

Valid cases 107 Missing cases 4

### NATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Vietnamese	1.00	108	97.3	100.0	100.0
	.	3	2.7	Missing	
	Total	111	100.0	100.0	

Valid cases 108 Missing cases 3

### EDU

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
High School	1.00	87	78.4	79.1	79.1
Bachelor	2.00	22	19.8	20.0	99.1
Ph.D or higher	4.00	1	.9	.9	100.0
	.	1	.9	Missing	
	Total	111	100.0	100.0	

Valid cases 110 Missing cases 1

### TRAVEL

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Never travel abroad	.00	111	100.0	100.0	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

### 3- RESPONDENTS' CHARACTERISTICS - WORKER SAMPLE (Chap 4A)

	Mean	Std Dev	Minimum	Maximum	Valid N
<b>AGE</b>	28.83	5.56	21	45	95
<b>CONTACT</b>	2.40	1.55	1	5	95
<b>WORK_EXP</b>	6.66	5.68	1	20	98
<b>PERCEP4</b>	4.39	0.91	1	5	97
<b>PERCEP6</b>	4.63	0.98	1	5	97

#### **GENDER**

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Male	1.00	66	67.3	67.3	67.3
Female	2.00	32	32.7	32.7	100.0
		-----	-----	-----	
Total		98	100.0	100.0	

Valid cases 98 Missing cases 0

#### **NATION**

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Vietnamese	1.00	98	100.0	100.0	100.0
		-----	-----	-----	
Total		98	100.0	100.0	

Valid cases 98 Missing cases 0

#### **EDU**

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
High School	1.00	35	35.7	36.8	36.8
Bachelor	2.00	57	58.2	60.0	96.8
Master	3.00	2	2.0	2.1	98.9
Ph.D or higher	4.00	1	1.0	1.1	100.0
.		3	3.1	Missing	
		-----	-----	-----	
Total		98	100.0	100.0	

Valid cases 95 Missing cases 3

#### **TRAVEL**

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Never travel abroad	.00	80	81.6	81.6	81.6
Did travel abroad	1.00	18	18.4	18.4	100.0
		-----	-----	-----	
Total		98	100.0	100.0	

Valid cases 98 Missing cases 0

**INDU**

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Trading	1.00	26	26.5	26.8	26.8
Manufacturing	2.00	21	21.4	21.6	48.5
Government	3.00	26	26.5	26.8	75.3
Sale	4.00	12	12.2	12.4	87.6
Finance	5.00	4	4.1	4.1	91.8
Others	6.00	8	8.2	8.2	100.0
	.	1	1.0	Missing	
	Total	98	100.0	100.0	

Valid cases 97 Missing cases 1

**POSITION**

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Owner	1	9	9.2	10.1	10.1
Top management	2	2	2.0	2.2	12.4
Upper-middle	3	24	24.5	27.0	39.3
Lower-middle	4	30	30.6	33.7	73.0
Junior	5	20	20.4	22.5	95.5
Others	6	4	4.1	4.5	100.0
	.	9	9.2	Missing	
	Total	98	100.0	100.0	

Valid cases 89 Missing cases 9

#### 4- DIFFERENCES between STUDENT & WORKER SAMPLES -

##### A - RATING SCALE QUESTIONS (Chap 4A)

- WORK\_EXP (work experience) by PERCP1.3 (PERCEP1 with values 3, 4 and 5 recoded in 3)

		PERCP1.3			
		Count			
		Exp Val			
			1	2	3
					Row Total
WORK_EXP	0	25	67	18	110
student		27.6	58.5	23.9	53.1%
	1	27	43	27	97
worker		24.4	51.5	21.1	46.9%
Column		52	110	45	207
Total		25.1%	53.1%	21.7%	100.0%

Chi-Square	Value	DF	Significance
Pearson	6.32180	2	.04239
Likelihood Ratio	6.35090	2	.04178
Linear-by-Linear Association	.44439	1	.50501

Minimum Expected Frequency - 21.087

Number of Missing Observations: 2

Since the Pearson test's significance is inferior to 0.05, then we can conclude that the students and the workers answer differently to question 9.

- WORK\_EXP by PERCP2.2 (PERCEP 2 with values 4 and 5 recoded in 4)

		PERCP2.2			
		Count			
		Exp Val			
			1	2	3
					4
					Row Total
WORK_EXP	0	24	49	28	9
student		23.9	47.8	28.7	9.6
	1	21	41	26	9
worker		21.1	42.2	25.3	8.4
Column		45	90	54	18
Total		21.7%	43.5%	26.1%	8.7%
					100.0%

Chi-Square	Value	DF	Significance
Pearson	.16943	3	<b>.98237</b>
Likelihood Ratio	.16933	3	.98238
Linear-by-Linear Association	.09072	1	.76326

Minimum Expected Frequency - 8.435

Number of Missing Observations: 2

- WORK\_EXP by PERCP3.2 (values 4 and 5 recoded in 4)

		PERCP3.2				Row Total
Count		1	2	3	4	
Exp Val						
		1	2	3	4	
WORK_EXP	0	4	41	57	8	110
student		9.0	39.9	53.7	7.4	53.1%
	1	13	34	44	6	97
worker		8.0	35.1	47.3	6.6	46.9%
Column		17	75	101	14	207
Total		8.2%	36.2%	48.8%	6.8%	100.0%

Chi-Square	Value	DF	Significance
Pearson	6.58657	3	<b>.08631</b>
Likelihood Ratio	6.81872	3	.07791
Linear-by-Linear Association	3.16925	1	.07504

Minimum Expected Frequency - 6.560

Number of Missing Observations: 2

- WORK\_EXP by PERCP5.3 (values 1, 2 and 3 recoded in 1)

		PERCP5.3			Row Total
Count		1	2	3	
Exp Val					
		1	2	3	
WORK_EXP	0	37	46	25	108
student		39.0	43.7	25.3	52.7%
	1	37	37	23	97
worker		35.0	39.3	22.7	47.3%
Column		74	83	48	205
Total		36.1%	40.5%	23.4%	100.0%

Chi-Square	Value	DF	Significance
Pearson	.47035	2	<b>.79043</b>
Likelihood Ratio	.47066	2	.79031
Linear-by-Linear Association	.09691	1	.75557

Minimum Expected Frequency - 22.712

Number of Missing Observations: 4

• WORK\_EXP by REL1

		REL1					Row Total
		Count	1	2	3	4	
		Exp Val					
			1	2	3	4	5
WORK_EXP	0	12	36	37	23	3	111
student		9.6	34.0	38.2	21.2	8.0	53.1%
	1	6	28	35	17	12	98
worker		8.4	30.0	33.8	18.8	7.0	46.9%
Column		18	64	72	40	15	209
Total		8.6%	30.6%	34.4%	19.1%	7.2%	100.0%

Chi-Square	Value	DF	Significance
Pearson	8.58014	4	<b>.07249</b>
Likelihood Ratio	8.97359	4	.06176
Linear-by-Linear Association	3.91561	1	.04784

Minimum Expected Frequency - 7.033

Number of Missing Observations: 0

• WORK\_EXP by REL2

		REL2					Row Total
		Count	1	2	3	4	
		Exp Val					
			1	2	3	4	5
WORK_EXP	0	23	37	23	18	8	109
student		22.6	35.3	23.7	18.4	9.0	52.7%
	1	20	30	22	17	9	98
worker		20.4	31.7	21.3	16.6	8.0	47.3%
Column		43	67	45	35	17	207
Total		20.8%	32.4%	21.7%	16.9%	8.2%	100.0%

Chi-Square	Value	DF	Significance
Pearson	.46704	4	<b>.97663</b>
Likelihood Ratio	.46699	4	.97663
Linear-by-Linear Association	.29475	1	.58719

Minimum Expected Frequency - 8.048

Number of Missing Observations: 2

• WORK\_EXP by REL3

		REL3					Row Total
		Count Exp Val	1	2	3	4	
WORK_EXP	0	32	23	24	22	7	108
student		28.9	24.6	22.5	22.5	9.6	53.5%
	1	22	23	18	20	11	94
worker		25.1	21.4	19.5	19.5	8.4	46.5%
Column Total		54	46	42	42	18	202
		26.7%	22.8%	20.8%	20.8%	8.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	2.73597	4	<b>.60294</b>
Likelihood Ratio	2.74322	4	.60167
Linear-by-Linear Association	1.23711	1	.26603

Minimum Expected Frequency - 8.376

Number of Missing Observations: 7

• WORK\_EXP by REL4

		REL4					Row Total
		Count Exp Val	1	2	3	4	
WORK_EXP	0	12	18	32	28	20	110
student		13.8	18.0	31.2	24.3	22.7	52.9%
	1	14	16	27	18	23	98
worker		12.3	16.0	27.8	21.7	20.3	47.1%
Column Total		26	34	59	46	43	208
		12.5%	16.3%	28.4%	22.1%	20.7%	100.0%



Chi-Square	Value	DF	Significance
Pearson	2.39410	4	<b>.66369</b>
Likelihood Ratio	2.40410	4	.66189
Linear-by-Linear Association	.03233	1	.85731

Minimum Expected Frequency - 12.250

Number of Missing Observations: 1

- WORK\_EXP by NEG01.3 (values 3, 4 and 5 recoded in 3)

		NEG01.3			
Count		"			
Exp Val		"			
		"			
		1"	2"	3 "	Row Total
WORK_EXP	0	44	48	19	111
student		40.2	46.1	24.7	53.6%
	1	31	38	27	96
worker		34.8	39.9	21.3	46.4%
Column Total		75	86	46	207
		36.2%	41.5%	22.2%	100.0%

Chi-Square	Value	DF	Significance
Pearson	3.74011	2	<b>.15412</b>
Likelihood Ratio	3.74067	2	.15407
Linear-by-Linear Association	3.05554	1	.08046

Minimum Expected Frequency - 21.333

Number of Missing Observations: 2

- WORK\_EXP by NEG02

		NEG02					
Count		"					
Exp Val		"					
		"					
		"					Row
		1"	2"	3"	4"	5"	Total
WORK_EXP		.....>	.....>	.....>	.....>	.....>	
	0	" 16	" 37	" 24	" 27	" 6	" 110
student		" 13.3	" 33.1	" 28.3	" 25.1	" 10.1	" 53.4%
		.....>					
	1	" 9	" 25	" 29	" 20	" 13	" 96
worker		" 11.7	" 28.9	" 24.7	" 21.9	" 8.9	" 46.6%
		.....~					
	Column	25	62	53	47	19	206
	Total	12.1%	30.1%	25.7%	22.8%	9.2%	100.0%

Chi-Square	Value	DF	Significance
Pearson	7.45877	4	<b>.11354</b>
Likelihood Ratio	7.53111	4	.11035
Linear-by-Linear Association	3.44996	1	.06325

Minimum Expected Frequency - 8.854

Number of Missing Observations: 3

• WORK\_EXP by NEG03

		NEG03					Row Total
		Count	1"	2"	3"	4"	
		Exp Val					
			1"	2"	3"	4"	5"
WORK_EXP	0	"	12	51	34	10	4
student	"	"	16.9	48.4	28.8	10.9	6.0
	"	"					
	1	"	19	38	19	10	7
worker	"	"	14.1	40.6	24.2	9.1	5.0
	"	"					
Column			31	89	53	20	11
Total			15.2%	43.6%	26.0%	9.8%	5.4%
							100.0%

Chi-Square	Value	DF	Significance
Pearson	7.00932	4	<b>.13540</b>
Likelihood Ratio	7.04224	4	.13367
Linear-by-Linear Association	.09775	1	.75454

Minimum Expected Frequency - 5.015

Number of Missing Observations: 5

• WORK\_EXP by NEG04

		NEG04					Row Total
		Count	1"	2"	3"	4"	
		Exp Val					
			1"	2"	3"	4"	5"
WORK_EXP	0	"	12	30	37	17	12
student	"	"	20.0	24.8	35.1	17.8	10.3
	"	"					
	1	"	25	16	28	16	7
worker	"	"	17.0	21.2	29.9	15.2	8.7
	"	"					
Column			37	46	65	33	19
Total			18.5%	23.0%	32.5%	16.5%	9.5%
							100.0%

Chi-Square	Value	DF	Significance
Pearson	10.20600	4	.03710
Likelihood Ratio	10.32625	4	.03528
Linear-by-Linear Association	2.49388	1	.11429

Minimum Expected Frequency - 8.740

Number of Missing Observations: 9

- WORK\_EXP by STATU1.3 (values 3, 4 and 5 recoded in 3)

		STATU1.3			
Count		"			
Exp Val		"			
		"			
		1"	2"	3"	Row Total
WORK_EXP	0	67	35	9	111
student		64.9	31.1	15.0	53.6%
	1	54	23	19	96
worker		56.1	26.9	13.0	46.4%
Column Total		121	58	28	207
		58.5%	28.0%	13.5%	100.0%

Chi-Square	Value	DF	Significance
Pearson	6.39752	2	.04081
Likelihood Ratio	6.46378	2	.03948
Linear-by-Linear Association	2.46721	1	.11624

Minimum Expected Frequency - 12.986

Number of Missing Observations: 2

- WORK\_EXP by STATUS2

		STATUS2				
Count		"				
Exp Val		"				
		"				
		1"	2"	3"	4"	Row Total
WORK_EXP	0	16	37	39	17	111
student		18.1	35.1	35.6	15.9	53.1%
	1	18	29	28	13	98
worker		15.9	30.9	31.4	14.1	46.9%
Column Total		34	66	67	30	209
		16.3%	31.6%	32.1%	14.4%	100.0%

Chi-Square	Value	DF	Significance
Pearson	7.98225	4	<b>.09223</b>
Likelihood Ratio	8.45183	4	.07636
Linear-by-Linear Association	.48687	1	.48533

Minimum Expected Frequency - 5.627

Number of Missing Observations: 0

• WORK\_EXP by STATUS3

		STATUS3											
		Count					Row						
		Exp Val					Total						
		"	1"	2"	3"	4"	5"						
WORK_EXP	"	....."	....."	....."	....."	....."	....."						
	0	"	34	"	32	"	21	"	12	"	10	"	109
student	"	37.4	"	29.0	"	22.1	"	11.6	"	9.0	"	52.7%	
	§	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."</td></td></td></td>	....." <td>....."<td>....."<td>....."</td></td></td>	....." <td>....."<td>....."</td></td>	....." <td>....."</td>	....."	
	1	"	37	"	23	"	21	"	10	"	7	"	98
worker	"	33.6	"	26.0	"	19.9	"	10.4	"	8.0	"	47.3%	
	~	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."<td>....."</td></td></td></td></td>	....." <td>....."<td>....."<td>....."<td>....."</td></td></td></td>	....." <td>....."<td>....."<td>....."</td></td></td>	....." <td>....."<td>....."</td></td>	....." <td>....."</td>	....."	
	Column	71	55	42	22	17	207						
	Total	34.3%	26.6%	20.3%	10.6%	8.2%	100.0%						

Chi-Square	Value	DF	Significance
Pearson	1.73107	4	<b>.78507</b>
Likelihood Ratio	1.73562	4	.78424
Linear-by-Linear Association	.46779	1	.49400

Minimum Expected Frequency - 8.048

Number of Missing Observations: 2

• WORK\_EXP by STATUS4

		STATUS4											
		Count					Row						
		Exp Val					Total						
		"	1"	2"	3"	4"	5"						
WORK_EXP		"	1"	2"	3"	4"	5"						
	0	"	23	"	38	"	23	"	20	"	7	"	111
student		"	28.3	"	31.0	"	25.1	"	18.1	"	8.5	"	53.4%
		§	"										
	1	"	30	"	20	"	24	"	14	"	9	"	97
worker		"	24.7	"	27.0	"	21.9	"	15.9	"	7.5	"	46.6%
		-	"										
	Column		53		58		47		34		16		208
	Total		25.5%		27.9%		22.6%		16.3%		7.7%		100.0%

Chi-Square	Value	DF	Significance
Pearson	6.92992	4	<b>.13964</b>
Likelihood Ratio	7.00006	4	.13589
Linear-by-Linear Association	.06562	1	.79782

Minimum Expected Frequency - 7.462

Number of Missing Observations: 1

Significant T-TESTS for Independent Samples of WORK\_EXP work experience

**REL1**

Variable	Number of Cases	Mean	SD	SE of Mean
student	111	<b>2.7207</b>	1.002	.095
worker	98	<b>3.0102</b>	1.098	.111

Mean Difference = -.2895

Levene's Test for Equality of Variances: F= .010 P= .919

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.99	207	<b>.048</b>	.145	(-.576, -.003)
Unequal	-1.98	197.74	.049	.146	(-.578, -.001)

**NEGO1**

Variable	Number of Cases	Mean	SD	SE of Mean
student	111	<b>1.7838</b>	.744	.071
worker	96	<b>2.0729</b>	.997	.102

Mean Difference = -.2891

Levene's Test for Equality of Variances: F= 3.022 P= .084

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.38	205	<b>.018</b>	.121	(-.528, -.050)
Unequal	-2.33	173.63	.021	.124	(-.534, -.045)

## 5- DIFFERENCES between STUDENT & WORKER SAMPLES -

### A- SCENARIO 1

- Points allocation to relationship objectives

#### ANALYSIS OF VARIANCE

74 cases accepted.

0 cases rejected because of out-of-range factor values.

6 cases rejected because of missing data.

2 non-empty cells.

EFFECT .. WRK\_STU (0=student, 1=worker)

Univariate F-tests with (1,72) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	75.96413	3566.48182	75.96413	49.53447	1.53356	.220
PB	103.13550	9505.95909	103.13550	132.02721	.78117	.380
PC	415.92830	8196.62576	415.92830	113.84202	3.65356	<b>.060</b>
PD	8.81638	4300.54848	8.81638	59.72984	.14760	.702
PE	14.11011	1007.94394	14.11011	13.99922	1.00792	.319
PF	38.13370	5057.82576	38.13370	70.24758	.54285	.464
PG	.94611	2206.14848	.94611	30.64095	.03088	.861

There are no significant differences in the attribution of points to the relationship objectives between the worker and student samples. If there was to be a significant difference, the "Sig. of F" would be inferior to 0.05. Notice that for the objective C (PC in the table), the Sig. of F is 0.06, very close to be significant at alpha=0.05.

T-TESTS for Independent Samples of WRK\_STU. If the Sig. of F for an objective is inferior to 0.05, then the T-test study in detail this difference

#### Variable PC

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0 (student)	44	<b>17.7045</b>	9.429	1.422
WRK_STU 1 (worker)	30	<b>22.5333</b>	12.280	2.242

Mean Difference = -4.8288

Levene's Test for Equality of Variances: F= 1.030 P= .314

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.91	72	<b>.060</b>	2.526	(-9.865, .207)
Unequal	-1.82	51.40	.075	2.655	(-10.157, .500)

• Questions 25 and 26

T-TESTS for Independent Samples of WRK\_STU

**FEEL1**

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	43	<b>2.3023</b>	.832	.127
WRK_STU 1	36	<b>2.5556</b>	.809	.135

Mean Difference = -.2532

Levene's Test for Equality of Variances: F= .067 P= .797

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.36	77	<b>.176</b>	.186	(-.623, .116)
Unequal	-1.37	75.26	.175	.185	(-.622, .115)

**FEEL2**

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	44	<b>2.2273</b>	.985	.149
WRK_STU 1	36	<b>2.2500</b>	.996	.166

Mean Difference = -.0227

Levene's Test for Equality of Variances: F= .002 P= .963

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.10	78	<b>.919</b>	.223	(-.466, .420)
Unequal	-.10	74.55	.919	.223	(-.467, .421)

CROSS-TABS AND CHI-SQUARE ANALYSIS

- WRK\_STU by **FEEL1.3** (values 3, 4 and 5 recoded in 3)

		FEEL1.3			
Count		"			
Exp Val		"			
		"			
					Row
		1.00"	2.00"	3.00"	Total
WRK_STU	0	8	16	19	43
		6.5	14.7	21.8	54.4%
		§.....>			
WRK_STU	1	4	11	21	36





## B- SCENARIO 2

### • Points allocation to relationship objectives

#### ANALYSIS OF VARIANCE

58 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 5 cases rejected because of missing data.  
 2 non-empty cells.

EFFECT .. WRK\_STU  
 Univariate F-tests with (1,56) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	28.09729	2400.67857	28.09729	42.86926	.65542	.422
PB	3.97373	10658.0952	3.97373	190.32313	.02088	.886
PC	846.51240	4979.57381	846.51240	88.92096	9.51983	<b>.003</b>
PD	93.99836	3197.38095	93.99836	57.09609	1.64632	.205
PE	1.89688	1552.72381	1.89688	27.72721	.06841	.795
PF	492.81609	3322.16667	492.81609	59.32440	8.30714	<b>.006</b>
PG	22.37143	4060.12857	22.37143	72.50230	.30856	.581

**There are significant differences in objectives C and F**

#### T-TESTS for Independent Samples of WRK\_STU

##### Variable PC

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	30	<b>12.5333</b>	8.819	1.610
WRK_STU 1	28	<b>20.1786</b>	10.045	1.898

Mean Difference = -7.6452

Levene's Test for Equality of Variances: F= .930 P= .339

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.09	56	<b>.003</b>	2.478	(-12.609,-2.681)
Unequal	-3.07	53.87	<b>.003</b>	2.489	(-12.636,-2.655)

##### PF

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	30	<b>15.8333</b>	8.313	1.518
WRK_STU 1	28	<b>10.0000</b>	6.987	1.320

Mean Difference = 5.8333

Levene's Test for Equality of Variances: F= 3.160 P= .081

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	2.88	56	.006	2.024	(1.779, 9.888)	
Unequal	2.90	55.41	.005	2.012	(1.802, 9.864)	

# • Questions 25 and 26

T-TESTS for independent Samples of WRK\_STU

## FEEL1

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	33	2.2121	.857	.149
WRK_STU 1	29	2.5172	.911	.169

Mean Difference = -.3051

Levene's Test for Equality of Variances: F= .361 P= .550

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	-1.36	60	.180	.225	(-.755, .144)	
Unequal	-1.35	57.87	.181	.226	(-.757, .146)	

## FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	33	1.8485	.712	.124
WRK_STU 1	28	2.3929	1.227	.232

Mean Difference = -.5444

Levene's Test for Equality of Variances: F= 10.740 P= .002

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	-2.16	59	.035	.252	(-1.049, -.039)	
Unequal	-2.07	41.76	.045	.263	(-1.075, -.013)	

There is a significant difference between the means of the two samples in question 26.

# CROSS TABS AND CHI-SQUARE ANALYSIS

- WRK\_STU by **FEEL1.3** (values 3, 4 and 5 recoded in 3)

		FEEL1.3			
Count		"			
Exp Val		"			
		"			Row
		1.00"	2.00"	3.00"	Total
WRK_STU	0	6	17	10	33
		5.3	13.8	13.8	53.2%
	1	4	9	16	29
		4.7	12.2	12.2	46.8%
Column		10	26	26	62
Total		16.1%	41.9%	41.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	4.00476	2	.13501
Likelihood Ratio	4.04357	2	.13242
Linear-by-Linear Association	2.52899	1	.11177

Minimum Expected Frequency - 4.677  
Cells with Expected Frequency < 5 - 1 of 6 ( 16.7%)

Number of Missing Observations: 1

- WRK\_STU by **FEEL2.3** (values 3, 4 and 5 recoded in 3)

		FEEL2.3			
Count		"			
Exp Val		"			
		"			Row
		1.00"	2.00"	3.00"	Total
WRK_STU	0	11	16	6	33
		10.3	13.0	9.7	54.1%
	1	8	8	12	28
		8.7	11.0	8.3	45.9%
Column		19	24	18	61
Total		31.1%	39.3%	29.5%	100.0%

Chi-Square	Value	DF	Significance
Pearson	4.76251	2	.09243
Likelihood Ratio	4.82255	2	.08970
Linear-by-Linear Association	2.12950	1	.14449

Minimum Expected Frequency - 8.262

Number of Missing Observations: 2

### C- SCENARIO 3

#### • Points allocation to relationship objectives

#### ANALYSIS OF VARIANCE

63 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 2 cases rejected because of missing data.  
 2 non-empty cells.

EFFECT .. WRK\_STU

Univariate F-tests with (1,61) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	2.59105	3555.34545	2.59105	58.28435	.04446	.834
PB	.02828	12558.1939	.02828	205.87203	.00014	.991
PC	393.81010	11200.4121	393.81010	183.61331	2.14478	.148
PD	76.26681	6083.00303	76.26681	99.72136	.76480	.385
PE	15.42987	1685.42727	15.42987	27.62996	.55845	.458
PF	17.98110	6434.33636	17.98110	105.48092	.17047	.681
PG	36.50924	3216.76061	36.50924	52.73378	.69233	.409

#### • Question 25 and 26

#### T-TESTS for Independent Samples of WRK\_STU

##### **FEEL1**

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	34	<b>2.3235</b>	.684	.117
WRK_STU 1	29	<b>2.3103</b>	.967	.180

Mean Difference = .0132

Levene's Test for Equality of Variances: F= 2.600 P= .112

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.06	61	<b>.950</b>	.209	(-.404, .431)
Unequal	.06	49.36	.951	.215	(-.418, .444)

##### **FEEL2**

Variable	Number of Cases	Mean	SD	SE of Mean
WRK_STU 0	34	<b>1.8235</b>	.673	.115
WRK_STU 1	29	<b>2.2759</b>	1.162	.216

\*\*\*\*\*

Mean Difference = -.4523

Levene's Test for Equality of Variances: F= 22.736 P= .000

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.92	61	.059	.235	(-.922, .018)
Unequal	-1.85	43.31	.071	.245	(-.946, .041)

#### CROSS-TABS and CHI-SQUARE ANALYSIS

- WRK\_STU by **FEEL1.3** (values 3, 4 and 5 recoded in 3)

		FEEL1.3			
Count		"			
Exp Val		"			
		"			
		1"	2"	3"	Row Total
WRK_STU		" "			

Chi-Square	Value	DF	Significance
Pearson	.95793	2	.61943
Likelihood Ratio	.95733	2	.61961
Linear-by-Linear Association	.40724	1	.52337

Minimum Expected Frequency - 4.603

Cells with Expected Frequency < 5 - 1 of 6 ( 16.7%)

Number of Missing Observations: 2

- WRK\_STU by **FEEL2.3** (values 3, 4 and 5 recoded in 3)

		FEEL2.3			
Count		"			
Exp Val		"			
		"			
		1"	2"	3"	Row Total
WRK_STU		.....	.....	.....	>
	0	" 10 "	" 21 "	" 3 "	34
		" 11.3 "	" 13.5 "	" 9.2 "	54.0%
		g.....>			
1		" 11 "	" 4 "	" 14 "	29
		" 9.7 "	" 11.5 "	" 7.8 "	46.0%
		-.....~			
Column		21	25	17	63

	Total	33.3%	39.7%	27.0%	100.0%	
Chi-Square			Value		DF	Significance
-----			-----		----	-----
Pearson			18.44462		2	<b>.00010</b>
Likelihood Ratio			20.04729		2	.00004
Linear-by-Linear			2.45982		1	.11679
Association						

Minimum Expected Frequency - 7.825

Number of Missing Observations: 2

## 6- GENERAL ANALYSIS OF RANGE QUESTIONS - ALL SAMPLES (Chap 4B)

### A - CONFIDENCE INTERVAL

#### • NEG01

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>1.9144</b>	Std Err	.0636	Min	1.0000
Median	2.0000	Variance	.7561	Max	5.0000
5% Trim	1.8455	Std Dev	.8695	Range	4.0000
<b>95% CI for Mean (1.7890, 2.0399)</b>		IQR	1.0000	Skewness	.7623
				S E Skew	.1777
				Kurtosis	.2085
				S E Kurt	.3536

#### • NEG02

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.8503</b>	Std Err	.0851	Min	1.0000
Median	3.0000	Variance	1.3538	Max	5.0000
5% Trim	2.8336	Std Dev	1.1635	Range	4.0000
<b>95% CI for Mean (2.6824, 3.0181)</b>		IQR	2.0000	Skewness	.1302
				S E Skew	.1777
				Kurtosis	-.8536
				S E Kurt	.3536

#### • NEG03

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.4920</b>	Std Err	.0771	Min	1.0000
Median	2.0000	Variance	1.1115	Max	5.0000
5% Trim	2.4355	Std Dev	1.0543	Range	4.0000
<b>95% CI for Mean (2.3399, 2.6441)</b>		IQR	1.0000	Skewness	.6892
				S E Skew	.1777
				Kurtosis	.0090
				S E Kurt	.3536

#### • NEG04

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.7594</b>	Std Err	.0891	Min	1.0000
Median	3.0000	Variance	1.4848	Max	5.0000
5% Trim	2.7326	Std Dev	1.2185	Range	4.0000
<b>95% CI for Mean (2.5836, 2.9351)</b>		IQR	2.0000	Skewness	.1651
				S E Skew	.1777
				Kurtosis	-.8343
				S E Kurt	.3536

#### • PERCEP1

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>1.9947</b>	Std Err	.0528	Min	1.0000
Median	2.0000	Variance	.5215	Max	4.0000
5% Trim	1.9762	Std Dev	.7221	Range	3.0000
<b>95% CI for Mean (1.8905, 2.0988)</b>		IQR	.0000	Skewness	.2678
				S E Skew	.1777
				Kurtosis	-.3256
				S E Kurt	.3536

#### • PERCEP2

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.2513</b>	Std Err	.0677	Min	1.0000
.6315				Max	5.0000
Median	2.0000	Variance	.8558	Range	4.0000
5% Trim	2.1999	Std Dev	.9251	Skewness	.1777
				S E Skew	.3579
				Kurtosis	



95% CI for Mean (2.1179, 2.3848) IQR 1.0000 S E Kurt .3536  
 • PERCEP3

Valid cases: 187.0 Missing cases: 22.0 Percent missing: 10.5

Mean 2.5294 Std Err .0538 Min 1.0000 Skewness -.2255  
 Median 3.0000 Variance .5408 Max 4.0000 S E Skew .1777  
 5% Trim 2.5327 Std Dev .7354 Range 3.0000 Kurtosis -.2371  
 95% CI for Mean (2.4233, 2.6355) IQR 1.0000 S E Kurt .3536

• PERCEP4

Valid cases: 203.0 Missing cases: 6.0 Percent missing: 2.9

Mean 4.5567 Std Err .0609 Min 1.0000 Skewness -2.1733  
 Median 5.0000 Variance .7530 Max 5.0000 S E Skew .1707  
 5% Trim 4.6842 Std Dev .8677 Range 4.0000 Kurtosis 4.4488  
 95% CI for Mean (4.4366, 4.6767) IQR 1.0000 S E Kurt .3397

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	3	1.4	1.5	1.5
	2	6	2.9	2.9	4.4
	3	15	7.2	7.3	11.7
	4	30	14.4	14.6	26.2
	5	152	72.7	73.8	100.0
	.	3	1.4	Missing	
	Total	209	100.0	100.0	

Valid cases 206 Missing cases 3

• PERCEP5

Valid cases: 203.0 Missing cases: 6.0 Percent missing: 2.9

Mean 3.7143 Std Err .0721 Min 1.0000 Skewness -.7012  
 Median 4.0000 Variance 1.0566 Max 5.0000 S E Skew .1707  
 5% Trim 3.7819 Std Dev 1.0279 Range 4.0000 Kurtosis .1802  
 95% CI for Mean (3.5720, 3.8565) IQR 1.0000 S E Kurt .3397

Valid Cum

• PERCEP6

Valid cases: 203.0 Missing cases: 6.0 Percent missing: 2.9

Mean 4.8030 Std Err .0528 Min 1.0000 Skewness -4.1798  
 Median 5.0000 Variance .5649 Max 5.0000 S E Skew .1707  
 5% Trim 4.9625 Std Dev .7516 Range 4.0000 Kurtosis 17.0132  
 95% CI for Mean (4.6989, 4.9070) IQR .0000 S E Kurt .3397

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	5	2.4	2.4	2.4
	2	3	1.4	1.4	3.9
	3	2	1.0	1.0	4.8
	4	7	3.3	3.4	8.2
	5	190	90.9	91.8	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	

Valid cases: 207 Missing cases: 2  
 • REL1

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.8235</b>	Std Err	.0768	Min	1.0000
Median	3.0000	Variance	1.1031	Max	5.0000
5% Trim	2.8039	Std Dev	1.0503	Range	4.0000
<b>95% CI for Mean (2.6720, 2.9750)</b>		IQR	2.0000	Skewness	.2188
				S E Skew	.1777
				Kurtosis	-.5237
				S E Kurt	.3536

• REL2

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.6203</b>	Std Err	.0900	Min	1.0000
Median	2.0000	Variance	1.5164	Max	5.0000
5% Trim	2.5781	Std Dev	1.2314	Range	4.0000
<b>95% CI for Mean (2.4427, 2.7980)</b>		IQR	2.0000	Skewness	.3740
				S E Skew	.1777
				Kurtosis	-.8652
				S E Kurt	.3536

• REL3

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.5989</b>	Std Err	.0952	Min	1.0000
Median	3.0000	Variance	1.6931	Max	5.0000
5% Trim	2.5544	Std Dev	1.3012	Range	4.0000
<b>95% CI for Mean (2.4112, 2.7866)</b>		IQR	3.0000	Skewness	.2466
				S E Skew	.1777
				Kurtosis	-1.1341
				S E Kurt	.3536

• REL4

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>3.2513</b>	Std Err	.0934	Min	1.0000
Median	3.0000	Variance	1.6300	Max	5.0000
5% Trim	3.2793	Std Dev	1.2767	Range	4.0000
<b>95% CI for Mean (3.0671, 3.4355)</b>		IQR	2.0000	Skewness	-.1686
				S E Skew	.1777
				Kurtosis	-.9921
				S E Kurt	.3536

• STATUS1

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>1.5722</b>	Std Err	.0620	Min	1.0000
Median	1.0000	Variance	.7192	Max	5.0000
5% Trim	1.4712	Std Dev	.8481	Range	4.0000
<b>95% CI for Mean (1.4498, 1.6945)</b>		IQR	1.0000	Skewness	1.6423
				S E Skew	.1777
				Kurtosis	2.6860
				S E Kurt	.3536

• STATUS2

Valid cases:	187.0	Missing cases:	22.0	Percent missing:	10.5
<b>Mean</b>	<b>2.6043</b>	Std Err	.0800	Min	1.0000
Median	3.0000	Variance	1.1974	Max	5.0000
.1777					
5% Trim	2.5603	Std Dev	1.0943	Range	4.0000
<b>95% CI for Mean (2.4464, 2.7621)</b>		IQR	1.0000	Skewness	.3401
				S E Skew	.1777
				Kurtosis	-.5397
				S E Kurt	.3536

- STATUS3

Valid cases: 187.0 Missing cases: 22.0 Percent missing: 10.5

<b>Mean</b>	<b>2.2941</b>	Std Err	.0905	Min	1.0000	Skewness	.6795
Median	2.0000	Variance	1.5313	Max	5.0000	S E Skew	.1777
5% Trim	2.2157	Std Dev	1.2375	Range	4.0000	Kurtosis	-.5365
<b>95% CI for Mean (2.1156, 2.4726)</b>				IQR	2.0000	S E Kurt	.3536

- STATUS4

Valid cases: 187.0 Missing cases: 22.0 Percent missing: 10.5

<b>Mean</b>	<b>2.4920</b>	Std Err	.0924	Min	1.0000	Skewness	.4471
Median	2.0000	Variance	1.5954	Max	5.0000	S E Skew	.1777
5% Trim	2.4355	Std Dev	1.2631	Range	4.0000	Kurtosis	-.8633
<b>95% CI for Mean (2.3098, 2.6742)</b>				IQR	2.0000	S E Kurt	.3536

### B - ALETRNATIVE METHOD

- NEG01.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	161	77.0	77.8	<b>77.8</b>
	2.00	46	22.0	22.2	100.0
	.	2	1.0	Missing	
		-----	-----	-----	
	Total	209	100.0	100.0	
Valid cases	207	Missing cases	2		

- NEG02.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	87	41.6	42.2	<b>42.2</b>
	2.00	119	56.9	57.8	100.0
	.	3	1.4	Missing	
		-----	-----	-----	
	Total	209	100.0	100.0	
Valid cases	206	Missing cases	3		

- NEG03.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	120	57.4	58.8	<b>58.8</b>
	2.00	84	40.2	41.2	100.0
	.	5	2.4	Missing	
		-----	-----	-----	

Valid cases 204 Total 209 100.0 100.0  
 Missing cases 5  
 • NEGO4.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	83	39.7	41.5	<b>41.5</b>
	2.00	117	56.0	58.5	100.0
	.	9	4.3	Missing	
	Total	209	100.0	100.0	

Valid cases 200 Missing cases 9

• PERCP1.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	162	77.5	78.3	<b>78.3</b>
	2	45	21.5	21.7	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	

Valid cases 207 Missing cases 2

• PERCP2.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	135	64.6	65.2	<b>65.2</b>
	2.00	72	34.4	34.8	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	

Valid cases 207 Missing cases 2

• PERCP3.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	92	44.0	44.4	<b>44.4</b>
	2.00	115	55.0	55.6	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	

Valid cases 207 Missing cases 2

- REL1.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	82	39.2	39.2	<b>39.2</b>
	2.00	127	60.8	60.8	100.0
	Total	209	100.0	100.0	
Valid cases	209	Missing cases	0		

- REL2.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	110	52.6	53.1	<b>53.1</b>
	2.00	97	46.4	46.9	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	
Valid cases	207	Missing cases	2		

- REL3.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	100	47.8	49.5	<b>49.5</b>
	2.00	102	48.8	50.5	100.0
	.	7	3.3	Missing	
	Total	209	100.0	100.0	
Valid cases	202	Missing cases	7		

- REL4.4 (1,2,3=1; 4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	119	56.9	57.2	57.2
	2.00	89	42.6	<b>42.8</b>	100.0
	.	1	.5	Missing	
	Total	209	100.0	100.0	
Valid cases	208	Missing cases	1		

- STATU1.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	179	85.6	86.5	<b>86.5</b>
	2.00	28	13.4	13.5	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	

Valid cases 207 Missing cases 2

- STATU2.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	100	47.8	47.8	<b>47.8</b>
	2.00	109	52.2	52.2	100.0
	Total	209	100.0	100.0	

Valid cases 209 Missing cases 0

- STATU3.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	126	60.3	60.9	<b>60.9</b>
	2.00	81	38.8	39.1	100.0
	.	2	1.0	Missing	
	Total	209	100.0	100.0	

Valid cases 207 Missing cases 2

- STATU4.4 (1,2=1; 3,4,5=2)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1.00	111	53.1	53.4	<b>53.4</b>
	2.00	97	46.4	46.6	100.0
	.	1	.5	Missing	
	Total	209	100.0	100.0	

Valid cases 208 Missing cases 1



## 7- INTRA SCENARIO ANALYSIS (Chap 4C,1)

### A - COMPREHENSIVE TABLES

Relation. Objective	ALL SAMPLES					
	SCENARIO 1		SCENARIO 2		SCENARIO 3	
	mean	95 % CI	mean	95 % CI	mean	95 % CI
A	13.5	11.9 - 15.1	12.3	10.6 - 14	14.2	12.3 - 16.1
B	21.2	18.5 - 23.9	22.6	19 - 26.2	22.1	18.5 - 25.7
C	19.6	17.1 - 22.1	16.2	13.5 - 18.9	17.1	13.6 - 20.5
D	13.8	12.1 - 15.6	13.1	11.1 - 15.1	13.6	11.1 - 16.1
E	7.1	6.3 - 8	9.2	7.8 - 10.6	7.6	6.3 - 8.9
F	13.8	11.8 - 15.7	13	10.8 - 15.1	13.8	11.2 - 16.3
G	10.7	9.5 - 12	13.5	11.3 - 15.7	11.7	9.8 - 13.5

### B - SCENARIO 1 - All samples

#### • PA

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 13.5270 Std Err .8211 Min 5.0000 Skewness .6327  
 Median 10.0000 Variance 49.8965 Max 30.0000 S E Skew .2792  
 5% Trim 13.0856 Std Dev 7.0637 Range 25.0000 Kurtosis -.3474  
 95% CI for Mean (11.8905, 15.1636) IQR 10.0000 S E Kurt .5517

#### • PB

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 21.2297 Std Err 1.3337 Min 5.0000 Skewness .7530  
 Median 20.0000 Variance 131.6314 Max 50.0000 S E Skew .2792  
 5% Trim 20.5330 Std Dev 11.4731 Range 45.0000 Kurtosis .3356  
 95% CI for Mean (18.5716, 23.8878) IQR 18.5000 S E Kurt .5517

#### • PC

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 19.6622 Std Err 1.2627 Min .0000 Skewness .6641  
 Median 20.0000 Variance 117.9802 Max 50.0000 S E Skew .2792  
 5% Trim 19.1216 Std Dev 10.8619 Range 50.0000 Kurtosis .1924  
 95% CI for Mean (17.1457, 22.1787) IQR 20.0000 S E Kurt .5517

#### • PD

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 13.8514 Std Err .8932 Min 5.0000 Skewness .6327  
 1.2008  
 Median 10.0000 Variance 59.0324 Max 40.0000 S E Skew .2792  
 5% Trim 13.2958 Std Dev 7.6833 Range 35.0000 Kurtosis 1.1458



95% CI for Mean (12.0713, 15.6314) IQR 10.0000 S E Kurt .5517  
 • PE

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 7.1622 Std Err .4350 Min .0000 Skewness .6725  
 Median 5.0000 Variance 14.0007 Max 20.0000 S E Skew .2792  
 5% Trim 7.0495 Std Dev 3.7418 Range 20.0000 Kurtosis 1.1596  
 95% CI for Mean (6.2953, 8.0291) IQR 5.0000 S E Kurt .5517

• PF

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 13.7973 Std Err .9713 Min 2.0000 Skewness 1.3286  
 Median 10.0000 Variance 69.8077 Max 45.0000 S E Skew .2792  
 5% Trim 13.2057 Std Dev 8.3551 Range 43.0000 Kurtosis 1.8715  
 95% CI for Mean (11.8616, 15.7330) IQR 5.2500 S E Kurt .5517

• PG

Valid cases: 74.0 Missing cases: 6.0 Percent missing: 7.5

Mean 10.7703 Std Err .6392 Min .0000 Skewness .5629  
 Median 10.0000 Variance 30.2342 Max 25.0000 S E Skew .2792  
 5% Trim 10.6081 Std Dev 5.4986 Range 25.0000 Kurtosis -.4655  
 95% CI for Mean (9.4964, 12.0442) IQR 10.0000 S E Kurt .5517

#### C - SCENARIO 2 - All samples

• PA

Valid cases: 58.0 Missing cases: 5.0 Percent missing: 7.9

Mean 12.3276 Std Err .8571 Min 2.0000 Skewness 1.7909  
 Median 10.0000 Variance 42.6101 Max 40.0000 S E Skew .3137  
 5% Trim 11.7912 Std Dev 6.5276 Range 38.0000 Kurtosis 4.9419  
 95% CI for Mean (10.6112, 14.0439) IQR 5.0000 S E Kurt .6181

• PB

Valid cases: 58.0 Missing cases: 5.0 Percent missing: 7.9

Mean 22.5862 Std Err 1.7958 Min 5.0000 Skewness 1.1898  
 Median 20.0000 Variance 187.0538 Max 70.0000 S E Skew .3137  
 5% Trim 21.6571 Std Dev 13.6768 Range 65.0000 Kurtosis 1.4997  
 95% CI for Mean (18.9901, 26.1823) IQR 20.0000 S E Kurt .6181

• PC

Valid cases: 58.0 Missing cases: 5.0 Percent missing: 7.9

Mean 16.2241 Std Err 1.3275 Min 3.0000 Skewness .7502  
 Median 15.0000 Variance 102.2120 Max 40.0000 S E Skew .3137  
 5% Trim 15.6034 Std Dev 10.1100 Range 37.0000 Kurtosis -.3041  
 95% CI for Mean (13.5658, 18.8824) IQR 10.0000 S E Kurt .6181

- PD

Valid cases:	58.0	Missing cases:	5.0	Percent missing:	7.9
<b>Mean</b>	<b>13.1034</b>	Std Err	.9978	Min	5.0000
Median	10.0000	Variance	57.7435	Max	30.0000
5% Trim	12.6149	Std Dev	7.5989	Range	25.0000
<b>95% CI for Mean (11.1054, 15.1015)</b>		IQR	10.0000	Skewness	.9265
				S E Skew	.3137
				Kurtosis	.0239
				S E Kurt	.6181

- PE

Valid cases:	58.0	Missing cases:	5.0	Percent missing:	7.9
<b>Mean</b>	<b>9.2414</b>	Std Err	.6857	Min	2.0000
Median	10.0000	Variance	27.2740	Max	25.0000
5% Trim	8.8180	Std Dev	5.2225	Range	23.0000
<b>95% CI for Mean (7.8682, 10.6146)</b>		IQR	5.0000	Skewness	1.3238
				S E Skew	.3137
				Kurtosis	1.6540
				S E Kurt	.6181

- PF

Valid cases:	58.0	Missing cases:	5.0	Percent missing:	7.9
<b>Mean</b>	<b>13.0172</b>	Std Err	1.0742	Min	.0000
Median	10.0000	Variance	66.9295	Max	40.0000
5% Trim	12.5824	Std Dev	8.1810	Range	40.0000
<b>95% CI for Mean (10.8661, 15.1683)</b>		IQR	15.0000	Skewness	.9040
				S E Skew	.3137
				Kurtosis	.6046
				S E Kurt	.6181

- PG

Valid cases:	58.0	Missing cases:	5.0	Percent missing:	7.9
<b>Mean</b>	<b>13.5000</b>	Std Err	1.1112	Min	.0000
Median	10.0000	Variance	71.6228	Max	36.0000
5% Trim	13.0364	Std Dev	8.4630	Range	36.0000
<b>95% CI for Mean (11.2748, 15.7252)</b>		IQR	15.0000	Skewness	.8078
				S E Skew	.3137
				Kurtosis	-.2537
				S E Kurt	.6181

#### D - SCENARIO 3 - All samples

- PA

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
<b>Mean</b>	<b>14.2540</b>	Std Err	.9544	Min	.0000
Median	15.0000	Variance	57.3861	Max	30.0000
5% Trim	14.0520	Std Dev	7.5754	Range	30.0000
<b>95% CI for Mean (12.3461, 16.1618)</b>		IQR	10.0000	Skewness	.5356
				S E Skew	.3016
				Kurtosis	-.2416
				S E Kurt	.5948

- PB

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
<b>Mean</b>	<b>22.1111</b>	Std Err	1.7931	Min	.0000
Median	20.0000	Variance	202.5520	Max	70.0000
				Skewness	1.1516
				S E Skew	.3016

5% Trim	21.2478	Std Dev	14.2321	Range	70.0000	Kurtosis	1.0826
95% CI for Mean (18.5268, 25.6954)				IQR	20.0000	S E Kurt	.5948

• PC

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
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<b>Mean</b>	<b>17.1111</b>	Std Err	1.7229	Min	2.0000	Skewness	2.6281
Median	15.0000	Variance	187.0036	Max	85.0000	S E Skew	.3016
5% Trim	15.4056	Std Dev	13.6749	Range	83.0000	Kurtosis	9.4952
95% CI for Mean (13.6671, 20.5551)				IQR	10.0000	S E Kurt	.5948

• PD

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
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<b>Mean</b>	<b>13.5873</b>	Std Err	1.2557	Min	3.0000	Skewness	1.8629
Median	10.0000	Variance	99.3431	Max	50.0000	S E Skew	.3016
5% Trim	12.4912	Std Dev	9.9671	Range	47.0000	Kurtosis	3.5279
95% CI for Mean (11.0771, 16.0975)				IQR	9.0000	S E Kurt	.5948

• PE

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
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<b>Mean</b>	<b>7.6190</b>	Std Err	.6599	Min	.0000	Skewness	.9979
Median	5.0000	Variance	27.4332	Max	25.0000	S E Skew	.3016
5% Trim	7.2663	Std Dev	5.2377	Range	25.0000	Kurtosis	1.4854
95% CI for Mean (6.3000, 8.9381)				IQR	5.0000	S E Kurt	.5948

• PF

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
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<b>Mean</b>	<b>13.7937</b>	Std Err	1.2853	Min	.0000	Skewness	1.0548
Median	10.0000	Variance	104.0696	Max	40.0000	S E Skew	.3016
5% Trim	13.0635	Std Dev	10.2015	Range	40.0000	Kurtosis	.7556
95% CI for Mean (11.2244, 16.3629)				IQR	15.0000	S E Kurt	.5948

• PG

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
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<b>Mean</b>	<b>11.6984</b>	Std Err	.9126	Min	.0000	Skewness	.9962
Median	10.0000	Variance	52.4721	Max	32.0000	S E Skew	.3016
5% Trim	11.2134	Std Dev	7.2438	Range	32.0000	Kurtosis	.6046
95% CI for Mean (9.8741, 13.5227)				IQR	10.0000	S E Kurt	.5948

## 8- INTER SCENARIO ANALYSIS (Chap 4C,2)

### A - ONEWAY ANOVA + LSD + DUNCAN TESTS - ALL SAMPLES

- Variable PERC\_A  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	113.8366	56.9183	1.1349	<b>.3236</b>
Within Groups	192	9629.1583	50.1519		
Total	194	9742.9949			

If F proba is superior to 0.05 then there is no difference between the different scenarios in the attribution of points to the relationship objective.

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 5.0076 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 5.0076 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level

- Variable PERC\_B  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	63.3014	31.6507	.1851	<b>.8312</b>
Within Groups	192	32829.3858	170.9864		
Total	194	32892.6872			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 9.2463 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 9.2463 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level

- Variable PERC\_C  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	430.4914	215.2457	1.5875	<b>.2071</b>
Within Groups	192	26032.8625	135.5878		
Total	194	26463.3538			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 8.2337 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 8.2337 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level

- Variable PERC\_D  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	18.3655	9.1827	.1281	<b>.8798</b>
Within Groups	192	13760.0140	71.6667		
Total	194	13778.3795			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 5.9861 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 5.9861 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level

- Variable PERC\_E  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	149.4630	74.7315	3.3544	<b>.0370</b>
Within Groups	192	4277.5319	22.2788		
Total	194	4426.9949			

**There is a significant difference in points attribution for the objective E between the scenarios**

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 3.3376 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	SCENARIO	
7.1622	Grp 1	
7.6190	Grp 3	
9.2414	Grp 2	*

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 3.3376 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	SCENARIO	
7.1622	Grp 1	
7.6190	Grp 3	
9.2414	Grp 2	*

- Variable PERC\_F  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	24.6890	12.3445	.1543	<b>.8571</b>
Within Groups	192	15363.2597	80.0170		
Total	194	15387.9487			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 6.3252 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 6.3252 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level

- Variable PERC\_G  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	245.4227	122.7114	2.4689	<b>.0874</b>
Within Groups	192	9542.8644	49.7024		
Total	194	9788.2872			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 4.9851 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	SCENARIO	
10.7703	Grp 1	
11.6984	Grp 3	
13.5000	Grp 2	*

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 4.9851 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94



(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	SCENARIO	
10.7703	Grp 1	
11.6984	Grp 3	
13.5000	Grp 2	*

## 9- SCENARIO ANALYSIS - Ranking analysis(Chap 4C,3)

### A - INTRA-SCENARIO ANALYSIS - COMPREHENSIVE TABLES

Relation. Objective	ALL SAMPLES - RANKING					
	SCENARIO 1		SCENARIO 2		SCENARIO 3	
	mean	95 % CI	mean	95 % CI	mean	95 % CI
A2	3.56	3.17 - 3.95	3.54	3.14 - 3.94	3.12	2.69 - 3.55
B2	2.53	2.12 - 2.94	2.17	1.81 - 2.54	2.31	1.94 - 2.68
C2	2.43	2.09 - 2.78	3.11	2.65 - 3.57	3.14	2.70 - 3.58
D2	3.39	3.03 - 3.76	3.23	2.85 - 3.62	3.39	2.98 - 3.8
E2	4.93	4.56 - 5.31	4.44	4 - 4.88	4.76	4.33 - 5.2
F2	3.31	2.94 - 3.67	3.36	2.89 - 3.84	3.37	2.91 - 3.84
G2	3.98	3.62 - 4.35	3.54	3.04 - 4.04	3.5	3.1 - 3.9

### B - INTER-SCENARIO ANALYSIS: ONEWAY + LSD TEST - ALL SAMPLES

- Variable PERC\_A2  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8.0917	4.0458	1.4292	<b>.2419</b>
Within Groups	202	571.8303	2.8308		
Total	204	579.9220			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 1.1897 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

- Variable PERC\_B2  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	5.3711	2.6856	1.0398	<b>.3554</b>
Within Groups	203	524.3230	2.5829		
Total	205	529.6942			

Multiple Range Tests: LSD test with significance level .05  
 The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 1.1364 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

- Variable PERC\_C2  
 By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	24.4593	12.2296	4.2717	<b>.0152</b>
Within Groups	203	581.1718	2.8629		
Total	205	605.6311			

**There is a difference between scenarios.**

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 1.1964 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	SCENARIO	
2.4177	Grp 1	
3.1111	Grp 2	*
3.1406	Grp 3	*

- Variable PERC\_D2  
 By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.2529	.6265	.2484	
<b>.7803</b>					
Within Groups	203	511.8781	2.5216		
Total	205	513.1311			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 1.1228 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

- Variable PERC\_E2

By Variable SCENARIO status differential

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	9.0073	4.5036	1.5267	<b>.2197</b>
Within Groups	203	598.8374	2.9499		
Total	205	607.8447			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 1.2145 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

- Variable PERC\_F2

By Variable SCENARIO status differential

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.0421	.0211	.0067	<b>.9934</b>
Within Groups	203	641.3753	3.1595		
Total	205	641.4175			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 1.2569 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

- Variable PERC\_G2  
By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	9.5796	4.7898	1.5822	<b>.2080</b>
Within Groups	203	614.5369	3.0273		
Total	205	624.1165			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 1.2303 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

## 10- ANALYSIS OF QUESTIONS 25 AND 26 (Chap 4C, 4)

### A - INTRA SCENARIO ANALYSIS

#### SCENARIO 1 - ALL SAMPLE

##### • FEEL1

Valid cases:	79.0	Missing cases:	1.0	Percent missing:	1.3
<b>Mean</b>	<b>2.4177</b>	Std Err	.0929	Min	1.0000
Median	3.0000	Variance	.6822	Max	4.0000
5% Trim	2.4086	Std Dev	.8260	Range	3.0000
<b>95% CI for Mean (2.2327, 2.6027)</b>		IQR	1.0000	Skewness	-.2205
				S E Skew	.2705
				Kurtosis	-.6005
				S E Kurt	.5350

##### • FEEL2

Valid cases:	79.0	Missing cases:	1.0	Percent missing:	1.3
<b>Mean</b>	<b>2.2405</b>	Std Err	.1114	Min	1.0000
Median	2.0000	Variance	.9799	Max	5.0000
5% Trim	2.1976	Std Dev	.9899	Range	4.0000
<b>95% CI for Mean (2.0188, 2.4622)</b>		IQR	2.0000	Skewness	.4713
				S E Skew	.2705
				Kurtosis	-.3967
				S E Kurt	.5350

#### SCENARIO 2 - ALL SAMPLE

##### • FEEL1

Valid cases:	61.0	Missing cases:	2.0	Percent missing:	3.2
<b>Mean</b>	<b>2.3443</b>	Std Err	.1142	Min	1.0000
Median	2.0000	Variance	.7962	Max	5.0000
5% Trim	2.3087	Std Dev	.8923	Range	4.0000
<b>95% CI for Mean (2.1157, 2.5728)</b>		IQR	1.0000	Skewness	.4166
				S E Skew	.3063
				Kurtosis	.2300
				S E Kurt	.6038

##### • FEEL2

Valid cases:	61.0	Missing cases:	2.0	Percent missing:	3.2
<b>Mean</b>	<b>2.0984</b>	Std Err	.1295	Min	1.0000
Median	2.0000	Variance	1.0235	Max	5.0000
5% Trim	2.0173	Std Dev	1.0117	Range	4.0000
<b>95% CI for Mean (1.8393, 2.3575)</b>		IQR	2.0000	Skewness	.8957
				S E Skew	.3063
				Kurtosis	.6641
				S E Kurt	.6038

#### SCENARIO 3 - ALL SAMPLE

##### • FEEL1

Valid cases:	63.0	Missing cases:	2.0	Percent missing:	3.1
<b>Mean</b>	<b>2.3175</b>	Std Err	.1033	Min	1.0000
Median	2.0000	Variance	.6718	Max	5.0000
5% Trim	2.2998	Std Dev	.8196	Range	4.0000
<b>95% CI for Mean (2.1110, 2.5239)</b>		IQR	1.0000	Skewness	.2516
				S E Skew	.3016
				Kurtosis	.6136
				S E Kurt	.5948

- FEEL2

Valid cases: 63.0 Missing cases: 2.0 Percent missing: 3.1

Mean	2.0317	Std Err	.1197	Min	1.0000	Skewness	.6351
Median	2.0000	Variance	.9022	Max	4.0000	S E Skew	.3016
5% Trim	1.9797	Std Dev	.9498	Range	3.0000	Kurtosis	-.4546
95% CI for Mean (1.7925, 2.2710)		IQR	2.0000	S E Kurt			.5948

## B - INTER ANALYSIS

### ONEWAY ANOVA + LSD AND DUNCAN TESTS - ALL SAMPLES

- Variable FEEL1

By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.3669	.1835	.2578	.7730
Within Groups	201	143.0595	.7117		
Total	203	143.4265			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .5965 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .5965 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level

- Variable FEEL2

By Variable SCENARIO status differential

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.5926	.7963	.8258	.4394

Within Groups	201	193.8338	.9643
Total	203	195.4265	

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $\text{MEAN}(J) - \text{MEAN}(I) \geq .6944 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$   
 with the following value(s) for RANGE: 2.79

- No two groups are significantly different at the .050 level

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if  
 $\text{MEAN}(J) - \text{MEAN}(I) \geq .6944 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$   
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.79	2.94

- No two groups are significantly different at the .050 level



# 11- ANALYSIS OF INDEPENDENT VARIABLE: GENDER (Question 3)

## A - RATING SCALE QUESTIONS - ALL SAMPLES

- GENDER gender by PERCP1.3 (3,4,5=3)

		PERCP1.3							
		Count	"						
		Exp	Val	"					
		"		1"	2"	3"			
		"				Row			
GENDER		"				Total			
male	1	"	36	"	51	"	18	"	105
		"	26.4	"	55.3	"	23.3	"	51.7%
		g	"	"	"	"	"	"	"
female	2	"	15	"	56	"	27	"	98
		"	24.6	"	51.7	"	21.7	"	48.3%
		-	"	"	"	"	"	"	"
Column			51		107		45		203
Total			25.1%		52.7%		22.2%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	10.45175	2	.00538
Likelihood Ratio	10.71417	2	.00471
Linear-by-Linear Association	9.22859	1	.00238

Minimum Expected Frequency - 21.724  
Number of Missing Observations: 6

- GENDER gender by PERCP2.2 (4,5=4)

		PERCP2.2				
		Count	"			
		Exp Val	"			
		"				
		"	1"	2"	3"	4"
		"				Row
GENDER		"				Total
	1	.....>	.....>	.....>	.....>	
male		" 33 "	" 42 "	" 23 "	" 7 "	105
		" 23.3 "	" 45.0 "	" 27.9 "	" 8.8 "	51.7%
		%.....>	%.....>	%.....>	%.....>	
	2	" 12 "	" 45 "	" 31 "	" 10 "	98
female		" 21.7 "	" 42.0 "	" 26.1 "	" 8.2 "	48.3%
		-----~	-----~	-----~	-----~	
	Column	45	87	54	17	203
	Total	22.2%	42.9%	26.6%	8.4%	100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	11.39021	3	.00979
Likelihood Ratio	11.77468	3	
.00820			
Linear-by-Linear Association	8.39824	1	.00376
Minimum Expected Frequency -	8.207		

Number of Missing Observations: 6

• GENDER gender by PERCP3.2 (4,5=4)

		PERCP3.2					
		Count				Row	
		Exp Val				Total	
			1"	2"	3"	4"	
GENDER							
	1	"	14	"	41	"	4
male		"	8.3	"	38.8	"	7.2
	2	"	2	"	34	"	52
female		"	7.7	"	36.2	"	47.3
		Column	16	75	98	14	203
		Total	7.9%	36.9%	48.3%	6.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	12.36543	3	.00623
Likelihood Ratio	13.56107	3	.00357
Linear-by-Linear Association	10.30582	1	.00133

Minimum Expected Frequency - 6.759

Number of Missing Observations: 6

• GENDER gender by REL1

		REL1						
		Count					Row	
		Exp Val					Total	
			1"	2"	3"	4"	5"	
GENDER								
	1	"	9	"	33	"	18	10
male		"	9.3	"	32.6	"	19.6	7.8
	2	"	9	"	30	"	35	20
female		"	8.7	"	30.4	"	34.3	18.4
		Column	18	63	71	38	15	205
		Total	8.8%	30.7%	34.6%	18.5%	7.3%	100.0%

Chi-Square	Value	DF	Significance
Pearson	1.69182	4	.79220
Likelihood Ratio	1.72223	4	.78668
Linear-by-Linear Association	.16017	1	.68900

Minimum Expected Frequency - 7.244

Number of Missing Observations: 4

• GENDER gender by REL2

		REL2											
		Count									Exp Val		
		"									"		
		"									"		
		"	1"	2"	3"	4"	5"	Row					
GENDER		.....	.....	.....	.....	.....	.....	.....	.....	Total			
male	1	"	23	"	34	"	26	"	15	"	7	"	105
		"	21.7	"	34.1	"	23.3	"	17.6	"	8.3	"	51.7%
		§	.....	.....	.....	.....	.....	.....	.....	.....	.....	>	
female	2	"	19	"	32	"	19	"	19	"	9	"	98
		"	20.3	"	31.9	"	21.7	"	16.4	"	7.7	"	48.3%
		-	.....	.....	.....	.....	.....	.....	.....	.....	.....	~	
Column			42		66		45		34		16		203
Total			20.7%		32.5%		22.2%		16.7%		7.9%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	2.01205	4	.73354
Likelihood Ratio	2.01638	4	.73275
Linear-by-Linear Association	.76457	1	.38190

Minimum Expected Frequency - 7.724  
Number of Missing Observations: 6

• GENDER gender by REL3

		REL3											
		Count									Row		
		Exp Val									Total		
		"											
		"											
		"	1"	2"	3"	4"	5"						
GENDER		.....	.....	.....	.....	.....	.....	.....	.....	>			
male	1	"	25	"	27	"	23	"	16	"	9	"	100
		"	26.3	"	23.2	"	21.2	"	20.2	"	9.1	"	50.5%
		§	.....	.....	.....	.....	.....	.....	.....	.....	.....	>	
female	2	"	27	"	19	"	19	"	24	"	9	"	98
		"	25.7	"	22.8	"	20.8	"	19.8	"	8.9	"	49.5%
		-	.....	.....	.....	.....	.....	.....	.....	.....	.....	~	
Column			52		46		42		40		18		198
Total			26.3%		23.2%		21.2%		20.2%		9.1%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	3.42933	4	.48871
Likelihood Ratio	3.44752	4	.48590
Linear-by-Linear Association	.37238	1	.54171

Minimum Expected Frequency - 8.909  
Number of Missing Observations: 11

• GENDER gender by REL4

		REL4											
		Count	"										
		Exp Val	"										
			"										
			1"	2"		3"		4"		5"	Row		
GENDER											Total		
male	1	"	15	"	21	"	23	"	25	"	22	"	106
		"	13.5	"	17.1	"	29.6	"	23.9	"	21.8	"	52.0%
		§	"										
female	2	"	11	"	12	"	34	"	21	"	20	"	98
		"	12.5	"	15.9	"	27.4	"	22.1	"	20.2	"	48.0%
		-	"										
Column			26		33		57		46		42		204
Total			12.7%		16.2%		27.9%		22.5%		20.6%		100.0%

Chi-Square	Value	DF	Significance
Pearson	5.33027	4	.25506
Likelihood Ratio	5.36967	4	.25143
Linear-by-Linear Association	.33860	1	.56064

Minimum Expected Frequency - 12.490

Number of Missing Observations: 5

• GENDER gender by STATU1.3 (3,4,5+3)

		STATU1.3							
		Count	"						
		Exp Val	"						
		"							
		"	1"	2"	3"	Row			
GENDER		"				Total			
male	1	"	65	"	24	"	16	"	105
		"	61.0	"	30.0	"	14.0	"	51.7%
		§	"						
female	2	"	53	"	34	"	11	"	98
		"	57.0	"	28.0	"	13.0	"	48.3%
		-	"						
Column			118		58		27		203
Total			58.1%		28.6%		13.3%		100.0%

Chi-Square	Value	DF	Significance
Pearson	3.63334	2	.16257
Likelihood Ratio	3.64510	2	.16161
Linear-by-Linear Association	.14260	1	.70571

Minimum Expected Frequency - 13.034

Number of Missing Observations: 6

• GENDER gender by STATUS2

		STATUS2						
		Count					Exp Val	
		"					"	
		"	1"	2"	3"	4"	5"	Row
GENDER		"	1"	2"	3"	4"	5"	Total
male	1	"	19	30	33	18	6	106
		"	17.1	33.1	34.1	15.5	6.2	51.7%
		§						
female	2	"	14	34	33	12	6	99
		"	15.9	30.9	31.9	14.5	5.8	48.3%
		-						
Column			33	64	66	30	12	205
Total			16.1%	31.2%	32.2%	14.6%	5.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	1.97085	4	<b>.74112</b>
Likelihood Ratio	1.97972	4	.73949
Linear-by-Linear Association	.02729	1	.86878

Minimum Expected Frequency - 5.795  
Number of Missing Observations: 4

• GENDER gender by STATUS3

		STATUS3						
		Count					Exp Val	
		"					"	
		"	1"	2"	3"	4"	5"	Row
GENDER		"	1"	2"	3"	4"	5"	Total
male	1	"	36	30	20	10	9	105
		"	36.2	27.4	21.7	11.4	8.3	51.7%
		§						
female	2	"	34	23	22	12	7	98
		"	33.8	25.6	20.3	10.6	7.7	48.3%
		-						
Column			70	53	42	22	16	203
Total			34.5%	26.1%	20.7%	10.8%	7.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	1.26886	4	<b>.86664</b>
Likelihood Ratio	1.27096	4	.86628
Linear-by-Linear Association	.05445	1	.81550

Minimum Expected Frequency - 7.724  
Number of Missing Observations: 6

• GENDER gender by STATUS4

		STATUS4					Row Total
		Count					
		Exp Val					
		"	1"	2"	3"	4"	5"
GENDER		"	"	"	"	"	"
male	1	" 27	" 31	" 22	" 15	" 10	105
		" 26.3	" 29.3	" 23.7	" 17.5	" 8.2	51.5%
		§					
female	2	" 24	" 26	" 24	" 19	" 6	99
		" 24.8	" 27.7	" 22.3	" 16.5	" 7.8	48.5%
		-					
Column		51	57	46	34	16	204
Total		25.0%	27.9%	22.5%	16.7%	7.8%	100.0%

Chi-Square	Value	DF	Significance
Pearson	1.99787	4	.73615
Likelihood Ratio	2.00859	4	.73418
Linear-by-Linear Association	.05721	1	.81095

Minimum Expected Frequency - 7.765

Number of Missing Observations: 5

• GENDER gender by NEG01.3 (3,4,5=3)

		NEGO1.3				
		Count	"			
		Exp Val	"			
		"				
		"	1"	2"	3"	Row
GENDER		"				Total
	1	43	41	20		104
male		37.4	43.5	23.1		51.2%
	2	30	44	25		99
female		35.6	41.5	21.9		48.8%
	Column	73	85	45		203
	Total	36.0%	41.9%	22.2%		100.0%

Chi-Square	Value	DF	Significance
Pearson	2.85509	2	.23990
Likelihood Ratio	2.86691	2	.23848
Linear-by-Linear Association	2.61397	1	.10593

Minimum Expected Frequency - 21.946

Number of Missing Observations: 6

• GENDER gender by NEG02

		NEGO2											
		Count											
		Exp	Val										
		"											
		"	1"	2"	3"	4"	5"	Row					
GENDER		"	1"	2"	3"	4"	5"	Total					
male	1	"	11	"	28	"	24	"	13	"	104		
		"	12.9	"	31.4	"	27.3	"	23.2	"	9.3	"	51.5%
		§	.....	.....	.....	.....	.....	.....	.....	.....	>		
female	2	"	14	"	33	"	25	"	21	"	5	"	98
		"	12.1	"	29.6	"	25.7	"	21.8	"	8.7	"	48.5%
		-	.....	.....	.....	.....	.....	.....	.....	.....	~		
Column			25		61		53		45		18		202
Total			12.4%		30.2%		26.2%		22.3%		8.9%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	4.52097	4	<b>.34007</b>
Likelihood Ratio	4.64595	4	.32559
Linear-by-Linear Association	3.47429	1	.06233

Minimum Expected Frequency - 8.733  
Number of Missing Observations: 7

• GENDER gender by NEG03.2 (4,5=4)

		NEG03.2									
		Count									
		Exp Val									
		"									
		"									
		"	1"	2"	3"	4"	Row				
GENDER		"	1"	2"	3"	4"	Total				
		.....	.....	.....	.....	.....	>				
male	1	"	15	"	47	"	24	"	18	"	104
		"	16.1	"	45.2	"	27.0	"	15.6	"	52.0%
		§	.....	.....	.....	.....	.....	.....	.....	>	
female	2	"	16	"	40	"	28	"	12	"	96
		"	14.9	"	41.8	"	25.0	"	14.4	"	48.0%
		-	.....	.....	.....	.....	.....	.....	.....	~	
Column			31		87		52		30		200
Total			15.5%		43.5%		26.0%		15.0%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	1.78603	3	<b>.61798</b>
Likelihood Ratio	1.79213	3	.61665
Linear-by-Linear Association	.19427	1	.65938

Minimum Expected Frequency - 14.400  
Number of Missing Observations: 9

• GENDER gender by NEG04

		NEGO4										
		Count									Row	
		Exp	Val									Total
		"	"	1"	2"	3"	4"	5"				
GENDER		"	"	"	"	"	"	"	"	"		
male	1	"	22	"	21	"	32	"	16	"	101	
		"	19.1	"	22.7	"	33.5	"	17.0	"	51.5%	
		%	"	"	"	"	"	"	"	"	"	
female	2	"	15	"	23	"	33	"	17	"	95	
		"	17.9	"	21.3	"	31.5	"	16.0	"	48.5%	
		-	"	"	"	"	"	"	"	"	"	
Column			37		44		65		33		196	
Total			18.9%		22.4%		33.2%		16.8%		100.0%	

Chi-Square	Value	DF	Significance
Pearson	1.80835	4	.77095
Likelihood Ratio	1.81747	4	.76929
Linear-by-Linear Association	.10531	1	.74555

Minimum Expected Frequency = 8.240  
Number of Missing Observations: 13

Significant T-TESTS

**PERCEP1**

Variable	Number of Cases	Mean	SD	SE of Mean
male	105	<b>1.8286</b>	.700	.068
female	98	<b>2.1735</b>	.760	.077

Mean Difference = -.3449

Levene's Test for Equality of Variances: F= .027 P= .869

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.37	201	.001	.102	(-.547, -.143)
Unequal	-3.36	196.47	.001	.103	(-.548, -.142)

**PERCEP2**

Variable	Number of Cases	Mean	SD	SE of Mean
male	105	<b>2.0381</b>	.898	.088
female	98	<b>2.4286</b>	.908	.092



```

*****
Mean Difference = -.3905
Levene's Test for Equality of Variances: F= .613    P= .434

t-test for Equality of Means
Variances    t-value    df    2-Tail Sig    SE of Diff    95%
CI for Diff
*****
Equal        -3.08        201        .002        .127        (-.641, -.140)
Unequal      -3.08       199.70        .002        .127        (-.641, -.140)
*****

```

### PERCEP3

```

Variable          Number
of Cases          Mean          SD          SE of Mean
*****
male              105          2.3810          .764          .075
female            98          2.7245          .700          .071
*****

Mean Difference = -.3435
Levene's Test for Equality of Variances: F= 2.956    P= .087

t-test for Equality of Means
Variances    t-value    df    2-Tail Sig    SE of Diff    95%
CI for Diff
*****
Equal        -3.33        201        .001        .103        (-.547, -.140)
Unequal      -3.34       200.93        .001        .103        (-.546, -.141)
*****

```

### B - INTRA-SCENARIOS ANALYSIS

#### • SCENARIO 1

#### ANALYSIS OF VARIANCE

73 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 7 cases rejected because of missing data.  
 2 non-empty cells.

EFFECT .. GENDER (Cont.)

Univariate F-tests with (1,71) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	2.17615	3609.30330	2.17615	50.83526	.04281	.837
PB	691.00754	8712.82808	691.00754	122.71589	5.63095	.020
PC	72.05777	8432.16141	72.05777	118.76284	.60674	.439
PD	260.30442	4047.72297	260.30442	57.01018	4.56593	.036
PE	6.11338	1007.77703	6.11338	14.19404	.43070	.514
PF	85.18331	4996.15916	85.18331	70.36844	1.21053	.275
PG	132.54453	1988.19520	132.54453	28.00275	4.73327	.033

We have 3 objectives (B, D and G) with significant differences. We will use INDEPENDENT T-TESTS since no range tests can be performed by SPSS with fewer

than three non-empty groups. We will also use t-tests to study questions 25 and 26 (variable FEEL1 and FEEL2).

#### Variable PB

Variable	Number of Cases	Mean	SD	SE of Mean	
*****					
GENDER 1	36	<b>18.3056</b>	9.447	1.575	
GENDER 2	37	<b>24.4595</b>	12.460	2.048	
*****					
Mean Difference = -6.1539					
Levene's Test for Equality of Variances: F= 1.368 P= .246					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
*****					
Equal	-2.37	71	<b>.020</b>	2.593	(-11.325, -.983)
Unequal	-2.38	67.04	.020	2.584	(-11.311, -.997)
*****					

#### Variable PD

Variable	Number of Cases	Mean	SD	SE of Mean	
*****					
GENDER 1	36	15.7500	8.560	1.427	
GENDER 2	37	11.9730	6.418	1.055	
*****					
Mean Difference = 3.7770					
Levene's Test for Equality of Variances: F= 2.853 P= .096					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
*****					
Equal	2.14	71	.036	1.768	(.253, 7.302)
Unequal	2.13	64.89	.037	1.775	(.233, 7.321)
*****					

#### Variable PG

Variable	Number of Cases	Mean	SD	SE of Mean	
*****					
GENDER 1	36	9.2778	5.057	.843	
GENDER 2	37	11.9730	5.510	.906	
*****					
Mean Difference = -2.6952					
Levene's Test for Equality of Variances: F= 2.155 P= .147					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
*****					
Equal	-2.18	71	.033	1.239	(-5.165, -.225)
Unequal	-2.18	70.76	.033	1.237	(-5.163,
-.228)					
*****					

# FEEL1

Variable	Number of Cases	Mean	SD	SE of Mean
GENDER 1	42	2.4762	.773	.119
GENDER 2	36	2.3889	.871	.145

Mean Difference = .0873

Levene's Test for Equality of Variances: F= .671 P= .415

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.47	76	.640	.186	(-.283, .458)
Unequal	.46	70.68	.644	.188	(-.287, .462)

# FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean
GENDER 1	42	2.1667	.908	.140
GENDER 2	37	2.3243	1.082	.178

Mean Difference = -.1577

Levene's Test for Equality of Variances: F= 1.464 P= .230

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.70	77	.483	.224	(-.604, .288)
Unequal	-.70	70.68	.488	.226	(-.609, .294)

## • SCENARIO 2

### ANALYSIS OF VARIANCE

55 cases accepted.

0 cases rejected because of out-of-range factor values.

8 cases rejected because of missing data.

2 non-empty cells.

### EFFECT .. GENDER

Univariate F-tests with (1,53) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	12.66862	2398.96774	12.66862	45.26354	.27989	
.599						
PB	108.28507	10434.4422	108.28507	196.87627	.55002	.462
PC	18.75308	5408.77419	18.75308	102.05234	.18376	.670

PD	2.74255	2690.89382	2.74255	50.77158	.05402	.817
PE	32.09472	1484.88710	32.09472	28.01674	1.14556	.289
PF	158.28507	3452.44220	158.28507	65.14042	2.42991	<b>.125</b>
PG	94.55252	3886.82930	94.55252	73.33640	1.28930	.261

T-TESTS for Independent Samples of GENDER

#### Variable PF

Variable	Number of Cases	Mean	SD	SE of Mean	
GENDER 1	24	<b>10.7083</b>	7.393	1.509	
GENDER 2	31	<b>14.1290</b>	8.555	1.536	
Mean Difference = -3.4207					
Levene's Test for Equality of Variances: F= 1.835 P= .181					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-1.56	53	<b>.125</b>	2.194	(-7.822, .981)
Unequal	-1.59	52.31	.118	2.154	(-7.742, .900)

#### FEEL1

Variable	Number of Cases	Mean	SD	SE of Mean	
GENDER 1	25	<b>2.3200</b>	.852	.170	
GENDER 2	34	<b>2.4412</b>	.894	.153	
Mean Difference = -.1212					
Levene's Test for Equality of Variances: F= .036 P= .849					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.52	57	<b>.602</b>	.231	(-.584, .341)
Unequal	-.53	53.21	.599	.229	(-.581, .339)

#### FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean	
GENDER 1	25	<b>2.0000</b>	.816	.163	
GENDER 2	33	<b>2.1818</b>	1.158	.202	
Mean Difference = -.1818					
Levene's Test for Equality of Variances: F= 1.789 P= .186					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff

```

=====
Equal      -.67      56      .507      .272      (-.727, .363)
Unequal    -.70     55.76    .486      .259      (-.702, .338)
=====

```

• SCENARIO 3

ANALYSIS OF VARIANCE

63 cases accepted.

0 cases rejected because of out-of-range factor values.

2 cases rejected because of missing data.

2 non-empty cells.

EFFECT .. GENDER (Cont.)

Univariate F-tests with (1,61) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	83.33466	3474.60185	83.33466	56.96069	1.46302	.231
PB	1701.00000	10857.2222	1701.00000	177.98725	9.55686	<b>.003</b>
PC	93.59259	11500.6296	93.59259	188.53491	.49642	.484
PD	.22354	6159.04630	.22354	100.96797	.00221	.963
PE	27.81085	1673.04630	27.81085	27.42699	1.01400	.318
PF	90.79894	6361.51852	90.79894	104.28719	.87066	.354
PG	33.86243	3219.40741	33.86243	52.77717	.64161	.426

T-TESTS for Independent Samples of GENDER

**Variable PB**

Variable	Number of Cases	Mean	SD	SE of Mean
GENDER 1	36	<b>17.6111</b>	10.906	1.818
GENDER 2	27	<b>28.1111</b>	16.046	3.088

Mean Difference = -10.5000

Levene's Test for Equality of Variances: F= 6.919 P= .011

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.09	61	<b>.003</b>	3.396	(-17.292, -3.708)
Unequal	-2.93	43.28	.005	3.583	(-17.725, -3.275)

**FEEL1**

Variable	Number of Cases	Mean	SD	SE of Mean
GENDER 1	37	<b>2.2703</b>	.838	.138
GENDER 2	26	<b>2.3846</b>	.804	.158

Mean Difference = -.1143

Levene's Test for Equality of Variances: F= .074 P= .786

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.54	61	.590	.211	(-.536, .307)
Unequal	-.55	55.36	.587	.209	(-.534, .305)

#### FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean
GENDER 1	37	1.8649	.948	.156
GENDER 2	26	2.2692	.919	.180

Mean Difference = -.4044

Levene's Test for Equality of Variances: F= .472 P= .495

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.69	61	.096	.240	(-.883, .075)
Unequal	-1.70	54.99	.095	.238	(-.882, .073)

## 12- ANALYSIS OF INDEPENDENT VARIABLE: EDUCATION (Question 4)

### A - RATING SCALE QUESTIONS - ALL SAMPLES

The variable EDU was recoded in EDU2 (1=1; 2,3,4=2) because of the low number of observations for the values 3 and 4.

- EDU2 by PERCP1.3 (3,4,5=3)

		PERCP1.3			
		Count			
		Exp Val			
			1	2	3
					Row Total
EDU2					
	1	33	69	19	121
high school		29.8	64.4	26.8	59.6%
	2	17	39	26	82
university		20.2	43.6	18.2	40.4%
Column		50	108	45	203
Total		24.6%	53.2%	22.2%	100.0%

Chi-Square	Value	DF	Significance
Pearson	7.31978	2	.02574
Likelihood Ratio	7.20905	2	.02720
Linear-by-Linear Association	5.28966	1	.02145

Minimum Expected Frequency - 18.177

Number of Missing Observations: 6

- EDU2 by PERCP2.2 (4,5=4)

		PERCP2.2			
		Count			
		Exp Val			
			1	2	3
					Row Total
EDU2					
	1	30	52	26	13
high school		25.6	53.0	32.2	10.1
	2	13	37	28	4
university		17.4	36.0	21.8	6.9
Column		43	89	54	17
Total		21.2%	43.8%	26.6%	8.4%
					100.0%

Chi-Square	Value	DF	Significance
Pearson	6.84794	3	.07691
Likelihood Ratio	6.99965	3	.07191
Linear-by-Linear Association	.62004	1	.43103
Minimum Expected Frequency -	6.867		

Number of Missing Observations: 6

• EDU2 by PERCP3.2 (4,5=4)

		PERCP3.2					
		Count				Row	
		Exp Val				Total	
			1"	2"	3"	4"	
EDU2							
	1	"	7	42	64	8	121
high school		"	8.9	44.7	59.0	8.3	59.6%
	2	"	8	33	35	6	82
university		"	6.1	30.3	40.0	5.7	40.4%
Column			15	75	99	14	203
Total			7.4%	36.9%	48.8%	6.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	2.52803	3	<b>.47025</b>
Likelihood Ratio	2.51743	3	.47215
Linear-by-Linear Association	1.48783	1	.22255

Minimum Expected Frequency - 5.655

Number of Missing Observations: 6

• EDU2 by REL1

		REL1						
		Count					Row	
		Exp Val					Total	
			1"	2"	3"	4"	5"	
EDU2								
	1	"	12	43	33	27	7	122
high school		"	10.7	37.5	42.8	23.2	7.7	59.5%
	2	"	6	20	39	12	6	83
university		"	7.3	25.5	29.2	15.8	5.3	40.5%
Column			18	63	72	39	13	205
Total			8.8%	30.7%	35.1%	19.0%	6.3%	100.0%

Chi-Square	Value	DF	Significance
Pearson	9.67358	4	<b>.04630</b>
Likelihood Ratio	9.66613	4	.04644
Linear-by-Linear Association	.62307	1	.42991

Minimum Expected Frequency - 5.263

Number of Missing Observations: 4



• EDU2 by REL2

		REL2											
		Count											
		Exp Val											
			1"	2"	3"	4"	5"	Row					
EDU2										Total			
	1	"	27	"	39	"	22	"	22	"	10	"	120
high school		"	25.4	"	39.0	"	25.4	"	20.7	"	9.5	"	59.1%
	2	"	16	"	27	"	21	"	13	"	6	"	83
university		"	17.6	"	27.0	"	17.6	"	14.3	"	6.5	"	40.9%
	Column		43		66		43		35		16		203
	Total		21.2%		32.5%		21.2%		17.2%		7.9%		100.0%

Chi-Square	Value	DF	Significance
Pearson	1.64409	4	.80085
Likelihood Ratio	1.63223	4	.80299
Linear-by-Linear Association	.00776	1	.92981

Minimum Expected Frequency - 6.542  
Number of Missing Observations: 6

• EDU2 by REL3

		REL3											
		Count	"										
		Exp Val	"										
		"	"										
		"	1"	2"	3"	4"	5"	Row					
		"	1"	2"	3"	4"	5"	Total					
EDU2		.....>											
	1	"	31	"	28	"	29	"	24	"	8	"	120
high school		"	32.7	"	26.7	"	25.5	"	24.8	"	10.3	"	60.6%
		.....>											
	2	"	23	"	16	"	13	"	17	"	9	"	78
university		"	21.3	"	17.3	"	16.5	"	16.2	"	6.7	"	39.4%
		.....~											
	Column		54		44		42		41		17		198
	Total		27.3%		22.2%		21.2%		20.7%		8.6%		100.0%

Chi-Square	Value	DF	Significance
Pearson	3.03455	4	.55206
Likelihood Ratio	3.03879	4	.55135
Linear-by-Linear Association	.13657	1	.71172

Minimum Expected Frequency - 6.697  
Number of Missing Observations: 11

• EDU2 by REL4

		REL4											
		Count	"										
		Exp Val	"										
		"	"										
		"	1"	2"	3"	4"	5"	Row					
EDU2		"	1"	2"	3"	4"	5"	Total					
	1	.....	.....	.....	.....	.....	.....	.....	.....	>			
high school		"	17	"	19	"	32	"	31	"	22	"	121
		"	14.8	"	19.6	"	34.4	"	27.3	"	24.9	"	59.3%
		§	.....	.....	.....	.....	.....	.....	.....	.....	.....	>	
	2	"	8	"	14	"	26	"	15	"	20	"	83
university		"	10.2	"	13.4	"	23.6	"	18.7	"	17.1	"	40.7%
		-	.....	.....	.....	.....	.....	.....	.....	.....	.....	~	
Column			25		33		58		46		42		204
Total			12.3%		16.2%		28.4%		22.5%		20.6%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	3.31533	4	<b>.50651</b>
Likelihood Ratio	3.35476	4	.50030
Linear-by-Linear Association	.42372	1	.51509

Minimum Expected Frequency - 10.172  
Number of Missing Observations: 5

• EDU2 by STATU1.3 (3,4,5=5)

		STATU1.3							
		Count	"						
		Exp Val	"						
		"							
		"	1"	2"	3"	Row			
		"				Total			
EDU2		.....	.....	.....	.....	>			
	1	"	72	"	36	"	14	"	122
high school		"	71.5	"	34.9	"	15.6	"	60.1%
		§	.....	.....	.....	.....	.....	>	
	2	"	47	"	22	"	12	"	81
university		"	47.5	"	23.1	"	10.4	"	39.9%
		-	.....	.....	.....	.....	.....	~	
Column			119		58		26		203
Total			58.6%		28.6%		12.8%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	.52592	2	<b>.76877</b>
Likelihood Ratio	.52032	2	.77093
Linear-by-Linear Association	.18015	1	.67125

Minimum Expected Frequency - 10.374  
Number of Missing Observations: 6

- EDU2 by STATU2.2 (4,5=4)

		STATU2.2									
		Count	"								
		Exp Val	"								
			"			Row					
			"	1.00"	2.00"	3.00"	4.00"	Total			
EDU2		.....>									
	1	"	17	"	42	"	36	"	27	"	122
high school		"	19.6	"	38.7	"	38.7	"	25.0	"	59.5%
		§.....>									
	2	"	16	"	23	"	29	"	15	"	83
university		"	13.4	"	26.3	"	26.3	"	17.0	"	40.5%
		-.....~									
Column			33		65		65		42		205
Total			16.1%		31.7%		31.7%		20.5%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	2.43519	3	<b>.48712</b>
Likelihood Ratio	2.43327	3	.48747
Linear-by-Linear Association	.32420	1	.56910

Minimum Expected Frequency - 13.361  
Number of Missing Observations: 4

- EDU2 by STATUS3

		STATUS3											
		Count	"										
		Exp Val	"										
			"										
			1"	2"	3"	4"	5"	Row					
EDU2			.....>										Total
	1	"	41	"	36	"	23	"	12	"	8	"	120
high school		"	40.8	"	32.5	"	24.8	"	13.0	"	8.9	"	59.1%
		§	.....>										
	2	"	28	"	19	"	19	"	10	"	7	"	83
university		"	28.2	"	22.5	"	17.2	"	9.0	"	6.1	"	40.9%
		-	.....~										
Column			69		55		42		22		15		203
Total			34.0%		27.1%		20.7%		10.8%		7.4%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	1.64403	4	<b>.80086</b>
Likelihood Ratio	1.65419	4	.79902
Linear-by-Linear Association	.57792	1	.44713

Minimum Expected Frequency - 6.133  
Number of Missing Observations: 6

• EDU2 by STATUS4

		STATUS4											
		Count	"										
		Exp Val	"										
			"									Row	
			1"	2"	3"	4"	5"				Total		
EDU2		.....	.....	.....	.....	.....	.....	.....	.....	>			
	1	"	22	"	43	"	27	"	20	"	10	"	122
high school		"	30.9	"	34.5	"	26.8	"	20.2	"	9.5	"	59.5%
		§	.....	.....	.....	.....	.....	.....	.....	.....	.....	>	
	2	"	30	"	15	"	18	"	14	"	6	"	83
university		"	21.1	"	23.5	"	18.2	"	13.8	"	6.5	"	40.5%
		-	.....	.....	.....	.....	.....	.....	.....	.....	.....	~	
	Column		52		58		45		34		16		205
	Total		25.4%		28.3%		22.0%		16.6%		7.8%		100.0%

Chi-Square	Value	DF	Significance
Pearson	11.60743	4	<b>.02052</b>
Likelihood Ratio	11.75641	4	.01926
Linear-by-Linear Association	1.32880	1	.24902

Minimum Expected Frequency - 6.478  
Number of Missing Observations: 4

• EDU2 by NEG01.3

		NEGO1.3							
		Count	"						
		Exp Val	"						
		"							
		"	1"	2"	3"	Row Total			
EDU2		.....	.....	.....	.....	>			
	1	"	44	"	50	"	27	"	121
high school		"	44.1	"	50.7	"	26.2	"	59.6%
		§	.....	.....	.....	.....	.....	>	
	2	"	30	"	35	"	17	"	82
university		"	29.9	"	34.3	"	17.8	"	40.4%
		-	.....	.....	.....	.....	.....	~	
	Column		74		85		44		203
	Total		36.5%		41.9%		21.7%		100.0%

Chi-Square	Value	DF	Significance
Pearson	.07873	2	<b>.96140</b>
Likelihood Ratio	.07896	2	.96129
Linear-by-Linear Association	.02830	1	.86642

Minimum Expected Frequency - 17.773  
Number of Missing Observations: 6

• EDU2 by NEG02

		NEG02					Row	
		Count						
		Exp Val						
			1	2	3	4	5	Total
EDU2								
	1	"	14	38	26	32	10	120
high school		"	14.3	36.8	30.9	27.3	10.7	59.4%
	2	"	10	24	26	14	8	82
university		"	9.7	25.2	21.1	18.7	7.3	40.6%
Column			24	62	52	46	18	202
Total			11.9%	30.7%	25.7%	22.8%	8.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	4.08988	4	.39398
Likelihood Ratio	4.12514	4	.38934
Linear-by-Linear Association	.10518	1	.74571

Minimum Expected Frequency - 7.307  
Number of Missing Observations: 7

• EDU2 by NEG03.2

		NEG03.2				Row	
		Count					
		Exp Val					
			1	2	3	4	Total
EDU2							
	1	"	15	54	34	18	121
high school		"	17.5	53.2	31.5	18.8	60.5%
	2	"	14	34	18	13	79
university		"	11.5	34.8	20.5	12.2	39.5%
Column			29	88	52	31	200
Total			14.5%	44.0%	26.0%	15.5%	100.0%

Chi-Square	Value	DF	Significance
Pearson	1.55818	3	.66891
Likelihood Ratio	1.54775	3	.67129
Linear-by-Linear Association	.31511	1	.57456

Minimum Expected Frequency - 11.455  
Number of Missing Observations: 9

• EDU2 by NEG04

		NEG04						
		Count					Row	
		Exp Val					Total	
			1"	2"	3"	4"	5"	
EDU2								
	1	"	17	"	29	"	35	"
high school	"	22.5	"	26.8	"	39.6	"	20.1
	"		"		"		"	11.0
	2	"	20	"	15	"	30	"
university	"	14.5	"	17.2	"	25.4	"	12.9
	"		"		"		"	7.0
Column		37		44		65		33
Total		18.8%		22.3%		33.0%		16.8%
								9.1%
								100.0%

Chi-Square	Value	DF	Significance
Pearson	11.04082	4	.02611
Likelihood Ratio	11.50760	4	.02141
Linear-by-Linear Association	6.37689	1	.01156

Minimum Expected Frequency - 7.036  
Number of Missing Observations: 12

Significant T-TESTS

**PERCEP1**

Variable	Number of Cases	Mean	SD	SE of Mean
high school	121	1.9008	.688	.063
university	82	2.1463	.803	.089

Mean Difference = -.2455

Levene's Test for Equality of Variances: F= 3.049 P= .082

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.33	201	.021	.105	(-.453, -.038)
Unequal	-2.26	155.63	.025	.109	(-.460, -.031)

**PERCEP5**

Variable	Number of Cases	Mean	SD	SE of Mean
high school	119	3.8992	.807	.074
university	82	3.5000	1.220	.135

\*\*\*\*\*

Mean Difference = .3992

Levene's Test for Equality of Variances: F= 27.903 P= .000

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.79	199	.006	.143	(.117, .681)
Unequal	2.60	129.14	.010	.154	(.095, .703)

#### NEGO4

Variable	Number of Cases	Mean	SD	SE of Mean
high school	120	2.9250	1.231	.112
university	77	2.4805	1.119	.128

Mean Difference = .4445

Levene's Test for Equality of Variances: F= .138 P= .711

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.56	195	.011	.174	(.102, .787)
Unequal	2.61	173.14	.010	.170	(.109, .780)

#### B - INTRA-SCENARIOS ANALYSIS - ALL SAMPLES

##### • SCENARIO 1

##### ANALYSIS OF VARIANCE

74 cases accepted.

0 cases rejected because of out-of-range factor values.

6 cases rejected because of missing data.

2 non-empty cells.

1 design will be processed.

EFFECT .. EDU2 (Cont.)

Univariate F-tests with (1,72) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	31.03911	3611.40683	31.03911	50.15843	.61882	.434
PB	293.16136	9315.93323	293.16136	129.38796	2.26575	
.137						
PC	72.24039	8540.31366	72.24039	118.61547	.60903	.438
PD	35.44406	4273.92081	35.44406	59.36001	.59710	.442
PE	15.56492	1006.48913	15.56492	13.97902	1.11345	.295

PF	40.88337	5055.07609	40.88337	70.20939	.58231	.448
PG	1.78093	2205.31366	1.78093	30.62936	.05814	.810

T-TESTS

#### FEEL1

Variable	Number of Cases	Mean	SD	SE of Mean	
high school	46	<b>2.4130</b>	.748	.110	
university	31	<b>2.4194</b>	.958	.172	
Mean Difference = -.0063					
Levene's Test for Equality of Variances: F= 3.838 P= .054					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.03	75	<b>.974</b>	.195	(-.394, .382)
Unequal	-.03	53.64	.975	.204	(-.416, .404)

#### FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean	
high school	47	<b>2.2128</b>	.832	.121	
university	31	<b>2.2903</b>	1.189	.213	
Mean Difference = -.0776					
Levene's Test for Equality of Variances: F= 7.184 P= .009					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.34	76	<b>.735</b>	.229	(-.533, .378)
Unequal	-.32	49.19	.754	.246	(-.571, .416)

#### • SCENARIO 2

#### ANALYSIS OF VARIANCE

57 cases accepted.

0 cases rejected because of out-of-range factor values.

6 cases rejected because of missing data.

2 non-empty cells.

EFFECT .. EDU2

Univariate F-tests with (1,55) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
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PA	96.96776	2326.29540	96.96776	42.29628	2.29258	.136
PB	610.13651	9996.00384	610.13651	181.74552	3.35709	<b>.072</b>
PC	207.19525	5490.69949	207.19525	99.83090	2.07546	.155
PD	11.63010	3269.94885	11.63010	59.45362	.19562	.660
PE	34.49545	1519.53964	34.49545	27.62799	1.24857	.269
PF	27.54215	3641.33504	27.54215	66.20609	.41601	.522
PG	154.82409	3915.21100	154.82409	71.18565	2.17493	.146

#### T-TESTS for Independent Samples of EDU2

##### **FEEL1**

Variable	Number of Cases	Mean	SD	SE of Mean	
EDU2 1	37	<b>2.1351</b>	.751	.124	
EDU2 2	24	<b>2.6667</b>	1.007	.206	
Mean Difference = -.5315					
Levene's Test for Equality of Variances: F= 2.997 P= .089					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-2.36	59	<b>.022</b>	.225	(-.983, -.080)
Unequal	-2.22	39.33	.033	.240	(-1.017, -.047)

##### **FEEL2**

Variable	Number of Cases	Mean	SD	SE of Mean	
*****					
EDU2 1	37	<b>2.0270</b>	.799	.131	
EDU2 2	23	<b>2.1739</b>	1.302	.272	
*****					
Mean Difference = -.1469					
Levene's Test for Equality of Variances: F= 6.865 P= .011					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
*****					
Equal	-.54	58	<b>.589</b>	.271	(-.689, .395)
Unequal	-.49	32.41	.630	.302	(-.761, .467)
*****					

#### • SCENARIO 3

#### ANALYSIS OF VARIANCE

61 cases accepted.

0 cases rejected because of out-of-range factor values.

4 cases rejected because of missing data.

2 non-empty cells.

EFFECT .. EDU2 (Cont.)

Univariate F-tests with (1,59) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	2.40525	3521.26688	2.40525	59.68249	.04030	.842
PB	.85648	12448.2255	.85648	210.98687	.00406	.949
PC	744.08059	10712.2473	744.08059	181.56351	4.09818	<b>.047</b>
PD	1.93294	6103.21460	1.93294	103.44432	.01869	.892
PE	21.96295	1516.36492	21.96295	25.70110	.85455	.359
PF	124.27308	6295.95643	124.27308	106.71113	1.16457	.285
PG	195.65163	3026.41394	195.65163	51.29515	3.81423	<b>.056</b>

#### T-TESTS for Independent Samples of EDU2

##### Variable PC

Variable	Number of Cases	Mean	SD	SE of Mean	
high school	34	<b>14.2647</b>	9.668	1.658	
university	27	<b>21.2963</b>	17.128	3.296	
Mean Difference = -7.0316					
Levene's Test for Equality of Variances: F= 3.492 P= .067					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-2.02	59	<b>.047</b>	3.473	(-13.982, -.081)
Unequal	-1.91	38.86	.064	3.690	(-14.496, .433)

##### Variable PG

Variable	Number of Cases	Mean	SD	SE of Mean	
high school	34	13.2353	7.480	1.283	
university	27	9.6296	6.738	1.297	
Mean Difference = 3.6057					
Levene's Test for Equality of Variances: F= 2.616 P= .111					
t-test for Equality of Means					
Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	1.95	59	.056	1.846	(-.089, 7.300)
Unequal	1.98	58.01	.053	1.824	(-.045, 7.257)

##### FEEL1

Variable	Number of Cases	Mean	SD	SE of Mean
high school	36	<b>2.3056</b>	.710	.118

university	26	2.3462	.977	.192
------------	----	--------	------	------

Mean Difference = -.0406

Levene's Test for Equality of Variances: F= 2.130 P= .150

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.19	60	.850	.214	(-.469, .388)
Unequal	-.18	43.20	.858	.225	(-.495, .414)

## FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean
high school	36	1.9444	.791	.132
university	26	2.1923	1.132	.222

Mean Difference = -.2479

Levene's Test for Equality of Variances: F= 10.666 P= .002

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.02	60	.314	.244	(-.736, .240)
Unequal	-.96	42.00	.343	.258	(-.769, .273)

### 13- ANALYSIS OF INDEPENDENT VARIABLE: INDUSTRY (Question 6)

#### A - RATING SCALE QUESTIONS - WORKER SAMPLE

Although the variable INDU was recoded in INDU2 (1=1=trade; 2=2=manufacturing; 3=3=government; 4,5,6=4=services industries), the low number of observations (only the workers fill out this question) did not allow a proper analysis through CROSS-TABS. However, by recoding all the rating scale questions (1,2=1 and 2,3,4=2) we were able to use the CROSS-TABS, but absolutely no results were significant. This might be because the variable INDU does not have any impact on the dependent variables, but it might be also because the sample is too small to be usefull. We will not present these results here but we will present the ONEWAY ANOVA and LSD TEST that have shown significant differences

Variable **NEGO4**  
By Variable INDU2

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	9.5588	3.1863	2.0728	<b>.1097</b>
Within Groups	87	133.7379	1.5372		
Total	90	143.2967			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .8767 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G G
		r r r r
		p p p p
		1 4 3 2
Mean	INDU2	
2.1667	Grp 1	
2.5455	Grp 4	
2.8000	Grp 3	
3.0500	Grp 2	*

Variable **REL3**  
By Variable INDU2

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	7.6652	2.5551	1.4158	<b>.2434</b>
Within Groups	89	160.6143	1.8047		

Total 92 168.2796  
Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .9499 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G G
		r r r r
		p p p p
		4 3 2 1
Mean	INDU2	
2.3043	Grp 4	
2.6667	Grp 3	
2.8571	Grp 2	
3.0800	Grp 1	*

Variable STATUS3  
By Variable INDU2

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	8.0694	2.6898	1.7256	.1671
Within Groups	93	144.9615	1.5587		
Total	96	153.0309			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .8828 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G G
		r r r r
		p p p p
		2 3 1 4
Mean	INDU2	
2.0000	Grp 2	
2.0769	Grp 3	
2.2308	Grp 1	
2.7500	Grp 4	*

## B - INTRA-SCENARIOS ANALYSIS - WORKER SAMPLE

### • SCENARIO 1

#### ANALYSIS OF VARIANCE

EFFECT .. INDU2

Univariate F-tests with (3,25) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	363.13870	1213.68889	121.04623	48.54756	2.49335	<b>.083</b>
PB	235.45862	3571.30000	78.48621	142.85200	.54942	.653
PC	550.63870	3816.18889	183.54623	152.64756	1.20242	.329
PD	48.02605	993.42222	16.00868	39.73689	.40287	.752
PE	12.23448	386.80000	4.07816	15.47200	.26358	.851
PF	483.39617	1821.15556	161.13206	72.84622	2.21195	.112
PG	209.40690	814.80000	69.80230	32.59200	2.14170	.120

ONEWAY ANOVA + LSD TEST. Instead of using indep T-tests, when we have more than two categories in a variable, we will be using a ONEWAY ANOVA analysis and a LSD test to test questions 25 and 26 and the objectives where significant differences have been found.

#### **Variable PA**

By Variable INDU2

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	363.1387	121.0462	2.4934	<b>.0832</b>
Within Groups	25	1213.6889	48.5476		
Total	28	1576.8276			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 4.9268 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.91

(\*) Indicates significant differences which are shown in the lower triangle

G G G G  
r r r r  
p p p p

4 2 1 3

Mean INDU2

10.0000 Grp 4  
11.1111 Grp 2  
11.8000 Grp 1

20.0000 Grp 3 \* \*  
**Variable FEEL1**  
 By Variable INDU2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	.5857	.1952	.3055	<b>.8212</b>
Within Groups	31	19.8143	.6392		
Total	34	20.4000			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .5653 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.88

- No two groups are significantly different at the .050 level

**Variable FEEL2**  
 By Variable INDU2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	5.9095	1.9698	2.2423	<b>.1030</b>
Within Groups	31	27.2333	.8785		
Total	34	33.1429			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .6628 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.88

(\*) Indicates significant differences which are shown in the lower triangle

G G G G  
 r r r r  
 p p p p

1 4 2 3

Mean INDU2

1.8333 Grp 1  
 2.0000 Grp 4  
 2.4000 Grp 2  
 3.0000 Grp 3 \* \*

• SCENARIO 2

ANALYSIS OF VARIANCE

EFFECT .. INDU2

Univariate F-tests with (3,24) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	18.37302	952.30556	6.12434	39.67940	.15435	.926
PB	238.09524	7033.33333	79.36508	293.05556	.27082	.846
PC	220.63492	2503.47222	73.54497	104.31134	.70505	.558
PD	69.74206	1540.97222	23.24735	64.20718	.36207	.781
PE	96.71825	940.13889	32.23942	39.17245	.82301	.494
PF	99.44444	1218.55556	33.14815	50.77315	.65287	.589
PG	434.20635	2069.22222	144.73545	86.21759	1.67872	.198

ONEWAY ANOVA + LSD TEST

**Variable FEEL1**

By Variable INDU2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	3.3525	1.1175	1.4047	<b>.2647</b>
Within Groups	25	19.8889	.7956		
Total	28	23.2414			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .6307 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.91

- No two groups are significantly different at the .050 level

**Variable FEEL2**

By Variable INDU2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	10.6533	3.5511	2.8385	<b>.0593</b>
Within Groups	24	30.0253	1.2511		
Total	27	40.6786			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .7909 * RANGE * \sqrt{1/N(I) + 1/N(J)}$



with the following value(s) for RANGE: 2.92  
 (\*) Indicates significant differences which are shown in the lower triangle

		G G G G
		r r r r
		p p p p
		1 3 2 4
Mean	INDU2	
1.8889	Grp 1	
2.1818	Grp 3	
2.7500	Grp 2	
3.7500	Grp 4	* *

• SCENARIO 3

ANALYSIS OF VARIANCE

EFFECT .. INDU2

Univariate F-tests with (3,26) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	128.75833	1692.70833	42.91944	65.10417	.65924	.585
PB	342.09167	6089.37500	114.03056	234.20673	.48688	.694
PC	413.89167	7905.97500	137.96389	304.07596	.45372	.717
PD	126.15833	2293.20833	42.05278	88.20032	.47679	.701
PE	31.75833	1026.94167	10.58611	39.49776	.26802	.848
PF	1342.49167	2160.87500	447.49722	83.11058	5.38436	.005
PG	92.13333	1228.56667	30.71111	47.25256	.64994	.590

ONEWAY ANOVA + LSD TEST

Variable PERC\_F  
 By Variable INDU2

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	1342.4917	447.4972	5.3844	.0051
Within Groups	26	2160.8750	83.1106		
Total	29	3503.3667			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 6.4463 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.9

(\*) Indicates significant differences which are shown in the lower triangle

		G G G G
		r r r r
		p p p p
		4 3 1 2
Mean	INDU2	
7.1250	Grp 4	
7.5000	Grp 3	
14.5000	Grp 1	
25.0000	Grp 2	* * *

Variable FEEL1  
By Variable INDU2

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	4.0164	1.3388	1.5083	.2367
Within Groups	25	22.1905	.8876		
Total	28	26.2069			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6662 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.91

- No two groups are significantly different at the .050 level

Variable FEEL2  
By Variable INDU2

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	3.6312	1.2104	.8858	.4620
Within Groups	25	34.1619	1.3665		
Total	28	37.7931			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .8266 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.91

- No two groups are significantly different at the .050 level

# 14- ANALYSIS OF INDEPENDENT VARIABLE: POSITION (Question 7)

## A - RATING SCALE QUESTIONS - WORKER SAMPLE

Here too there were too few observation to use properly the CROSS-TABS methods. Despite Intensive recodage of the variable POSITION (1,2,3=1 and 4,5,6=2) we found ne significant differences. We show here the only significant ONEWAY ANOVA + LSD TEST. For this analysis, we used POSITION (1,2=1 high position; 3,4=2 middle position; 5,6=3 lower position)= POST4.

Variable NEGO2  
By Variable POST4

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	6.0083	3.0041	2.2738	.1092
Within Groups	84	110.9802	1.3212		
Total	86	116.9885			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .8128 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	POST4	
2.3636	Grp 1	
3.0000	Grp 2	
3.2609	Grp 3	*

## B - SCENARIOS ANALYSIS - WORKER SAMPLE

### • SCENARIO 1

#### ANALYSIS OF VARIANCE

29 cases accepted.  
0 cases rejected because of out-of-range factor values.  
7 cases rejected because of missing data.  
3 non-empty cells.

EFFECT .. POST4

Univariate F-tests with (2,26) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	18.89376	1557.93382	9.44688	59.92053	.15766	.855
PB	727.89097	3078.86765	363.94549	118.41799	3.07340	<b>.063</b>
PC	18.01141	4348.81618	9.00570	167.26216	.05384	.948
PD	23.94092	1017.50735	11.97046	39.13490	.30588	.739
PE	15.01978	384.01471	7.50989	14.76980	.50846	.607
PF	70.55908	2233.99265	35.27954	85.92279	.41060	.667
PG	145.83925	878.36765	72.91962	33.78337	2.15845	.136

# ONEWAY ANOVA + LSD TEST

Variable PB  
By Variable POST4

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	727.8910	363.9455	3.0734	<b>.0634</b>
Within Groups	26	3078.8676	118.4180		
Total	28	3806.7586			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 7.6947 * RANGE * \sqrt{1/N(I) + 1/N(J)}$

with the following value(s) for RANGE: 2.91

(\*) Indicates significant differences which are shown in the lower triangle

G G G  
r r r  
p p p  
1 3 2

Mean POST4

13.7500 Grp 1  
14.5000 Grp 3  
24.4118 Grp 2

\*

Variable FEEL1  
By Variable POST4

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.9774	.4887	.7866	
<b>.4643</b>					
Within Groups	31	19.2579	.6212		

Total 33 20.2353  
Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .5573 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.88

- No two groups are significantly different at the .050 level

Variable FEEL2  
By Variable POST4

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.7428	.3714	.3750	<b>.6903</b>
Within Groups	31	30.6984	.9903		
Total	33	31.4412			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .7037 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.88

- No two groups are significantly different at the .050 level

#### • SCENARIO 2

#### ANALYSIS OF VARIANCE

25 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 5 cases rejected because of missing data.  
 3 non-empty cells.

EFFECT .. POST4 (1,2=1; 3,4=2; 5,6=3)  
 Univariate F-tests with (2,22) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	30.00667	875.83333	15.00333	39.81061	.37687	.690
PB	516.66667	6333.33333	258.33333	287.87879	.89737	.422
PC	100.72222	2315.27778	50.36111	105.23990	.47854	.626
PD	79.16667	1370.83333	39.58333	62.31061	.63526	.539
PE	277.58222	435.77778	138.79111	19.80808	7.00679	<b>.004</b>
PF	96.82889	944.61111	48.41444	42.93687	1.12757	.342
PG	358.22222	1503.77778	179.11111	68.35354	2.62036	
<b>.095</b>						

# ONEWAY + LSD ANALYSIS

**Variable PE**  
By Variable POST4

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	277.5822	138.7911	7.0068	<b>.0044</b>
Within Groups	22	435.7778	19.8081		
Total	24	713.3600			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 3.1471 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.93

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		3 2 1
Mean	POST4	
7.3333	Grp 3	
8.4444	Grp 2	
25.0000	Grp 1	* *

**Variable PG**  
By Variable POST4

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	358.2222	179.1111	2.6204	<b>.0953</b>
Within Groups	22	1503.7778	68.3535		
Total	24	1862.0000			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 5.8461 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.93

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		3 2 1
Mean	POST4	
6.3333	Grp 3	
14.5556	Grp 2	*
20.0000	Grp 1	

Variable FEEL1  
By Variable POST4

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.8889	.4444	.4730	.6291
Within Groups	23	21.6111	.9396		
Total	25	22.5000			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6854 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.93

- No two groups are significantly different at the .050 level

Variable FEEL2  
By Variable POST4

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.1400	.0700	.0413	.9596
Within Groups	22	37.3000	1.6955		
Total	24	37.4400			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .9207 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.93

- No two groups are significantly different at the .050 level

• SCENARIO 3

ANALYSIS OF VARIANCE

26 cases accepted.

0 cases rejected because of out-of-range factor values.

5 cases rejected because of missing data.

3 non-empty cells.

EFFECT .. POST4

Univariate F-tests with (2,23) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PERC_A	26.19231	1503.19231	13.09615	65.35619	.20038	.820
PERC_B	450.19231	4334.30769	225.09615	188.44816	1.19447	.321
PERC_C	636.34808	3007.99808	318.17404	130.78253	2.43285	<b>.110</b>
PERC_D	24.57885	1473.76731	12.28942	64.07684	.19179	.827
PERC_E	115.78654	892.67500	57.89327	38.81196	1.49163	.246
PERC_F	10.85577	2991.18269	5.42788	130.05142	.04174	.959
PERC_G	18.62308	1041.22308	9.31154	45.27057	.20569	.816

ONEWAY + LSD TEST

**Variable PERC\_C**

By Variable POST4

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	636.3481	318.1740	2.4328	<b>.1100</b>
Within Groups	23	3007.9981	130.7825		
Total	25	3644.3462			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 8.0865 * RANGE * \sqrt{1/N(I) + 1/N(J)}$

with the following value(s) for RANGE: 2.93

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	POST4	
9.4000	Grp 1	
15.3750	Grp 3	
22.0769	Grp 2	*



Variable FEEL1  
By Variable POST4

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	3.1671	1.5836	1.6285	<b>.2190</b>
Within Groups	22	21.3929	.9724		
Total	24	24.5600			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6973 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.93

- No two groups are significantly different at the .050 level

Variable FEEL2  
By Variable POST4

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	6.1071	3.0536	2.5945	<b>.0973</b>
Within Groups	22	25.8929	1.1769		
Total	24	32.0000			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .7671 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.93

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		2 3 1
Mean	POST4	
1.8571	Grp 2	
2.2857	Grp 3	
3.2500	Grp 1	*

# 15- ANALYSIS OF INDEPENDENT VARIABLE: CONTACT (Question 8)

To improve the results of this analysis, we recoded the variable CONTACT into CONTACT2 (1=1, 2,3=2; 4,5=3).

## A - RATING SCALE QUESTIONS - WORKER SAMPLE

- CONTACT2 by PERCP1.3 (3,4,5=3)

		PERCP1.3			Row Total
		Count "	Exp Val "		
		"	"	"	"
		1.00"	2.00"	3.00"	
CONTACT2	1	11	17	11	39
no contact		10.7	17.2	11.1	41.1%
	2	8	13	6	27
rare contact		7.4	11.9	7.7	28.4%
	3	7	12	10	29
frequent contact		7.9	12.8	8.2	30.5%
Column		26	42	27	95
Total		27.4%	44.2%	28.4%	100.0%

Chi-Square	Value	DF	Significance
Pearson	1.06228	4	.90021
Likelihood Ratio	1.06970	4	.89905
Linear-by-Linear	.25551	1	.61322
Association			
Minimum Expected Frequency - 7.389			
Number of Missing Observations: 3			

- CONTACT2 by PERCP2.3 (3,4,5=3)

		PERCP2.3			Row Total
		Count "	Exp Val "		
		"	"	"	"
		1.00"	2.00"	3.00"	
CONTACT2	1	11	15	13	39
no contact		8.2	16.8	14.0	41.1%
	2	4	13	10	27
rare contact		5.7	11.7	9.7	28.4%
	3	5	13	11	29
frequent contact		6.1	12.5	10.4	30.5%
Column		20	41	34	95
Total		21.1%	43.2%	35.8%	100.0%

Chi-Square	Value	DF	Significance
Pearson	2.13530	4	<b>.71089</b>
Likelihood Ratio	2.11712	4	.71423
Linear-by-Linear	.80999	1	.36812
Association			
Minimum Expected Frequency -	5.684		
Number of Missing Observations:	3		

- CONTACT2 by PERCP3.4 (1,2=1; 3,4,5=2)

		PERCP3.4			
Count		"		"	
Exp Val		"		"	
		"		Row	
		1.00"		2.00"	
				Total	
CONTACT2	1	15	24	39	
no contact		18.5	20.5	41.1%	
	2	13	14	27	
rare contact		12.8	14.2	28.4%	
	3	17	12	29	
frequent contact		13.7	15.3	30.5%	
Column		45	50	95	
Total		47.4%	52.6%	100.0%	

Chi-Square	Value	DF	Significance
Pearson	2.72041	2	<b>.25661</b>
Likelihood Ratio	2.73592	2	.25463
Linear-by-Linear	2.69059	1	.10094
Association			
Minimum Expected Frequency -	12.789		
Number of Missing Observations:	3		

- CONTACT2 by STATU1.3 (3,4,5=3)

		STATU1.3			
Count		"		"	
Exp Val		"		"	
		"		Row	
		1.00"		2.00"	
				3.00"	
				Total	
CONTACT2	1	24	7	7	38
no contact		21.8	8.9	7.3	40.4%
	2	13	9	5	27
rare contact		15.5	6.3	5.2	28.7%
	3	17	6	6	29
frequent contact		16.7	6.8	5.6	30.9%
Column		54	22	18	94
Total		57.4%	23.4%	19.1%	100.0%

Chi-Square	Value	DF	Significance
Pearson	2.31299	4	<b>.67841</b>
Likelihood Ratio	2.23165	4	.69324
Linear-by-Linear	.15746	1	.69150
Association			
Minimum Expected Frequency -	5.170		
Number of Missing Observations:	4		

• CONTACT2 by STATU2.2 (4,5=4)

		STATU2.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
CONTACT2						
	1	"	4	15	11	9
no contact		"	7.4	11.5	11.1	9.0
		§				
	2	"	6	5	7	9
rare contact		"	5.1	8.0	7.7	6.3
		§				
	3	"	8	8	9	4
frequent contact		"	5.5	8.5	8.2	6.7
		~				
	Column		18	28	27	22
	Total		18.9%	29.5%	28.4%	23.2%
						100.0%

Chi-Square	Value	DF	Significance
Pearson	7.48818	6	<b>.27805</b>
Likelihood Ratio	7.76896	6	.25552
Linear-by-Linear	1.47423	1	.22468
Association			
Minimum Expected Frequency -	5.116		
Number of Missing Observations:	3		

• CONTACT2 by STATU3.2 (4,5=4)

		STATU3.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
CONTACT2						
	1	"	13	9	9	8
no contact		"	14.4	9.0	8.6	7.0
		§				
	2	"	14	6	3	4
rare contact		"	9.9	6.3	6.0	4.8
		§				
	3	"	8	7	9	5
frequent contact		"	10.7	6.7	6.4	5.2
		~				
	Column		35	22	21	17
	Total		36.8%	23.2%	22.1%	17.9%
						100.0%

Chi-Square	Value	DF	Significance
Pearson	5.31654	6	.50390
Likelihood Ratio	5.41583	6	.49169
Linear-by-Linear	.01432	1	.90475
Association			
Minimum Expected Frequency -	4.832		
Cells with Expected Frequency < 5 -	1 of 12 ( 8.3%)		
Number of Missing Observations:	3		

• CONTACT2 by STATU4.2 (4,5=4)

		STATU4.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
CONTACT2	1	9	7	12	10	38
no contact		11.7	7.3	9.7	9.3	40.4%
	2	10	6	5	6	27
rare contact		8.3	5.2	6.9	6.6	28.7%
	3	10	5	7	7	29
frequent contact		8.9	5.6	7.4	7.1	30.9%
Column		29	18	24	23	94
Total		30.9%	19.1%	25.5%	24.5%	100.0%

Chi-Square	Value	DF	Significance
Pearson	2.48677	6	.86995
Likelihood Ratio	2.53078	6	.86501
Linear-by-Linear	.72120	1	.39575
Association			
Minimum Expected Frequency -	5.170		
Number of Missing Observations:	4		

• CONTACT2 by REL2.2 (4,5=4)

		REL2.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
CONTACT2	1	7	12	9	11	39
no contact		7.8	11.5	9.0	10.7	41.1%
	2	4	9	4	10	27
rare contact		5.4	8.0	6.3	7.4	28.4%
	3	8	7	9	5	29
frequent contact		5.8	8.5	6.7	7.9	30.5%
Column		19	28	22	26	95
Total		20.0%	29.5%	23.2%	27.4%	100.0%

Chi-Square	Value	DF	Significance
Pearson	5.32580	6	<b>.50276</b>
Likelihood Ratio	5.40635	6	.49285
Linear-by-Linear Association	.64512	1	.42186
Minimum Expected Frequency -	5.400		
Number of Missing Observations:	3		

- CONTACT2 by REL3.2 (4,5=4)

		REL3.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
CONTACT2						
	1	"	8 "	12 "	5 "	11 "
no contact		"	8.7 "	8.7 "	6.7 "	11.9 "
	2	"	8 "	8 "	5 "	6 "
rare contact		"	6.5 "	6.5 "	5.0 "	8.9 "
	3	"	6 "	2 "	7 "	13 "
frequent contact		"	6.8 "	6.8 "	5.2 "	9.2 "
Column			22	22	17	30
Total			24.2%	24.2%	18.7%	33.0%
						91
						100.0%

Chi-Square	Value	DF	Significance
Pearson	9.00705	6	<b>.17318</b>
Likelihood Ratio	10.07124	6	.12168
Linear-by-Linear Association	1.86264	1	.17232
Minimum Expected Frequency -	5.044		
Number of Missing Observations:	7		

- CONTACT2 by REL1.4 (1,2=1; 3=2; 4,5=3)

		REL1.4			
		Count			Row
		Exp Val			Total
			1.00"	2.00"	3.00"
CONTACT2					
	1	"	18 "	12 "	9 "
no contact		"	13.5 "	14.4 "	11.1 "
	2	"	7 "	11 "	9 "
rare contact		"	9.4 "	9.9 "	7.7 "
	3	"	8 "	12 "	9 "
frequent contact		"	10.1 "	10.7 "	8.2 "
Column			33	35	27
Total			34.7%	36.8%	28.4%
					95
					100.0%

Chi-Square	Value	DF	Significance
Pearson	3.84840	4	<b>.42691</b>
Likelihood Ratio	3.82793	4	.42979
Linear-by-Linear	2.06694	1	.15052
Association			
Minimum Expected Frequency -	7.674		
Number of Missing Observations:	3		

- CONTACT2 by REL4.4 (1,2=1; 3=2; 4,5=3)

		REL4.4			
Count		"			
Exp Val		"			
		"			Row
		1.00"	2.00"	3.00"	Total
CONTACT2	.....>				
1	"	14	8	17	39
no contact	"	11.9	10.7	16.4	41.1%
	§.....>				
2	"	7	7	13	27
rare contact	"	8.2	7.4	11.4	28.4%
	§.....>				
3	"	8	11	10	29
frequent contact	"	8.9	7.9	12.2	30.5%
	~.....~				
Column		29	26	40	95
Total		30.5%	27.4%	42.1%	100.0%

Chi-Square	Value	DF	Significance
Pearson	3.16510	4	<b>.53059</b>
Likelihood Ratio	3.11047	4	.53951
Linear-by-Linear	.00052	1	.98186
Association			
Minimum Expected Frequency -	7.389		
Number of Missing Observations:	3		

- CONTACT2 by NEG01.3 (3,4,5=3)

		NEG01.3			
Count		"			
Exp Val		"			
		"			Row
		1.00"	2.00"	3.00"	Total
CONTACT2	.....>				
1	"	9	15	15	39
no contact	"	12.6	15.5	10.9	41.9%
	§.....>				
2	"	10	10	6	26
rare contact	"	8.4	10.3	7.3	28.0%
	§.....>				
3	"	11	12	5	28
frequent contact	"	9.0	11.1	7.8	30.1%
	~.....~				
Column		30	37	26	93
Total		32.3%	39.8%	28.0%	100.0%

Chi-Square	Value	DF	Significance
Pearson	4.63545	4	<b>.32679</b>
Likelihood Ratio	4.70384	4	.31906
Linear-by-Linear	3.90237	1	.04822
Association			
Minimum Expected Frequency -	7.269		
Number of Missing Observations:	5		

- CONTACT2 by NEGO2.4 (1,2=1; 3=2; 4,5=3)

		NEGO2.4			
Count		"			
Exp Val		"			
		"			Row
		1.00"	2.00"	3.00"	Total
CONTACT2	1	10	10	19	39
no contact	"	13.8	12.2	13.0	41.9%
	2	11	6	9	26
rare contact	"	9.2	8.1	8.7	28.0%
	3	12	13	3	28
frequent contact	"	9.9	8.7	9.3	30.1%
Column		33	29	31	93
Total		35.5%	31.2%	33.3%	100.0%

Chi-Square	Value	DF	Significance
Pearson	11.93371	4	<b>.01785</b>
Likelihood Ratio	13.01641	4	.01120
Linear-by-Linear	7.28161	1	.00697
Association			
Minimum Expected Frequency -	8.108		
Number of Missing Observations:	5		

- CONTACT2 by NEGO4.4 (1,2=1; 3=2; 4,5=3)

		NEGO4.4			
Count		"			
Exp Val		"			
		"			Row
		1.00"	2.00"	3.00"	Total
CONTACT2	1	15	10	13	38
no contact	"	17.1	11.5	9.4	42.7%
	2	14	9	3	26
rare contact	"	11.7	7.9	6.4	29.2%
	3	11	8	6	25
frequent contact	"	11.2	7.6	6.2	28.1%
Column		40	27	22	89
Total		44.9%	30.3%	24.7%	100.0%



Chi-Square	Value	DF	Significance
Pearson	4.31606	4	<b>.36492</b>
Likelihood Ratio	4.60759	4	.32998
Linear-by-Linear Association	.78202	1	.37652
Minimum Expected Frequency -	6.180		
Number of Missing Observations:	9		

• CONTACT2 by NEG03.3 (3,4,5=3)

		NEG03.3			
		Count			
		Exp Val			
			1.00	2.00	3.00
					Row Total
CONTACT2					
	1	8	13	17	38
no contact		7.6	15.6	14.8	42.2%
	2	2	13	11	26
rare contact		5.2	10.7	10.1	28.9%
	3	8	11	7	26
frequent contact		5.2	10.7	10.1	28.9%
Column Total		18	37	35	90
		20.0%	41.1%	38.9%	100.0%

Chi-Square	Value	DF	Significance
Pearson	5.81645	4	<b>.21328</b>
Likelihood Ratio	6.30295	4	.17764
Linear-by-Linear Association	1.71319	1	.19057

Minimum Expected Frequency - 5.200

Number of Missing Observations: 8

#### Significant ONEWAY ANOVA + LSD TEST

Variable NEG02  
By Variable CONTACT2

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	7.5616	3.7808	2.8492	<b>.0631</b>
Within Groups	90	119.4277	1.3270		
Total	92	126.9892			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $\text{MEAN}(J) - \text{MEAN}(I) \geq .8145 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		3 2 1
Mean	CONTACT2	
2.6786	Grp 3	
2.8846	Grp 2	
3.3333	Grp 1	*

**Variable** NEG03  
 By Variable CONTACT2

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	5.3234	2.6617	2.0511	<b>.1348</b>
Within Groups	87	112.8988	1.2977		
Total	89	118.2222			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $\text{MEAN}(J) - \text{MEAN}(I) \geq .8055 * \text{RANGE} * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		3 2 1
Mean	CONTACT2	
2.0769	Grp 3	
2.5000	Grp 2	
2.6579	Grp 1	*

Variable REL3  
By Variable CONTACT2

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	9.4229	4.7114	2.6457	.0766
Within Groups	88	156.7090	1.7808		
Total	90	166.1319			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .9436 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.81

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		2 1 3
Mean	CONTACT2	
2.3704	Grp 2	
2.6389	Grp 1	
3.1786	Grp 3	*

#### B - INTRA-SCENARIO ANALYSIS - WORKER SAMPLE

##### • SCENARIO 1

#### ANALYSIS OF VARIANCE

30 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 6 cases rejected because of missing data.  
 3 non-empty cells.

EFFECT .. CONTACT2

Univariate F-tests with (2,27) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	111.50641	1470.79359	55.75321	54.47384	1.02349	.373
PB	164.96026	3785.83974	82.48013	140.21629	.58824	.562
PC	105.92308	4267.54359	52.96154	158.05717	.33508	
.718						
PD	120.00769	1205.35897	60.00385	44.64292	1.34408	
.278						
PE	53.88974	347.07692	26.94487	12.85470	2.09611	.142

PF	330.76923	1973.89744	165.38462	73.10731	2.26222	.124
PG	57.37692	969.58974	28.68846	35.91073	.79888	.460

ONEWAY ANOVA + LSD TEST

**Variable FEEL1**  
By Variable CONTACT2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.3710	.1855	.2719	<b>.7636</b>
Within Groups	33	22.5179	.6824		
Total	35	22.8889			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .5841 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.88

- No two groups are significantly different at the .050 level

**Variable FEEL2**  
By Variable CONTACT2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.1607	.0804	.0767	<b>.9264</b>
Within Groups	33	34.5893	1.0482		
Total	35	34.7500			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .7239 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.88

- No two groups are significantly different at the .050 level

• SCENARIO 2

ANALYSIS OF VARIANCE

27 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 3 cases rejected because of missing data.  
 3 non-empty cells.

## EFFECT .. CONTACT2

Univariate F-tests with (2,24) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	31.65993	843.30303	15.82997	35.13763	.45051	.643
PB	220.85438	6286.55303	110.42719	261.93971	.42157	.661
PC	42.82407	2581.25000	21.41204	107.55208	.19909	.821
PD	118.07660	1444.88636	59.03830	60.20360	.98064	.390
PE	37.05387	942.57576	18.52694	39.27399	.47174	.630
PF	110.63215	1156.55303	55.31608	48.18971	1.14788	.334
PG	329.72054	2134.57576	164.86027	88.94066	1.85360	.178

ONEWAY ANOVA + LSD TEST

**Variable FEEL1**  
By Variable CONTACT2

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	2.7541	1.3771	1.9017	<b>.1703</b>
Within Groups	25	18.1030	.7241		
Total	27	20.8571			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

MEAN(J)-MEAN(I)  $\geq$  .6017 \* RANGE \* SQRT(1/N(I) + 1/N(J))  
with the following value(s) for RANGE: 2.91

- No two groups are significantly different at the .050 level

**Variable FEEL2**  
By Variable CONTACT2

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4.7731	2.3865	1.6024	<b>.2222</b>
Within Groups	24	35.7455	1.4894		
Total	26	40.5185			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

MEAN(J)-MEAN(I)  $\geq$  .8630 \* RANGE \* SQRT(1/N(I) + 1/N(J))  
with the following value(s) for RANGE: 2.92

- No two groups are significantly different at the .050 level

• SCENARIO 3

ANALYSIS OF VARIANCE

28 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 3 cases rejected because of missing data.  
 3 non-empty cells.

EFFECT .. CONTACT2

Univariate F-tests with (2,25) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PERC_A	118.69091	1652.16623	59.34545	66.08665	.89799	.420
PERC_B	55.89935	6317.06494	27.94968	252.68260	.11061	.896
PERC_C	100.99091	8018.72338	50.49545	320.74894	.15743	.855
PERC_D	93.38377	1464.72338	46.69188	58.58894	.79694	.462
PERC_E	52.60000	960.11429	26.30000	38.40457	.68481	.513
PERC_F	50.24091	3309.00909	25.12045	132.36036	.18979	.828
PERC_G	85.17597	1152.07403	42.58799	46.08296	.92416	.410

ONEWAY ANOVA + LSD TEST

**Variable FEEL1**  
 By Variable CONTACT2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.3968	.1984	.1959	.8233
Within Groups	25	25.3175	1.0127		
Total	27	25.7143			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .7116 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.91

- No two groups are significantly different at the .050 level

**Variable FEEL2**  
 By Variable CONTACT2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	Prob.

Between Groups	2	.8373	.4187	.2967	<b>.7458</b>
Within Groups	25	35.2698	1.4108		
Total	27	36.1071			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq .8399 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$

with the following value(s) for RANGE: 2.91

- No two groups are significantly different at the .050 level

**16 - ANALYSIS OF INDEPENDENT VARIABLE: PERCEPTION**  
**(Question 9 TO 11)**

Instead of doing the same analysis for all three questions 9, 10 and 11. We bundled the answers to those three questions into one variable PERCEP8. Since all three questions have the same structure, use the same scale and concern the same subject, we can consider PERCEP8 to reflect the overall perception of North American businessmen and business practices of the respondents. To create PERCEP8, we added the results of PERCEP1, 2 and 3. We obtained a variable called PERCEP7 with a range from 3 to 15. We then recoded PERCEP7 in PERCEP8 with (3-6=1 favorable perception; 7=2 neutral perception; 8-15=defavorable perception).

**A - RATING SCALE QUESTIONS - ALL SAMPLES**

• PERCEP8 by NEGO2

		NEGO2									
		Count	"								
		Exp Val	"								
			"								Row
			1"	2"	3"	4"	5"	Total			
PERCEP8		1	12	23	24	17	12				
favorable			10.8	26.3	22.9	19.8	8.2	43.1%			
		2	6	18	12	15	3				
neutral			6.6	16.1	14.0	12.2	5.0	26.5%			
		3	7	20	17	14	4				
defavorable			7.6	18.5	16.1	14.0	5.8	30.4%			
		Column	25	61	53	46	19	204			
		Total	12.3%	29.9%	26.0%	22.5%	9.3%	100.0%			

Chi-Square	Value	DF	Significance
Pearson	5.57812	8	.69437
Likelihood Ratio	5.55648	8	.69678
Linear-by-Linear Association	.44146	1	.50642

Minimum Expected Frequency - 5.029  
Number of Missing Observations: 5

• PERCEP8 by NEGO4

		NEGO4
		Count
		Exp Val
		"
		Row





• PERCEP8 by NEGO3.2 (4,5=4)

		NEGO3.2					
		Count	"				
		Exp Val	"				
			"				Row
			1"	2"	3"	4"	Total
PERCEP8		.....>					
	1	" 12 "	" 40 "	" 23 "	" 14 "		89
favorable		" 13.2 "	" 38.8 "	" 23.4 "	" 13.7 "		44.1%
		§.....>					
	2	" 6 "	" 26 "	" 17 "	" 4 "		53
neutral		" 7.9 "	" 23.1 "	" 13.9 "	" 8.1 "		26.2%
		§.....>					
	3	" 12 "	" 22 "	" 13 "	" 13 "		60
defavorable		" 8.9 "	" 26.1 "	" 15.7 "	" 9.2 "		29.7%
		-.....~					
	Column	30	88	53	31		202
	Total	14.9%	43.6%	26.2%	15.3%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	7.53164	6	<b>.27446</b>
Likelihood Ratio	7.78651	6	.25417
Linear-by-Linear	.00033	1	.98542
Association			

Minimum Expected Frequency - 7.871  
Number of Missing Observations: 7

• PERCEP8 by REL4

		REL4						
		Count						
		Exp Val						
							Row	
			1	2	3	4	5	Total
PERCEP8		.....>						
	1	" 13 " 18 " 24 " 21 " 15 " 91						
favorable		" 11.0 " 15.0 " 26.1 " 20.3 " 18.6 " 44.2%						
		§.....>						
	2	" 2 " 8 " 15 " 14 " 14 " 53						
neutral		" 6.4 " 8.7 " 15.2 " 11.8 " 10.8 " 25.7%						
		§.....>						
	3	" 10 " 8 " 20 " 11 " 13 " 62						
defavorable		" 7.5 " 10.2 " 17.8 " 13.8 " 12.6 " 30.1%						
		-.....~						
Column		25	34	59	46	42	206	
Total		12.1%	16.5%	28.6%	22.3%	20.4%	100.0%	

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	8.44466	8	<b>.39128</b>
Likelihood Ratio	9.47487	8	
.30383			
Linear-by-Linear	.29282	1	
.58842			
Association			

Minimum Expected Frequency - 6.432

Number of Missing Observations: 3

- PERCEP8 by REL2.2 (4,5=4)

		REL2.2						
		Count	"					
		Exp Val	"					
			"			Row		
			"	1.00"	2.00"	3.00"	4.00"	Total
PERCEP8		.....>						
	1	" 22 "	" 29 "	" 21 "	" 19 "			91
favorable		" 19.1 "	" 28.9 "	" 20.0 "	" 23.1 "			44.4%
		§.....>						
	2	" 11 "	" 20 "	" 8 "	" 15 "			54
neutral		" 11.3 "	" 17.1 "	" 11.9 "	" 13.7 "			26.3%
		§.....>						
	3	" 10 "	" 16 "	" 16 "	" 18 "			60
defavorable		" 12.6 "	" 19.0 "	" 13.2 "	" 15.2 "			29.3%
		~.....~						
	Column	43	65	45	52			205
	Total	21.0%	31.7%	22.0%	25.4%			100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	5.21730	6	<b>.51626</b>
Likelihood Ratio	5.37748	6	.49639
Linear-by-Linear	2.55646	1	.10984
Association			

Minimum Expected Frequency - 11.327

Number of Missing Observations: 4

- PERCEP8 by REL3.2 (4,5=4)

		REL3.2					
		Count	"				
		Exp Val	"				
		"				Row	
		"	1.00"	2.00"	3.00"	4.00"	Total
PERCEP8		.....>					
	1	" 22 "	" 20 "	" 18 "	" 29 "		89
favorable		" 23.9 "	" 20.4 "	" 18.2 "	" 26.6 "		44.3%
		§.....>					
	2	" 12 "	" 15 "	" 10 "	" 13 "		50
neutral		" 13.4 "	" 11.4 "	" 10.2 "	" 14.9 "		24.9%
		§.....>					
	3	" 20 "	" 11 "	" 13 "	" 18 "		62
defavorable		" 16.7 "	" 14.2 "	" 12.6 "	" 18.5 "		30.8%
		~.....~					
Column		54	46	41	60		201
Total		26.9%	22.9%	20.4%	29.9%		100.0%

Chi-Square	Value	DF	Significance
-----	-----	-----	-----
Pearson	3.30590	6	<b>.76959</b>
Likelihood Ratio	3.24120	6	.77802

Linear-by-Linear .55121 1 .45782

Association

Minimum Expected Frequency - 10.199

Number of Missing Observations: 8

• PERCEP8 by REL1.3 (1,2=1; 3=2; 4,5=3)

		REL1.3			
		Count			
		Exp Val			
			1.00	2.00	3.00
					Row Total
PERCEP8					
	1	" 39 "	" 27 "	" 25 "	91
favorable		" 35.6 "	" 31.7 "	" 23.7 "	44.0%
	2	" 25 "	" 17 "	" 12 "	54
neutral		" 21.1 "	" 18.8 "	" 14.1 "	26.1%
	3	" 17 "	" 28 "	" 17 "	62
defavorable		" 24.3 "	" 21.6 "	" 16.2 "	30.0%
Column		81	72	54	207
Total		39.1%	34.8%	26.1%	100.0%

Chi-Square	Value	DF	Significance
Pearson	6.39601	4	.17146
Likelihood Ratio	6.49280	4	.16524
Linear-by-Linear Association	1.09822	1	.29466

Minimum Expected Frequency - 14.087

Number of Missing Observations: 2

• PERCEP8 by STATU1.3 (3,4,5=3)

		STATU1.3		
		Count		
		Exp Val		
			1	2
				3
PERCEP8				Row Total
	1	" 62 "	" 19 "	" 10 "
favorable		" 53.7 "	" 24.9 "	" 12.4 "
	2	" 34 "	" 12 "	" 7 "
neutral		" 31.3 "	" 14.5 "	" 7.2 "
	3	" 25 "	" 25 "	" 11 "
defavorable		" 36.0 "	" 16.7 "	" 8.3 "
Column		121	56	28
Total		59.0%	27.3%	13.7%

Chi-Square Significance	Value	DF	
Pearson	12.19125	4	.01598

Likelihood Ratio	12.07530	4	.01680
Linear-by-Linear Association	7.69727	1	.00553

Minimum Expected Frequency - 7.239  
Number of Missing Observations: 4

• PERCEP8 by STATU2.2 (4,5=4)

		STATU2.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
PERCEP8						
	1	17	24	31	19	91
favorable		14.9	28.6	29.0	18.5	44.0%
	2	9	20	13	12	54
neutral		8.9	17.0	17.2	11.0	26.1%
	3	8	21	22	11	62
defavorable		10.2	19.5	19.8	12.6	30.0%
Column		34	65	66	42	207
Total		16.4%	31.4%	31.9%	20.3%	100.0%

Chi-Square	Value	DF	Significance
Pearson	3.88555	6	.69216
Likelihood Ratio	4.01075	6	.67522
Linear-by-Linear Association	.00043	1	.98346

Minimum Expected Frequency - 8.870  
Number of Missing Observations: 2

• PERCEP8 by STATU3.2 (4,5=4)

		STATU3.2				
		Count				Row
		Exp Val				Total
			1.00"	2.00"	3.00"	4.00"
PERCEP8						
	1	34	28	15	13	90
favorable		30.7	24.1	18.4	16.7	43.9%
	2	14	17	13	10	54
neutral		18.4	14.5	11.1	10.0	26.3%
	3	22	10	14	15	61
defavorable		20.8	16.4	12.5	11.3	29.8%
Column		70	55	42	38	205
Total		34.1%	26.8%	20.5%	18.5%	100.0%

Chi-Square	Value	DF	Significance

Pearson 8.18882 6 **.22459**  
Likelihood Ratio 8.59676 6 .19756  
Linear-by-Linear 2.60873 1 .10628  
Association  
Minimum Expected Frequency - 10.010  
Number of Missing Observations: 4  
• PERCEP8 by STATU4.2 (4,5=4)

		STATU4.2				
Count		"				
Exp Val		"				
		"				Row
		1.00"	2.00"	3.00"	4.00"	Total
PERCEP8		.....>	.....>	.....>	.....>	
	1	" 22 "	" 30 "	" 20 "	" 18 "	90
favorable		" 22.7 "	" 25.3 "	" 20.5 "	" 21.4 "	43.7%
		§.....>	§.....>	§.....>	§.....>	
	2	" 14 "	" 15 "	" 11 "	" 14 "	54
neutral		" 13.6 "	" 15.2 "	" 12.3 "	" 12.8 "	26.2%
		§.....>	§.....>	§.....>	§.....>	
	3	" 16 "	" 13 "	" 16 "	" 17 "	62
defavorable		" 15.7 "	" 17.5 "	" 14.1 "	" 14.7 "	30.1%
		-.....~	-.....~	-.....~	-.....~	
	Column	52	58	47	49	206
	Total	25.2%	28.2%	22.8%	23.8%	100.0%

Chi-Square	Value	DF	Significance
-----	-----	----	-----
Pearson	3.42680	6	<b>.75368</b>
Likelihood Ratio	3.49771	6	.74427
Linear-by-Linear	.87362	1	.34995
Association			

Minimum Expected Frequency - 12.320  
Number of Missing Observations: 3

#### Significant ONEWAY ANOVA + LSD TEST

**Variable** NEG01  
By Variable PERCEP8

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4.5742	2.2871	2.9965	<b>.0522</b>
Within Groups	202	154.1771	.7633		
Total	204	158.7512			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6178 * RANGE * \sqrt{1/N(I) + 1/N(J)}$

with the following value(s) for RANGE: 2.79

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	PERCEP8	
1.7753	Grp 1	
1.9259	Grp 2	
2.1290	Grp 3	*

**Variable STATUS1**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	3.4230	1.7115	2.2222	.1110
Within Groups	202	155.5722	.7702		
Total	204	158.9951			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6205 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.79

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	PERCEP8	
1.5165	Grp 1	
1.5283	Grp 2	
1.8033	Grp 3	*

**Variable REL4**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.

Between Groups	2	8.5542	4.2771	2.6377	<b>.0740</b>
Within Groups	203	329.1740	1.6215		
Total	205	337.7282			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

MEAN(J)-MEAN(I)  $\geq$  .9004 \* RANGE \* SQRT(1/N(I) + 1/N(J))  
with the following value(s) for RANGE: 2.79

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	PERCEP8	
3.0769	Grp 1	
3.1452	Grp 3	
3.5660	Grp 2	*

#### **B - INTER-SCENARIO ANALYSIS - ALL SAMPLES**

##### • SCENARIO 1

##### ANALYSIS OF VARIANCE

74 cases accepted.  
0 cases rejected because of out-of-range factor values.  
6 cases rejected because of missing data.  
3 non-empty cells.

EFFECT .. PERCEP8 (Cont.)

Univariate F-tests with (2,71) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	92.12170	3550.32424	46.06085	50.00457	.92113	.403
PB	142.25397	9466.84062	71.12699	133.33578	.53344	.589
PC	287.02854	8325.52552	143.51427	117.26092	1.22389	.300
PD	67.17734	4242.18752	33.58867	59.74912	.56216	.572
PE	17.01502	1005.03903	8.50751	14.15548	.60100	.551
PF	59.04086	5036.91860	29.52043	70.94252	.41612	.661
PG	208.70103	1998.39356	104.35052	28.14639	3.70742	<b>.029</b>

##### ONEWAY ANOVA + LSD TEST

**Variable PG**  
By Variable PERCEP8

Analysis of Variance



Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	208.7010	104.3505	3.7074	<b>.0294</b>
Within Groups	71	1998.3936	28.1464		
Total	73	2207.0946			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq 3.7514 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.82

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		3 1 2
Mean	PERCEP8	
9.5500	Grp 3	
10.0270	Grp 1	
13.8235	Grp 2	* *

#### Variable FEEL1

By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4.9664	2.4832	3.9114	<b>.0242</b>
Within Groups	76	48.2488	.6349		
Total	78	53.2152			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .5634 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.82

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 3 2
Mean	PERCEP8	
2.1579	Grp 1	
2.6364	Grp 3	*
2.6842	Grp 2	*

Variable **FEEL2**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	2.6403	1.3202	1.3765	<b>.2586</b>
Within Groups	77	73.8472	.9591		
Total	79	76.4875			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6925 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.82

- No two groups are significantly different at the .050 level

#### • SCENARIO 2

#### ANALYSIS OF VARIANCE

57 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 6 cases rejected because of missing data.  
 3 non-empty cells.

EFFECT .. PERCEP8  
 Univariate F-tests with (2,54) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	104.04855	2264.82864	52.02427	41.94127	1.24041	.297
PB	58.24023	10545.2685	29.12011	195.28275	.14912	.862
PC	3.14793	5694.74680	1.57397	105.45827	.01493	.985
PD	53.84529	3170.71611	26.92265	58.71697	.45852	.635
PE	24.01346	1412.82864	12.00673	26.16349	.45891	.634
PF	16.65742	3748.71100	8.32871	69.42057	.11997	.887
PG	108.14915	3972.06138	54.07457	73.55669	.73514	.484

#### ONEWAY ANOVA + LSD TEST

Variable **FEEL1**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8.6453	4.3226	6.3600	.0032
Within Groups	58	39.4203	.6797		
Total	60	48.0656			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .5829 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.83

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	PERCEP8	
1.8889	Grp 1	
2.2632	Grp 2	
2.7917	Grp 3	* *

**Variable FEEL2**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	6.1771	3.0886	3.2598	.0457
Within Groups	57	54.0062	.9475		
Total	59	60.1833			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$MEAN(J) - MEAN(I) \geq .6883 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 2.83

(\*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	PERCEP8	
1.7647	Grp 1	

1.9474 Grp 2  
2.5000 Grp 3 \*

• SCENARIO 3

ANALYSIS OF VARIANCE

62 cases accepted.  
0 cases rejected because of out-of-range factor values.  
3 cases rejected because of missing data.  
3 non-empty cells.

EFFECT .. PERCEP8

Univariate F-tests with (2,59) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	149.30228	3375.08482	74.65114	57.20483	1.30498	.279
PB	245.61766	12308.0759	122.80883	208.61146	.58870	.558
PC	623.00389	10919.8348	311.50194	185.08195	1.68305	.195
PD	68.33209	6049.15179	34.16604	102.52800	.33324	.718
PE	166.23070	1528.86607	83.11535	25.91298	3.20748	<b>.048</b>
PF	157.68016	6280.01339	78.84008	106.44090	.74069	.481
PG	2.46817	3247.87054	1.23409	55.04865	.02242	.978

ONEWAY ANOVA + LSD TEST

Variable PE  
By Variable PERCEP8

Analysis of Variance					
Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	166.2307	83.1154	3.2075	<b>.0476</b>
Within Groups	59	1528.8661	25.9130		
Total	61	1695.0968			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$\text{MEAN}(J) - \text{MEAN}(I) \geq 3.5995 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$

with the following value(s) for RANGE: 2.83

(\*) Indicates significant differences which are shown in the lower triangle

G G G  
r r r  
p p p  
1 3 2

Mean	PERCEP8	
6.0000	Grp 1	
9.0714	Grp 3	
9.4375	Grp 2	*

**Variable FEEL1**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.3800	.1900	.2762	<b>.7596</b>
Within Groups	60	41.2708	.6878		
Total	62	41.6508			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .5865 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.83

- No two groups are significantly different at the .050 level

**Variable FEEL2**  
By Variable PERCEP8

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.5678	.2839	.3076	<b>.7363</b>
Within Groups	60	55.3688	.9228		
Total	62	55.9365			

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq .6793 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.83

- No two groups are significantly different at the .050 level

# 17- ANALYSIS OF INDEPENDENT VARIABLE: TRAVEL (Question 15)

## A - RATING SCALE QUESTIONS - ALL SAMPLES

Once more, not enough observations to use the CROSS-TABS analysis. However, can use independent T-Tests. Here are the T-TESTS showing significant differences.

T-Tests for Independent Samples of TRAVEL

### • STATUS1

Variable	Number of Cases	Mean	SD	SE of Mean
no	190	1.5737	.843	.061
yes	17	2.0000	1.173	.284

Mean Difference = -.4263

Levene's Test for Equality of Variances: F= 4.047 P= .046

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.93	205	.055	.221	(-.862, .010)
Unequal	-1.47	17.51	.161	.291	(-1.039, .186)

### • REL3

Variable	Number of Cases	Mean	SD	SE of Mean
no	184	2.5543	1.296	.096
yes	18	3.3333	1.328	.313

Mean Difference = -.7790

Levene's Test for Equality of Variances: F= .030 P= .863

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.43	200	.016	.321	(-1.412, -.146)
Unequal	-2.38	20.30	.027	.327	(-1.461, -.097)

### • PERCEP1

Variable	Number of Cases	Mean	SD	SE of Mean
no	189	1.9577	.706	.051
yes	18	2.3333	1.029	.243

Mean Difference = -.3757

Levene's Test for Equality of Variances: F= 6.607 P= .011

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	-2.06	205	.040	.182	(-.735, -.017)	
Unequal	-1.52	18.55	.147	.248	(-.895, .144)	

## **B - INTRA-SCENARIOS ANALYSIS - ALL SAMPLES**

### **• SCENARIO 1**

#### **ANALYSIS OF VARIANCE**

74 cases accepted.  
 0 cases rejected because of out-of-range factor values.  
 6 cases rejected because of missing data.  
 2 non-empty cells.

EFFECT .. TRAVEL (Cont.)

Univariate F-tests with (1,72) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	34.04509	3608.40085	34.04509	50.11668	.67932	.413
PB	67.00931	9542.08529	67.00931	132.52896	.50562	.479
PC	24.12335	8588.43070	24.12335	119.28376	.20223	.654
PD	51.35207	4258.01279	51.35207	59.13907	.86833	.355
PE	1.29499	1020.75906	1.29499	14.17721	.09134	.763
PF	6.83366	5089.12580	6.83366	70.68230	.09668	.757
PG	11.69161	2195.40299	11.69161	30.49171	.38344	.538

#### **T-TESTS for Independent Samples of TRAVEL**

##### **FEEL1**

Variable	Number of Cases	Mean	SD	SE of Mean
TRAVEL 0	71	2.3803	.834	.099
TRAVEL 1	8	2.7500	.707	.250

Mean Difference = -.3697

Levene's Test for Equality of Variances: F= 3.042 P= .085

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	-1.20	77	.232	.307	(-.981, .242)	
Unequal	-1.37	9.35	.201	.269	(-.975, .235)	

**FEEL2**

Variable	Number of Cases	Mean	SD	SE of Mean
TRAVEL 0	72	<b>2.2778</b>	.996	.117
TRAVEL 1	8	<b>1.8750</b>	.835	.295

Mean Difference = .4028

Levene's Test for Equality of Variances: F= .636 P= .428

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.10	78	<b>.275</b>	.366	(-.326, 1.132)
Unequal	1.27	9.37	.235	.318	(-.311, 1.117)

- SCENARIO 2

ANALYSIS OF VARIANCE

58 cases accepted.

0 cases rejected because of out-of-range factor values.

5 cases rejected because of missing data.

2 non-empty cells.

## EFFECT .. TRAVEL

Univariate F-tests with (1,56) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	6.43413	2422.34174	6.43413	43.25610	.14874	.701
PB	165.29025	10496.7787	165.29025	187.44248	.88182	.352
PC	6.71926	5819.36695	6.71926	103.91727	.06466	.800
PD	7.34570	3284.03361	7.34570	58.64346	.12526	.725
PE	3.57307	1551.04762	3.57307	27.69728	.12900	.721
PF	72.47295	3742.50980	72.47295	66.83053	1.08443	.302
PG	.04062	4082.45938	.04062	72.90106	.00056	.981

T-TESTS for Independent Samples of TRAVEL**FEEL1**

Variable	Number of Cases	Mean	SD	SE of Mean
TRAVEL 0	55	<b>2.3455</b>	.821	.111
TRAVEL 1	7	<b>2.4286</b>	1.397	.528

Mean Difference = -.0831

Levene's Test for Equality of Variances: F= 3.647 P= .061



t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	-.23	60	.818	.359	(-.802, .636)	
Unequal	-.15	6.54	.882	.540	(-1.378, 1.211)	

#### FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean
TRAVEL 0	54	2.0556	.979	.133
TRAVEL 1	7	2.4286	1.272	.481

Mean Difference = -.3730

Levene's Test for Equality of Variances: F= .344 P= .560

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	-.92	59	.363	.407	(-1.187, .441)	
Unequal	-.75	6.95	.479	.499	(-1.555, .809)	

#### • SCENARIO 3

#### ANALYSIS OF VARIANCE

63 cases accepted.

0 cases rejected because of out-of-range factor values.

2 cases rejected because of missing data.

2 non-empty cells.

EFFECT .. TRAVEL (Cont.)

Univariate F-tests with (1,61) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
PA	57.00317	3500.93333	57.00317	57.39235	.99322	.323
PB	287.62222	12270.6000	287.62222	201.15738	1.42984	.236
PC	44.95556	11549.2667	44.95556	189.33224	.23744	.628
PD	11.61984	6147.65000	11.61984	100.78115	.11530	.735
PE	49.20714	1651.65000	49.20714	27.07623	1.81736	.183
PF	4.58413	6447.73333	4.58413	105.70055	.04337	.836
PG	27.75317	3225.51667	27.75317	52.87732	.52486	.472

#### T-TESTS for Independent Samples of TRAVEL

#### FEEL1

Variable	Number of Cases	Mean	SD	SE of Mean
TRAVEL 0	60	2.3000	.830	.107
TRAVEL 1	3	2.6667	.577	.333

\*\*\*\*\*

Mean Difference = -.3667

Levene's Test for Equality of Variances: F= .786 P= .379

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.75	61	.454	.487	(-1.340, .606)
Unequal	-1.05	2.43	.388	.350	(-1.643, .910)

## FEEL2

Variable	Number of Cases	Mean	SD	SE of Mean
TRAVEL 0	60	2.0167	.948	.122
TRAVEL 1	3	2.3333	1.155	.667

Mean Difference = -.3167

Levene's Test for Equality of Variances: F= .276 P= .601

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.56	61	.577	.565	(-1.447, .813)
Unequal	-.47	2.14	.684	.678	(-3.061, 2.428)