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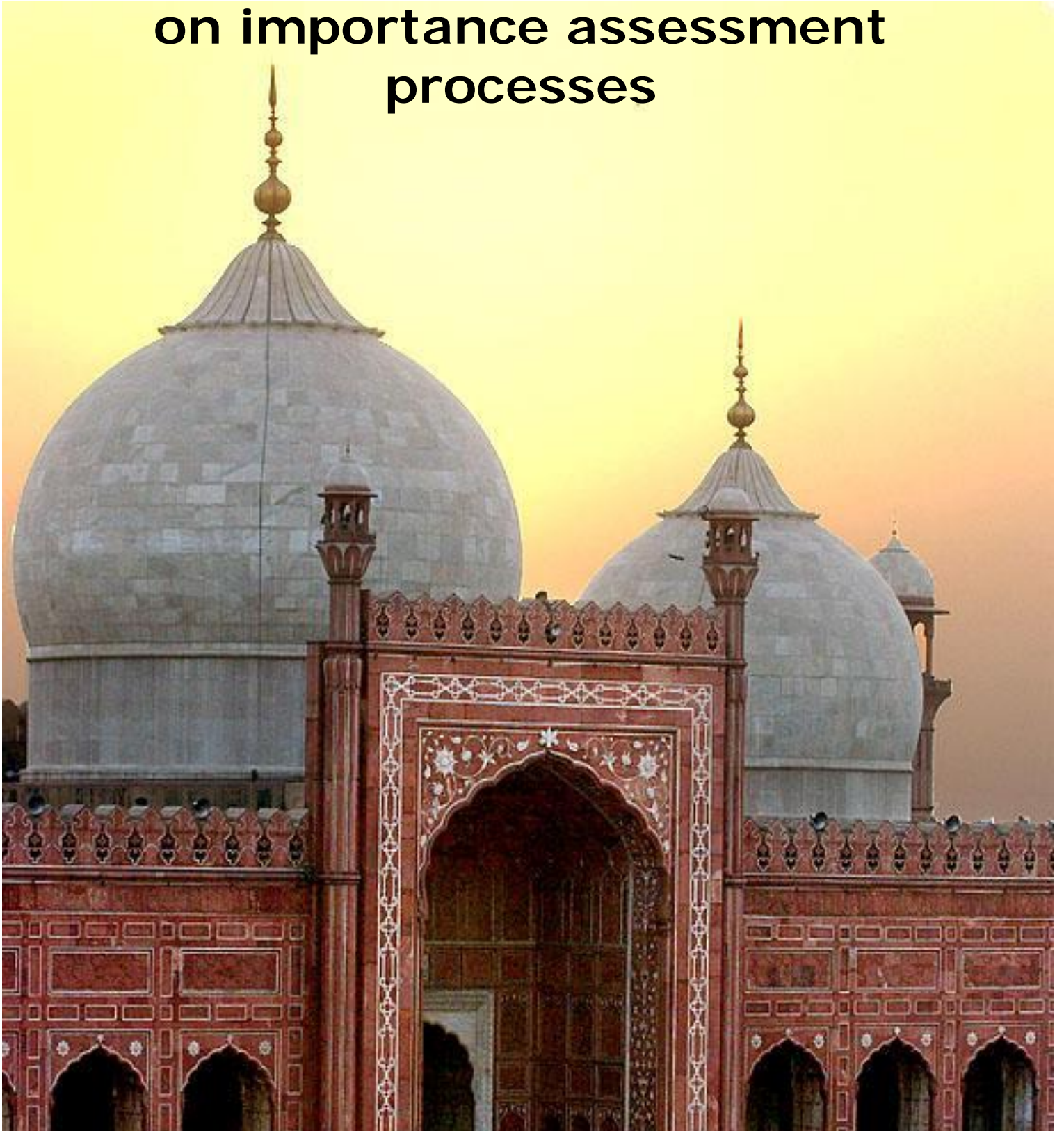
University of Twente
The Netherlands

The impact of national Culture on importance assessment processes

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**Thesis Master Business Administration
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Summary

This research focuses on the influence of culture on importance assessment processes. It is a continuation of the work of Heerkens (2003). Heerkens modelled the importance assessment process into a model of which appeared that subjects with no routine in making deliberations regarding attributes (as part of alternatives) follow a certain pattern. The main issue was, as the research of Heerkens was executed in the Netherlands, to what extend the outcomes of the research would be the same in a country which could be considered completely different. Pakistan was selected, because the country is considerably different regarding the culture and for practical reasons of accessibility of suitable relevant population. In the Lahore University of Management Sciences (LUMS) and the University of the Punjab comparable circumstances could be created comparable to the Netherlands.

In the model of Heerkens, subjects were going through several phases to come to an answer on the question that was posed to them. In this research, an employee of a company transporting people by means of a minibus from and to an airport was asked to give advice to the management of the company to give insight in whether a new minibus should have more comfort or safety aspects. It was not up to the employee to give an advise on alternatives. Only the attributes 'safety'' and 'comfort' should be taken into consideration. The phases Dutch students go through turned out to be the same in Pakistan. The intention was to investigate whether or not in the phases, a shift was taken place regarding the weighing-process, and to determine whether these differences regarding the weighing process be attributed to cultural differences.

The influence of culture was bounded to a single dimension with regards to cultural differences. The work of Hofstede (2000) and Nisbett (2001) was used to frame the cultural influence to a single dimension, being holistic societies vs non-holistic societies. The Netherlands was considered as a non-holistic society, in which the process of thought differs from holistic societies as Pakistan is. The main focus was put on an analytical approach of the problem at hand in non-holistic societies.

In the research, I found that in the end of the process there were noticeable differences in the way Dutch and Pakistani students were weighing attributes. The influence of culture could be detected. With this finding however, a specific observation must be made. The students of the University of the Punjab showed more similarities regarding the initial assumptions than those of LUMS did. The explanation is that the students of LUMS mostly have had their primary education abroad (in a western setting) and still are more close to Dutch students when it comes to the level of education provided at LUMS (think of Harvard-modules).

Additional research has to be done in other countries, e.g. in Malaysia or Indonesia, in which it is recommended to take into account that the subjects are a more representative group for their country but still are on the same academic level as their counterparts in a Western setting.

List of tables / figures / abbreviations

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Abbreviations

PDI   Power distance
UAI   Uncertainty Avoidance Index
LTO   Long Term Orientation
IDV   Individualism / Collectivism
MAS   Masculin / Feminin
IBM   International Business Machines
                               corporation
B.C.   Before Christ
E.g.   For example
WAM   Weight Assessment Model
LUMS   Lahore University of Management
                               Sciences

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Preface

" Culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster." Prof. Geert Hofstede, Emeritus Professor, Maastricht University.[1]

When I started with the plan to obtain a Master's degree, I imagined to do research in the field of culture and cultural differences. This was amongst others inspired by the fact that I have been traveling to countries which were quite different from the Netherlands considering what drives people. From my experiences as a lecturer within the International Management group at the University of Twente I have been confronted with an extensive base on the topic of culture.

Why are people responding differently on e.g. hierarchy? Why are families in developing countries so closely knitted in comparison with Western families? Was that because of the lack of means? Or are there other reasons behind this? What is the influence of religion on the behavior of people? So many of these questions pop up when you are in for example the Palestinian Westbank. But also my experiences on the Netherlands Antilles were totally different from my daily live in the Netherlands.

My thanks go out to so many people. First of all to Hans Heerkens, for giving me the opportunity to continue with his research. My work as a lecturer excluded the possibility to go abroad for several months. Therefore, the research had to be mainly deskwork, a more theoretical approach, in order not to get into problems with my job. Next to his input, also Sirp de Boer as my initial co-supervisor proved to be important to give a focus on the research. I can imagine that the long time-frame of finishing the thesis were frustrating from time-to-time, but they never gave up helping me to finish the job of graduating. Their critical reviews really helped me in finishing the research on the required level.

The opportunity to gather data in a country of which I was certain of being totally different to the Netherlands was given to me by Nassir Afghan and Mohammed Asif. They helped me together with their staff to find students who would co-operate in my search for data. Obviously, I want to thank all students who participated, both from LUMS and the University of the Punjab.

Erik Joost de Bruijn, my co-supervisor in the final stages of finishing the work helped me getting into contact with Nassir Afghan and Mohammed Asif. He also gave the necessary input for the final version. This also proved to be of critical importance.

All other colleagues who helped me in the process of taken the project to an end. Last but not least, my friends and family. The list would be too long to mention everybody, but you know I really appreciated all your support.

Martin Stienstra,

August 2008, Enschede.

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[1] http://www.geert-hofstede.com/

Introduction

1.1 Background

Most people have a vague idea on what is meant with the concept of culture. Dutch culture, for example, is sometimes associated with tulips, wooden shoes, wind mills and haring. But one can imagine that these aspects do not have so much to do with the difference in the way people perceive and except the presence of hierarchy. I found it to be interesting to see if there is an influence of cultural differences in the field of Business Administration. Is it possible to manage a company in the Netherlands in the same way as when you manage a company in e.g. Indonesia? Intuitively you would say 'no'. Language could be a problem. But what if language would not be a problem? Are there other differences you must be aware of in order to manage an Indonesian company? Could it be that Indonesian employee, assigned with the same task as a Dutch employee, comes to a different approach to fulfill his[2] task? And if so, what would be the influence on the management of a company the employee works for? This appeared to be an interesting lead for doing research on to obtain a better insight of the influence of culture.

The question which rose was; in what way can one measure the influence of national cultural differences on what? For this, I investigated research done in the Netherlands, and which was not yet executed in other countries. The outcome of this research might be different if it would have been done in another country.

The dissertation of Heerkens (2003) was in this area. When introducing his research, he explained that people in daily life make decisions all the time. What sort of food will I eat today? Shall I go to sport or will I stay at home? But also in a work situation, managers will make decisions throughout the day. Do I have to fire the employee or not? Is this machine better than the other or not? And if so, is it possible to buy this machine or is it too expensive? The choice could be a trade-off between alternatives. But if there is no alternative, but only a trade-off between aspects of 1 alternative? These were the questions Heerkens focused on. The research went in more depth. It focused on the way layman actors involved in non-routine decision-making processes assess the importance of attributes of the various alternatives under consideration when buying capital goods for a company. This looked promising and eventually proved to be interesting. His research was executed in the Netherlands. Heerkens' research resulted in a model of the importance assessment process, the so called Weight Assessment Model (WAM) as performed by individual actors within an organizational context. The model proved capable of describing the behavior of subjects qualitatively and to a certain extent quantitatively. The model was used in testing expectations concerning importance assessment processes. The testing of these expectations gave insights in various aspects of the importance assessment process. In order to gather data, he used experiments which will be explained further on in the report. He asked Dutch students to execute an assignment. This is the interesting point for comparing cultural influences. What if I would ask foreign students in similar conditions to execute the same assignment; would the outcome be different? And if so, could these differences be explained by cultural influences? What if cultural differences could be expected, but the outcome of the research would be the same?

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[2] When I use 'he', please also read 'she'

1.2 Context

I had to collect data in a country which was completely different from the Netherlands in order to when making a comparison with the Dutch situation. This had to do with fact that our expectation was that if you would do research in e.g. Sweden, the results would be more or less the same. The results of data obtained in Germany[3] looks to confirm this assumption.

Therefore, I had to find a country of which I expected it had a significantly different culture than that of the Netherlands. I selected Pakistan. This was partially because of practical reasons. At the Lahore University of Management Studies (LUMS) and the University of the Punjab in Lahore, Pakistan, I could create similar circumstances in comparison with the data collection process which was done in The Netherlands.

Heerkens carried out experiments in which he used students to collect the data using a 'think-aloud' process. In chapter 3 I will describe the methodology with which I obtained the necessary data to make an objective comparison possible. From there on I will go into detail regarding the outcomes of the findings of Pakistan and those of the Netherlands (see chapter 4).

1.3 The previous research project

Heerkens started the research with the following problem definition:

What is the structure of the thinking process by which layman actors involved in non-routine decision-making processes assess the importance of attributes of the various alternatives under consideration?

As this research was done in the Netherlands, the idea was to see if the outcomes of his research would be the same in a country which is totally different could provide the useful extension of his research. And if there were differences in the outcomes of the study (the data found), to what extent national culture was of influence? Therefore, my research question is a combination between his research question and the differences between national cultures (see 1.4).

1.4 Research questions and objectives

On the basis of the research question of Heerkens' research the central research question is formulated as follows;

To what extent is national culture of influence on the structure of the thinking process within a Dutch and Pakistani organizational context, by which layman actors involved in non-routine decision-making processes assess the importance of attributes of the various alternatives under consideration?

The research questions I use in order to derive at an answer to the central research question are the following:

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[3] Köster, 2006

1. Which cultural variables can be identified which could be of influence on the thinking process in taking decisions on a non-routine basis by employees which can be considered laymen[4];
2. Which phases of the thinking process could be distinguished which could be seen as being potentially impressionable by cultural variables?

From the research questions, the following objectives could be formulated:
- To identify cultural variables which could be of influence on the thinking process in taking decisions on a non-routine basis by employees which can be considered laymen;
- To identify which phases could be derived when looking at the Weight Assessment Model (WAM) in order to link cultural variables to the WAM

1.5 Structure of the report

In chapter 2 I will give an introduction on literature regarding national cultural differences and decision making processes. This chapter will be concluded by combining the 2 different fields of study. The influence of independent variables coming from the literature on cultural differences on phases coming from the literature on weight assessment processes will be described. From the possible influence of the independent variables on these phases an overview with assumptions for Pakistan will be distracted.

Chapter 3 describes the methodology. In this chapter I will explain which research approach for collecting the necessary data was chosen. The methodology will be focused on the approach of obtaining data via an experiment. This chapter describes the way in which the experiment was chosen as being the research approach which had to be followed for gathering data. The research approach for collecting data from Pakistan obviously had to be in line with the research approach as was used in the Netherlands. Therefore, within the experiment the think-aloud method which was used in the Netherlands will be described in more detail in chapter 3. Also, the answer to the question of whether or not the research approach could be implemented in the same way as had been done in the Netherlands is given.

The research approach which has been followed has led to the gathering of data. In chapter 4 I will elaborate on the data collection experiences (4.1), followed by findings (4.2) and an analysis (4.3). In this analysis I will compare the outcomes of the research with the assumptions which were generated from the literature as described in chapter 2.

In chapter 5, the answer to the main research question will be given. Together with a reflection regarding the findings, the conclusions and recommendations will be presented.

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[4] From now on: thinking process, except when explicitly stated differently

2 Literature study

2.1 Introduction

In this chapter, I will discuss the literature used to give an overview on both culture and decision making processes. For both, I will funnel the literature to come to independent variables regarding culture and their influence on phases of the WAM regarding decision making processes and their relations from a literature point of view. This is a deductive approach. An inductive approach will follow the data-analysis and in the overall conclusion, the 2 will be compared in order to come to an answer to our main-question.

2.2 Culture

There are no two countries the same. This has to do with a variety of factors, e.g. the economic state of a country. Also, politics are of influence, as well as religion. Sometimes, the economic, political and religious background of two countries might be relatively close, but still you notice differences. Language is most of the time one of the first differences you could encounter, e.g. The Netherlands and Germany. These countries show relative similarities regarding the 'Western way of doing things'. The political and economical situation is relatively the same. Religion is also not making the countries very distinctive. But, Dutch and German inhabitants can tell you that they are different from each other, because their culture is different.

This observation gives leads for the research. The outcome of the thinking process regarding weight assessment (see 2.2) might be different if this process is influenced by factors which make a country different from another country. The focus of this research is on cultural differences.

According to Ball (2006), culture is inherited, not innate. But what should be considered when talking about culture? Culture has been defined in many ways. There are many different points of view people can follow in order to explain what culture is about. The word Culture originates from the Latin *cultura* stemming from *colere*, meaning "to cultivate" (Hofstede, 2001). On the basis of the research done by Köster (2006), in the next part the concept of culture will be analysed and operationalised.

2.2.1 Contexts of culture

There are several contexts of culture. People working in a company could be part of the corporate culture (Kotter/Hekett, 1992, p.4). This refers to the behavior of people working together in a company, inheriting customs and habits, common in the company. Next to this, also the term professional culture can be found when looking at literature regarding culture. This refers to the extend of professionals identifying themselves more with their profession than with the company they work for (Ulijn, 2000). Also Trompenaars and Hofstede indicate categories, or as they call it, levels of culture; the individual level, organizational level and the level of societies (Hofstede, p.10).

Ulijn (2000) gives an overview of what he considers the cultural contexts: "*The available literature suggests that three different but overlapping contexts of culture have been studied. National culture studies are among the most intensely and widely examined and usually involve an investigation into or speculation about how a country's national culture influences the communication behavior of domestic and/or foreign members of multinational corporations. A second prominent area of study has focused on corporate culture, or how members perceive the culture of their organization. Studies of this nature are interested in how the organization regulates, controls, and influences the behavior of its members through its values, language (jargon), rituals, and customs. The third cultural dimension, and one less studied by business communication scholars, is professional culture. Issues associated with cultural studies of this type include the extent to which professionals (e.g., scientists, engineers, and managers) identify with their professional discipline rather than with their organization*". This research on not focusing on professionals, nor on the corporate context in which subjects are working in. I will therefore use the concept of national cultural differences in the research.

2.2.2 The layers of culture

When people think of culture, there is usually a connection made with cultural aspects like language, aesthetics, and religious artifacts (Ball, 2006), but also food, fashion, buildings, art, etc. Trompenaars (2000) calls these explicit products of the outer layer. E.g.; the wooden shoes as a consequence of what people understand within this context under 'Dutch culture' can be put under aesthetics. Also, the fact that people go to a mosque on a regular basis will most likely mean they are followers of the Islamic faith. In essence, these factors are the ones which people can distinguish in a tangible way. This implies there is also an intangible way in how to look at culture.

Figure 1 represents the iceberg-metaphor (figure 1),showing two layers. One layer shows tangible (explicit) aspects of culture. In the metaphor these aspects are visible; they are found 'above the waterline'. Only a small part of a culture can be 'seen', most of what distinguished cultures lies below the surface. Intangible (implicit) aspects of culture are below the waterline. This part is the most difficult to understand when considering culture.

Trompenaars (2000) says norms and values are underlying the explicit part. With norms he means '*the mutual sense a group has of what is right and wrong*. Values define what people understand as 'good' and 'bad'. The level of *Basic assumptions* is called the implicit level. As an example *survival* is given. Groups of people organize themselves in a way to overcome problems regarding threats to their survival.
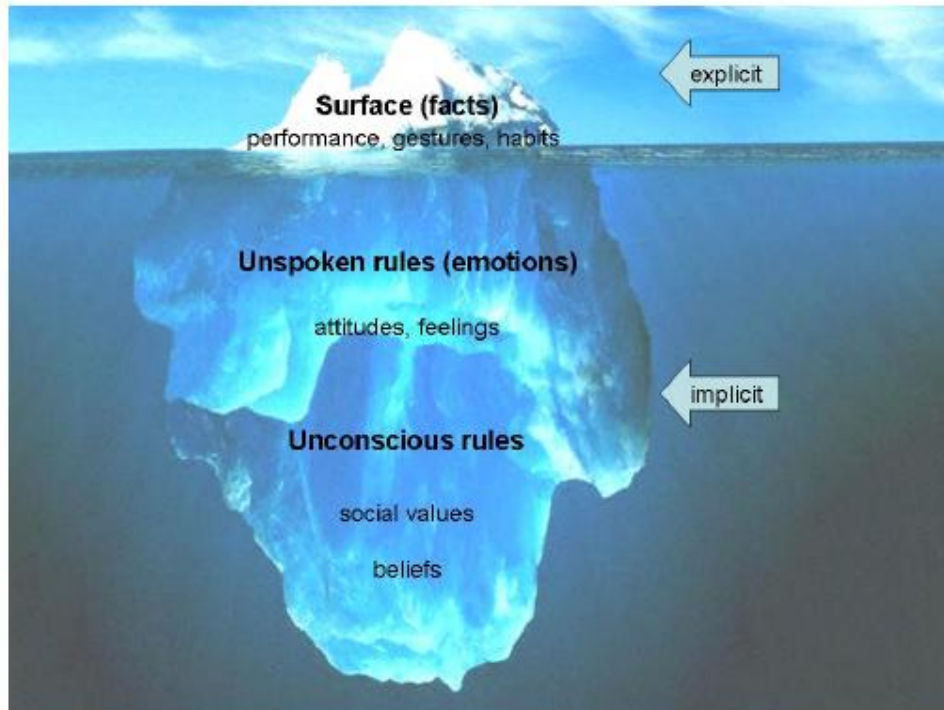
Figure 1 The cultural iceberg (made after Ulijn/St.Amant (2000), p. 221)

This explanation of the different layers is seen in different areas of study which are connected with culture and the explanation of the word culture as such. Anthropology, sociology and psychology are examples of fields of study which are involved in the study of culture (Jahoda, G. in Köster, 2006). I will focus on the explicit, intangible aspects of culture. The fact that people are going to a mosque will not provide me with information of whether or not this could have a possible influence on weight assessment processes. Trompenaars (1997) describes that due to the values learned to people makes that different cultures come up with a different way of providing solutions to problems. This is interesting, since the subjects of the research are confronted with a problem, so in line with Trompenaars they should come up with different solutions to solve the problem. Therefore, the intangible aspects are from here on the focuspoint.

2.2.3 A definition of culture

From the iceberg-metaphor, we see that 'unspoken rules' and 'unconsious rules' are part of the explicit, intangible aspects of culture. But what is understood with these vague terms? In order to understand these terms in a better way, I will now operationalize them. In order to do so, a definition is needed to understand what culture is about in this report. Giving a definition of culture has been done numerous times, but there always have been differences in the approach (Hofstede, 2001).

Table 1 shows some of the most well known authors / researchers and their ideas on culture.

Researchers (sources)	Dependent variables	Independent variables	Method	Sample / contgext
Kluckhohn and Strodtbeck	Human problem solutions	*Five dimensions:* - human nature orientation - man-nature orientation - time orientation - Activity orientation - relational orientation	Quantitative questionnaire, qualitative report	106 persons; Navaho Indians, Pueblo Indians, Spanish American village, Texas and Oklahoman farming village, and a Mormon village
Hall and Hall	Communication at work	*Four dimensions:* - Fast and slow messages - High and low context - Space - Time	Qualitative open interviews	180 employees and managers in the field of economy
Hofstede	National cultural difference within one organization	*Four dimensions:* - Power distance - Individualism / collectivism - Masculinity / femininity - Uncertainty avoidence	Quantitative questionnaire	Approximately 116.000 IBM employees
Trompenaars	Management-relevant problem solutions	*Seven dimension;* - Time status - Achievement / status ascription - Individualism / communautarism - Universalism / particularism - Emotional / neutral - Specific / diffuse - Man-nature relationship	Qualitative questionnaire with scales	15.000 emplyees in companies
Schwartz	Present and future in society	*Eleven dimensions:* - Self direction - Stimulation - Hedonism - Achievement - Power - Security - Conformity - Tradition - Spirituality - Benevolence - Universalism	Quantitative questionnaire with nine-point Likert scale	Approximately 200 teachers and 200 students per country, in 20 countries
House et al. -GLOBE	Business leadership present and future	*Nine dimensions:* - Performance orientation - Future orientation - Assertiveness - Human orientation - Gender egalitarianism - Power distance - Institutional collectivism - In-group collectivism - Uncertainty avoidance	Quantitative questionnaire with seven-point scales and analysis of qualitative data with content analysis	17.000 middle managers in 61 countries

Table 1 Value dimensions in mainstream literature (source; Fink, Kölling and Neyer, 2005, p.7-8)

These researchers are focusing on the intangible aspects of culture. One of the early authors who did research in this field is Kluckhorn (1951). He gives the following definition of culture;

Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values.

In this definition I recognize several aspects of the socio-cultural explanation by Ball (2006) and also the way in which Trompenaars (2000) and Hofstede (2001) (see table 1) look at the different levels which can be distinguished within cultures. Hofstede's research provides the basis for developing an operational tool to measure cultural differences.

From table 1, I select Hofstede to explain the more in-depth aspects of culture. This has to do with the fact that it is easy to understand and next to the fact that it is statistically valid approach. It is also a well known and stable approach to describe national culture (See amongst others Fam et al, 1998). The other researches mentioned use methods are not usable since I prefer a quantitative research as a reference basis. It provides more stability and less space for interpretation as is the case with qualitative research.

Hofstede sharpens the definition given by Kluckhorn. His definition of culture is the *mental programming of the mind which distinguishes the members of one human group of another*. In his view, every person develops *mental programs*, which are influenced by entities within a society, like family, education or jobs. In line with this thought, he distinguished 3 levels of mental programs; the universal, the collective and the individual level. The universal, or basic level, can be compared with the implicit level by Trompenaars (2000). Also, within this area, it is good to look at Maslow's (1970) theory of basic human needs. These needs are; psychological needs, safety, belongingness and love, esteem and self-actualization. These are the same for all humans. The collective level of mental programming can be found in the area of subjective human culture, shared by people belonging to a specific group or category, which includes the group's perception of general human activities (Hofstede, 2001). The individual mental programming sees to it that within the collective level there is a unique and rich variety of behavior.

I will use the theory of Hofstede for the remainder of this chapter in order to explain in more detail which aspects can be distinguished within culture. From thereon it will be decided whether or not this theory can be linked to important assessment processes.

2.2.4 Hofstede

Hofstede's research (1980) sometimes is considered as being not really valid. This because it is done within one company and certain regions are clustered, in which you could wonder whether or not the countries within the regions could be clustered (think of West-Africa). Still, most authors and researchers conclude the work is very well usable (see amongst others Westwood et al, 1987).

Hofstede states that culture can be seen as something that has been developed by national societies (See Pfohl/Bock/Dubbert (1991), p. 78 in Christian Köster, 2006). In order to compare cultures, he is not focusing on individuals, for he says that on an

individual basis you can only compare values. Culture can only be compared by comparing societies which are built up by individuals. On the level of collective mental programming, he found that there are differences between societies. Figure 1 shows this set-up.
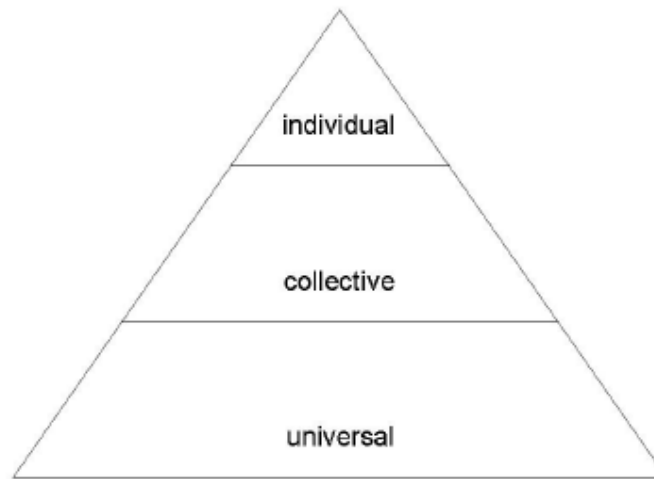
Figure 2 Three levels of uniqueness in Human Mental Programming (Hofstede, 1980, p.16)

The differences between societies in the collective mental programming area could be translated into the so-called dimensions. Hofstede (1980) found the differences by interviewing over 116.000 people from 70 countries and via questionnaires during the time he worked for IBM as a psychologist. For further analysis, he used 50 countries and the remaining countries were grouped in 3 regions. The data he subtracted from this research was modeled into the dimensions. The following overview is a summary of his ideas, coming from his book Culture's consequences (p x and xx) and his website[5]. In his book Culture's consequences (2000) an extensive description can be found.

Power Distance Index (PDI); the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders. Power and inequality, of course, are extremely fundamental facts of any society and anybody with some international experience will be aware that 'all societies are unequal, but some are more unequal than others'.

Individualism (IDV) on the one side versus its opposite, collectivism, that is the degree to which individuals are integrated into groups. On the individualist side societies are found in which the ties between individuals are loose: everyone is expected to look after himself and his immediate family. On the collectivist side, societies are found in which people from birth onwards are integrated into strong, cohesive in-groups, often extended families (with uncles, aunts and grandparents) which continue protecting them in exchange for unquestioning loyalty. The word 'collectivism' in this sense has no political meaning: it refers to the group, not to the state. Again, the issue addressed by this dimension is an extremely fundamental one, regarding all societies in the world.

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[5] http://www.geert-hofstede.com/geert_hofstede_resources.shtml

Masculinity (MAS) versus its opposite, femininity refers to the distribution of roles between the genders which is another fundamental issue for any society to which a range of solutions are found. The IBM studies revealed that (a) women's values differ less among societies than men's values; (b) men's values from one country to another contain a dimension from very assertive and competitive and maximally different from women's values on the one side, to modest and caring and similar to women's values on the other. The assertive pole has been called 'masculine' and the modest, caring pole 'feminine'. The women in feminine countries have the same modest, caring values as the men; in the masculine countries they are somewhat assertive and competitive, but not as much as the men, so that these countries show a gap between men's values and women's values.

Uncertainty Avoidance Index (UAI) deals with a society's tolerance for uncertainty and ambiguity; it ultimately refers to man's search for Truth. It indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations. Unstructured situations are novel, unknown, surprising, different from usual. Uncertainty avoiding cultures try to minimize the possibility of such situations by strict laws and rules, safety and security measures, and on the philosophical and religious level by a belief in absolute Truth; 'there can only be one Truth and we have it'. People in uncertainty avoiding countries are also more emotional, and motivated by inner nervous energy. The opposite type, uncertainty accepting cultures, are more tolerant of opinions different from what they are used to; they try to have as few rules as possible, and on the philosophical and religious level they are relativist and allow many currents to flow side by side. People within these cultures are more phlegmatic and contemplative, and not expected by their environment to express emotions.

Long-Term Orientation (LTO) versus short-term orientation: this fifth dimension was found in a study among students in 23 countries around the world, using a questionnaire designed by Chinese scholars. It can be said to deal with Virtue regardless of Truth. Values associated with Long Term Orientation are thrift and perseverance; values associated with Short Term Orientation are respect for tradition, fulfilling social obligations, and protecting one's 'face'. Both the positively and the negatively rated values of this dimension are found in the teachings of Confucius, the most influential Chinese philosopher who lived around 500 B.C.; however, the dimension also applies to countries without a Confucian heritage.

These five dimensions were empirically found and validated, and each country could be positioned on the scale represented by each dimension (Hofstede, 2001, p.29).

2.2.5 Focus within dimensions of Hofstede

Considering the scores in table 2 which Hofstede ascribes on the dimensions, the scores on the dimensions IDV have the main difference when one would subtract the scores of the 2 countries. This looks promising regarding the possible influence; the wider the gap, the more influence could be expected. PDI and UAI do not show substantial differences. MAS is not suitable to explain the differences between Asian and Western countries since it doesn't oppose the West to Asia (Hofstede, 1998). The L/S TC dimension is seen as the weakest one regarding academic background in validating the outcomes (see amongst others Fang, 2003).

Dimension	Scores Netherlands	Scores Pakistan
PDI; Power Distance Index	38	55
IDV; Individualism	80	14
MAS; Masculinity	14	50
UAI; Uncertainty Avoidance Index	53	70
L/S TO; Long / Short-Term Orientation	44	0

Table 2 Scores Hofstede dimensions Pakistan / Netherlands

The dimension Individualism – collectivism is used by numerous authors next to Hofstede (e.g. Triandis, 1995; Globe, 2004). Hofstede and Vunderink (1994) noted that Individualism/collectivism has been largely accepted by scholars. Han & Shavitt (1994) also state that this particular dimension is seen as one of the core dimensions and this vision is also shared by Gudykunst and Ting-Toomey (1988).

The question could emerge if one dimension could be sufficient to use as a method to analyse the influence of culture. If there is a strong correlation between dimensions, the impact of culture can be analysed from different angels. There are 2 reasons why this is not an option (Hofstede, 2001). The first explanation comes from the fact that only a limited amount of correlation can be found between dimensions. The correlation between the dimension IDV and the other dimensions is limited. There is 1 exception. The correlation PDI and IDV is -.68 Hofstede however that the dimensions should be treated separately. "They are conceptually different regarding emotional dependency; PDI on powerful people, IDV on (in)dependence on groups, organizations or other collectivities. Although there is a strong correlation, there are still a lot of exceptions. Most important; both are related to national wealth. If we control for that variable, the correlation between 50 countries on the two dimensions is reduced to only a marginal significant r = -.32.

Also other variables are taken into consideration, e.g. religion. Hofstede has already incorperated these variables while setting up the dimensions, also when checking in whether or not the dimensions (see Hofstede, 2001, p.63, p.217 & p249).

The dimension IDV will from now on be the focus of the research.

2.2.6 Individualism - Collectivism

Hofstede (1984, p391) makes a distinction between countries with a high score on the dimension IDV (making them individualistic) and a low score on IDV (making them collectivistic). Following the definition of Hofstede (2001) Individualism refers to integration of individuals into groups. Loose ties, being more ego-centric and only immediate family are important at first instance. This is the opposite of collectivism.

Han & Shavitt (1994) state that there is a different perception regarding the way individuals look at group-members of the society they are part of. The same goes for social behavior. "*Members of these cultures have very different construals of the self, of others, and of the interdependence of the two (Markus & Kitayama, 1991). The self is defined in terms of ingroup memberships (e.g. family and ethnic identity to a greater extend in collectivistic cultures than individualistic cultures. Moreover, there is evidence suggesting that members of collectivistic cultures perceive their ingroups to be more homogeneous than their outgroups, whereas the reverse is true among persons in individualistic societies (Triandis et al., 1990) These cultural differences in*

the perceived relation of the self to others have been shown to have many other emotional, and behavioral consequences (see Markus & Kitayama, 1991)."

Taking Individualism as being a variable of national culture, there are several indicators which can be distinguished in order to describe if a society is more individualistic or less individualistic. The indicators however depend heavily on which aspects of society are being looked at. If the focus is on 'personality and behavior', other aspects of societies will appear than if the focus is on a working situation. I will give a couple of examples in table 3 derived from Hofstede (2001).

Low individualistic	High individualistic
In the family	
Family provides protection in exchange for livelong loyalty	Children are supposed to take care of themselves as soon as possible
Fewer divorces	More divorces
Nobody is ever alone	Privacy is normal
Togetherness does not demand talking	Visits are filled with talking
In personality and behavior	
Harmony; confrontations to be avoided	Confrontations are normal
Other-directed behavior	Extravert and acting behavior
At school	
Teachers deal with people as a group	Teachers deal with individual pupils
Pupil's individual initiatives discouraged	Pupil's individual initiatives encouraged
Purpose of education is learning how to do	Purpose of education is learning how to learn
In the work situation	
Hiring and promotion decisions take employees' in-group into account	Hiring and promotion decisions should be based on skills and rules only
Treating friends better than others is normal and ethical	Treating friends better than others is nepotism and unethical
Less social mobility across occupations	Greater social mobility across occupations
In the applicability of Management Methods	
Management is management of groups	Management is management of individuals
Direct appraisal of performance is a threat to harmony	Direct appraisal of performance improves productivity
In consumer behavior	
Ask friends for jobs around the house	Do-it-yourself for jobs around the house
Social network main source of information	Media main source of information
In Matters of Health and Disability	
Smaller share of public and private money spent on health care	Larger share of public and private money spent of health care
Disability is a shame for the family	Disability is a handicap to overcome
Less satisfaction with health care	More satisfaction with health care

Table 3 Indicators on low and high IDV

In order to identify indicators I could relate to a weight assessment processes, I found the indicators above to be difficult to work with, keeping in mind that I wanted to see whether or not culture could be of influence of systems of thought. To what extend is it possible to see if e.g. family security is of influence on the thinking process of an

employee? Therefore, I searched for points of departure to connect the cognitive aspects. Nisbett et al. (2001) gave more insight in these aspects.

Nisbett et al (2001) found a relation between the systems of thought of people of highly holistic societies and those of low holistic societies with culture. He found that holism shows parallels with the indicators which define low IDV societies (Nisbett, 2001, p.10). Next to this, Nisbett made the distinction between individuals and individualism. Individuals could either have an Individualistic or holistic point of view which influences their system of thought. This concept could be used in our research to better understand the systems of thought which could be expect in the countries researched.

The study by Nisbett was executed in China, which can be considered as a collectivistic (or low-IDV) society with a holistic worldview. The scores of Hofstede on the IDV scale for China (20) are comparable with the scores found for Pakistan (14; Netherlands, as an example of an individualistic society scores 80). Since the characteristics on which scores are determined within Hofstede's dimensions are the same, we can make the comparison between China and Pakistan.

Although it can be argued that there are big differences between the Chinese and Pakistan culture, countries with a more similar culture like e.g. Indonesia and Malaysia (like Pakistan, with a majority of Sunni Muslims[6]) have similar scores on these dimensions, which gives us the opportunity to again state that the values regarding the dimensions and the scores coming from them are comparable (see table 4 for an overview of scores obtained from these countries compared with those of the Netherlands and Pakistan).

		Netherlands	Pakistan	China	Indonesia	Malaysia
PDI =	Power Distance Index	38	55	80	78	104
IDV =	Individualism	80	14	20	14	26
MAS =	Masculinity	14	50	55	46	50
UAI =	Uncertainty Avoidance Index	53	70	60	48	36
L/S TO =	Long / Short-Term Orientation	44	0	118	-	-

Table 4 Scores Hofstede dimensions different countries

This is backed up by numerous authors, which state that collectivistic societies can be seen as societies with a holistic world perspective. Morling & Fiske (1999) suggested that "*…collectivistic societies, with their holistic worldviews and flexible movement between internal and external locuses of control, use harmony control*". This is in line with the indicators used by Hofstede (2000). Allik (2004) indicates that collectivism is holism (….*individualism and collectivism (or more generally holism….*). Holism encloses the same principles as low-IDV or collectivistic societies. Triandis (1995; in Yama, 2006) explains that "*…In the culture of collectivism, rule-based thinking is not adaptive, because it may break the in-group harmony that is an*

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[6] Wikipedia; Islam in Pakistan, Indonesia, Malaysia

important goal of people in collectivist culture. Instead, dialectic thinking is preferred and holistic thought is appropriate to use the cognitive tool of dialectic".

This means that for the research envisaged the research done by Nisbett appeared to be a suitable approach for explaining the relation holistic and non-holistic societies with systems of thought. From now on, in stead of using the concept of collectivism, I will talk of holistic societies vs non-holistic societies.

2.2.7 Systems of thought

Nisbett has executed extensive cross-cultural research. The basis of his research is the differences found in ancient Greek and Chinese society. The systems of thought of these two societies were influenced by the culture of both countries. He made assumptions coming from literature describing the ancient Chinese and Greek societies and tested whether or not these were still valid in modern days. For his research he used American students as being an equivalent individualistic society, as the Greek society was, and Chinese, Korean and Japanese students as being equivalent holistic societies. I will first summarize the most important aspects of holistic and non-holistic societies given by Nisbett when it comes to systems of thought. In explaining what holistic thought embeds, Nisbett came to a couple of statements which can be found below. He tested these statements with the before mentioned groups of students. It appeared that the statements seemed to be still valid from what was found for societies which were regarded as holistic (ancient Chinese) and non-holistic (ancient Greek) societies.

2.2.7.1 Holistic thought

In holistic societies, people perceive themselves as being part of a greater context. Other objects will be perceived in a similar way. Relations among objects and events are crucial in determining outcomes. It will seem important to be able to see all the important elements in the field, to see relations among objects and to see the relation between the parts and the whole. People would be expected to group objects and events on the basis of functional relationships and part-whole relationships, for example, "A is a part of B. In other words, they are capable of attending to both the object and the field.

In holistic societies, social existence is based on harmony. Therefore, people are not expected to develop a tradition of confrontation or debate. On the contrary, their intellectual goals when confronted with a contradiction in views might be oriented toward resolving the contradiction, transcending it, or finding a "Middle Way" – in short to exercise a dialectical approach. They would be expected to seek compromise solutions to problems, to prefer arguments based on principles of holism and continuity, and to try to reconcile or transcend seeming contradictions. People will be inclined to embrace propositions, finding them each to have merit. They seem to move to a compromise, "middle way" instead of referring to a dominating principle.

They are expected to rely more on prior beliefs and experience-based strategies when evaluating the convincingness of formal arguments. Judging the soundness of formal arguments are heavily influenced by prior beliefs. They are more willing to move their beliefs in the direction of an argument even when it is a weak one.

A wide range of factors are potentially relevant to any given outcome when solving problems. Therefore it may be harder to recognize that a particular outcome could not have been predicted. Hindsight bias or the tendency to assume that one knew all along that a given outcome might therefore be greater for people within highly holistic societies. This is one of the reasons people are expected to be less surprised by any given outcome because of their ready ability to find some explanation for it in the complex of potentially relevant factors. If explanations come to mind very easily then they are more susceptible to hindsight bias, or the tendency to regard events as having been inevitable in retrospect.

2.2.7.2 Non-holistic thought

If one lives in a world with fewer and less significant social relations and role constraints, it is possible to attend primarily to the object and one's goals with respect to it. If the world is a place where the behaviour of objects is governed by rules and the categories to which they apply, then it is crucial to be able to isolate the object from its context, to infer category membership of the object from its properties, and to infer how rules apply to categories. An example of this is the statement "A and B are both Xs." Other predictions include the expectations that they learn rule-based categories more readily; they rely more on categories for purposes of deduction and induction, thereby ignoring prior beliefs and setting aside experience in favour of reasoning based on logical rules.

The belief that one knows the rules governing the object's behaviour might encourage exclusive focus on the object for explaining its behaviour and encourages the belief that the world is a place that is controllable through one's own actions. Moreover, the world is likely to be perceived as discrete and discontinuous by those who regard themselves as fully distinct and autonomous entities having limited connections to others and possessing the ability to act autonomously. In line with this, people are more inclined to reject one or both of two propositions that could be construed as contradicting one another.

Surprise is a frequent event. Post hoc explanations are relatively difficult to generate, and epistemic curiosity may be piqued. The curiosity, in turn, provokes a search for new, possibly superior models to explain events.

In table 5, the most important elements can be found.

High Holistic system of thought	Low Holistic systems of thought
Relations & Rules	
Relations among objects and events are crucial in determining outcomes. It is not possible to use rules and categories to determine the behaviour of objects.	Relations among objects and events are not important in determining outcomes. Behaviour of objects is governed by rules and the categories to which they apply in order to attend primarily to the object and one's goals with respect to it.
Context	
The object cannot be isolated from its context; it is important to be able to see all the important elements in the field, to see relations among objects and to see the relation between the parts and the whole.	It is crucial to be able to isolate the object from its context, to infer category membership of the object from its properties
Contradiction & Argumentation	
When confronted with a contradiction in views the goal will be oriented toward resolving the contradiction, transcending it, or finding a harmonic, a "Middle Way" – in short to exercise a dialectical approach. Propositions that could be construed as contradicting one another. are inclined to be embraced, finding them each to have merit. More willing to move prior beliefs in the direction of an argument even when it is a weak one. Prior beliefs are correct, there cannot be a deviation.	When confronted with a contradiction in views the goal will be oriented toward reject one or both of two propositions that could be construed as contradicting one another. Less willing to move prior beliefs in the direction of an argument, especially when it is a weak one. Prior beliefs could be false, therefore these could be altered.
Element of surprise when looking at the outcome of solving problems	
Any given outcome when solving problems will not lead to surprise because of the ability to find some explanation for it in the complex of potentially relevant factors.	Post hoc explanations are relatively difficult to generate, and therefore outcomes of solving a problem cause surprise on a frequent basis.
Evaluation	
Events are regarded as having been inevitable in retrospect, so no evaluation is necessary	Evaluation is necessary to explain events.
Grouping objects and events	
Objects and events will be grouped on the basis of functional relationships and part-whole relationships, for example, "A is a part of B. *	Objects and events will be grouped more on the basis of category membership, for example "A and B are both Xs." **

Control	
Since there are no rules influencing the object's behaviour, there will be a lesser belief in the controllability of the object.	Since there are rules influencing the object's behaviour, there will be a greater belief in the controllability of the object.
Beliefs and experience	
Rely more on prior beliefs and experience-based strategies when evaluating the convincingness and soundness of formal arguments.	More capable of ignoring prior beliefs and setting aside experience in favour of reasoning based on logical rules.

Table 5 Elements of systems of thought within societies, based on research of Nisbett (2001)

* Chiu (1972) gave items consisting of three pictures of human, vehicle, furniture, tool or food categories to non-holistic and holistic children. Children were asked "to choose any two of the three objects in a set which were alike or went together and to state the reason for the choice" (p. 237). The dominant style of the holistic children was "relational-contextual." For example, shown a picture of a man, a woman, and a child, the holistic children were likely to group the woman and child together because "the mother takes care of the baby."

** In contrast, non-holistic children were much more likely to group objects on the basis of category membership or shared features, for example, to group the man and the woman because "they are both adults."

With this, the most important elements regarding cultural differences and the potential influence on systems of thought of societies have been covered. This is important since the differences between The Netherlands and Pakistan regarding the implicit level of culture have been made tangible for both countries.

Next, I will focus on the initial research done by Heerkens (2003) regarding decision making processes in general. Then the possible relation between culture and these processes will be explored.

2.3 Decision making process

Societies can differ on certain aspects. Will these differences also have its influence on the decision making process of people? Before answering that question, first we go into more detail regarding the decision making process.

People make decisions every day. What will I eat? What food do I need to buy if I decided what to eat? Which TV program do I wish to see? Etc,etc. When making decisions, people make choices between alternatives (Heerkens, 2003). The way in which people come to the choice of which alternative has to be chosen is called the decision making process.

There are several descriptions regarding the decision making process. What happens in between the first thought to the final choice? E.g. Teisman (2000) describes 3 models on decision making processes. The phase model focuses on successive and distinctive stages in a process, i.e. defining a problem, searching for, choosing and implementing solutions. The stream model emphasizes concurrent streams of participants, problems and solutions, defining decision making as the

connection between these streams. The rounds model is a combination between the phase and the streams model. Figure 1 shows how to interpret these models;

The phase model	The stream model	The rounds model
Distinct stages of	Concurrent streams	Series of interacting
formation, adoption	of problems, solutions	decisions taken by
and implementation	and participants	several actors
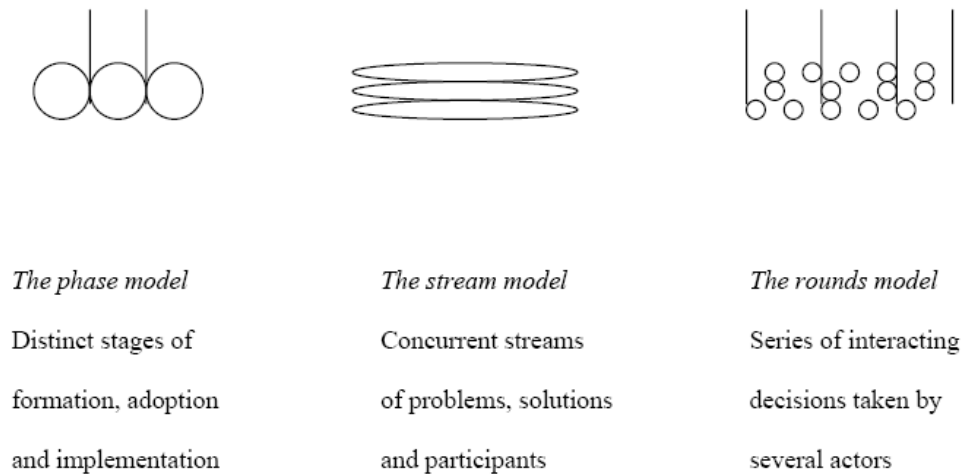
Figure 3 A depiction of three models for the analysis of decision-making processes

For our research we take the definition of the phase model, since this is in line with the research of Heerkens. At first instance, Heerkens describes that when it comes to make a choice (the defining of a problem), you follow a choice strategy. The strategy is focusing on the choice between alternatives. What makes it that a person chooses alternative A over B? Why does a manager chooses a Mercedes as being the company car in stead of a Fiat? Perhaps the Mercedes has more storage space for luggage than the Fiat. Or perhaps it can go faster. The characteristics luggage space and speed are called attributes. When deciding which alternative the manager has to choose, he will make a decision based on how well an alternative scores on each attribute. Attributes can be given a different weight by which the choice of the alternative can be explained. The process of giving weights to the attributes is the focus of Heerkens' study. This is known as the 'importance assessment process'.

In figure 2 (Heerkens, 2003, p. 2) you can see the process, embedded in the total decision making process;

The gray area denotes the focus of our research.
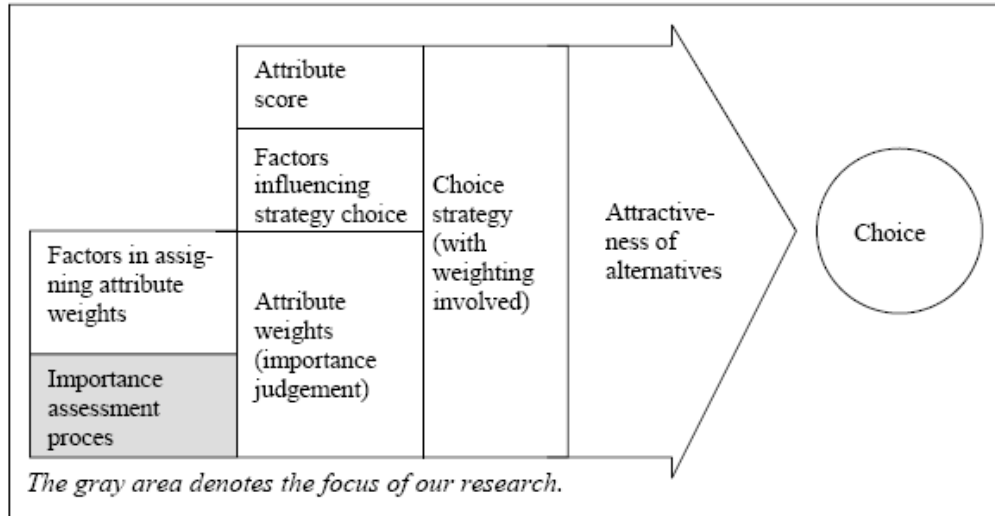
Figure 4 Importance assessment process, embedded in the total decision making process

Heerkens (2003) describes how to interpret figure 2. "A decision is a choice from alternatives. Therefore, an actor involved in making a decision uses a choice strategy. With this strategy, scores on attributes (characteristics) of each alternative, and in some cases the weights of each attribute, are converted into a choice. The importance assessment process described in this thesis is only relevant for those choice strategies in which weights are used. The attractiveness of alternatives is based on their attributes. The higher the score on an attribute, the more attractive an alternative becomes. An actor wanting to make a choice needs to assess the scores of all alternatives on all attributes. This is not the focus of the research of Heerkens and therefore it will not be included in this research. Attributes differ in importance. Important attributes get higher weights than attributes that are not so important. So, the actor needs to set weights for each of the attributes; he needs to make an *importance judgment*, also called a *weight judgment*. The actor may have weights readily available, for example because he has used the same weights in the past. But it may be necessary for the actor to think long and hard in order to establish what the weights should be. The thinking processes with the aim of establishing weight values is called the *weight assessment process* or the *importance assessment process*. The importance assessment process is the subject of this thesis. We are not concerned with choice strategies, with the way scores on attributes are assessed, or with the values of the weights eventually given".

2.3.1 Importance judgment and assessment

The concept of 'importance' has to be explained, and next, what is importance assessment? In order to explain this concept, an example is given which will illustrate these concepts (based on the example given by Heerkens, 2003, p.8-10).

Mustafa Yussuf is an employee of a company in Lahore, Pakistan, which transports people from their house to the airport. The reasons can be diverse; e.g., people do not have a car, or public transport will not be available during the night when a flight is scheduled, or people do not want to leave their car at the airport, etc. The company he works for has a fleet of Citroen busses which have been bought and which have been in use from the beginning. But after a couple of years, the fleet starts to deteriorate, and needs to be replaced by new busses. Now, the question is

whether to buy new Citroen busses or perhaps Nissan busses. To make a decision, the busses could be compared to each other. There could be certain aspects which could be compared, like safety aspects. Hereby, one can think of brakes, airbags, breaking distance, etc. Comfort aspects could also be the denominator on which busses could be compared. These aspects of the busses are called attributes of the bus.

The question could be; what is Mustafa finding more important; breaking distance or comfortable seats? And in case of selection by him breaking distance is more important, does the Citroen do better on this than the Nissan? This could come e.g. from the deliberation regarding the amount of potential casualties vs less people taking the minibus because these are not that comfortable. In our example, the issue is that Mustafa does not have any experience regarding the purchase of a capital good like a minibus. Therefore, he has no routine in the way of dealing with problems like these. Nevertheless, he might have good arguments on the basis of e.g. intuition or experiences with public transportation in which he could say whether the attribute is important, rather important, not important to him, etc. People in Lahore drive extremely unregulated and irresponsible, so therefore the bus must be safe. But on the other hand, the roads sometimes are in poor shape, so he should provide the bus with comfort to assure the passengers have a smooth ride.

These arguments give insight in why a certain attribute is important. But the question remains; which attribute is more important? If you could express the 2 attributes in a common denominator, like e.g. money, a comparison would be easier. But can you compare the safety from a moral point of view; is it possible to express safety in money when there might be accidents with possible victims if you would pay less for certain safety-aspects? And if this happens, he most likely has to defend his choices to the management, who might not want to lose the company's image of a safe transporting company. In the end, the management is responsible and it is their money which is spend, not that of Mustafa. Therefore it is decided that he will give an advice in which he explains why he thinks safety is more important than comfort or vice versa. The management will, on the basis of his advice, buy a minibus which is matching the description. But how does Mustafa comes to his advice? What is he thinking when trying to find a solution to his problem? What is driving him to one attribute is more important than the other?

The importance attached to attributes we call *importance judgment.* For example; *the safety of the minibus is much more important than comfort*, or *the comfort is twice as important as the safety*. In order to come to this judgment a person first will go through a thinking process to assess the importance to attributes. We call this the *importance assessment* to come to a judgment.

The focus of this research is on the importance assessment process. The importance judgment is not our focus point. It is the cognitive processes we are interested in. Which activities does a person execute in his head in order to come to an outcome?

For this research it is important to determine a definition for importance. There are many authors which have done this (see Heerkens, 2003, p. 10). In the definition of Jaccard, Brinberg & Ackerman (1986), 'an attribute is said to be important if a change in the individual's perception of that product attribute leads to a change in the attitude towards that product'. Wilkie & Pessemer (1973), say that 'importance' can be 'an ambiguous term which might reflect either prominence or value'. Von Nitzsch & Weber (1993) give a more precise description of importance: 'They (the scaling constants indicating importance) represent the tradeoffs between units of different conditional value functions'. Following this pattern, Heerkens (2003) formulated the following definition; *importance is the relative influence of the attribute concerned on*

the attractiveness (in the eyes of the decision-maker) of each of the alternatives to be chosen from. From this definition he argues that importance within this framework can also be called 'weight'.

Weight can be described with e.g. a simple utility function like a linear additive function. An example is give by Heerkens (2003, p55). "In this concept there is a set of attributes on which an alternative that a decision maker considers, is scored, which can be expressed as:

$$U_i = \sum_{j=1}^{N} A_{ij} W_j$$

where Ui is the utility of alternative i, Aij is the score of alternative i on attribute j and Wj is the weight of attribute J (identical for all alternatives).

Weights and scores need not be numerical values, but may be expressed as fuzzy ranges or in a qualitative way in the problem space. For example, a weight may be .3, but may also be somewhere between .3 and .4, or may be given in a qualitative way like 'very important' or 'not important'.

For an importance assessment process and the weight given to attributes, figure 2 (Heerkens, 2003) shows that people in theory could have a massive space with an infinite space of attributes, arguments and attributes they can choose from (the complete circle). I will focus on the encircled weight-attribute-argument combinations. The other elements are used at some stage in the decision making process but are not included in the research, following the research done by Heerkens.
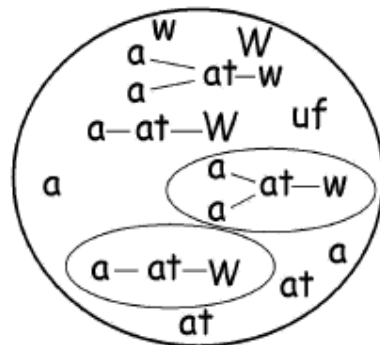
uf = shape of the utility function, at = attribute, w = weight value, W = weight range, a = argument

Figure 5 Global model of the weight assessment process

In line with his research we do not assume an actor has the total overview regarding arguments, attributes and weight to come to a certain answer to a question. That is not the starting point of our research. It is more the process in which an actor is processing the weight in what forms which is of interest.

The focus of the research is on thinking about the weight given by actors on attributes. Hereby, the attributes cannot easily be expressed by a common denominator like money. In this approach, the attributes can only be compared or

expressed to each other. An actor is said to make an importance judgment. Looking at attributes and thinking about the fact of this attribute is importance to the actor is called importance assessment. The importance assessment process is modeled by Heerkens (2003, p 97). He found that there are 7 phases in which actors can develop their ideas regarding weight assessment. This model (see table 6) is called the Weight Assessment Process (WAM).

Phase	Phase name
1	Problem identification
2	(sub) attribute processing
3	Absolute weighting
4	Homogeneous sub-attribute weighting
5	Heterogeneous sub-attribute weighting
6	Attribute weighting
7	Evaluation

Table 6 Phases Weight Assessment Process model

This model is the result of his research, in which data was obtained with an experiment, which has more or less the same characteristics of the example with Mustafa. In order to describe the phases in more detail, I will use the same structure Heerkens (2003) has used (see p.98 and further). In more detail, this experiment is described in chapter 3. During the experiment, the subjects are asked to fulfill an assignment.

The first phase they will go through is the problem identification. In the case with Mustafa, he gets an assignment to execute, namely to give an advise regarding safety and comfort aspects of minibuses. He first has to make sure he understands the problem he has to solve. He only has to focus on safety and comfort aspects, not on e.g. costs. In this way he identifies the problem at hand; he sets the boundaries.

In phase 2, a more precise description is given to the attributes. The problem at hand will be analyzed. Elements of the problem and their possible relations are mapped. In this way, the weighing of the elements, the attributes, is possible after this phase.

This process could have various forms;
- Decompose; during the process, comfort could be described as comfortable seats, the presence of music, cup holders, etc. These could also be split up further
- re-formulate; giving another name to (sub)attributes while using the same measurement-scale. Examples could be 'passenger safety' in stead of safety.
- Concretize (sub)attributes; e.g. 'the minibus should have a stable temperature' as an example of comfort could be made concrete by 'the minibus therefore needs tainted windows in order to block the sunlight which otherwise could increase the temperature, because that is the only way in preventing temperature fluctuations in a Pakistani minibus'.
- Integration; several sub-attributes could be integrated to one. An example could be 'the cloth of seats' and 'seats that could be easily cleaned' into durability of the seats.
- making attributes more abstract; the complementation of concretizing.

Phase 3 is focused on the importance of attributes as such, so not in comparison to another. This phase can be seen as the first 'weighting-phase'. On the basis of

Timmermans (1993), Heerkens describes this as importance which is given to a single attribute. An example could be 'comfort is important' or 'the presence of cupholders is a must in a minibus'. Hereby, subjects could also give arguments why they come to this weighing. The argument which could be used to explain why comfort is important could be 'the roads in Lahore are full of bumps, so the seats should be comfortable to make sure people will not bounce around'. This will make sure the importance of a (sub)attribute is made more clear.

During phase 4, sub-attributes of an attribute are weighted within the framework of that one attribute, so no comparison with sub-attributes of another attribute are made. As an example subjects could state that cupholders are less important as a comfort aspects than seats are and if cupholders would prevent seats from being comfortable, they are not as important to include in a minibus.

In phase 5, sub-attributes of an attribute are compared and given weight to in relation with sub-attributes of the other attribute. Hereby you could think of cupholders (as a sub-attribute of comfort) are less important to include in a minibus in comparison with the braking distance (a sub-attribute of safety).

The integral weighting of the main attributes is done in phase 6. Here, the subjects give the answer to the original assignment given to them in the beginning ('after weighing all the sub-attributes of safety and comfort I described earlier on I come to the conclusion that safety overall is more important than comfort).

Phase 7 includes the reflections of subjects on the task performed. Has the task been done in a proper way? Did I use the right arguments to explain why I gave safety more weight than comfort?

The WAM provides more insight in what the thinking process and the weight assessment contains. In order to give an answer to our main question, the variables which can be found within this theoretical framework, in which the independent variables can be found in the cultural and the phases in the weight assessment model, will be discussed.

2.4 Weight assessment phases

From the WAM, we can distinguish several phases, which are shown in table 6. The phases and their indicators are derived from the WAM. There are much more possibilities which could be seen as indicators for distinguishing the phases, but following the research of Heerkens the indicators in table 6 are the ones selected, based on his research and the literature found on culture (see paragraph 2.2). Heerkens choose the indicators in order to make sure that within his research coder consistency would be assured. In order to do so, the indicators were made very explicit and clear. The advantage of this is that in the protocols from Pakistan the same indicators, although they will not be coded later on, are used and the comparison is sound.

Phase	Possible Indicators
Problem identification	1. Defining the task ahead by explaining the point of departure regarding goals of the assignment and demands regarding the final product 2. Reading out loud the demands mentioned in the assignment 3. Subjects indicate they will work in a structured way to make sure goals are made.
(sub)-attribute processing	1. Number of reformulations safety and / or comfort (being the attributes in our experiments) 2. number of (sub)attributes per person
Absolute sub-attribute weighting	Statement is made that safety is important
Homogeneous sub-attribute weighting	The presence of seatbelts, the quality of an anti-skid system and the strength of the structure (all sub-attributes of safety) may be weighted against each other.
Heterogeneous sub-attribute weighting	The quality of the anti-skid system (a sub-attribute of safety) might be weighted against the quality of the seats (a sub-attribute of comfort)
Attribute weighing	Concluding that safety is more important than comfort
Evaluation	After the answer to the assignment is given, summarize the process a subject has gone through to support the final answer

Table 7 Weight Assessment phases & indicators

2.5 Assumptions

Now that the phases with its indicators and independent variables are determined, an estimation can be made of what could be expected regarding the outcomes of this research. The following table shows the assumptions made on the basis of the linkage between the indicators and independent variables. Tables 5 and 6 show in what way the indicators and phases extracted from the WAM are influenced by the independent variables. Table 7 shows the assumptions which were derived from tables 5 and 6. Table 7 shows the influence of cultural indicators coming from the variable Holistic thought in relation to the indicators coming from the phases of the WAM. They are, in line with the approach of Heerkens, set in a way that it should be totally clear when a statement is made by one of the subjects in Pakistan, the influence is noticeable. The focus will only be on these aspects. This is a flaw in the research, but necessary to keep within the boundaries of this Master-thesis.

Phase	Independent Variable; holistic thought	Assumption 1
Problem identification	High	1. When defining the approach statements will be made that both safety and comfort are of importance and have to be taken into account when executing the assignment. 2. No categories will be addressed; therefore definitions also do not have to be given.
	Low	1. When defining the approach statements will be made that one attribute is more important. 2. subjects prefer clear boundaries (categories) and therefore one would expect that definitions are given and explained, thereby pointing out certain rules which have to be followed

Phase	Independent Variable; Holistic thought	Assumption 2
(sub)-attribute processing	High	Number of (sub)attributes per person will be extensive.
	Low	Number of (sub)attributes per person will be limited.

Phase	Independent Variable; holistic thought	Assumption 3
Absolute sub-attribute weighting	High	People in holistic societies cannot isolate one attribute. Therefore, absolute weighting will hardly be done in order to maintain harmony
	Low	Absolute weighing will be present in most cases, focusing on 1 attribute in order to isolate the attribute.

Phase	Independent Variable; holistic thought	Assumption 4
Homogeneous sub-attribute weighting	High	Sub-attributes will hardly be weighted when belonging to different main attributes since categories like homogeneous sub-attributes are not included in the analysis.
	Low	Sub-attributes will be weighted extensively to different main attributes; homogeneous sub-attributes are one of the categories.

Phase	Independent Variable; Holistic thought	Assumption 5
Heterogeneous sub-attribute weighting	High	sub-attributes will hardly be weighted when belonging to different main attributes since categories like heterogeneous sub-attributes are not included in the analysis.
	Low	sub-attributes will be weighted extensively to different main attributes; heterogeneous sub-attributes are one of the categories.
Phase	Independent Variable; holistic thought	Assumption 6
Attribute weighting	High	Final weighting regarding the main attributes will hardly be done to make sure harmony will not be disturbed. If it is done in the end, it will be in line with statements in the problem identification phase.
	Low	The main attribute weighing will follow on what the subject thinks of being the result of the analysis. This could deviate from former statements made previous on the analysis (e.g.in the definition phase).
Phase	Independent Variable; Holistic thought	Assumption 7
Evaluation	Low	There will no evaluation take place, since events are regarded as having been inevitable in retrospect.
	High	Evaluation is necessary to explain events, and therefore will be done.

Table 8   Assumptions

With respect to assumption 4, extensively in this context means that there are at least 5 or more weightings. Splitting attributes into sub-attributes can be described in many if at least 3 or more splits have been made These numbers are chosen to make a clear distinction between few and many. There is a grey area in between 3 and say 4 splits or 4 or 5 weightings, but for practical reasons the division is made as described.

The holistic aspect in the table above can now be translated into Pakistani systems of thought. The Non-holistic systems of thought will be appointed to Dutch society.

In the following chapter, I will describe the methodology regarding the collection of data which I will analyze in chapter 4, keeping in mind the assumptions as shown in table 8.

3   The research approach

3.1   The experiment

To obtain data, an experiment was conducted by Heerkens. In this experiment research had to be done involving laymen actors. Employees working in companies for several years might have developed certain routines and patterns for making decisions. Therefore, they could not be involved in this particular research. The assumption was made that students, studying at universities, would fulfill these functions in the future when graduated. They were not hampered by routines and patterns and in that sense could be considered as laymen. The students in this initial research were Dutch.

3.1.1   The setting

For this research, the experiment was executed at universities as being the laboratory setting. In this research the universities were LUMS and the University of the Punjab, and therefore the setting cannot fully be compared to the Dutch setting, where only 1 university was part of the experiment.

3.1.2   The research subjects

In my research, 13 students of the Lahore University of Management Sciences (LUMS) and 7 students of the University of the Punjab participated in the research[7]. All students stated that they had no experience with buying capital goods in the past, at least not in a working condition. From the examples they gave regarding buying capital goods there was no clear connection to our case, so we could consider the students as being laymen. This is in line with the possible interference experts could have, and what we didn't want to measure (see Ericson & Hastie, 1994).

3.1.3   Non-routine decisions

In the process of making decisions by individuals and the possible influence of culture, we will focus on people who make decisions without having built up a certain routine regarding the decision of making a choice between attributes of alternatives. This is done to make sure there is no interference of other factors that will blur the possible influence. E.g.; if an employee is experienced (has a certain routine) in giving advice to a management about the purchase of capital goods, the decision might not be only depend on the possible influence of culture, but also his ideas on what he knows from earlier experiences. This could lead to acknowledgement of advice which was received positively by the management. Heerkens (2003, p5-7) describes this in detail.

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[7] See Appendix 5 for more details regarding the background of the students

3.1.4 The case

The experiment was executed by presenting the students with a case. This was about the decision to buy mini-buses (as an example of a capital good). There were 2 characteristics to take into consideration; comfort and safety. These were explained to be examples of so called attributes. The importance given to these attributes was described as weight. It was presented to the students that they had to give the management of the company Plane Drive advice on the decision to buy mini-buses. The company was specialized to pick up customers from their home and bring them to the airport, in this case being Amsterdam airport (Schiphol). The reason why customers would use the services of Plane Drive could possible be the fact that there were no other forms of transportation available to them, or the time of departure was in the middle of the night, and the use of public transportation was not possible at that time, etc. The case stated that the 'fleet' of minibuses, currently in the possession of Plane Drive, had to be replaced.

The subject was told that he was not entitled to give advice on which bus should be bought. The advice was bounded by the condition that they only should give advice to the management about the importance of the 2 attributes, safety or comfort. On the basis of this advice, the management of Plane Drive than had to find buses which would fit the conditions.

3.1.5 Think-aloud method

Students were assigned with the task to give an advice to the management of Plane Drive. But how do you measure the way in which people assign weight to attributes? In the experiment the so called 'think-aloud' method was selected. Ericsson and Simon (1993) established that, when used in a proper way, this method was one of the best ways in getting insight in the way people think when solving a problem or e.g. assigning weight to attributes. The method is not to be used in groups, but for individuals it is useable. With this method, students were asked to verbalize every thought they had when fulfilling the task of coming to an answer to the assignment. It was stated that it didn't matter what they said, or what the possible idea of the management could be, they just had to follow their own ideas and speak aloud.

Although the small number of observations does not have great statistic significance, most Think-aloud methods are based of small populations. This is because the effort for the analysis of the protocols is immense and the results of only a few subjects are satisfying. Further it can be said that pure think aloud protocols may not help an evaluator to collect sufficient information for the diagnosis of a problem without the use of probing. Therefore a small number of participants are acceptable (Köster, 2007).

3.1.6 The execution of the research

The complete session was taped in order to ensure the experimenter could reliably find the relevant factors regarding this research, avoiding the risk of missing items.

The subjects were told that they only had to focus on safety and comfort, not on e.g. the possible price as a determinant factor for assigning weight. In the case the company Plane Drive was picking up people in Lahore (or the region of Lahore) to bring them to Lahore International Airport.

Before starting with the actual experiment, the role of the experimenter was explained and the presence of the recorder was shown. It was explicitly said that the experimenter was not entitled to give answers to questions asked. Only things like 'please think aloud' or 'I Can't answer your question' could be possible reactions made by the experimenter.

To ensure the students were at least a bit used to the idea of 'thinking aloud', the experiment was preceded by a couple of examples, in which students e.g. were asked in a think-aloud manner to explain how many windows were present in their home. Next to that, the students were asked to read through some background-information regarding the company they presumably worked for (i.e. Plane Drive) and 2 folders with examples of minibuses were given. This was done in order to make the case more understandable (in this case; a Citroen and a Nissan Interstar. See appendix 6 for an example). At that moment, the subjects were not aware of the assignment yet, and therefore were not aware what to look for, other than just reading through the information. In the folder material there was some general information regarding safety-aspects and comfort-aspects. Although you could say that the students were no longer laymen, it appeared to be necessary to give this information beforehand, or the data-collection would not be useable (see Heerkens 2003, p52).

After each session, the participants were interviewed, to double-check if the information the subjects had given were in line with what they actually wanted to express. Most subjects said that they would not have altered there initial way in which they had been expressing themselves. Some pointed out that they might have worked in a different way if they had known beforehand that they had to focus on safety and comfort when reading the background information. Several subjects were asking why there was no other information available, or at least, more regarding the company or more examples of minibuses.

Transcripts were made from the taped sessions. The process now was focusing on variables which could be found in the texts regarding assigning weight. In the next chapter the findings are presented.

4 Results

In chapter 3, the method of data-gathering has been explained. The data obtained by the experiment for Pakistan will now be analyzed and compared with the data found within the Dutch group.

4.1 Analysis

The analysis below is in line with the setup of the assumptions regarding what could be expected in Pakistan as described in Chapter 2 (table 7). In cases it is necessary to compare the results with the Dutch research. There is, however, also research done in Germany by Köster (2006). Some aspects, of which there are no Dutch results available, have been available for the German situation in which the same research under the same conditions has been done. We therefore can include the results. Question is; can the German society also be seen as an Individualistic society? On the basis of the work of Hofstede (1984) we see that, although Germany has a lower score (67) on IDV than the Netherlands (87), this score is considered as being part of the 'high individualistic' group. Following our literature study in Chapter 2, we can state that the results found in Germany can also be interpreted as being non-holistic. For this reason it is judged that they can also be used in the analysis.

4.1.1 Assumptions 1

Subjects in Pakistan will express within the problem definition phase they will take both safety and comfort into account when executing the assignment since they are of equal importance. Dutch students will state that one attribute is more important than the other.

Looking at the protocols, 16 subjects started with reading out loud the assignment they were tasked with (see Annex 4). 2 subjects did not read or repeated the assignment out loud. Heerkens (2003, p.130) states that reading or repeating the assignment does not qualify as being an indicator for phase 1. Therefore, I will not take these into account.

There are 6 subjects who repeat the task ahead in their own words, but not focused on the end result. No explanations were given regarding how precise the weighting should be.

1 subject (3) directly chose passenger comfort to research as being the most important attribute. The rest of the subjects did not explicitly chose to express if one attribute would be of more importance than the other and follow up on that. One could only assume that implicitly they do not make a choice.

Comparing these results with the Dutch situation, I noticed there are no significant differences.

Assumption 1.2 states 'No categories will be addressed, therefore definitions also do not have to be given' (highly holistic thought) and 'Subjects prefer clear boundaries (categories) and therefore one would expect that definitions are given and explained, thereby pointing out certain rules which have to be followed' (low holistic thought).

In the Dutch situation, Heerkens found the following; "*No subject translated the assignment into requirements for the end result or, as far as could be identified,*

worked systematically during phase 1. None of the subjects wondered how precise the weighting had to be. In the assignment, only general qualifications like 'importance' were used, so there was no requirement as to the precision of the weights." This situation is also present in the Pakistani society.

4.1.2 Assumption 2

In Pakistan, the number of (sub)attributes per person will be extensive to make sure all elements are taken into consideration; In the Netherlands, the number of (sub)attributes per person will be limited.

In this case, I transferred this assumption into the splitting of sub-attributes. The more sub-attributes are generated, the more elements are taken into consideration
For the analysis I made attribute-schemes in which I gave an overview of the level of sub-attributes generated and next to this the level of which the sub-attributes were split up. The number of (sub)attributes per person, the number of splits attributes into sub-attributes (safety and comfort) + the measurement-scale (e.g. ordinal, ratio, etc) are shown in table 9.

Number of sub attributes	First level		Second level		Third level		Fourth level	
	Dutch	Pakistan	Dutch	Pakistan	Dutch	Pakistan	Dutch	Pakistan
Average safety	12,6	5	7	3,3	7,5	1	1	0
Number of persons (%)	*18 (100)*	*15 (79)*	*14 (78)*	*11 (58)*	*3 (17)*	*3 (16)*	*1 (6)*	*0*
Average comfort	16	5,5	7,6	5,6	5	1,1	1	1
Number of persons (%)	*18 (100)*	*17 (89)*	*15 (83)*	*15 (78)*	*4 (22)*	*8 (42)*	*2 (11)*	*1 (5)*

Table 9 Splitting attributes

The expectation would be that Pakistani subjects as part of a holistic society would provide a lot of sub-attributes. But in contradiction with assumption 2, there are hardly any sub-attributes generated. Dutch students are splitting much more, also on a more in-depth level. Dutch students are considered non-holistic, and therefore the statement that they would not generate a lot of sub-attributes. The oposite goes for Pakistani subjects. This leads to the conclusion there is no on the fact that this assumption is met.

When comparing the Dutch and the Pakistani situation, we see that there is also not really a difference between these two outcomes when looking at other aspects (see table 10). In the Dutch situation, 13 out of 18 students ended up in ordinal weighting (72%) and 3 out of 18 (28%) on ordinal weighting. 2 Dutch subjects (11%) weighted on ratio-level.

In Pakistan, this is relatively the same; 14 out of 18 (76%) weight ordinal and 3 out of 18 (18%) on interval level. One student only weighted on nominal level. There were no subjects who weighted on ratio-level.

Scale	Nominal	Ordinal	interval	Ratio
Dutch	0	13 (72%)	3 (16%)	2 (12%)
Pakistani	1 (6%)	14 (76%)	3 (18%)	0

Table 10 Measurement scale

4.1.3 Assumption 3

People in Pakistan societies cannot isolate one attribute. Absolute weighting will not be done. In the Netherlands however, absolute weighing will be present in most cases, focusing on 1 attribute in order to isolate the attribute.

Following the protocols (see for a summary Annex 2) in most cases the assumption states that the absolute weighing will not focus more on 1 attribute in Pakistan. For 7 out of the 19 subjects, this appeared to be true. The majority, however, did not.

In the Netherlands, all subjects devoted a lot of time and effort on absolute weighting (Heerkens, 2003, p 103).

The assumption is therefore correct for the Dutch situation, but only partly for the Pakistani situation (minority case).

4.1.4 Assumptions 4 & 5

4. Sub-attributes will hardly be weighted in Pakistan when belonging to different main attributes since categories like homogeneous sub-attributes are not included in the analysis.

4. Sub-attributes will hardly be weighted in Pakistan when belonging to different main attributes since categories like heterogeneous sub-attributes are not included in the analysis.

5. Sub-attributes will be weighted extensively in The Netherlands to different main attributes; homogeneous sub-attributes are one of the categories.

5. Sub-attributes will be weighted extensively in The Netherlands to different main attributes; heterogeneous sub-attributes are one of the categories.

In Annex 2 information regarding homogeneous and heterogeneous weighing for Pakistan can be found. Looking at the homogeneous weighting, but also the heterogeneous weighting, we see a difference between the Pakistani and the Dutch outcomes. In the Dutch outcomes, it appeared that 100% of all subjects devoted time (a very small part, but still) on heterogeneous and homogeneous weighing. In the Pakistani case, only 11% devoted time on homogeneous and 22% on heterogeneous weighting (Köster, 2006). Therefore, it can be concluded these assumptions are met.

4.1.5 Assumption 6

Final weighting regarding the main attributes will only be done on a limited scale to make sure harmony will not be disturbed. If it is done in the end, it will be in line with statements in the problem identification phase.

The main attribute weighing in The Netherlands will follow on what the subject thinks of being the result of the analysis. This could deviate from earlier statements made previous on the analysis.

The number of preference reversals per person provides an indication on the way a subject was changing his view on the original point of departure. This could be an indication of a lack of an analytical thought (see Nisbett, 2001). Although some Pakistani subjects tended to change their original point of departure, in the end they came back to their original starting point. This again is in line with the assumption that presuppositions in holistic societies will not be altered throughout the process. The point of departure regarding goals of the assignment and demands regarding the final product proved not to change.

Most subjects only gave an attribute weighting when asked for (14 out of 18). If not asked for, it was not the clear result of a systematically followed path. Most subjects (14) also stated in the interview they were not to change the way they have dealt with the assignment.

100% of the Dutch students devoted at least some time at phase 6, sometimes already in the beginning of the assignment. Changes during the initial stages and the final judgment were not found, making assumption 6 to be proven correct.

4.1.6 Assumption 7

In Pakistan, no evaluation will take place, since events are regarded as having been inevitable in retrospect.

Evaluation is necessary in The Netherlands to explain events, and therefore will be done.

When looking at phase 7 of the WAM, the evaluation-phase, 100% of all Dutch subjects devoted at least some time on this phase, while within the Pakistani group of students hardly anyone did this. Statements like 'this is my answer' were scarce, and one could argue if that is part of the evaluation-phase. Looking back at the process, only in the interviews 4 students told me that there might have been another approach possible, but no students talked about the weight they gave and whether or not they were satisfied with the outcome of the answer. This is in line with our expectations.

After analyzing all assumptions, I will draw conclusions in chapter 5 in which I will also address the main research question.

5 Conclusions, reflection & recommendations

Based on the research, the main research question can be addressed

5.1 Conclusions

Considering the results (chapter 4), I'm able to give an answer to the main research question.

To what extent is national culture of influence on the structure of the thinking process within a Dutch and Pakistani organizational context, by which layman actors involved in non-routine decision-making processes assess the importance of attributes of the various alternatives under consideration?

In order to give an answer to that question, I formulated sub-questions. The first one was;

Which cultural variables can be identified which could be of influence on the thinking process in taking decisions on a non-routine basis by employees which can be considered laymen?

In chapter 2 I made clear that there are differences noticeable when comparing national cultures. There are two levels in which culture could differ. The first level is called the explicit level. The other is the implicit level. Examples which can be found on the explicit level are art, dance, buildings, etc. The implicit level represents a more in-depth part of a national culture. Values are part of this level. To operationalize these more intangible aspects of national cultural differences, Hofstede provided a tool on how to do this.

The scores on the values which can be measured by using Hofstede's dimensions are different for Pakistan and the Netherlands. Within my research, I focused on this part. More specifically, I researched the dimension Individualism – collectivism (IND).

I linked IDV to systems of thought. It appeared that societies could have different systems of thought. The extremes could be highly holistic systems of thought vs low holistic systems of thought. Our literature-study showed that Pakistani could be considered as a society in which people have a highly holistic way of thinking. Dutch people were said to have a low holistic way of thinking. Within this framework, the influence of the independent cultural variables and the phases with indicators coming from the WAM were determined. This lead to assumptions which were tested in chapter 4.

The second sub-question was;

Which phases of the thinking process could be distinguished which could be seen as being potentially impressionable by cultural variables?

I took the WAM-model to identify indicators, following all phases of the model:
- problem definition
- (sub)-attribute processing
- Absolute sub-attribute weighting
- Homogeneous sub-attribute weighting
- Heterogeneous sub-attribute weighting

- Attribute weighting
- Evaluation

The influence of the cultural, independent variable on the indicators and with that, on the phases of the WAM was translated into assumptions, which were tested (chapter 4).

With respect to the first part of the central research question, most of the assumptions are met. Only the Problem identification and sub-attribute processing did not to deviate with what was found in the literature and expected for Pakistan. The Dutch part was judged to be accurate on these two points.

Although the research has a limited scope, the answer to the main research question is that to a large extend national culture has influence on the important assessment process.

5.2 Reflection

Considering this research, there are several elements to keep in mind. The research requires laymen in order to make sure there are no interferences of factors which have been obtained with buying capital goods before. The issue is: when you have people working in a company which have to execute the same assignments, there are all sorts of aspects which will most likely also be of influence. In the case of students being laymen, there was no real management. When working in a company, the weight assessment process could have been take place differently. Think of the high score on the dimension Power Distance Index (PDI) for Pakistan. The case says that it doesn't matter what the management would think of the advice which the subjects will give to the management. In a real working environment, this will most likely have influence. The fact of the matter is that it appears that in Pakistan because of the high PDI there will not so much be advice from lower hierarchical levels, and if there is, it will always be in line with what the management wants to hear. The advice will therefore be biased, and so will be the weighting. For that reason there is uncertainty whether or not the outcomes of this study will be applicable in a real working environment.

Next to PDI, one could also have a look at a Trompenaars (2000) dimension called Universalism vs Particularism. This dimension says that in universalistic societies, people are more bounded by rules, codes, values and standards. Particularistic societies are more focused on relationships. According to my observations Pakistan is an example of a particularistic society and The Netherlands is a universalistic society. This could play a role in purchasing capital goods. E.g.; in the Netherlands it will most likely be of less influence of which company the management will order the bus (see our case). Therefore, the advice doesn't necessarily have to go in a direction which would lead in the way the safety or comfort would be in line with a type of bus which is sold by relatives of the people working at Plane Drive. Perhaps this looks a bit far fetched but from my experience, people will most likely only deal with people they know, which in a sense is also a token of collectivism.

Another factor is the fact that I found different scores on the dimensions when asking the students to fill out the questionnaires also used by Hofstede (1980). The score on the IND dimension was 71, which comes in the area of the Dutch scores. In other research I found that the scores on this particular dimension for Dutch students are not that much different than those of the scores Hofstede found. The explanation I give is that the Pakistani people I asked to fill out the questionnaire were no typical

students. The students of LUMS were in most cases students who had a very good educational background. Some of them have had their education in e.g. Great Britain. Therefore one could say that they were more influenced by Western culture and they are more independent. Strangely enough, the protocols showed non-holistic evidence. This could explain the outcomes of the research, which are more in line with the Dutch outcomes than we expected before going to Pakistan.

From my own experiences in daily live however, I noticed a lot of aspects which could be called holistic. As an example; in the case we have students practice with the think-aloud method. Therefore we give them an example, in which they have to tell while thinking aloud how many windows the house they live in has. Most of them started by telling something about their elderly house, and in some cases, some of the students were actually living in the house of their parents. This is an example of a holistic living-environment. The students from the University of the Punjab could be considered more 'main-stream' Pakistani students. Here, there was more evidence regarding a holistic view than with the LUMS-students.

There could be reservations about the possibility to compare the Chinese culture with the Pakistani culture, not even on 1 dimension. The IND dimension could differ on so many things, that this comparison cannot be made and therefore there is no prove that Pakistan is holistic, which I could not find anywhere. I think this also has to do with the fact that Pakistan is not a very broadly researched country, which is a shame, since there is so much to learn from the Pakistani.

The dimension IND has been researched by many authors. E.g. Triandis (see Globe 2004, p.443) found that within individualistic societies, there are also aspects which make that the scores Hofstede found are not correct. This has to do with the fact that he claims that there are so called culture-specific elements which have to be taken into consideration, e.g.: in the category *birds* you have attributes like 'wings' and 'feathers', but you could also look at yellow beaks and carnivorous as being attributes, but which could differ among birds. In other words; if you take a different definition of the dimension IND, it might be very well possible that different outcomes will be achieved. This looks obvious, but it brings up the issue of what definition is 'the correct one' when looking at culture. This will always be a dispute when it comes to this area of research.

Finally, I will address the language barrier and the think-aloud method. Research done by Kim (2002) on American and Asian-American students found that *the Western assumption that talking is connected to thinking is not shared in the East*. This could mean that our think-aloud method might not be valid for comparing Pakistan and Dutch students. Also, the Dutch students could perform the task in their native language, while the Pakistani had to do it in English, which for all students turned out to be no problem, but still, it is not their native language.

I will conclude the research with recommendations.

5.3 Recommendations

5.3.1 Research other cultural influence

The protocols should also be scanned on other aspects of culture by focusing on other dimensions of Hofstede in which there is also a difference in scores which could be considered significant, like PDI. The influence of religious background could also be of interest to take into consideration. In line with this recommendation, it would also be a good idea to use different theoretical frameworks of e.g. Triandis to see if the protocols are also within these frameworks representing the outcomes this research has shown.

5.3.2 Other categories of Subjects

It could be of interest to execute the research with subjects in a real working environment, preferably who have been working there for a longer period of time, but who also have no experience in buying capital goods. This might be very difficult, but nevertheless very interesting to see if there are differences in the outcome of that particular study with this work. Research also people who have actual experience with buying capital goods to see if there are differences which might be expected.

5.3.3 Representative groups

Select research students who are more representative for the country at hand; students who have had their educational background in a more western setting might not be representing the country's way of thinking. It should be realized that with this recommendation, a problem emerges. You have to be able to compare subjects on the same level of intelligence, and students which have had their educational background in Pakistan before going to a University, normally already are behind the level of education when comparing Dutch or Western students with the same level of experience within the academic development, the amount of years studying at the university, etc. In that sense their way of thinking will be different already. The solution would be to test the level of students before letting them do the test of the research.

5.3.4 Validity

In order to make sure that the results are representative for societies which have similar characteristics, countries like Indonesia and Malaysia could also be researched. If the protocols show similarities, we have a better insight and evidence whether or not the outcomes of this study are representative for Muslim-countries in combination with holistic values. Also, research more Western countries is recommended to determine if the scores and protocols are similar. If the Dutch situation is completely different from other Western countries, the comparison with Pakistan will also be of less worth when giving general assertions.

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7 Annexes

7.1 Annex 1   Level of splitting attributes into sub-attributes per subject

Splitting	First	Second	Third	Fourth
PP 1	11 S 7 S	6 S 13 C	0 S 4 C	0
Pp 2	7 S 8 C	5 S 12 C	5 S 2 C	0
PP 3	5 S 6 C	4 S 9 C	0 S 2 C	0
PP 4	5 S 6 C	3 S 11 C	0 S 0 C	0
PP 5	14 S 17 S	6 S 7 C	0 S 1 C	0
PP 6	0	0	0	0
PP 7	6 S 5 C	0 S 5 C	0	0
PP 8	11 S 11 C	6 S 9 C	0	0
PP 9	4 S 3 C	0 S 1 C	0	0
PP 10	4 S 5 C	5 S 9 C	0 S 2 C	0 S 1 C
PP 11	1 S 1 C	0 S 3 C	0	0
PP 12	4 S 4 C	1 S 1 C	0	0
PP 13	7 S 7 C	0 S 1 C	0	0
PP 14	12 S 11 C	16 S 15 C	3 S 5 C	0 S 3 C
PP 16	5 S 2 C	0	0	0
PP 17	0	0	0	0
PP 18	0 S 1 C	0	0	0
PP 19	3 S 1 C	4 S 1 C	0	0
PP 20	11 S 16 C	7 S 20 C	1 S 6 C	
Totaal	**17 (89%)**	**15 (79%)**	**8 (42%)**	**2 (11%)**
Gemiddeld aantal	5 S 5,5 C	3,3 S 5,6 C	0,5 S 1,1	0 S 0,2 C

7.2 Annex 2 Summary of most important finding per protocol

Protocol 1
Weight; ordinal
- absolute 3 times (passenger assist grab handles, standards are good enough, seats look good enough); no homogenous weighting
- heterogeneous; 1 (if safety part is fulfilled, the comfort part is extremely large; absolute level
- integral weighting; comfort more important

Weight given purely on image company and expectation client-groups (only rich people will use the service)

Context
- Reputation of the firm
- Those who can afford it will travel; weight on the basis of passengers feeling
- Basing on own aspects
- Circumstances driving in Pakistan not safe
  o Therefore, driver is most important considering safety

Self-generating sub-attributes; 1 (AC)
That was not in the reading… ah, whatever….

No definition-forming, no integration

Protocol 2
Weight; highest level ordinal
- Absolute sub-attribute; 5 (durability seat cloth, that's good; sliding of the windows is a plus; ABS; slip resistant; accessibility)
- no integral weighting main attributes

Context
- clients (disabled); safety and comfort depends on the type of clients
- support to the driver, that's a plus / important that he stays awake

Compares buses mostly

Protocol 3
Weight; highest level interval
- starting with integral weighting on main attributes;
- integral weighting; passenger comfort over safety (which is guaranteed by obligatory safety measures); but: if we consider safety more important, we have to focus on seatbelts
- absolute sub-attr; 3 (space, seats, airbags)
- heterogenous; 1 (height of the car important for both safety and comfort, especially for safety)
- no homogenous weighting

Context; people value passenger comfort more than safety (starting point), especially since they are from the upper class. In the end: safety more than passenger comfort

Self generating sub-attribute; 1 (radio)

Protocol 4

Weight; highest on ordinal level
- Absolute; 1 (operated front windows for the driver, not for the passengers. That's a negative point)
- Integral weighting; comfort

Context; clients prefer comfort, so that is important to me

Compares mostly buses, did not understand the assignment. Only when asking, absolute weighting (safety over comfort)

Protocol 5

Weight; ordinal level
- Absolute sub-attributes; 3 (safety, only seatbelt, that's fine to me, layout, visibility
- Heterogenous; 1 (cloth seat trim….this is the best feature right now; 15 seater, less comfortable but safer since there are 2 people less in case of an accident)
- No integral weighting

Says she is going to define safety and comfort

Context;
- safety largely in the hands of the driver
- if I was a customer, I would prefer comfort
- wealthy clients

Generates 1 sub-attribute by herself; safety-balloons
The car itself, except for seatbelts is not providing any safety

Protocol 6

Weight; ordinal level
- absolute weighting (starting point is comfort; than; safety is important first)
- integral weighting; comfort
- no weighting sub-attributes

context; clients

Protocol 7

Weight; ordinal
- absolute; 1 (seats)
- integral weighting; safety (starting point)

At outside it doesn't tell me anything about how comfortable it will be

Protocol 8

Weight; ordinal level
- absolute
  - 15 sub-attributes (accessibility; anti lock breaking systems, Fire extinguisher, First Aid kit, Courtesy light to stepwells, Passenger assist grab handles at side, Reversing bleeper, Head restraints, 3-point inertia reel seat belts, Red seat belts, Slip resistant, Side door passenger grab handles. These are all important safety features; wheelchair; space; lumber support
- Main; comfort
- Integral; safety

Protocol 9
Weight; ordinal level
- absolute sub-attribute 4 (fire extinguisher. breaks, the antilock braking system, first aid kit)
- absolute main 2; safety; comfort
- integral; comfort

Context; the roads; people don't mind safety

Protocol 10
Weight; ordinal level
- absolute sub-attribute 7 (leg-space; standing up; luggage space; seats; head rests; height; seat belts
- homogeneous; 1 (foam instead of this plastic thing is better)
- heterogeneous; 1 (seatbelts)
- After asking; integral weighting: comfort

Context;
- safety is depending on the driver
- road
- customers

Protocol 11
Weight; ordinal
- absolute main 1 (safety is absolute, therefore comfort is more important)
- integral weighting; comfort

Says he gives definitions (does not actually do that)

Context;
- comfort important to clients
- also depends on the clients

Protocol 12
Weight; ordinal
- absolute main; 2 (starting point; comfort more important; later; safety more important)
- absolute sub; 3 (seatbelts; seats; luggage space)
- integral weighting; safety

context;
- management has given me the 2 attributes
- something seen on tv
- clients are in the higher rank / foreigners (apparently always rich) prefer safety

Herformulering; privacy = passenger comfort

Protocol 13
Weight; interval (60% comfort, 40% safety)
- absolute main; 1 (comfort)

Gives definitions

Context; passengers

Protocol 14
Weight; ordinal
- absolute weighting sub-attributes; 2 (passenger assistance grab handles; hard wearing seat trims)
- integral (after asking) safety

Context;
- clients very important (in case of delays; have to be much better compensated than is now the case)
- driver is responsible for safety
- the road

Protocol 16
Weight; ordinal
- absolute; 2 (first comfort, than safety; starting point; safety (personal opinion)
- integrative; safety

Context;
- passenger (value comfort better than safety)
- driving is also important

Protocol 17
Weight; ordinal
- absolute main; 1 (comfort)
- integral weighting; comfort

Context
They only discussed about their door-to-door shared right airport shuttle outstanding service with clean, comfortable vehicles and courteous drivers. This is important; important is to give customers the call information about your company and what are the features they providing and all they're giving to their customers.
Safety depends on the driver

Protocol 18
Weight; nominal
Integral; safety

Protocol 19
Weight; ordinal
- absolute main; 1 (safety starting point)
- integrative; safety

Context; clients are elite, so comfort

Protocol 20
Weight; interval
- absolute sub; 1 (ABS;
- homogeneous; 1 (head restraints vs euroseats)

7.3 Annex 3 Splitting safety and comfort into sub-attributes; a comparison between the Dutch and Pakistani situation

7.3.1 safety

Number of sub attr	First level		Second level		Third level		Fourth level	
	Dutch	Pakistan	Dutch	Pakistan	Dutch	Pakistan	Dutch	Pakistan
0		3 (16)	4 (22)	8 (42)	15 (83)	16 (84)	18 (100)	19 (100)
1-5	2 (11)	9 (47)	7 (39)	7 (37)	1 (6)	3 (16)	1 (11)	
6-10	5 (28)	3 (16)	4 (22)	3 (16)	1 (6)			
11-15	5 (28)	4 (21)	2 (11)	1 (5)	1 (6)			
16-20	5 (28)		1 (6)					
21-25								
26-30								
31-35	1 (6)							

7.3.2 comfort

Number of sub attr	First level		Second level		Third level		Fourth level	
	Dutch	Pakistan	Dutch	Pakistan	Dutch	Pakistan	Dutch	Pakistan
0		2 (11)	3 (17)	5 (26)	14 (78)	13 (68)	16 (89)	18 (95)
1-5		8 (42)	5 (28)	5 (26)	3 (17)	6 (32)	2 (11)	1 (5)
6-10	4 (22)	5 (26)	5 (28)	6 (32)	1 (6)			
11-15	6 (33)	2 (11)	5 (28)	2 (11)				
16-20	4 (22)	2 (11)		1 (5)				
21-25	2 (11)							
26-30	1 (6)							
31-35								
36-40								
41-45	1 (6)							

7.4 Annex 4   Phase 1, problem definition

Subject	Reading the assignment aloud?	Additional information in phase 1
1	No, starts immediately with phase 2	n.a.
2	Yes	"I'm supposed to evaluate safety and passenger comfort"
3	Yes	"So basically, there are 2 factors we have to evaluate are safety and passenger comfort…comfort, while other factors are considered constant or not to be evaluated in this study. I think in my opinion people value passenger comfort more than the safety" Chooses directly 1 attribute
4	Yes	n.a.
6	No	"So now I am supposed to tell you whether I want safety or comfort…"
7	Yes	n.a.
8	Yes	n.a.
9	Yes	n.a.
10	Yes	n.a.
11	Yes	n.a.
12	Yes	n.a.
13	Yes	Now I start of with defining what safety means to me as far as the mini selection of the minibuses considered. With safety, I would need to look at the attributes such as euh whether the minibus has been tested or not. Or where they reach the standards where the industry stands. Secondly I have to look at the features that a minibus provides, euh… a minibus provides in order to meeting the standards. Similarly, passenger comfort… the company is providing shuttle services. Passenger comfort goes to the leg-space.

14	Yes	n.a.
16	Yes	So, which one is better, safety or passenger comfort? I'm going to evaluate this.
17	Yes	n.a.
18	Yes	n.a.
19	Yes	N.a.
20	Yes	Right, so I have to choose between safety and comfort.

7.5 Annex 5   Division of students

- Subjects 1-12 and 18-20; students of LUMS, of which numbers 5, 7, 9 and 19 were women
- Subjects 13-17; Students of the University of the Punjab, of which numbers 14 and 16 were women

7.6 Annex 6 Example folder Citroën

Citroën Relay Minibus
ALL FIRST CLASS SEATS

CITROËN VANS
NO JOB TOO BIG

CITROËN RELAY MINIBUS RANGE

- 12, 15 or 17 Seats with headrests
- Fuel efficient 2.0HDi, 2.2HDi and 2.8HDi engines
- Height adjustable 3 point seatbelts
- 3 years, 100,000 mile warranty**
- Outstanding interior space
- Excellent accessibility

Why travel second class?

All Citroën Relay minibuses feature M1 standard seats & outstanding safety features.

MIRA

Advanced Special Vehicles carry out the minibus conversion and fully tested the Relay Minibus 17 seater at the Motor Industry Research Association to M1 standard (the most stringent form of safety testing). The Relay Minibus therefore complies with EEC & ECE standards* as witnessed by the Vehicle Certification Agency.

Standard Driver Features

- Height adjustable driver's seat with lumbar support
- Electrically operated front windows
- Remote control central locking
- Electrically operated and heated door mirrors
- Many driver accessible storage spaces including dash mounted cup holder

Comfort and Trim Features

- Individual semi high back seats (passenger compartment)
- Standard adjustable head restraints
- Cloth seat trim
- Moulded seat foams and durable easy clean interior
- Two top sliding windows
- Saloon lighting
- Seat belt height adjusters

Standard Safety Features

- Antilock braking system
- Fire extinguisher
- First Aid kit
- Courtesy light to stepwells
- Passenger assist grab handles at side door
- Reversing bleeper (standard only on 17 seater)
- Head restraints
- 3-point inertia reel seat belts
- Red seat belts for visual driver safety check
- Slip resistant safety flooring
- Side door passenger grab handles

Warranty

Every new Citroën minibus offers the benefit of a 3 year 100,000 mile vehicle guarantee and 1 year Citroën Assist Package. Warranties provided by Advanced Vehicle Builders on the minibus conversion.
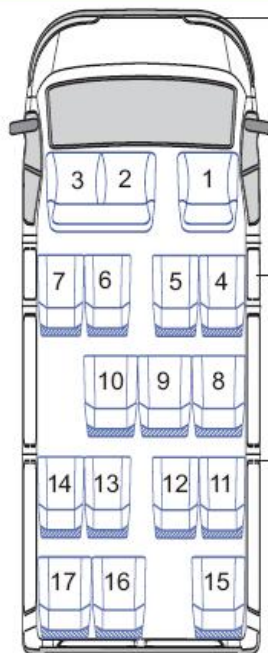
Internal Frame System

The IFS is a structural steel box section frame mounted inside the Minibus and secured through the floor of the vehicle to the underside of the chassis. The Advanced designed Euro Seats are then bolted directly to this frame. This ensures that in the event of an accident all forces are transmitted to the chassis, the strongest part of the vehicle.

Accessibility

No need to stoop or bend to enter and move around inside the bus. The large side door has a free height of 176cm (5ft 9in) and the interior headroom is 180cm (5ft 11in). High visibility grab rails also assist getting in and out.

17 Seats

The Citroën Relay Minibus has 3 front seats plus 14 of the Advanced design Euro seats with integral safety features that meet all EEC and ECE standards* These include fire retardant seat foams, adjustable head restraints, fully adjustable lap and diagonal inertia reel seat belts and a full tubular steel frame with integral seat belt anchorages. As shown opposite 12 and 15 seat versions are also available.

Pricing

Model	Price
12 Seats 2.0HDi	£12,995 (plus VAT and delivery)
15 Seats 2.2HDi	£17,295 (plus VAT and delivery)
17 Seats 2.2HDi	£17,295 (plus VAT and delivery)
17 Seats 2.8HDi	£17,995 (plus VAT and delivery)

APPROVED *ECE 14:03 and EEC/76/115 Anchorages, ECE 16.04 and EEC/77/541 Belts to M1 passenger car loadings. Testing conducted whilst seats were mounted in a Relay body shell.

17 seater

12 seater

15 seater

7.7 Annex 7 Example protocol subject 3

Proefpersoon 3

The assignment; the management of Plane Drive has tasked you with weighing two of the attributes on which the minibuses will be evaluated, namely <u>safety</u> and <u>passenger comfort</u>. You are free in the way in which you define these attributes and the way in which you express the relative importance of each of the attributes vis-à-vis the other.

The requirements that your weighing has to fulfill are the following:
- It has to be formulated so precisely that, on the basis of it, the various types of minibuses available on the market can indeed be compared to each other.
- The motivation of the weighing (your mental processes in order to arrive at statements about the relative importance of the two attributes) has to be so clear that it can be explained to the management of Plane Drive. But please note: this does not mean that the management has to agree with you.

Once again: the assignment is not to judge the minibuses mentioned in the background information with regard to their levels of safety and comfort. The assignment is about the weighing of the importance of safety versus comfort for the evaluation of a minibus in general.

So basically, there are 2 factors we have to evaluate are safety and passenger comfort…comfort, while other factors are considered constant or not to be evaluated in this study. I think in my opinion people value passenger comfort more than the safety. The reason for this that there are already a lot of safety regulations in place by the government and regulatory bodies that make sure that safety is considered in all these cars and that are being manufactured are being looked upon by different organizations that regulate the industry of this manufacturing car, of this manufacturing industry. And in most of the , euh, companies, in their brochures it is already mentioned that, euh, e.g. the euroseats are approved by and certified by European passenger car standards. These cars are being manufactured keeping in mind all the regulatory and safety aspects. As far as the passenger comfort; there comes in a factor that is very important, especially for people that are related to, euhm, or, euh this company airplane, plane drive. The major reason is that this facility is not meant for people belonging to lower class or lower middle class. This facility is basically for people who want comfort, who want this facility from this guy who comes at there home, picking them up from there home. They are even want to pay him, euh, a bit higher to get this facility at their doorstep. They are not willing in going out, hiring a taxi or going out and traveling on a bus or on a train. They are interested in relaxing in a car, that will take them, that will take them from their doorstep and that will leave them at their destination. And for that, comfort is the most important factor that I think you …Everyone considers keeping in mind the business of airplane. The car needs to be comfortable, comfortable in the sense that euh, the space should be very, very open. It should't be digested inside the bus. Second important thing that I find important euh…is the quality of seats which is very important. Quality of seats, they should be very, very comfortable. At the same time, the car should take care of aspects such as, euh the air-conditioning, the windows, and, euh, maybe the music, euh, the music, there should be a cd-player or a caset-player so that the journey is comfortable for the passengers. They could listen to music and they could use their time, not get bored during the journey. Apart from that I think the comfort, the passenger comfort is important, because, because it should be comfortable, euhm, the seats, the quality of the seats, the space available, and, euhm, the space available, the music thing, the windows, it should be bright inside the car, I think because…it should feel alive, I think, and…..not very bored and darkened inside the car. The car should have a height that is reasonably enough so that everybody can sit straight. The

height of the car will matter a lot for the comfort apart from the door space. The door space is very important because if the door is placed, the outside is placed, and it is very difficult to get into the car and I can see in this club 15 the door space is not very good, it is congested. The club 17 has even more seats but the space is more open so that everybody can go into the car very easily so that people will prefer club 17 upon club 15 just because of the door space just because of you feel more comfort if you have more door space to get into the car. Apart from that I think that what is important is the leg space. The space for your legs should be enough so that your legs will not be cramped during your journey and there is enough space for you to relax during the journey. The leg space is very important which means that we might have to get rid of some seats so that we have more leg space for our customers and for travelers. As on the other side for safety components; as I already mentioned that there are regulatory bodies for it but still it is important factor I believe that will contribute to the decision of the people and I think that if we consider safety the most important thing what is important that is the seatbelt. And also if we have features like desk-brakes or anti-breaking systems so that the car does not get out of control if we apply an emergency break. So this break controlling system, controlling system. Apart from that I think for safety we also need to consider that how well the seats are bolted into the framework and how well the seats are bolted, and bolted….. And apart from that the height of the van will matter as well because if the vehicle is too high and the vehicle is not steady from the base it will topple over. So basically there is a contradiction the passenger comfort and the safety. So we have to consider height factor and safety as well. Apart from that, I think what is important for safety; people consider themselves save if they travel in better cars. The major reason is because of the seat belts, the sort of … airbags are also very important…airbag… I think these are the aspects that people will consider important while choosing between safety and passenger comfort. And when we compare the factors that we have listed out … if we consider the passenger comfort, we have the space available, the quality of seats, the windows, the height of the doors, the space, the leg space. These have, all have to do with the manufacturing or the model of ….the car. Well, if you consider the safety side, I think what we have pointed out is the seat belt, the desk breaking, the anti-breaking system, the seats bolted, the height factor and the air-conditioning. The only factor that is a contradiction is the height, the height of the car. Apart from that we can come up with a model that incorporates both of these factors and we can come up with a model.

But euh if we want to weigh one more I think that euh people have to definitely to divide, to categorized people into 3 categories. The lower class, the middle class and the upper class. If we consider middle class, I think middle class people are more concerned about their safety because their concern about their health as well. So I think they are more concerned about their safety. And not as much as passenger comfort because they have not had a lot of comfort in their lives so I believe that middle class people will weigh safety more and passenger comfort less. And the weights based on the middle class mentality will be; they will weigh the safety at 65% and the passenger comfort at 35%. The major reason is that they are not much concerned about height and they are not concerned the space, they are not concerned about the music. They are more concerned about the leg space and the door space. Not very much about the quality of seats. They will obviously be more concerned with the seat belts because they are more conscious about their health and their safety. They will be very, very fascinated by the airbags and the highly bolted seats, the braking system, this will mean a lot to them So I believe that middle class people will weigh safety more and passenger comfort less.

If we come to lower class they will have a huge contradiction because euh they have not tasted even a bit of comfort so they will see the fascinating things in the car like comfortable seats, huge windows, huge leg space and the door space, the music in the car, they will be very fascinated by the comfort. They will weight passenger comfort more in my opinion than the middle class people and they will consider safety as less. The important factor will also be that they are not very well educated, not very well equipped so that they ca understand the importance of the breaking system. They will only consider the seat belts and the airbags as

the only factors which will increase their safety. And even than they will not consider these as very important factors. Their decision will be based more on passenger comfort and the sort of model. The seats, the space, the music. So, I believe that they have reverse mentality as compared to the middle class and they will weigh passenger comfort more. They'll weigh passenger comfort at around, I believe, considering the factors, at around 80% and safety as only 20% because they don't have much. While upper class people, they…they basically are the blend of lower class and middle class. They want comfort with safety and they know exactly what kind of safety regulations there are. They know how important safety is as well as they know well how important comfort is for them and they cannot survive in any congested spaces, any vehicle which creates uncomfort for them. So I believe that upper class will weigh these factors very very equally and the… they will weigh, euhm, them equally I believe. Safety and the passenger comfort….. 50 %, 50%. Now we need to consider what exactly Plane Drive passengers belong to the upper class, the middle class or the lower class. I believe that lower class cannot be one of the prospect customers or clients so we should not consider lower class clients in our analysis any more, so we are left with middle class and upper class. Now considering the mentality of the middle class weighing safety more and the upper class weighing safety equal to the passenger comfort I believe that overall the weight that euh.. will be given to the passengers combined the middle and upper… safety and the passenger comfort. I would like to weight these weightings further depending on the number of passengers from the middle class and upper class. I believe that, euhm… in a service that Plane drive is that euhm the shuttle service from Lahore to the airport or from the airport to other destinations I believe that mostly the upper class people will be traveling in this Plane drive facility. So, for them, I would give a weight of… 75% of their customers would be from upper class, while 25% on, euh, of lower…. middle class and 0% from lower class. So we will have to weigh these according to the weightages that we already have given so safety will be weighted by 75% of 50% that is the weight given to safety by upper class while 25% of 65% that will be of middle class while for passenger comfort I believe that we will have to ….. 75% of 50% while 25% of 35% …. Euh; do we have a calculator here? *Calculator wordt gegeven* Ok. So after this analysis safety weight comes out to be ….. 0.38 plus ….25 into 65 … 1216 which is .38 plus .16 …. 0.54 while …passenger comfort will be something around .75 into .38 plus .25 into .35 …. 2.09which will be equal to .38 plus .09 0.46 So we will give 54% on safety and 46% on passenger comfort. This is according to the data that I estimated. But euh, one thing is for sure that we will give more weight to safety depending on the mentality of the people and the psychology of the people who are customers and lesser weight on passenger comfort but this does not mean that we ignore passenger comfort … we have to give enough weight to the passenger comfort to make sure that we are not buying something that is .. euh … very very uncomfortable because than customers will be unwilling to travel on these vehicles. So we have to weight the safety and passenger comfort such we weight safety more, we buy safe cars from a company that is manufacturing vehicles but at the same time we should consider that these safe vehicles should be comfortable at the same time as I said. But we would focus more on safety. Euhm.. So on my calculation we weight safety at 54% and passenger comfort at 46%. That is my answer.

INTERVIEW

Question 1: *Please tell me as precisely as you can how you went about conducting the assignment, so how you assessed the importance of safety and passenger comfort.*

First of all I defined the safety, the factors that are important in safety, e.g. the seatbelts, the breaking… these are the factors that contribute to the safety of the vehicle. And similarly for the passenger comfort what are the factors that contribute to the comfort of a passenger. So, I laid these factors…. Than I divided the customers, the people into 3 categories …. Economic categories because I believe that the mentality of the people are basically conferred (?) by the money that they have, the economic class that they are associated with. So lower class, middle class and upper class. So, than I give… depending on the factors that I pointed out I

came up with the figure of 65% for safety which was based on based on the mentality of the middle class to weight safety more. Because the believe that euh they believe they live a safe live that's all because they have not tasted comfort at all because they live in a sort of middle class infrastructure. They do not weigh comfort so much, they can live with something that is not so comfortable but they weigh safety very much. They could not do anything which is unsafe or which is dangerous. According to me they will weigh safety more and passenger comfort less. On the other hand upper class people, as soon as they have money and they have lived the luxurious live they just can't ignore passenger comfort. They will keep passenger comfort in their minds as well as safety because they are well aware people. They know how important that is to live a safe live and to travel in a safe vehicle. They will give equal weight to both of these factors. Than we have to consider of the sort of customer mix of the Plane drive company. Of that, I believe, that since they are in the airport transportation, shuttle service to Lahore to airport and the people who travel in airplanes euh.. either belong to upper class and middle class so there is only. So there is no question of lower class needing to have further analysis. So I excluded lower class. Than I consider upper class and middle class and I believe that 75% of the customers approximately will be from upper class and 25% of middle class. On the basis of the weights that I gave to safety and passenger comfort I came up with the weights of 54% and the 46% of the safety and passenger comfort. And I believe this is vert very close to what I think because we need to definitely weigh safety more but we cannot ignore passenger comfort. We need to consider that as well. So I believe that the whole process led to some result that I myself agree with.

Question 2: *Can you point out any instances where you had to choose between two or more ways you could proceed with in executing the assignment?*

Mmm… euh.. I think that euh, the 2 paths, the 3 categories that I divided, the lower class, middle class and upper class this was the first time that I had to take 3 parts, to divide my analysis into 3 parts. And, euh than secondly, when I was to calculate the customer mix, the client mix for the company Plane drive, I had to divide my analysis into 2 categories. Apart from that I considered the analysis pretty much similar for all the factors of the classes safety and passenger comfort.

Question 3A: *Can you, for each of these instances, tell me from which options you had to choose, so: which ways were open to you in proceeding with the assignment?*

I have already answered… Just briefly explaining a bit more. When I was about to divide the categories of the people. I had an option to look at people that travel in cars or people who travel in trains or people who travel in trains. But I believe that the decision of safety vs passenger comfort maybe if we would have a price as a facto or a.. to consider in weighing than I would have gone for that but I believe that for safety, people, the mentality is depending on the economic classes so that's why I chose these categories rather than the means of transport or any other factor

Question 3B: *Can you, for each of the instances, tell me what your reasons were for choosing a particular option? Why did you discard some options while choosing others?*

Question 4: *Were there moments when you did not know how to proceed? That is to say: which step to take next in executing the assignment?*

Yeah, I think… in the start I was unable how to start. How to take the next step. Than I decides to outline the factors because than it would be clear in my mind that I'm looking at what are the factors that people will consider in making a weighing decision in these 2 factors. And the second time that I was stuck was when I , I already finalized these factors.

Than I thought of how to proceed and then I decided to categorize some of the different weighing, some of the decisions of the economic classes.

Question 5: *For each of those moments: what did you do so that you could proceed with the assignment?*

I already answered
Question 6: *By assigning weights to safety and passenger comfort, you gave a judgment about the importance of these attributes relative toe ach other. Can you explain why you have chosen these particular weights? Why are your weights for safety and passenger comfort ... and ...* (here, the experimenter fills in the values that the subject chose) *and not, for example, ... and ...* (here, the experimenter gives slightly different values. Do not make the differences too large; they would not be believable alternatives.).

I already…. I applied a model, a mathematical model. Apart from that I also explained that these weights looked pretty practical to me based on the importance of these, both of these factors.

Different %?

It could be, it could be, 60 – 40% or 65-35 but I do not agree weight of say 75-25% because than we are really underweighing the passenger comfort and especially because of the sort of clients that we have we cannot just underweigh passenger comfort. We need to give it enough weight as well. But we need to give safety more weight

Question 7: *If you would have to do the assignment again, what would you do differently?*

Euh.. maybe I would have attempted, I would have tried to classified the classes, the 3 classes in some other way, keeping in mind something different other than the economic status etc. Maybe the means of transport.

Question 8: *Did you at any time need information that you could not find in the background information or in the assignment? If so, what information was missing?*

I think that a lot of my analysis is taken out of what I read in the background information and these factors that I came up with; some of them are my own judgements on how people would value passenger comfort, what we be the factors they will contribute into passenger comfort, but apart of that a lot of them has been ideas from the background information and I don't feel that there was any information I needed further. At least for these… this analysis of weighing passenger comfort. Maybe for another factor…maybe in another analysis I would have chosen another factor…

Question 9: *Was there sufficient time available for the execution of the assignment?*

Yes, I think there was enough time

Question 10: *Did you find it difficult or unpleasant to think aloud?*

Euh… no, I don't think it was annoying but it was difficult because it was something we are not very used to do. So, it was different and difficult, a bit difficult

Question 11: *Do you think that executing the assignment would have been easier or more difficult if I would not have used recording equipment?*
No, it wouldn't have mattered for me.

Question 12: *Do you think that executing the assignment would have been easier without my presence?*

No, I don't think it would have mattered at all, because I was concerned with the case at hand all the time. I wasn't bothered with these factors at all

Question 13: *Do you think that you were sufficiently able to express what you thought and did?*

Yes, I think. I have explained whatever I was thinking. I was speaking all the time (lacht) so that shows that I was thinking…I was expressing it

Thank you.

No problem