

THE INFLUENCE OF CULTURE ON CONSUMERS:  
EXPLORATORY AND RISK TAKING BEHAVIOUR

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## **Abstract**

The rapidly increasing importance of International Marketing has led marketers, practitioners and academics alike, to seek a deeper understanding of how consumers and markets differ around the globe. The pendulum of studies in this area has swung between the need for adaptation and the pragmatics of standardisation. International consumer behaviour has, therefore, been influenced by this polarisation of the question leading researchers to focus either on revealing differences, or similarities within various consumer behaviour domains. This project aimed to make a contribution to this discussion by adopting a cultural perspective of consumer behaviour. Risk related issues were identified as constituting a culturally sensitive consumer behaviour dimension (Hofstede, 1984; Steenkamp, 2001; Clark, 1990). Moreover, Exploratory and Risk Taking Behaviour constitutes an important dimension of consumer behaviour across a broad range of products and situations. Consequently, the research question centered on understanding the influence of culture on Exploratory and Risk Taking Behaviour as well as understanding risk and exploratory behaviours and their dimensions.

The present project was, thus, designed as a theoretical study focusing on the examination of structured hypotheses relating the variable of Culture with that of Exploratory and Risk Taking Behaviour. Hofstede's (1984, 1991, 2001) framework and Nationality were adopted to operationalise the concept of Culture. First, cultural values were used to identify Portugal and the UK as two countries with opposite scores along these dimensions. Second, cultural values were measured at the individual level to overcome the limitations of this research framework at the micro level of analysis (Dorfman and Howell, 1988; Yoo, Donthu and Lenartowicz, 2001). The classification of each country in each cultural dimension was hypothesized to have consequences in terms of consumer Optimum Stimulation Level, and Exploratory and Risk Taking Behaviour and Product-Specific Perceived Risk and a nomological net of hypotheses relating these constructs was proposed. A quantitative approach based on a survey was adopted and data was collected in Portugal and the UK.

Overall, results lend support to proposed conceptual framework for Culture, Optimum Stimulation level, Exploratory and Risk taking Behaviour and Product-Specific

Perceived Risk. Evidence was found for the influence of culture on Exploratory and Risk Taking Behaviour. Culture, both in terms of Nationality and Cultural values, impacted all subsequent layers of constructs such that:

- Nationality had an impact on Cultural Values, a partially mediated impact on Optimum Stimulation Level, a fully mediated impact on Exploratory and Risk Taking Behaviour and a partially mediated impact on Product-Specific Perceived Risk;
- Cultural values had a direct impact on Optimum Stimulation Level, a partially mediated impact on Exploratory and Risk Taking Behaviour and a fully mediated impact on Perceived Risk;
- Optimum Stimulation Level served as a general predictor of risk attitudes since it impacted Exploratory Consumption Behaviour and Exploratory Risk Taking. Furthermore, Optimum Stimulation Level had a fully mediated impact on perceived risk. These facets of Exploratory and Risk Taking Behaviour, furthermore, were predictors of Product-Specific Perceived Risk. Optimum Stimulation Level, as seen previously, was not directly related to Perceived Risk. Thus, Optimum Stimulation Level and Exploratory and Risk Taking Behaviour appear to capture different aspects of an individual risk-taking attitude.

These conclusions provide an insightful contribution to an understanding of cross-cultural consumer behaviour. In parallel to a growing body of research stressing the impact of culture consumer behaviour in different national and cultural settings, support was found to the view that cultural differences should be a springboard for cross-cultural studies.

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## **List of Abbreviations**

COL - Collectivism

CSI - Change Seeker Index

CVSCALE - Cultural Values Scale

EAP - Exploratory Acquisition of Products

EBBT - Exploratory Buying Behaviour Tendencies Scale

ERTB - Exploratory and Risk Taking Behaviour

ECB - Exploratory Consumer Behaviour

EIS - Exploratory Information Seeking

ERT - Exploratory Risk Taking

ES - Experience Seeking

ETCBS - Exploratory Tendencies in Consumer Behaviour Scales

LTO - Long-term Orientation

MAS - Masculinity

OSL - Optimum Stimulation Level

PDI - Power Distance

SSS - Sensation Seeking Scale

TAS - Thrill and Adventure Seeking

UAI - Uncertainty Avoidance

# CHAPTER 1 - INTRODUCTION

**Culture and consumption have an unprecedented relationship in the modern world (McCracken, 1990, p. XI).**

## **1.1 – Research Background**

Social sciences have long acknowledged cultural influences on human behaviour. Until recently, however, the field of Marketing has remained somewhat alienated from the study of culture. The majority of research in International Marketing across the last 40 years may be classified within the standardisation vs. customisation debate which seems to have clouded the question of the extent to which consumer behaviour differs cross-culturally. At the core of this debate is whether or not consumers in different countries vary in their preferences and decision tendencies. The argument that consumers were converging (Levitt, 1983) or, at least, that differences among consumers were fading, gathered wide support among many Marketing theorists and practitioners (Hite and Fraser, 1988; Ohmae, 1989; Yip, 1989; Czinkota and Ronkainen, 1995) leading to the idea that, in terms of International Marketing management, differences among consumers did not really matter (Levitt, 1983).

This argument builds on research focused on the supply side (Guido, 1991; Jain and Ryans, 1994; Katsikeas, 2003), which privileges American multinationals and advertisers and reflects a relative neglect of research from a customer perspective:

This divergence concerning the standardization possibilities of Marketing is probably due to the fact that the standardization debate as a rule has stopped at the companies' standardization of the Marketing process and the four Ps; That means, it has been carried out from the exporters' perspective and, thus, it has not been widened enough to include the customer's perspective (Reichel, 1989: 60)

More recently, the concept of culture, long recognised in Anthropology, Sociology and Psychology, has been gaining importance for Marketing (Ogden, Ogden and Schau, 2004). The 90s witnessed the emergence of theoretical contributions on the application of culture to Marketing (McCracken, 1986; Clark, 1990; Wills, Samli and Jacobs, 1991;

McCort and Malhotra, 1993; Costa and Bamossy, 1995; Manrai and Manrai, 1996, Douglas and Craig, 1997; Parker and Tavassoli, 2000, Steenkamp, 2001). In parallel, a rich stream of cross-cultural empirical studies has been generated (e.g., Lee and Green, 1991; Alden, Hoyer and Lee, 1993; Dawar and Parker, 1994; Han and Shavitt, 1994; Aaker and Masheswaran, 1997; Steenkamp, ter Hofstede and Wedel, 1999). The contribution of culture for the understanding of international consumer behaviour, either by conveniently replicating studies originally developed in one country (often the US), or by testing Marketing theories and models cross-culturally, has increasingly gained momentum and importance (Malhotra, Peterson and Kleiser, 1999; Malhotra, 2001; Craig and Douglas, 2001). From a practitioners' viewpoint, there is a need to identify new segmentation approaches, to detect opportunities for integrating and coordinating strategies across national borders and "to develop new creative approaches to probe the cultural underpinnings of behaviour" (Craig and Douglas, 2001: 80). From a theoretical perspective, the challenge of understanding and capturing the elusive concept of culture hardly needs justification given the importance of cross-cultural encounters in the contemporary world. Confidence in the basic theory is enhanced once constructs and theories hold cross-culturally. Understanding is also improved even when a theory is found to not be applicable to another cultural context (Craig and Douglas, 2000: xvi). The increasingly shifting nature of consumer behaviour, a changing global environment and the pervasiveness of culture represent complex challenges to research at this level. Notwithstanding, cross-cultural research has been growing in both theoretical and methodological sophistication (van de Vijver and Leung, 1997; Craig and Douglas, 2000).

This project has, therefore, been influenced by this recently growing body of cross-cultural research. Consistent with the view that cultural differences should be a springboard for cross-cultural studies ("assume differences until similarity is proven" Adler, 1991: 67), this work builds on the question of how culture impacts consumer behaviour in different national and cultural settings.

## 1.2 - Research Problem and Hypothesis

The theme of globalisation is at the heart of a heated discussion among academics of various disciplines. In Marketing, it has turned into a topic of serious debate in the early 1980s, after Levitt's seminal article (1983). The term has become "an ubiquitous and potent symbol of the age" (Clark and Knowles, 2003: 361) and it has often been considered an inexorable trend, qualitatively different from past processes of cultural and social change. For some authors, the distinguishing characteristic of globalisation "seems to be associated with homogenisation and standardization, at least at a cultural level: somehow we are becoming more alike than different" (Husted, 2003: 428). This assumption has inspired many studies in International Marketing to be concerned with the question of the extent to which multinationals standardise. The first draft of this research project aimed at investigating the extent to which consumers in the European Union were converging. The European Union emerged as the perfect scenario for testing Levitt's prediction regarding the homogenisation of consumer wants and needs based on a purely rational consumer with a preference for standard products of high quality and low price. In fact, the EU would be "the closest parallel to the 'new global reality' espoused by Ted Levitt (1983) and Kenichi Ohmae (1989)" (Kale, 1994: 46). Yet, as that research premise was pursued, it was increasingly felt that a deeper understanding of the effect of culture on consumer behaviour had to be reached prior to a quantitative comparison of consumption trends in different countries. Moreover, doubts regarding the emergence of a European culture have persisted (Lascu, Manrai and Manrai, 1996; de Mooij and Hofstede, 2002) and an analysis of macro-environmental country characteristics over 28 years has found that developed countries have been *diverging* rather than converging (Craig, Douglas and Grein, 1992). Even at the national level, divergence among segments has increased rather than decreased (Whitelock and Pimblett, 1997). As a consequence, convergence has been considered as a "merely persistent myth of international Marketing" (de Mooij and Hofstede, 2002: 62). Interestingly, Levitt has, in fact, acknowledged that the globalisation trend coexisted with the opposite reality of heterogeneity, fragmentation and parochialism: "the more powerfully homogenized and relentlessly globalized the world's communications and commerce get, the more varied its products and more numerous its



consuming segments seem to become” (Levitt, 1988: 8). Thus, after reviewing the standardization vs. adaptation literature, the growing body of work on the effects of culture was analysed. The research question naturally changed from “are consumers becoming more similar” to “what makes consumers different”; “is culture (still) a relevant influence on consumer behaviour”; and “how does culture influence consumer behaviour”.

The following stage of the project centered on identifying the dimensions of consumer behaviour that would be more susceptible to cultural influence. Risk related issues were identified as constituting a culturally sensitive consumer behaviour dimension. Since Bauer (1960: 389) proposed that consumer behaviour could be viewed as “an instance of risk taking”, the concept of risk has been widely studied in Marketing (Cunningham, 1967; Hoover, Green and Saegert, 1978; Gemunden, 1985; Akaah and Korgaonkar, 1988; Verhage, Yavas and Green, 1990; Mitchell, 1992; Stone and Gronhaug, 1993). Risk related issues seem to be particularly culture-sensitive: research on frameworks of culture has identified the dimension of risk as a distinguishing facet among cultures. Hofstede (1984) and Steenkamp (2001) included uncertainty avoidance in their cultural frameworks and Clark (1990) proposed relation to risk as one consumer dimension of his national character framework.

Moreover, risk research in Marketing has focused on perceived risk and the negative outcomes associated with it. Focus has been on whether and how much consumers perceive risk in particular buying or consuming decisions and how they deal with that risk. The exploratory behaviour construct (Raju, 1980) provides a different perspective on risk. By definition, risk presupposes unexpected consequences which may either be negative or positive. In fact, consumers can and do seek risk, uncertainty and variety in their decisions. This positive risk taking dimension is accounted for by the concept of exploratory behaviour which refers to actions aimed at dealing with the level of stimulation in the environment. It has been conceptualised by Raju (1980) to include the following dimensions: repetitive behaviour proneness; innovativeness; information seeking; exploration through shopping; interpersonal communication; brand switching; and risk taking. Studying risk from an exploratory behavioural perspective allows for a comprehensive and relevant outlook for studying the role of risk in consumer behaviour.

For example, Bauer (1960: 25) suggested that “many of the phenomena with which we habitually deal have a strong bearing on the problem of risk taking:...brand loyalty, added value of advertising, personal influence, group influence and impulse buying”.

Consequently the research questions are twofold and may be stated as:

- How does culture influence Exploratory and Risk Taking Behaviour?
- How can a better understanding of Exploratory and Risk Taking Behaviour be arrived at?

In other words, the research objectives include understanding the influence of culture on a broad consumer trait dimension (i. e. Exploratory and Risk Taking Behaviour) as well as understanding risk and exploratory behaviours and their dimensions.

Exploratory and Risk Taking Behaviour has been found to be related to Optimum Stimulation Level (OSL) (Raju, 1980; Joachimsthaler and Lastovicka, 1984; Steenkamp and Baumgartner, 1992). This concept has its origins in Psychology and stipulates that each individual has a preferred level of stimulation regarding environmental stimuli. Thus, individual behaviour will often be motivated by the need to either increase or decrease novelty, ambiguity and complexity which constitute the environmental stimulation level (Raju, 1980). It is hypothesised that culture influences Exploratory and Risk Taking Behaviour both directly and through Optimum Stimulation Level.

The framework proposed by Hofstede is a widely applied and validated approach to studying cultural values (1984, 1991, 2001). Hofstede defines culture as a broad, collective pattern of cognitions, affects and actions that have important consequences for the functioning of societies, of groups within those societies and of individual members of such groups. He provided empirical support for cultural differences using questionnaires on work-related values from large samples in 72 countries (116 000 respondents). Taking the country as the basic unit, a factor analysis revealed four factors which accounted for about 50% of the total variance. Later, a fifth dimension was added. The following five dimensions of culture influencing a wide range of behaviours were thus proposed along which countries were measured on indexes from 0 to 100:

**Power distance** refers to the extent to which unequal distribution of power is accepted;

**Individualism/Collectivism** refers to the relation between groups and individuals;

**Masculinity/Femininity** refers to the extent to which masculine or feminine values are dominant in the society. Masculine values are performance and achievement while feminine values are caring for others and quality of life;

**Uncertainty avoidance** refers to the extent to which people feel threatened by uncertainty and ambiguity and try to reduce them;

**Long- vs. short-term orientation** refers to the extent to which a society exhibits a pragmatic, future-oriented perspective rather than a conventional historic or short-term perspective.

This framework is adopted in this project in order to operationalise the concept of culture. First, cultural values were used to identify Portugal and the UK as two countries with opposite scores along these dimensions. The classification of each country in each cultural dimension was hypothesized to have consequences in terms of consumer Optimum Stimulation Level, risk, and Exploratory and Risk Taking Behaviour. Second, cultural values were measured at the individual level to overcome the limitations of this research framework at the micro level of analysis (Dorfman and Howell, 1988; Yoo, Donthu and Lenartowicz, 2001).

### **1.3 – Research Justification**

The lack of integrative cross-cultural models and frameworks has resulted in many calls for research in International Marketing (Sheth and Sethi, 1977; Raju, 1995; Manrai and Manrai, 1996; Malhotra, 1999; Luna and Gupta, 2001).

Culture has been found to influence a variety of consumer behaviour dimensions. Cross-cultural studies can in fact identify minor or major differences which may be traced to culture. Yet, the need for adopting a broader perspective and investigating fundamental relationships in International Marketing (Cavusgil, 1998) was deemed essential for advancement in this area. According to Douglas, Morrin and Craig, “greater attention

should be paid to examining the interrelation of different behavioural constructs and most importantly, situating them in their societal environment in order to investigate how differences in the social context fashion and shape consumption behaviour” (1994: 300-301). Indeed, culture can be incorporated into international research using different perspectives, two of which appear to have dominated the literature. First, replications in different nations assume that consumer behaviour theories/models can cross-culturally be tested for universality. Such studies enrich theories/models by assessing their boundary conditions in diverse environments. Yet, such inductive studies are not a systematic approach for the study of culture since they are context-specific: “The multidimensional nature of International Marketing practice – involving multiple markets, industries and entry modes – makes it difficult for scholars to propose relationships that are not context specific” (Cavusgil, 1998: 107). Such research does not favour the development of a generalisable theory of International Marketing. Obviously, the manner in which these fragmentary perspectives are fit together may result in an interesting puzzle offering a broad generic perspective of cross-cultural consumer behaviour. Alternatively, it is possible to put every consumer behaviour theory and model to a cross-cultural test, which will produce fruitful results and will enrich theories and models. Neither of these approaches, however, seem effective for studying the impact of culture on consumer behaviour and for contributing to theory building. An alternative deductive point of departure consists of identifying culture-dependent consumer behaviours consisting of broad generalisable dimensions across a wide variety of products and situations. Exploratory and Risk Taking Behaviour is one such concept consisting of a general trait of behaviour relevant across all stages of consumer decision-making and in a wide variety of settings. Hence, risk taking constitutes an important dimension of consumer behaviour that can add to an understanding of consumer behaviour across a broad range of situations. Thus, studying the influence of culture on Exploratory and Risk Taking Behaviour should provide an insightful contribution to an understanding of cross cultural behaviour.

From an applied point of view, these dimensions should prove useful to international marketers interested in using culture as a primary segmentation variable. Furthermore, learning about exploratory behaviour and consumer search for variety should pave the way for an understanding of consumer retention mechanisms en-route to loyalty.

## 1.4 - Methodology

Cross-cultural research raises a host of practical and theoretical challenges (Boyacigiller and Adler, 1991; Malhotra, 1999; Craig and Douglas, 2001). To investigate the impact of culture in Exploratory and Risk Taking Behaviour, a cross cultural survey was deemed adequate.

The present project was designed as a theoretical study focusing on the examination of structured hypotheses relating the variable of culture with that of Exploratory and Risk Taking Behaviour. A quantitative approach based on a survey was, therefore, adopted. Survey research provides a means for quantifying relevant constructs and for conducting an exhaustive examination of relationships (Craig and Douglas, 2000). The development of an instrument for cross-cultural research poses challenges in terms of equivalence, validity and reliability. These issues are discussed in Chapter 4 – Research Methodology. Given the nature of the study, validated measures from the literature were used to assess relevant constructs.

Sampling for cross-cultural studies is a trying task. The first problem has to do with selection of cultures and the second with sampling within those cultures. Cross-cultural methodology literature emphasises that “the selection of cultures to be included should be based on the theoretical or applied objectives of the study” (Malhotra, Agarwal and Peterson, 1996: 25). Consequently, the research identified cultures providing opposite profiles along cultural dimensions: Portugal and the United Kingdom (UK).

The second stage concerns sampling within the chosen countries. Given the theory-testing nature of this study, it was necessary to hold extraneous factors constant so as to isolate the domain of interest. A homogeneous sample of students was, consequently, used for the purposes of this work (Reynolds, Simintiras and Diamantopoulos, 2003).

Data collection in cross-cultural studies raises specific questions in terms of equivalence, timing, status and other psychological factors. These issues were accounted for and, in spite of the difficulties involved in obtaining data at an international level, fieldwork took place in Portugal and the UK from November 2002 to February 2003.

## **1.6 – Thesis Structure**

This report is divided into six chapters, the first of which is this Introduction.

Literature is reviewed in chapters two and three. In Chapter two – From the Standardisation Debate to Culture-Sensitive Adaptation – the standardisation debate and the influence of culture on consumer behaviour is discussed. The objective is to present various approaches that have been followed in cross-national and cross-cultural consumer behaviour studies. Issues pertinent to the concept of culture, such as the etic/emic dilemma and the definition, conceptualisation and operationalisation of culture are presented. The use of cultural dimensions as an approach for capturing the concept of culture, and in particular Hofstede's cultural values, is examined.

In Chapter three – Exploratory and Risk Taking Behaviour – contributions relevant to the study of Exploratory and Risk Taking Behaviour are reviewed. Types of exploratory behaviour and the role of Optimum Stimulation Level are presented in section 3.2. Subsequently, risk taking and perceived risk issues are discussed and finally the influence of culture on exploratory behaviour is addressed.

Chapter Four – Research Methodology – deals with methodological questions involved in conducting cross-cultural research in general and issues pertaining to this study in particular. After a discussion of the nature of cross-cultural research, the framework proposed by Malhotra, Agarwal and Peterson (1996) is used to present the steps followed in the development of this project: Problem Definition; Developing an Approach; Research Design Formulation; Fieldwork; Data Preparation; and Analysis.

In Chapter Five – Data Analysis – analysis is carried out leading to the presentation of the empirical results of this project. This chapter is divided into six sections: Introduction; Data Analysis Process; Reliability Assessment; Preliminary Data Analysis, in which differences in the level of variables are assessed; Analysis of the proposed nomological model; and Conclusion.

The findings are discussed in Chapter Six – Discussion and Conclusion. Subsequently, the role of culture in consumer behaviour is discussed. Implications for theory building

followed by implications for practitioners are presented. Limitations and directions for further research conclude the chapter and this report.

## **CHAPTER 2 - LITERATURE REVIEW: FROM THE STANDARDISATION DEBATE TO CULTURE- SENSITIVE ADAPTATION**

**It is exactly the cultural differences that are the biggest problems when it comes to standardizing Marketing. (Reichel, 1989: 65)**

### **2.1 - Introduction**

The standardisation versus adaptation debate has dominated the International Marketing literature over the last 40 years, with far-reaching implications in international research including consumer behaviour.

Some scholars favoured the perspective that consumers were converging (Levitt, 1983), which gathered support among theorists (Ohmae, 1989; Yip, 1989). Opponents to standardisation, however, believed that culture maintains a powerful influence on buying behaviour, and that apparent homogeneity of preferences might hide differences in several aspects of consumer behaviour (Walters, 1986; Usunier, 1996; Belk, 1996; Manrai and Manrai, 1996). Indeed, the social sciences (e.g., Anthropology, Sociology, and Psychology) have long acknowledged the influence of culture on human behaviour. Marketing research is awakening to the impact of culture on consumption. The extent to which consumers differ cross-culturally has been gaining importance as a theoretical (Clark, 1990; Costa and Bamossy, 1995; Douglas and Craig, 1997; McCracken, 1986; McCort and Malhotra, 1993; Manrai and Manrai, 1996; Parker and Tavassoli, 2000; Steenkamp, 2001; Wills, Samli, and Jacobs, 1991) and empirical research topic (e. g., Alden, Hoyer, and Lee, 1993; Dawar and Parker, 1994; Lee and Green, 1991; Steenkamp, ter Hofstede, and Wedel, 1999).

In this chapter, the literature on international consumer behaviour emanating from this debate is reviewed. This chapter includes two major parts: Standardisation contributions



in International Marketing will be presented first. A review of the standardisation versus adaptation debate, a European Union perspective of the discussion, and international segmentation are the sections included in this part.

The second part attends to the competing perspective of adaptation and to the impact of culture-related contributions. The role of culture and definitional aspects of the concept of culture are discussed. The underlying theme of this chapter is, thus, a discussion of the existence of similarities versus the predominance of differences in international consumer behaviour and the consequences and implications of both approaches.

## **2.2 - The Standardisation Debate in International Marketing**

### 2.2.1 - Overview

If there is a single issue that has been at the nexus of International Marketing research in the last four decades, it is the debate about standardisation versus adaptation. This debate touches on one of the most fundamental issues in International Marketing, namely the idea that international firms might, or even should, follow uniform, standardised Marketing strategies in different countries (Elinder, 1965; Buzzell, 1968; Levitt, 1983; Walters, 1986; Quelch and Hoff, 1986; Onkvisit and Shaw, 1987; Douglas and Wind, 1987; Hite and Fraser, 1988; Douglas and Craig, 1989; Yip, 1989; Ohmae, 1989; Jain, 1989; Hill and James, 1991; Baalbaki and Malhotra, 1995; Wang, 1996a; Shoham and Albaum, 1994; Shoham 1996a, 1996b, 1999; Papavassiliou and Stathakopoulos, 1997). The alternative perspective consists of adapting multinational companies' Marketing policies to each national market, known as customisation, localization or, more commonly, adaptation strategy.

The overwhelming importance of this question is evident in the volume, recurrence, and implications of research produced to date. Indeed, the debate has inspired many conceptual (Elinder, 1965; Buzzell, 1968; Levitt, 1983; Walters, 1986; Quelch and Hoff, 1986; Onkvisit and Shaw, 1987; Douglas and Wind, 1987; Douglas and Craig, 1989; Yip, 1989; Ohmae, 1989; Jain, 1989) and empirical studies (Sorenson and

Wiechman, 1975; Boote, 1982; Boddewyn, Soehl and Picard, 1986; Whitelock, 1987; Picard, Boddewyn and Soehl, 1988; Hite and Fraser, 1988; Kashani, 1989; Akaah, 1991; Yip, 1991; Hill and James, 1991; Samiee, 1992; Szymanski, Sundar and Varadarajan, 1993; Baalbaki and Malhotra, 1995; Shoham, 1995; Whitelock and Pimblett, 1997). In fact, like no other question, this controversy has crossed over from academia to impact practitioners as well (Shoham, 1995).

### 2.2.2 - Standardisation versus Adaptation

Levitt's 1983 controversial article "The globalisation of markets" constituted an important landmark in the standardisation debate but the debate's genesis can be traced to 1965 when Elinder introduced the question in the context of advertising in European countries. Elinder (1965: 9) believed that "for consumer industries considering how best to formulate their messages to European consumers, it is more important to take into account trends in European consumption habits than the 'national traits' and 'traditional characteristics'". Buzzell's seminal article (1968: 102) broadened the scope of the debate, raised the question of whether International Marketing could be standardised, and discussed the benefits of and the barriers/obstacles to standardisation. While recognizing the existence of difficulties in "the application of common Marketing policies in different countries", he concluded that standardisation presented universal and important benefits that should be analysed by multinational companies. Although complete standardisation was an extreme position that was not feasible or desirable, neither was the opposite localized policy. He emphasized that the real question was, thus, which elements could or should be standardised and to what degree.

Subsequently, the debate inspired many empirical studies, mostly from companies' perspective. In fact, degree of product and promotion adaptation have received most of attention in the literature (Jain, 1989; Lages, 2000). In general, these studies suggested that International Marketing strategies and advertising ought to be standardised whenever cultural, demographic, governmental, competitive, and infrastructural barriers were surmountable (Hite and Fraser, 1988: 208). Sorenson and Wiechmann (1975) provided data showing how much, when, why, and where consumer packaged goods'

multinationals standardised. They advocated that standardisation of programs, though widely practiced, was inappropriate. Process standardisation, on the other hand, appeared as the right “vehicle for the international transfer of Marketing skills” (Sorenson and Wiechmann, 1975: 53).

The topic became more controversial after the publication of Levitt’s seminal 1983 article. Globalisation, a term coined by Levitt, refers to a “new commercial reality”. As a result of technology, differences in national or regional preferences were gone and “the world’s needs and desires have been irrevocably homogenized” (Levitt, 1983: 93). Although Levitt affirmed that he “does not advocate the systematic disregard of local or national differences”, he encouraged companies “never to assume that the customer is a king and knows his wishes” (ibidem: 94) and to “seek sensibly to force suitably standardised products and practices on the entire globe” (ibidem: 102). Subsequent studies sought to confirm Levitt’s premonitions. Hill and James (1991) for example conducted a study of marketers of consumer nondurables and concluded:

From an academic point of view, this study provides support for Levitt’s global thesis that transfers dominate MNC product line selections for subsidiaries, and that basic similarities among countries are a primary force in international product strategies. We would suggest that researchers focus their efforts more on customer and country similarities in the future.” (Hill and James, 1991: 205)

In fact, Levitt’s article has been cited by virtually every contribution on this topic and positions for/against standardisation have been taken based on the literal meaning or perceived meaning of Levitt’s propositions.

Understood as a strategic perspective and a worldwide perspective of the market and competition, the concept of globalisation has diffused widely (Sheth, 1986). As a consequence, the designation “Global Marketing” largely replaced “International Marketing”, signalling a new vision of world markets (Quelch and Hoff, 1986; Douglas and Craig, 1989; Yip, 1989) also visible in the proliferation of the use of “global”: global markets, global competition, and global strategy.

Understood as a general tendency, that is, the idea that differences among consumers were fading, the idea of globalisation, while never consensual, was largely unchallenged

(Hite and Fraser, 1988; Ohmae, 1989; Yip, 1989; Hill and James, 1991). Exceptions include Reichel (1989). The 1990s witnessed the emergence of the studies of consumer behaviour from a cultural perspective (Usunier, 1996; Wierenga, Pruyn and Waarts, 1996; Manrai and Manrai, 1996; Belk, 1996; Costa and Bamossy, 1995; Whitelock and Pimblett, 1997), mining the idea of convergence. This aspect will be further developed in section 2.3.

However, these developments have resulted in conceptual disagreements, with, at times, emotional overtones due to the fact that the concept was used to argue for the application of an identical Marketing mix in all of the firm's markets. The author of 'Marketing myopia' has been accused of being myopic (Onkvisit and Shaw, 1987; Barker, 1993; Dixon and Sybrand, 1999). It has been argued that globalisation/standardisation reflected a product orientation (Douglas and Wind, 1987; Barker, 1993) with questionable desirability even when feasible (Barker, 1993).

Kotler (1986: 13) recognised that standardisation could be justified in some circumstances but alerted that "many of the most notable international product failures have come from a lack of product adaptation". He proposed that managers use a planning matrix to evaluate all Marketing mix elements (labelling, packaging, materials, colours, name, product features, advertising themes, media and execution, price, and sales promotion) for each target country and advocated "several global versions of a new product" alternative. He considered customers' buying behaviour and resources as leading consumers to be interested in different product features necessitating customisation.

A compromise solution gathered support over across-the-board standardisation. Quelch and Hoff (1986), Douglas and Wind (1987), Yip (1989), Baalbaki and Malhotra (1995) and Wang (1996a) were among the authors that advocated a flexible approach to standardisation, supporting varying degrees of standardisation. Quelch and Hoff (1986: 59) advocated the need to customize global marketing. They proposed that the question should not be presented as an "either/or proposition", but as a spectrum from "tight world coordination on programming details to loose agreement on a product idea". This idea was subscribed by Douglas and Wind (1987), who disagreed with the idea that an effective global strategy meant standardisation of products and brands believing,

instead, that there was a ‘continuum’ of options from ‘pure standardisation’ to ‘pure differentiation’. Yip (1989: 40) argued that “the most successful worldwide strategies find a balance between overglobalizing and underglobalizing”.

This position of compromise determined the adoption of a contingency approach to resolve the debate. Thus, a number of frameworks were proposed to identify the desirable level of adaptation based on the identification of a set of dimensions (Quelch and Hoff, 1986; Rau and Preble, 1987; Yip, 1989, Jain, 1989; Shoham, 1995; Wang, 1996a; Lages, 1999; Lages, 2000; Theodosiou and Katsikeas, 2001).

Quelch and Hoff (1986) proposed a “global Marketing planning matrix”, a framework that could be used to analyse and evaluate the company’s level of adaptation or standardisation on four dimensions: business functions, products, Marketing mix elements and countries. They pointed out the implementation challenge of global Marketing and the need for flexibility at this stage. Instead of highlighting the scale economies as the main driving factor for global Marketing, Quelch and Hoff emphasized the use of good Marketing ideas. Douglas and Wind (1987) examined the key assumptions underlying Levitt’s arguments and the conditions under which globalisation was likely to be effective. They acknowledged the existence of some global segments in industrial and in consumer markets but argued that these segments were insufficient grounds for complete standardisation. They concluded that global standardisation was “appropriate only in relation to certain product markets or market segments under certain market environment conditions, and dependent on company objectives and structure” (1987: 27).

Yip (1989: 49) shared the opinion that a global strategy meant integrating strategy across countries, and suggested several dimensions to be *global strategy levers*: market participation, product offering, location of value-added activities, Marketing approach, and competitive moves. Within these dimensions, companies could choose between a pure multi-domestic strategy and a pure global strategy or among several intermediate positions. The degree of globalisation depends on industry globalisation drivers (market, cost, governmental, and competitive drivers); yet “more than one type of international strategy can be viable in a given industry”.

Jain (1989: 71) developed another framework for determining Marketing program standardisation: “the likelihood of program standardization depends on a variety of factors identified as target market, market position, nature of product, and environment”, but total standardisation was not viable. Concerning target markets, Jain considered the standardisation decision to be situation specific and more practical in economically similar markets or in similar segments across different countries. The second factor in Jain’s framework was market position including market development stage (basically the product’s position in the its life cycle), market conditions, and competition. The degree of standardisation should be higher in markets with similar customer behaviour and lifestyle and the higher the product’s cultural compatibility. Regarding the nature of product, the type of product and its positioning had to be taken into consideration. Finally, the environment factor included the physical, legal, political and Marketing infrastructure environments - the greater the differences, the lower the degree of standardisation.

Shoham (1995) held that standardisation/adaptation should be the result of a sequence of decision-making steps. Drivers included the convergence/divergence of world markets; the attractiveness of intra- vs. inter-market segments; scale economies’ magnitude; and the importance of cultural distance-induced friction. Based on his literature review, he proposed that, in general, these aspects favoured adaptation because world markets were diverging, intra-market segments were more attractive than inter-market segments, and friction existed.

Asserting that there was no universal answer to this question, Wang (1996a) proposed a contingency framework that considered product, country, and consumer characteristics. The degree of standardisation, a continuum from global standardisation to international niche-based target markets, would, then, be contingent on this set of characteristics. Lages (2000) argued for incorporating the previous year’s performance into an adaptation framework. According to him, low past performance enhances adaptation, which, in turn, enhances the current year’s performance (see also Lages 1999). Additionally, internal (e.g., competencies) and external factors (e.g., industry characteristics) affect the level of adaptation. Finally, following Jain’s (1989) framework, Theodosiou and Katsikeas (2001) found that the higher the similarity of

target and home market (on economic conditions, legal environment, customer characteristics, and product life cycle stage), the higher the extent to which firms standardize their export pricing.

In conclusion, the influence of the globalisation tendency on Marketing mix policies initiated a long-lasting controversy. Identifying the conditions that affect the implementation of a global strategy has become the main focus of the standardisation debate, both conceptually and empirically (from the perspectives of companies; see Soares, Farhangmehr, and Shoham, 2003a for a review of empirical studies).

Transnational standardisation is more viable for economically similar markets (Jain, 1989). Europe includes such countries, more so after the EU was instituted. Thus, in the following section, special attention is given to the question of standardisation in the context of Europe.

### 2.2.3 - The European Union and the Standardisation Debate

Europe has provided an especially meaningful scenario for this International Marketing controversy. Indeed, the reinforcement of the political and economic integration, resulting in the institution of the European Union (EU) in 1992, fostered a renewal of the discussion that had been debated mainly in the context of the internationalisation of American companies (Malhotra et al, 1992).

Elinder (1965: 9) viewed the question “the European consumer – does he really exist?” optimistically. However, his optimism has not been substantiated by empirical studies that sought to profile consumers and compare them cross-nationally. Green and Langeard (1975: 41) compared consumer habits and innovativeness in the US and France and found several differences, attributed to social and environmental factors. They emphasized the need “to achieve a better understanding of the relationships between buyer behaviour and environmental forces”. Based on several surveys, Dunn (1976: 56) claimed that “there is indeed a resurgence of national identity in Western Europe”. Similarly, in a study profiling cross-national female lifestyles, Douglas and Urban (1977) argued for a need for alternative international segmentation and Walters

(1986: 60-1) argued that “there is little evidence that the age of the international or even European consumer has finally dawned”.

Yet, Levitt’s argument that similarities outweighed the differences (from an International Marketing perspective) gained momentum. Proponents of his approach believed that consumers were converging and that all would prefer global “goods of the best quality and reliability at the lowest price” (Levitt, 1983: 93). Thus, while cross-country differences exist, from a Marketing management standpoint, firms should disregard them. For example, a study conducted 10 years after Dunn’s study (1976) to determine the extent of standardised versus localized advertising campaigns by US multinational corporations in foreign markets concluded that:

“The perceived levels of importance of factors influencing transferability of international advertising are consistent with those reported by Dunn (1976) 10 years ago; however, differences in relative importance levels are apparent. In Dunn’s study, factors related to consumers’ level of education, attitude toward work and monetary gain, eating patterns, and attitudes toward authority were perceived as relatively more important than in this study, suggesting that consumer-related barriers to standardisation are thought to have declined in importance” (Hite and Fraser, 1988: 211).

Similarly, Yip (1989: 31) agreed that there is a “growing similarity of what citizens of different countries want to buy”. Ohmae (1989: 153-4) argued that geographic borders no longer mattered, at least for financial/industrial markets. “People become genuinely global consumers... global citizens”.

Simultaneously, the European Union (EU) was undergoing a harmonization process to achieve a unified market and convergence across many economic and legal aspects. This “puts the concept of standardization of International Marketing to a regional test” (Jain and Ryans, 1994: 288), making the EU an important context for testing the viability of standardisation (Reichel, 1989). EU countries have deep-rooted historical identities. Yet, standardisation has been promoted due to increasing consumer mobility, cross-border information flow, and the reinforcement of the political and economic integration (Chadraba and Czepiec, 1988; Reichel, 1989; Quelch and Buzzell, 1989; Guido, 1991). Thus, “in Europe, choosing between standardization or customization is particularly difficult” (Chadraba and Czepiec, 1988: 64).



In general, trading blocs increase consumer similarity (Vandermerwe and L'Huillier, 1989; Quelch and Buzzell, 1989). Thus, the 1992 emergence of the EU renewed interest in consumer convergence. Vandermerwe and L'Huillier (1989: 35-6) argued that "Euro-consumers are likely to become more similar in their needs for products and services". Yet, this would not necessarily lead to the disappearance of all unique aspects of national consumer behaviour. They concluded: "instead of one homogeneous mass market or a collection of small specialized markets, the most likely outcome is that new Euro-consumer clusters will emerge". Such clusters group consumers with similar needs, lifestyles, purchase behaviour, and psychographics in some geographical area, but cut across national borders.

Quelch and Buzzell (1989: 66) anticipated that customer behaviour, Marketing policies, and organizational design would undergo major changes as a result of the 1992 reforms and the publicity surrounding them, increased consumer mobility, and the snowball effect of standardised Marketing practices. "As marketers focus on the similarities rather than the differences among European consumers, they will market to Europeans as if they were more alike; as a result, eventually European consumers will become more alike". It was further argued that receptivity to ideas, products, and services from member countries would likely increase and a melting-pot effect on consumer behaviour was likely.

However, the view that the EU could be treated as uniform, generated scepticism as well (Malhotra et. al., 1992; Sherlock, 1995). This view was characterized as supply-driven (Guido, 1991; Jain and Ryans, 1994), which would "make individual countries more accessible, not more identical" (Quelch and Buzzell, 1989: 64). Additionally, doubts were expressed about the future emergence of a homogeneous European culture (Reichel, 1989; Vincze and McNeill, 1994; Kale, 1995). Malhotra et. al. (1992: 87) contended that "we will witness most probably a paradox: the emergence of a limited and at first, somewhat superficial European identity among consumers overlaid on top of an abiding set of socialized national and local cultural norms". Political and economic harmonization might reinforce social and cultural boundaries thus making consumer uniformity the single most important factor affecting the decision on European-wide Marketing (Jain and Ryans, 1993). In fact, "Europeans don't consider

themselves to be ‘European’. They are Italian, German, Greek” (Caudron, 1994: 28). Wierenga, Pruyn and Waarts (1996) analysed data from EU countries about consumers (expenditure/consumption, household appliance ownership, and values) and Marketing infrastructure (retailing, media, and advertising environment) and concluded that major differences remained. In spite of acknowledging that previous unification processes enhanced homogenisation, Wierenga, Pruyn and Waarts (1996) emphasised that counter-movements had also occurred. These tended to be dialectic processes, in which regional differences could become more important as a reaction to the decreasing emphasis on national differences.

In sum, the EU has been a preferred context for addressing the globalisation controversy (see Soares, Farhangmehr and Shoham, 2003a for a summary of EU-related standardisation contributions). Some authors believe that “there is more convergence than divergence between nations” (Leeftang and Van Raaij, 1995: 373-4; 386) and that “Euromarketing is the name of the game of the future”. While standardisation’s appeal was recognised in the progressively integrated EU, the permanent and insistent nature of national cultures was seen as an obstacle to the effective pursuit of such approach.

In the following section, a closer look will be taken at the consumer behaviour implications of this discussion by reviewing this debate from the perspective of international segmentation.

#### 2.2.4 - International Segmentation

The issue of convergence becomes especially meaningful when combined with the concept of segmentation. Consequently, alongside the standardisation debate, segmentation gained a new meaning in International Marketing. Consensus emerged that the answer to the debate ought to account for this concept. The point would not be the existence of increasing consumer homogeneity in general, but the emergence of specific inter-market global segments of consumers, sharing patterns of preferences and behaviour across borders (Douglas and Wind, 1987; Jain, 1989; Crawford, Garland and Ganesh, 1988; Hassan and Katsanis, 1991; Onkvisit and Shaw, 1994; Baalbaki and

Malhotra, 1993; Unnava et al, 1994; Sheth and Parvatiyar, 2001; Hassan, Craft and Kortam, 2003).

Douglas and Wind (1987) and Jain (1989) saw the existence of global segments as a condition of standardisation. This shifted the emphasis from the existence of global segments to a search for frameworks allowing the systematic identification of such segments (Kale and Sudharshan, 1987; Kreutzer, 1988; Baalbaki and Malhotra, 1993). Levitt (1983: 94) pointed out the existence of a 'world-segment' for whom low-price and high-quality would be common buying criteria and reckoned that even "small local segments have their global equivalents everywhere". While a somewhat unsophisticated perspective, this appears to be the beginning of the identification of global segments (Hassan and Katsanis, 1991). Subsequently, Quelch and Hoff (1986) identified young people, travellers, and ego-driven consumers as less culture-bound segments and thus, potentially global. Crawford, Garland and Ganesh (1988) considered although consumers in developed and developing nations differed, there was an inter-market pro-trade segment. Douglas and Craig (1989: 67) viewed markets "as a set of interrelated, independent entities which are becoming increasingly integrated and interlinked worldwide" and recognised that regional/global segments for industrial and consumer products were emerging. Hassan and Katsanis (1991: 140-1) shared the view that consumption trends in global markets contributed to a global acceptance of some consumer products and presented two global market segments: "global elite", "composed of consumers aspiring to an 'elite life-style'" and "global teenagers", "young consumers whose cultural norms have not become ingrained, and who can share universal needs, wants and fantasies". In fact, teenagers, green consumers, yuppies and elite consumers have been the most commonly considered converging global segments (Quelch and Hoff, 1986; Hassan and Katsanis, 1991; Hassan and Samli, 1994; Dawar and Parker, 1994).

#### **2.2.4.1 - Global Segmentation**

Segmentation is at the core of the Marketing concept and is the basis for the development of Marketing strategy (Kale and Sudharshan, 1987). Traditionally,

international segmentation started with a choice of countries to enter as firms internationalise. Macro-variables such as economic, demographic, political, and geographic indicators were used to identify potential markets (Day, Fox and Huszagh, 1988; Malhotra et. al., 1992; Nachum, 1994). Dichter (1962: 114), for example, used the degree of development of the middle class to segment world consumers into six groups of nations, “in an effort to define and interpret the economic and psychological differences among world customers”. Thus, countries, not consumers, were the basis of segmentation. This approach for market selection and development has the disadvantage that “within country heterogeneity between consumers is totally ignored, and misleading national stereotyping is encouraged” (Kale and Sudharshan, 1987: 61). Similarities between consumers across countries were overlooked and the existence of market segments that transcend national boundaries was neglected.

Within the globalisation discussion, the importance of identifying global segments emerged as the fundamental purpose of international segmentation. Country-by-country segmentation was deemed inadequate since it did not allow the identification of segments that transcended national borders (Hassan and Samli, 1994). Thus, advocates of globalisation proposed that effective international segmentation meant identifying global segments (ter Hofstede, Steenkamp and Wedel, 1999; Hassan, Craft and Kortam, 2003). According to this view “a global market segmentation strategy should serve as the conceptual link and action mechanism that provides substance and rationale to striking a tradeoff between the two indispensable global strategy ends of standardization and adaptation” (Hassan, Craft and Kortam, 2003: 458). The objective would be to identify “specific segments, whether they be country groups or individual consumer groups, of potential customers with homogeneous attributes who are likely to exhibit similar buying behaviour” (Hassan and Katsanis, 1991: 138). For instance, Jain (1989) proposed that standardisation strategy would be more effective if worldwide customers, not countries, were the basis of identifying the segment to serve. Several frameworks were proposed to identifying segments across borders.

#### 2.2.4.2 - Global Segmentation Frameworks

Early attempts to identify transnational segments involved values. Psychographics, cross-cultural, and trait-segmentation research began in the 1970s with a primary objective of evaluating the potential for standardised European advertising (Boote, 1982/3). An early approach to find a consumer segment with identifiable characteristics was taken by Engledow, Thorelli, and Becker (1975), who identified a homogeneous cross-cultural elite of affluent and information-sensitive consumers (see also Anderson and Engledow, 1977). Kale and Sudharshan's model (1987) capitalized on similarities across groups of consumers in different countries and resulted in a product-class-specific framework for identifying strategically equivalent segments. Their objective was to group worldwide consumers that responded to firms' Marketing mix similarly. The process they advocated began with the identification of *qualifying dimensions* - commonly used international segmentation bases to screen an initial list of countries. Then, using appropriate *determining dimensions*, micro-segments could be identified in each country, used to form country-clusters of strategically equivalent segments.

Similarly, Kreutzer (1988) proposed a two-step segmentation process in search of a standardised approach. First, countries were segmented on variables deemed important for standardisation. These included technological (media, the distribution system, technological development, and infrastructure); ecological (provision of resources, climatic conditions, and topography); socio-cultural (education, linguistic habits, religion, and culture); economic (market volume and potential, purchasing power, economic development, and competitive situation); and political-legal criteria (legal restrictions and competition/commercial laws). The identification of countries that fulfilled these conditions was followed by a second stage in which homogeneous target groups were formed trans-nationally.

Baalbaki and Malhotra (1993) proposed that Marketing management (product, price, promotion, and distribution) and environment variables (geographical, political, economic, and cultural) should be used for international market segmentation. Incorporating Marketing management bases, which directly impact International

Marketing strategy, would contribute to the identification of segments that could be targeted with a uniform Marketing strategy.

Regarding the European context previously discussed, several transnational segmentation approaches have been offered. Chadraba and Czepiec (1988) proposed the use of perceived product value as a segmentation base. Their study revealed common value perceptions among product owners, supporting the feasibility of this variable as a segmentation tool. Vandermerwe and L'Huillier (1989) used cultural, geographic, and economic variables to define six "Euro-consumer clusters". Similarly, Malhotra et. al. (1992) used subjective Marketing and non-Marketing variables obtained from experts, in addition to economic, geographic, cultural and political variables, to cluster EU- and non-EU countries into three segments. Finally, Kale (1995) used Hofstede's cultural dimensions to segment 17 European countries into three segments.

Thus, the discussion on identifying global segments shifted the process from intra- to inter-market segmentation. This approach could solve the "standardise/customize" dilemma. Inter-market segmentation would then be a basis for global Marketing. Indeed, by standardizing for similar segments across countries, firms could simultaneously capitalize on the advantages of standardisation *and* adaptation (Kale and Sudharshan, 1987; Ohmae, 1989; Baalbaki and Malhotra, 1993; Onkvisit and Shaw, 1994).

In conclusion, traditional international segmentation methods were considered inadequate to the globalisation reality and the quest for a global segmentation approach became an important topic in International Marketing research. Still, identifying relevant segmentation methods proved to be even harder than intra-market segmentation. Besides the general segmentation frameworks reviewed in this section, behavioural approaches were also proposed. These included defining segments based on specific buying behaviour dimensions, such as perceived product value (Chadraba and Czepiec, 1988), perceived risk and brand loyalty (Yavas, Verhage and Green, 1992, Verhage, Yavas and Green, 1990), involvement (Broderick, Greenley and Mueller, 1998), means-end-chains (ter Hofstede, Steenkamp and Wedel, 1999), or innovativeness (Steenkamp, ter Hofstede and Wedel, 1999). These studies constitute alternative

approaches to identifying transnational groups of consumers, based on behavioural dimensions.

The argument of consumer convergence, studied in the context of specific geographic and economically integrated markets (such as the European Union), or of global segments has produced important insights regarding the understanding of consumer behaviour cross-nationally. However, both perspectives have been criticized on conceptual and empirical grounds as emphasized in the previous sections. Thus, the need for different approaches to studying consumers internationally, given the resilience of culture and diversity of behavioural dimensions, has been noted. Recent cross-national consumer empirical studies seem to have left the standardisation debate behind; rather, their theoretical justification is in the need to understand the impact of cultural differences on consumer behaviour. Consequently, in the following section we review approaches emphasizing the need for adaptation based on the influence of culture.

## **2.3 – The Need for Adaptation: The Influence of Culture on Consumer Behaviour**

### **2.3.1 - Overview**

The standardisation debate reviewed above suggests that the two extreme viewpoints rest on opposite assumptions about the strength/importance of consumer differences. An increasing worldwide homogenisation of customer needs and interests has been a crucial assumption of standardisation advocates (Sorenson and Wiechman, 1975; Walters, 1986; Douglas and Wind, 1987). In fact, “insofar as market heterogeneity at the cultural, economic and other levels is seen to be small or on the decline, the standardisation becomes more attractive and feasible” (Walters, 1986: 56). Furthermore, concurrent with the existence of similarities among market segments in different cultures, the appropriateness of standardised Marketing would also depend on evidence of culturally independent relevant consumer behaviour (LeBlanc and Herndon, 2001).

Consequently, many studies have ascertained the degree of consumer convergence (for a review of such studies, see Soares, Farhangmehr, and Shoham, 2003a). Several aspects of consumer behaviour have been studied cross-nationally: adoption of innovations, perceived risk and risk reduction strategies, family purchasing roles, attitudes toward foreign products, energy conservation, exploratory consumption, temporal consumption dimensions, involvement, means-end chains, penetration rates, and information search (e.g., Chadraba and Czepiec, 1988; Mitchell, Yamin and Pichene, 1996; Broderick, Greenley and Mueller, 1998; Steenkamp, ter Hofstede and Wedel, 1999). Most of these studies highlighted differences among consumers, except for a few specific consumer segments, pointing to the relevance of adaptation rather than standardisation. Opponents of standardisation emphasize that culture remains a powerful influence on consumers, and that apparent homogeneity of preferences might hide differences in several aspects of consumer behaviour (Walters, 1986; Usunier, 1996; Belk, 1996; Manrai and Manrai, 1996; Mesdag, 2000).

Therefore, the idea that culture retained a powerful influence on consumer behaviour acquired importance in the literature. “One of the most important concepts in developing global Marketing strategies is cross-cultural analysis” (Blackwell and Hassan 1994: 3). The world economy is considered increasingly cross-cultural (Luna and Gupta, 2001). Culture, then, might exert more influence than globalisation prophets expected and, concurrent with the homogenisation tendency, cultural idiosyncrasies, and regional and individual differences, remained important as differentiating factors (Clark, 1990; Usunier, 1996; Wierenga, Pruyn and Waarts, 1996; Manrai and Manrai, 1996; Belk, 1996, Costa and Bamossy, 1995; Ogden, Ogden and Schau, 2004). Some even argued that the apparent convergence of behaviour has led to the resurgence of ethnic and cultural identity (Levitt, 1988; Firat, 1995; Costa and Bamossy, 1995; Belk, 1996; Douglas and Craig, 1997, Au, 1999; de Mooij, 1998. de Mooij, 2000).

This idea led to an increasing recognition of, and assigned importance to, the concept of culture in International Marketing in the 1990s, which will be reviewed in section 2.3.2. Different perspectives regarding the importance of culture are presented in this section. This question is also discussed from the emic vs. etic dilemma in section 2.3.2.1. Several theoretical and empirical contributions are presented. However, a lack of



comprehensive theory to help marketers understand the “effects of cultural factors that may inalterably change behaviour patterns in different cultures” has been noted (Sheth and Sethi, 1977: 370). For example, many of these studies replicate national studies in international markets, following a comparative approach. Consequently international consumer behaviour models were proposed (Sheth and Sethi, 1977; Clark, 1990; McCort and Malhotra; 1993; Raju, 1995; Manrai and Manrai, 1996; Luna and Gupta, 2001), which will be presented in section 2.3.2.2. Lastly, definitional and operational aspects of cross-cultural research will be addressed in section 2.3.3.

### **2.3.2 – Consumer Behaviour and the Influence of Culture**

Culture’s influence on consumption and consumer behaviour has received some attention in the Marketing and consumer behaviour disciplines, at the national and international level. However, consumer behaviour studies have addressed individual decision-making in lieu of social and cultural influences (Engel, Blackwell and Miniard, 1995). This is, in fact, a trend common to other disciplines. For example, regarding organizational behaviour (OB), Erez and Earley (1993: 19) contend: “most existing models of OB and work motivation, focus on the individual employee rather than on the group or team and attempt to explain work behaviour by looking at individual goals, expectancies, self-efficacy, and need satisfaction (...) This emphasis on the individual detracts attention from environmental factors that affect OB.” Furthermore, in what concerns studies at the cross-national level, only lately has international consumer research shown promising developments (Wang, 1996b), not only in Marketing but in social sciences in general (McCracken, 1990). Nonetheless, over the last ten years, there has been an exponential growth of research addressing the relationship between culture and consumption (Ogden, Ogden and Schau, 2004).

Culture is considered to underlie every behavioural dimension. In the Marketing literature, different perspectives about the influence of culture have been offered, namely in terms of the role and degree of importance of cultural influence. The **first perspective** consists of minimizing the effects of culture. This perspective was held by standardisation advocates as seen in the previous section. Thus, some argued that cross-

cultural differences would have minimal or no influence on consumption behaviours (Elinder, 1965; Levitt, 1983; Ohmae, 1989). Other studies, influenced by cross-cultural Psychology research tradition, have also adopted this perspective.

Indeed, cross-national consumer research, building upon the cross-cultural Psychology research tradition and having as a primary concern the examination of the universality of psychological theories (Berry et al., 1992), favours this perspective as well. Although it is recognised that social and environmental contexts determine different manifestations, the universal/pancultural nature of the underlying cognitive and psychological processes is assumed (Douglas, Morrin and Craig, 1994). Namely, it has been argued that while some conceptual frameworks, models, and theories were culture-bound or culture-specific, others were culturally independent and thus universal (Cox, 1967; Berry et al., 1992). For example, in Psychology it has been suggested that the fact that affective negative stimuli are more difficult to process cognitively than affectively positive stimuli constitutes a basic psychological factor that apparently has not changed in the past 100,000 years; similarly the tendency to process congruent information and to find incongruent information hard to deal with (Triandis, 1979) was also supported by substantial cross-cultural evidence as constituting a universal dimension.

The existence of such ‘universals’ has been investigated in Marketing as well. Culture-independent aspects would be considered as ‘Marketing universals’, that is, “segment and product specific consumer behaviours that are invariant across cultures or countries” (Dawar and Parker, 1994: 81). Individual factors would be more adequate as segmentation criteria for these behaviours. A number of studies supported the existence of Marketing universals. The greater use of word-of-mouth information than of mass media information has been suggested as a generalized phenomenon across cultures (Tan and Dolich, 1983). A study of 640 MBA students of 38 nationalities found brand, price, retailer reputation, and physical product appearance to be used as signs of quality universally (Dawar and Parker, 1994). Persuasion effects predicted by dual process models proved robust across cultures (Aaker and Maheswaran, 1997). Consideration sets were found to be universal in terms of the average number of brands of athletic shoes considered and tried (LeBlanc and Herndon, 2001). Universality of the dimensions of price (price/quality schema, prestige sensitivity, and value consciousness)

has also obtained substantial support (McGowan and Sternquist, 1998). Finally, Alden, Hoyer and Lee's study (1993: 64) found that, while the specific content of the message was likely to be adapted to the different national cultures, humorous advertising shared "certain universal cognitive structures underlying the message".

According to this perspective, scholars should emphasize similarities among cultures to advance cross-cultural research. Materialism, consumption patterns between same-sexed individuals, and family structure similarities, for example, have been offered as aspects that offer commonalities among different cultures (Sojka and Tansuhaj, 1995).

A **somewhat different perspective** on the influence of culture on consumer behaviour has been advanced by Briley, Morris and Simonson (2000: 173). They contended that the influence of culture is dynamic, being prompted or absent depending on the context, and proposed that cultural divergence did exist in decision-making but it was only activated as a function of giving reasons. "We find that prompting individuals for reasons can evoke cultural differences in choices that would otherwise not occur". This perspective suggests the virtual ever-present underlying influence of culture. However, this influence will only be exhibited and activated if there is some "factor that carries culture to the fore of a decision maker's mind" (Briley, Morris, and Simonson, 2000: 157).

A **third perspective** assumes an all-encompassing nature of cultural influence (McCracken, 1990; Clark, 1990; Usunier, 1996; Ogden, Ogden and Schau, 2004). A review of literature from Psychology, Anthropology, Consumer behaviour and International Marketing, McCort and Malhotra (1993: 120) contend that "culture impacts virtually every construct of concern to marketers". McCort and Malhotra (1993) hypothesize on cultural influence on individual cognitive functioning, namely perception, information processing, value systems, and self-concept. Similarly, Usunier (1996) proposes aspects of consumer behaviour that are influenced by culture: perception, motivation, learning and memory, group influence, age, self-concept, social class, sex roles, attitudes change, decision-making, purchase, and post purchase. Table 2.1 lists consumer behaviour dimensions influenced by culture based on the theoretical contributions reviewed. The diversity of cultural behaviour dimensions that has been proposed to be impacted by culture is evident: All stages of the consumer decision

process; individual factors such as self-concept or learning and memory; psychological processes, such as information processing, and, finally, learning and environmental influences, such as social class or urban versus rural consumption patterns. Some of these contributions offer general theoretical macro-models regarding the influence of culture, and will be further developed in the subsequent section, International Models of Consumer Behaviour.

Table 2.1 - Culture's Influence on Consumers – Theoretical Contributions

<i>Author</i>	<i>Consumer Behaviour Dimensions Influenced by Culture</i>
Dichter, 1962	Degree of development of the middle class
Sheth and Sethi, 1977	Propensity to change
Wills, Samli and Jacobs, 1991	Involvement, learning and diffusion
McCort and Malhotra, 1993	Perception, Information processing, value systems and self concept
Raju, 1995	Access: economic access; physical access Buying behaviour: Perceptions; Loyalty; general attitudes toward Marketing/ consumerism; Deeper analysis of consumer psyche Consumption characteristics: product versus service consumption in culture; Cultural orientation; social class/ reference group influences; urban versus rural sector consumption patterns Disposal
Samli, 1995	Purchase behaviour; post purchase behaviour
Usunier, 1996	Perception, motivation, learning and memory, group influence, age, self-concept, social class, sex roles, attitudes change, decision-making, purchase, post purchase
Manrai and Manrai, 1996	Product acquisition and consumption behaviour; adoption/diffusion of innovations; complaining/complimenting behaviour; responses to advertising/ Marketing communication; responses to distributional aspects; responses to pricing aspects.
Engel, Blackwell and Miniard, 1995	Why people buy products – function; form and meaning Specific products people buy; the structure of consumption; individual decision making and communication
Luna and Gupta, 2001	Consumer behaviour – Cognition, Affect; behaviour

Empirical research has also addressed the nature and extent of the impact of culture (Table 2.2). A substantial number of studies, covering all aspects of consumer behaviour, have been conducted in a great variety of cultural settings, although the US is clearly the most prevalent national culture studied. While a higher number of cross-national studies have been conducted in International Marketing, the table covers studies explicitly using culture as an explanatory variable and/or titled 'cross-cultural'.

One of the conclusions that can be drawn from this table is that including cultural dimensions is becoming prevalent in cross-cultural research. Earlier studies seem to emphasise similarities, yet most of the studies find differences in consumer behaviour attributed to culture. Research testing consumer behaviour models and theories developed in the US deserves special mention. Indeed, it is very interesting for international marketers to find differences across nations attributed to culture or other environmental forces (such as degree of economic development), yet cross-culturally validating consumer behaviour theories has important implications for the advance of International Marketing theory. For example, the theory of reasoned action, known as the Fishbein's intentions model, has been found useful in explaining behavioural intentions in Korea and the US, although Korean place more importance on social norms compared to personal attitude than Americans (Lee and Green, 1991). Similarly, several studies have focused on involvement levels, yet the conclusion that higher levels of involvement lead to greater use of both affective and cognitive decision-making heuristics in different cultures (Alden, Hoyer and Wechasara, 1989) provides an enriching conclusion for international consumer behaviour.

These tables illustrate the diversity of consumer behaviours that are impacted by culture. However, the issue of the influence of culture in consumer behaviour requires a discussion of the fundamental issue in cross-cultural research, the emic versus etic dilemma. This question will be dealt with in the next section.

Table 2.2 - Culture's Influence on Consumers – Illustrative Empirical Studies

Author(s)	Countries	Cultural Dimension	Consumer Behaviour Dimension	Conclusion
Engledow, Thorelli and Becker, 1975	The U.S. and Germany		Information search	There exists a rather homogeneous cross-cultural segment of information-sensitive consumers
Tan and Doolich, 1983	The US and Singapore		Information search	Similarities in usage of information sources
Tse et al , 1988	PR China, Hong Kong and Canada	Individualism/collectivism	Decision making	Culture has predictable significant effects on the decision making
Alden, Hoyer and Wechasara, 1989	West Germany, Thailand and the US		Involvement	Higher levels of involvement lead to greater use of both affective and cognitive decision-making heuristics in all three cultures
Cote and Tansuhaj, 1989	Jordan, Thailand and the US		Intention formation	Differences on linear time orientation; internal locus of control and probabilistic thinking
Zaichkowsky, 1989	13 countries		Involvement	Differences in use and involvement levels for the product studied
Verhage, Yavas and Green, 1990	The Netherlands, Saudi Arabia, Thailand, Turkey		Perceived risk	Perceived risk can be used to analyze consumer behaviour in different cultures. Differences in the risk reduction strategy of brand loyalty
Lee and Green, 1991	Korea and the US	Individualism/collectivism	Fishbein behavioural intentions model	The Fishbein model can be used to explain behavioural intentions in both countries although Korean place greater importance on social norms
Jacobs et al, 1991	PR China, Korea, Japan and the US		Colour associations	Some colours show cross-cultural consistency; others hold opposite meanings in different cultures
Sjolander, 1992	Poland and Sweden		Price/quality perceptions	The positive price-quality relationship correlation was not supported in any of the cultures

Author(s)	Countries	Cultural Dimension	Consumer Behaviour Dimension	Conclusion
Murray and Manrai, 1993	Ireland and the US		Exploratory Consumption Behaviour	Differences regarding need to engage in variety seeking behaviour and optimum level of consumption
Kustin, 1993	Israel and Australia		Product perception	Differences in terms of brand recognition, price and preference but some support for the notion of a global product
Edget and Cullen, 1993	Canada and Scotland		Decision process- selection of a high involvement service	Differences in involvement levels and intensity of information search
Han and Shavitt, 1994	Korea and the US	Individualism/collectivism	Persuasion	Different appeals used and different effectiveness of persuasion appeals
Alden, Stayman and Hoyer, 1994	The US and Thailand		Evaluation strategies	Similarities in the effects of incongruity of product information with consumer expectations/ differences in the role of perceived risk
Anderson and Venkatsen, 1994	The US, Mexico and New Zealand		Time	Differences in social time systems: different temporal patterns, orientation, perspectives and perceptions
Albers-Miller and Gelb, 1996	11 countries	Individualism; uncertainty avoidance; power distance and masculinity	Advertising content	The culture-reflecting quality of advertising was partially supported
Al-khatib, Vitell and Rawwas, 1996	Egypt and the US		Consumer ethics	Differences regarding ethics/similarities in terms of extent of machiavellianism displayed
Ford, LaTour and Honeycutt, 1997	New Zealand, Japan, Thailand		Sex role portrayals perceptions	Varying degrees of criticism with regard to sex role portrayals, company image and purchase intention
Donthu and Yoo, 1998	The U.S, Canada, UK and India	All 5 Hofstede's dimensions	Perceived service performance and service level	Influence of cultural dimensions on the expected service quality
Fam and Merrilees, 1998	Australia and Hong Kong	Individualism	Retailers' promotion preferences	A nation's preference for promotion tools is influenced by the degree of Individualism
Milner and Collins, 1998	The US, Australia, Mexico, Turkey	Masculinity	Sex role portrayals	Sex role differences

Author(s)	Countries	Cultural Dimension	Consumer Behaviour Dimension	Conclusion
Singhapakdi et al, 1999	Malaysia and the US	Power distance and Individualism	Marketing ethics perception	Significant differences between the two countries
Mattila, 1999	Asian and Westerners	Communication context Power distance	Service encounter evaluation of leisure travellers	Culture-based biases in the evaluation process depend on the consumers' purchase related goals (business vs leisure travel)
Steenkamp, Hofstede and Wedel, 1999	11 countries of the EU	Individualism /Uncertainty avoidance /Masculinity	Innovativeness	Innovation orientation differs among countries
Dagfous et al, 1999	Quebec, France and North Africa	Values	Innovativeness	Individual values have a significant impact on innovativeness
Furrer, Liu and Sudharshan, 2000	The U.S.; Asia; Switzerland	5 dimensions of Hofstede	Perceived service quality	The perceptions of service quality vary across cultural groups
Birgelen et al, 2002	11 countries (10 European+U.S.)	Power dist / Individ. / Masc. / Uncert. avoidance	Satisfaction	The perceived quality-satisfaction relationship is particularly moderated by national culture
Yoo and Donthu, 2002	The US and Korea		Brand equity creation	Cultural contexts significantly moderate brand equity formation

Note: Only studies explicitly using culture as an explanatory variable and/or including 'cross-cultural' in the title are included.



### **2.3.2.1 – The Etic versus Emic Dilemma**

The distinction between culture-independent and culture-sensitive consumer behaviours can also be considered from the perspective of the emic/etic dilemma in cross-cultural Psychology. This distinction has been proposed by Pike, a linguistic, who coined the words etic and emic from the linguistic terms phonetic and phonemic, and suggested that these shorter terms could be used in any discipline to denote a local versus universal approach (Berry, 1980). These perspectives have also been referred to in the literature as idiographic (phenomena specific to a situation or culture, i. e. emic) and nomothetic (general laws and universal aspects, i. e. etic) research (Sekaran, 1983; Adler, 1983). Thus, emic and etic constitute different approaches to the study of culture (Triandis, Malpass, and Davidson, 1973; Berry, 1980; Sekaran, 1983; Adler, 1983). The etic perspective studies behaviour from outside the system as an essential initial approach to an alien culture. The emic approach implies studying a single culture intensively to describe and understand indigenous, specific phenomena. It uses concepts used only in a given culture to try to obtain the best possible description of a phenomenon of that culture (Triandis, Malpass and Davidson, 1973), thus providing “culture-rich” information (Luna and Gupta, 2001). The etic perspective studies a culture employing universal concepts thus presupposing cultures can be compared along a number of universal, “culture-free” dimensions (Luna and Gupta, 2001). The emic perspective, in contrast, presupposes that cultures can be described but not compared.

According to Boyacigiller and Adler (1991), failing to acknowledge this issue may be the result of cultural parochialism, which assumes the universal applicability of constructs. However, the distinction between cultural-specific and universal behaviours is not an easy task. Furthermore, additional difficulties derive from the resources needed to carry out truly emic research, an issue further developed in the Methodology chapter.

In the following section, international consumer research is briefly reviewed and international consumer behaviour models are presented.

### **2.3.2.2 – International Consumer Research**

Research on international consumer behaviour lacks integrative cross-cultural models and frameworks: “strong theoretical and conceptual frameworks are needed, integrating constructs from the different research traditions and disciplines” (Douglas et Morrin and Craig, 1994: 300). This has been presented as a neglected area of consumer behaviour studies (Sheth and Sethi, 1977; Raju, 1995; Manrai and Manrai, 1996; Luna and Gupta, 2001). Indeed, the development of International Marketing activities “has not been accompanied by any systematic study of the differences in buyer behaviour in various countries (sociopolitical and economic entities) and the causes that might account for such differences” (Sheth and Sethi, 1977: 369). Furthermore, the task of proposing an integrating framework for the influence of culture on consumer behaviour offers considerable difficulties.

International consumer behaviour emerged in the sixties, according to some authors (see for example, Wang, 1996b) or in the early seventies (Douglas, Morrin and Craig, 1994) as a reaction to the ethnocentric attitude of international marketers. Early contributions used different perspectives to explain the impact of culture on consumer behaviour. Dichter (1962: 114) recognised the role of cultural anthropology for studies of consumers in Marketing: “close observation of customers, and potential customers, all over the world reveals that there are some striking similarities, yet at the same time a considerable degree of difference”. Hall (1960) emphasized the importance of culture as a silent language in overseas business. Elinder (1965: 9), on the other hand, downplayed the importance of culture, believing in the existence of a European consumer - “Right now there are millions and millions of Europeans living under largely similar conditions although they read and speak different languages”.

Most cross-national consumer studies during this period followed a comparative Marketing approach (Boddewyn, 1981; Douglas, Morrin, and Craig, 1994; Wang, 1996b; Douglas and Craig, 1997) and suffered from limitations related to the embryonic stage of research in this period: limited scope of countries, narrow research topics, unsophisticated methodology, and lack of theoretical framework “that would allow researchers to understand or explain observed differences and similarities” (Douglas,

Morrin, and Craig, 1994: 289). Consequently, differences were attributed “ex post to cultural values or the market environment” (Ibidem: 290). These problems were addressed by research starting in the 1970s. Research in this decade was characterized by expanding topics; increased methodological sophistication, and development of conceptual thinking and theoretical frameworks, such as Sheth and Sethi’s cross-cultural consumer behaviour model (Wang, 1996b). However, reviews of research in this period contend that research is “fragmentary, generally atheoretic, and not sufficiently programmatic to offer anything other than simplistic and incomplete insights into the underlying phenomena of interest” (Albaum and Peterson, 1984: 161/2). This is due to the difficulties of conducting cross-national research: “the methodological and financing difficulties have remained huge and no genius has appeared who could cut through them to come up with major theoretical breakthroughs” (Boddewyn, 1981: 73).

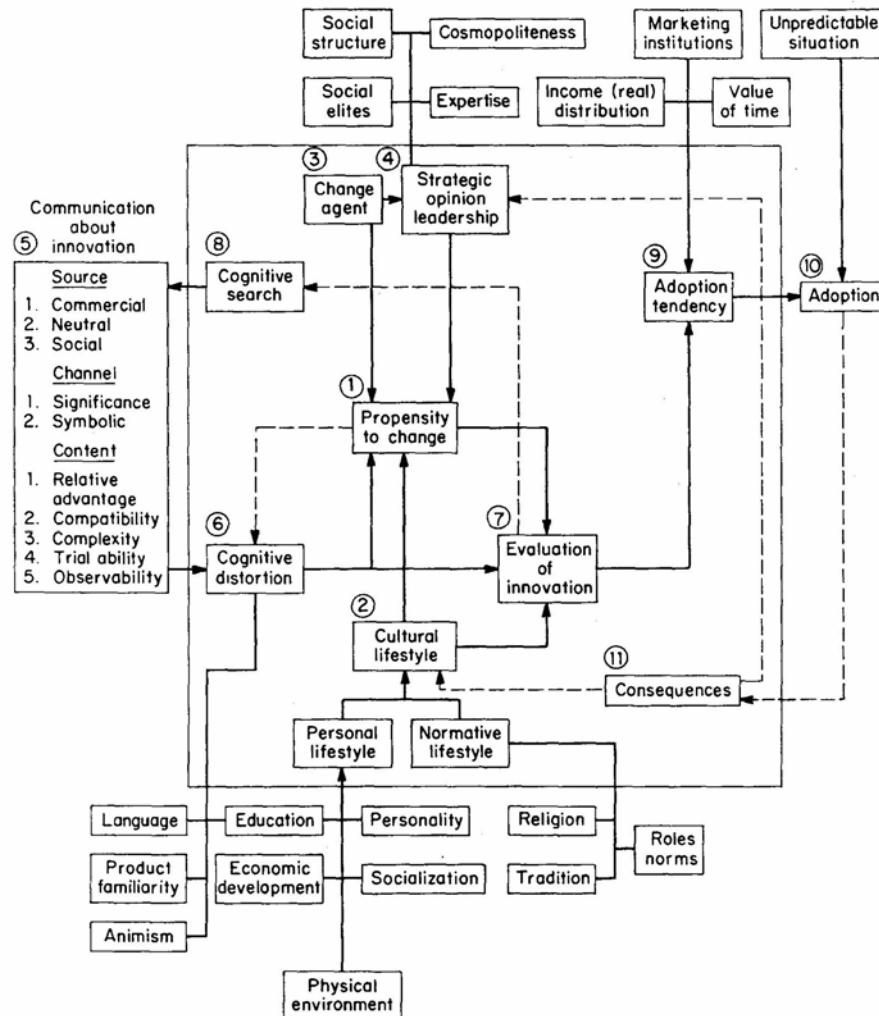
In the 1980s the discipline entered its infancy stage (Wang, 1996b), becoming more theory oriented in terms of theory development, empirical testing of theoretical constructs, and attending to methodological aspects (Aulakh and Kotabe, 1993). The 1990s witnessed additional growth of international consumer research, in terms of the quantity and the quality of studies. In this period more international consumer behaviour theories and models were developed (e.g., Will, Samli and Jacobs 1991; Raju 1995; Manrai and Manrai 1996). These models will be presented below.

## **I International Models of Consumer Behaviour**

Efforts to understand consumer behaviour led to the development of macro-level models of the major influences on consumers internationally. In an early attempt to “explain differences among cultures in their perceptions, evaluations, and consumption behaviour of a common product or service”, Sheth and Sethi (1977: 371) developed a comprehensive theory of cross-cultural buyer behaviour (Figure 2.1). The theory built on the idea that societies can be placed on a continuum according to their degree of resistance to change and that multinationals function as innovation and change agents. Thus, the model aimed to explain the introduction of new products by multinationals

and focused on innovation and diffusion processes. Propensity to change was, then, the core construct of this model.

Figure 2.1 - Sheth and Sethi's Theory of Cross-Cultural Buyer Behaviour

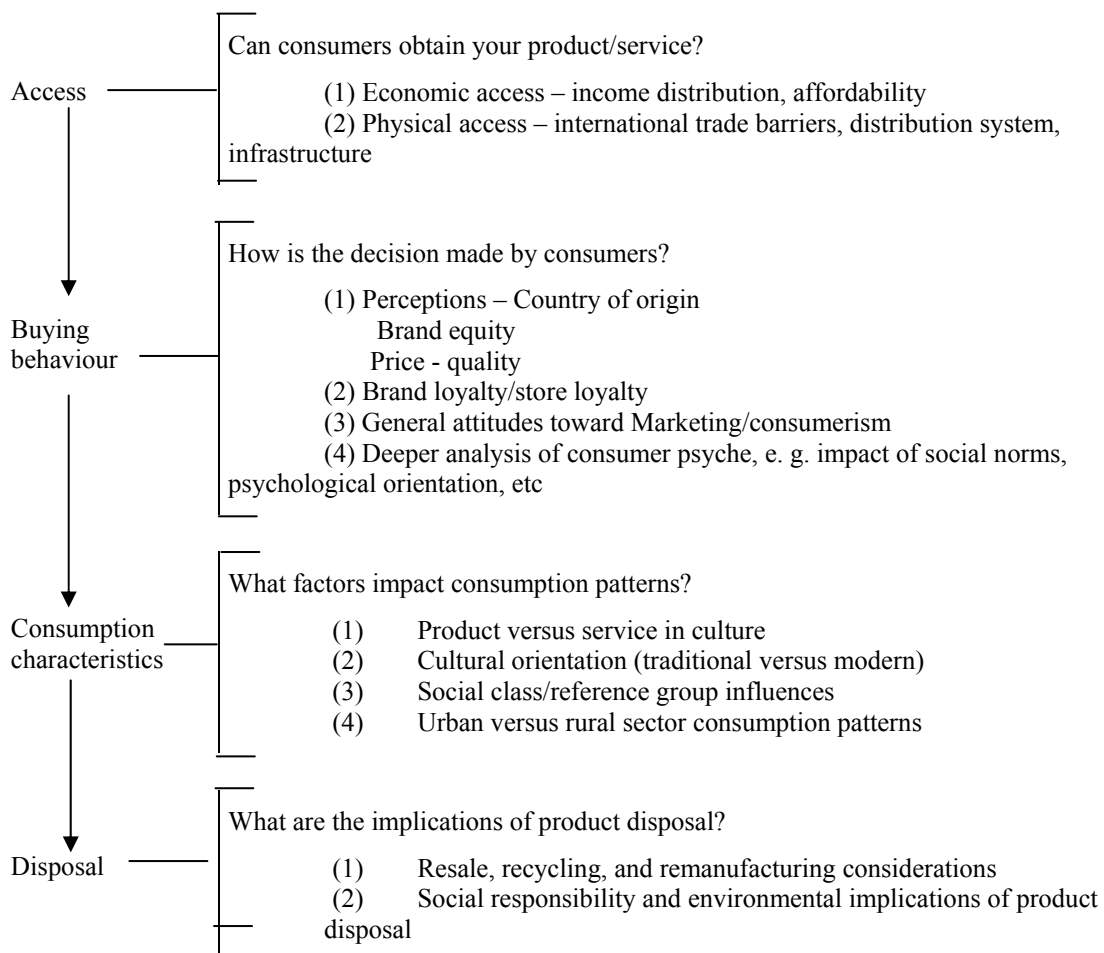


Source: Sheth and Sethi, 1977: 373

Wills, Samli and Jacobs (1991) presented a global product strategy development decision model. They considered the nature and degree of consumer involvement in the product category in each target country as the first step in developing a global product strategy. They used Hall's classification of low- and high-context cultures as a way of distinguishing cultures and proposed a research agenda based on the propositions that involvement, learning, and diffusion of products were influenced by culture.

Raju's A-B-C-D paradigm model (1995) shared the objective of understanding purchase and consumption processes within cultures. It considered the purchase and consumption process in any culture along four sequential stages: Access, buying, consumption, and disposal. The buying stage included all factors that influence decision-making and choice within a culture of which three dimensions were considered critical: consumer perceptions, consumer loyalty, and attitudes toward Marketing/consumerism. This constituted a comprehensive approach since it included both the factors that influence consumers' economic and physical access to products and post-consumption behaviour, namely product disposal considerations and all the environmental questions implied.

Figure 2.2 - Raju's A-B-C-D paradigm

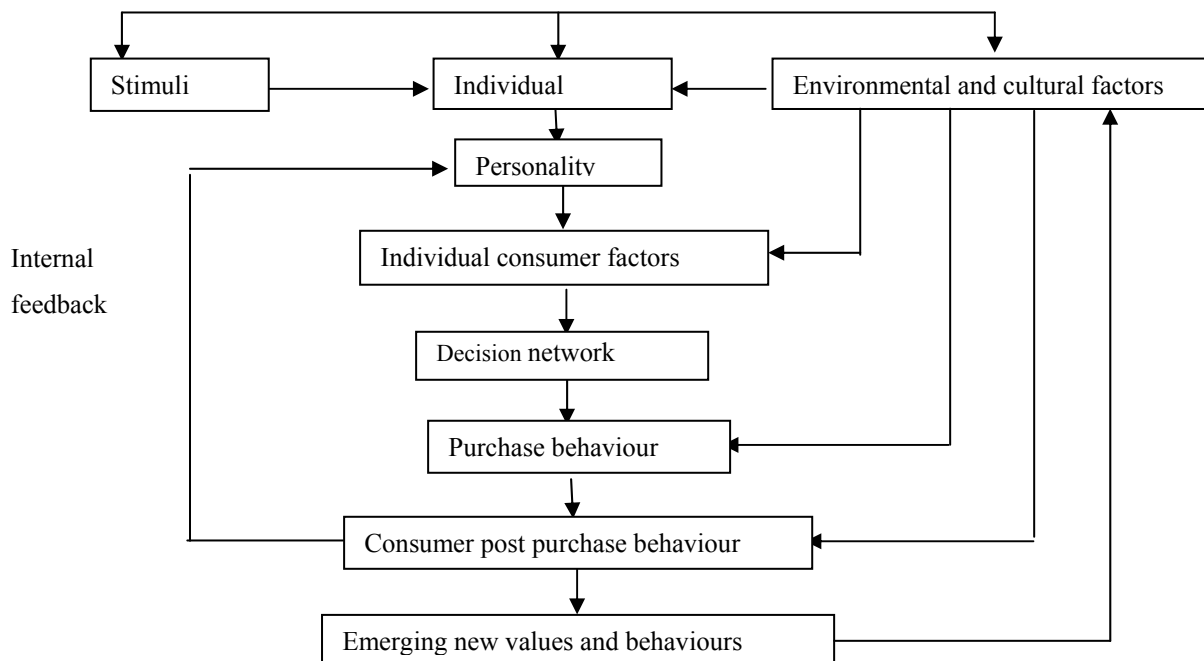


Source: Raju, 1995: 39

Samli (1995: 58) proposed a model (Figure 2.3) based on the idea that individual consumer factors that influence purchase situations are “prescreened and further

modified by culture and other environmental factors by individuals who already have developed a certain culture bound personality”. This model included an internal feedback effect, in the sense that changes at the consumer level might be incorporated into the culture of the society, thus highlighting the evolving nature of culture.

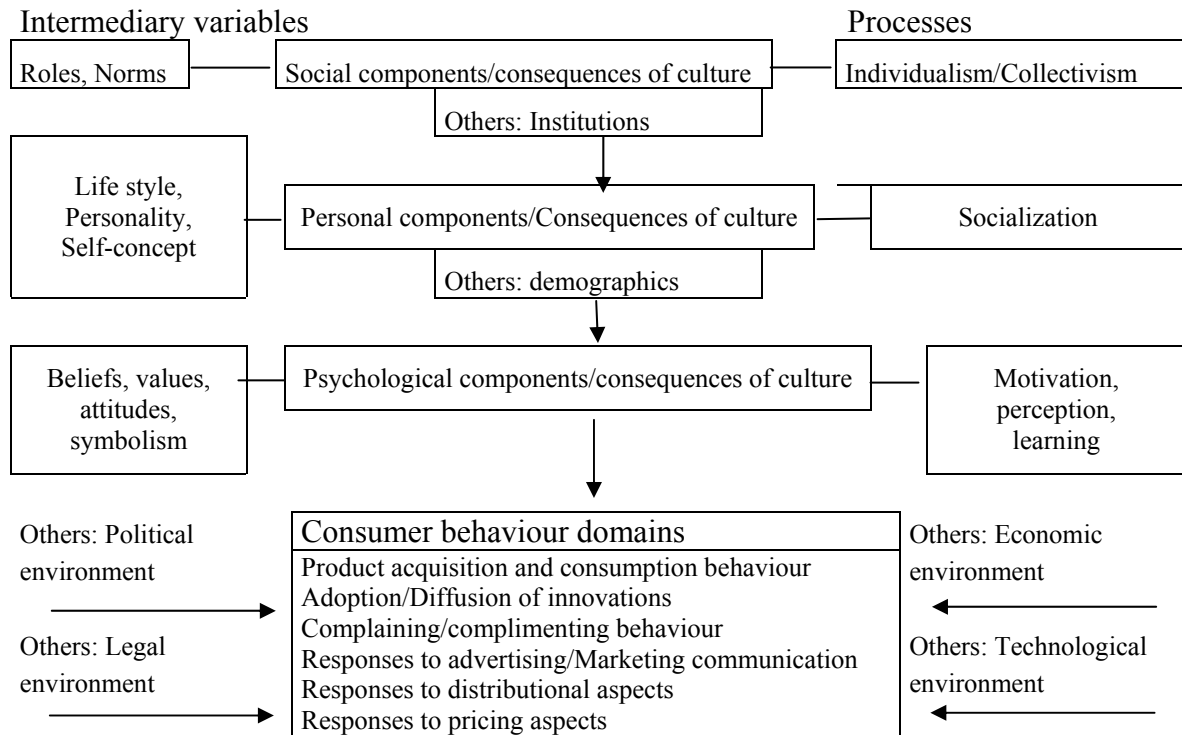
Figure 2.3 - Samli’s International Consumer Behaviour Model



Source: Samli, 1995: 59

Manrai and Manrai (1996) offered a model of the effect of culture on consumer behaviour (Figure 2.3). They acknowledged the complexity of culture and the difficulty of distinguishing it from its consequences. They preferred to consider components/consequences of culture, classified into social, personal, and psychological categories. These were further classified as intermediary variables or processes influence consumer behaviour domains: product acquisition and consumption behaviour; adoption/diffusion of innovations; complaining/complimenting behaviour; responses to advertising/Marketing communication; responses to distributional aspects; and responses to pricing aspects.

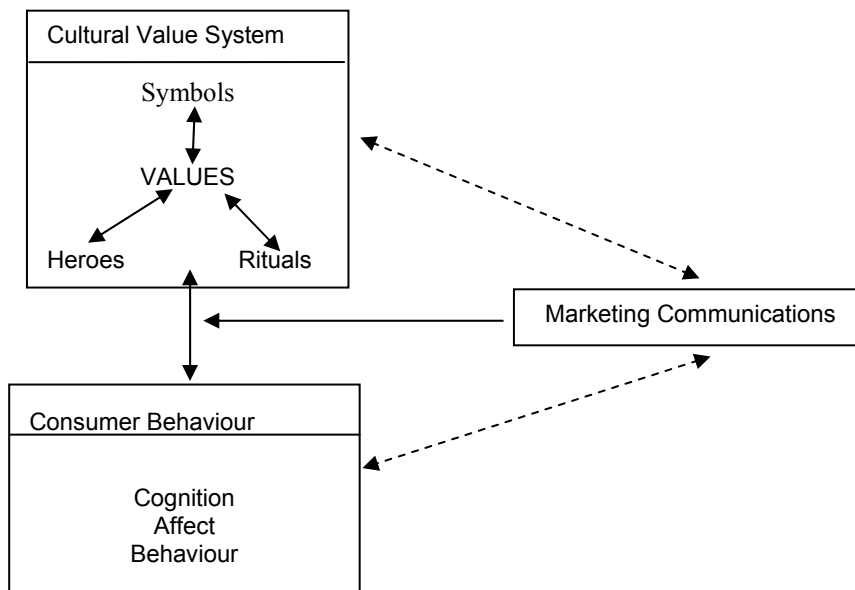
Figure 2.4 - Manrai and Manrai's Model of the Effect of Culture on Consumer Behaviour



Source: Manrai and Manrai, 1996: 15

Lastly, Luna and Gupta (2001) postulated the dual direct and indirect (through Marketing communications) influence of culture on consumer behaviour. Following the American Marketing Association's definition of consumer behaviour as "the dynamic interaction of affect and cognition, behaviour, and the environment by which human beings conduct the exchange aspects of their lives" (Bennet, 1995 in Luna and Gupta, 2001: 51), they saw culture influencing behaviour through its manifestations: values, heroes, rituals, and symbols. Values are considered to have a central role, affecting other manifestations of culture.

Figure 2.5 - Luna and Gupta's Model of Culture and Consumer Behaviour Interaction



Source: Luna and Gupta, 2001: 47

Theoretical flow-chart-like consumption models, structuring determining and mediating influences on consumer behaviour, (e.g., Nicosia, 1966; Howard and Sheth, 1969; Engel, Blackwell and Miniard, 1995) have been subject to critiques. Foxall (1980) evaluated these models as lacking a testable and scientific delimitation of variables, such as economic and behavioural factors. Existing international consumer behaviour models share these limitations and have been criticized as they lack “a framework in which literature can adequately be integrated, are not firmly grounded in theory, or do not contain a full account of how specific cultural dimensions affect specific consumer behaviour components” (Luna and Gupta, 2001: 45). In fact, even modelling consumer behaviour within a country is complex, so models to study consumer behaviour in international markets would be even more difficult to develop (Sheth and Sethi, 1977; Raju, 1995). Thus, scepticism regarding such models has been expressed.

We cannot afford to wait for a comprehensive (comparative) scheme. Such a scheme, if it is ever developed, cannot be much less than a complex theory of Marketing (or macro-Marketing). For the time being, we have to work closer to the ground at the level of low- or middle-range conceptualizations (Johan Arndt quoted in Boddewyn, 1981: 65).



Yet, these models highlight the diversity of cross-cultural influences on consumer behaviour and the relevance of culture. Notably, risk related concepts such as propensity to change and adoption/diffusion of innovations are displayed in most of these models as being influenced by culture. This provides theoretical support to selecting Exploratory and Risk Taking Behaviour as focal constructs of this project.

The difficulty of proposing an integrative framework for culture's influence on consumer behaviour is made more complicated due to the nature of the concept of culture. Research on culture and its influence on consumer behaviour faces definitional, conceptual, and operational obstacles resulting from the complexity of the concept. This issue is dealt with next.

### **2.3.3 – Definition, Conceptualisation and Operationalisation of Culture**

What remains when that which has been  
learned is entirely forgotten.

Selma Lagerlof (in Usunier, 1996: 28)

Culture constitutes the broadest influence on all dimensions of human behaviour. McCracken (1990) saw culture as shaping our world in two ways: as the lens through which we see and interpret the world and as a blueprint of human activity. He believed that "in short, culture constitutes the world by supplying it with meaning" (McCracken, 1990: 73). This pervasiveness makes it a difficult concept to define (McCort and Malhotra, 1993). This difficulty has hampered research on the influence of culture on international consumer behaviour (Manrai and Manrai, 1996; McCort and Malhotra, 1993; Clark, 1990; Nasif et al, 1991; Dawar, Parker and Price, 1996; Lenartowicz and Roth, 1999) and has been used to criticize cross-cultural research (Sekaran, 1983). Culture is "a convenient catchall for the many differences in market structure and behaviour that cannot readily be explained in terms of more tangible factors" (Buzzell, 1968: 191), "a 'rubbish bin' concept", which constitutes rather clear and strong images of the superficial form the concept of culture is often called upon, as an explanatory

variable for residuals, “when more operative explanations have proved unsuccessful” (Usunier, 1999: 94).

One of the earliest definitions of culture is Tylor’s (1871, in McCort and Malhotra, 1993: 97), who defined it as “the complex whole which includes knowledge, belief, art, morals, custom and any other capabilities and habit acquired by man as a member of society”. This definition set the tone for subsequent contributions that share the all-inclusive nature of culture of aspects of human life in a society. Table 2.3 includes some major definitions of culture proposed in the literature, especially in Anthropology.

Table 2.3 - Definitions of Culture

Authors	Key defining characteristics
Tylor, 1871	“Culture is that complex whole which includes knowledge, belief, art, morals, custom and any other capabilities and habits acquired by man as a member of society” (in McCort and Malhotra, 1993: 97)
Linton, 1936	“the total social heredity of mankind” (in Berry et al, 1992: 165)
Herskowitz, 1948	“Culture is the man-made part of the environment” (in McCort and Malhotra, 1993: 97)
Parsons and Shills, 1951	“On a cultural level we view the organized set of rules or standards as such, abstracted, so to speak, from the actor who is committed to them by his own value-orientations and in whom they exist as need-dispositions to observe these rules. Thus a culture includes a set of standards. An individual’s value-orientation is his commitment to these standards.” (in Erez and Earley, 1993: 41)
Kroeber & Kluckhohn, 1951	Culture consists of “whatever it is one has to know or believe in order to operate in a manner acceptable to its members. It is the form of things that people have in their mind, their models of perceiving, relating, and otherwise interpreting (material phenomenon).” (in Hofstede, 1984: 21)
C. Kluckhohn, 1954	“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 Erez and Earley, 1993: 41)
Triandis, 1972	(culture is) “a subjective perception of the human-made part of the environment. The subjective aspects of culture include the categories of social stimuli, associations, beliefs, attitudes, norms and values, and roles that individuals share.” (in Erez and Earley, 1993, 41)
Hofstede, 1984	The collective programming of the mind which distinguishes the members of one human group from another (p. 21)
Sojka and Tansuhaj, 1995	A dynamic set of socially acquired behaviour patterns and meanings common to the members of a particular society or human group, including the key elements of language, artefacts, beliefs and values (p. 7)

The all-encompassing nature of culture is common to all definitions. Reviewing literature from Psychology, Anthropology, Consumer behaviour, and International Marketing, McCort and Malhotra (1993: 120) contend that “culture impacts virtually every construct of concern to marketers”.

Definition is complicated further by the difficulty in distinguishing strictly cultural factors from other macro-level influences. It is proposed that culture is intrinsically different from other macro-environmental factors: “Culturally patterned behaviours are thus distinct from the economic, political, legal, religious, linguistic, educational, technological and industrial environment in which people find themselves” (Sekaran, 1983: 68). However, isolating purely cultural from other macro-environmental influences might be unfeasible, as there are no clear-cut boundaries among these interrelated influences: “Culturally normed behaviour and patterns of socialization could often stem from a mix of religious beliefs, economic and political exigencies and so on. Sorting these out in a clear-cut fashion would be extremely difficult, if not totally impossible” (Sekaran, 1983: 68). The lack of an operational definition of culture, however, should not and has not hindered cross-cultural research. Lenartowicz and Roth (2001) report that almost 10% of the articles published in 10 renowned journals in the period 1996-2000 have used culture as an independent variable.

Consequently, a number of approaches have been used to identify culture and allow for its inclusion in empirical research. Based on a twenty-year review of cross-cultural consumer research, Sojka and Tansuhaj (1995: 4) concluded that researchers had followed three approaches to operationalise culture: through language, through material goods or artifacts, and through beliefs or value systems. Language offers “an interpretative code or schema for organizing and presenting the world”, but is not a good indicator of ethnicity and cannot be used alone to predict or explain different behaviours between subcultures and cultures. Using possessions and artifacts allows a more concrete operational definition of culture, as goods embody visible evidence of cultural meaning and many cultural artifacts (e.g., durable goods, toys, and clothing) have been analysed in a cross-cultural context. Finally, values and belief systems (e.g., fatalism, materialism, and relations with others) as operational definitions of culture were deemed instrumental in understanding cross-cultural consumer behaviour.

Lenartowicz and Roth (1999) term approaches to identify a valid cultural grouping as culture assessment and propose the following typology: Ethnological Description; Use of Proxies-Regional Affiliation; Direct Values Inference (DVI) and Indirect Values Inference (IVI).

(1) **Ethnological description** pertains to “qualitative approaches, typically sociological, psychological and/or anthropological, used as bases for identifying and/or comparing cultures” (Lenartowicz and Roth, 1999: 783). This approach provides a descriptive appraisal of cultures.

Hall’s classification of high- and low-context cultures is such an approach, which has been used for International Marketing purposes (Wills, Samli and Jacobs, 1991; Samli, 1995; Mattila, 1999; van Everdingen and Waarts, 2003). The distinction is based on the way messages are communicated in each culture: explicitly or in the context. Although useful, this classification has limitations, as it merely allows the classifications of cultures along one dimension. Similarly, Gannon’s (2001: XV) approach to the study of culture could also be included in this approach. Gannon uses metaphors as a method to understand and compare the cultural mindsets of nations. A cultural metaphor is defined as “any activity, phenomenon, or institution which members of a given culture emotionally and/or cognitively identify”. This approach provides an intuitively appealing description, which is somewhat subjective, yet useful in understanding foreign cultures.

This approach guides emic studies of culture, which aim at studying intensively a single culture to describe and understand indigenous, specific phenomena. It has been rarely used in international business (Lenartowicz and Roth, 1999).

(2) **Use of proxies – Regional affiliation.** Commonly used in business, this approach consists of defining culture based on characteristics that reflect or resemble culture such as Nationality or place of birth (Lenartowicz and Roth, 1999).

Culture has often been equated with Nationality, constituting a widely used approach to operationalise culture (Hoover, Green, and Seagert, 1978; Dawar and Parker, 1994; Steenkamp, ter Hofstede and Wedel, 1999). In fact, culture, country, nation, and society are often used interchangeably (Sekaran, 1983; Nasif et al., 1991). However, caution is recommended given the imperfect correspondence between political boundaries and culture, even in culturally homogeneous countries (Sheth and Sethi, 1977). In some cases that limitation constitutes a minor setback; however, in others, multiple ethnic groups must be included in each country. Hofstede (1984) and Steenkamp (2001)

support this approach. Steenkamp (2001) argued that there is empirical support for within- and between-country differences; thus, culture can be conceptualised at the national level. Today's nations "are the source of considerable amount of common mental programming of their citizens" (Hofstede, 1991: 12) since nations that have a long history have strong forces towards further integration.

The "proxies" approach has been used at different levels of culture. "Culture can be defined on different levels of analysis, ranging from a group level to an organizational level or a national level" (Erez and Earley, 1993: 23) or on a group of nations such as the European Union (Steenkamp, 2001). For example, Mattila (1999) studied the influence of culture on purchase motivation in service encounters and distinguished between Asian and Western cultures. On the opposite pole, subcultures have also been studied (Lenartowicz and Roth, 2001).

In a similar vein, Dawar and Parker (1994) proposed the "ethno-geographic trade area" as an alternative operationalisation of culture, defining four cultural clusters: North America; EEC; non-EEC Europe; and others.

Other proxies have also been used, such as the level of a culture's engagement in the retail sector (Dawar and Parker, 1994). Samli (1995) argued that consumer behaviour could be predicted using a scoring system on relevant cultural variables that would allow the identification of specific international consumer behaviour patterns. He proposed the following set of variables: class structure, language, context (low/high), interpersonal relationships, needs hierarchy, role of the sexes, role of children, territoriality, temporality, learning, work ethic, need for privacy, exploitation of resources, resource utilization, family role in decision making, family size, religiosity, tradition orientation, and technology grasp.

However, this approach is merely a classification method that lacks measures to test hypothesized relationships regarding the influence of culture on dependent variables.

(3) **Direct Values Inference (DVI)**. This approach comprises measuring the values of subjects in a sample, and inferring cultural characteristics based on the aggregation of these values (Lenartowicz and Roth, 1999).

Hofstede's study of culture (1984, 1991, 2001) is such an approach. Based on statistical analyses of a 70-country databank of work-related values, he initially proposed that cultures could be compared on four dimensions, common to all countries under study (adding a fifth later; Hofstede 1991, 2001): Individualism/collectivism; Uncertainty avoidance; Power distance; Masculinity-Femininity and Long-term orientation as the fifth dimension. These dimensions will be further developed in a subsequent section.

Schwartz's universal structure of values fits this approach as well (Schwartz, 1992, 1994; Schwartz and Bilsky, 1987, 1990; Schwartz and Sagiv, 1995). He aimed to identify universal psychological human values and proposed a theory for the universal content and structure of values with two culture-level dimensions, defining seven national-cultural domains: Conservatism-autonomy and Hierarchy and mastery versus Egalitarian commitment and Harmony with nature. The Conservatism-autonomy dimension includes Conservatism, constituted of values "likely to be important in societies based on close-knit harmonious relations, in which the interests of the person are not viewed as distinct from those of the group" (Schwartz, 1994: 101) and Autonomy, which includes two distinguishable aspects: Affective and Intellectual Autonomy with "those values likely to be important in societies that view the person as an autonomous entity entitled to pursue his or her individual interests and desires" (Schwartz, 1994: 102).

The second culture-level dimension is Hierarchy and mastery versus Egalitarian commitment and Harmony with nature. The national-cultural domains in this dimension are Hierarchy, "emphasizing the legitimacy of hierarchical role and resource allocation" (Schwartz, 1994: 103); Egalitarian commitment, "a region of values that express transcendence of selfish interests" (ibidem: 104); Harmony, these values "stand in opposition to value types that promote actively changing the world through self-assertion and exploitation of people and resources" (Ibidem: 105/6); and Mastery – "The values of this region emphasize active mastery of the social environment through self-assertion" (ibidem: 103).

Schwartz framework has not been used in Marketing research (see Furrer, Lantz and Perrinjaquet, 2003 for an exception) but offers great potential in International Marketing (Steenkamp, 2001).

Finally, several studies replicated Hofstede's study of work values using different scales (e.g., Dorfman and Howell, 1988; Fernandez et al., 1997; Donthu and Yoo, 1998; Furrer, Liu and Sudharshan, 2000; Liu, Furrer and Sudharshan, 2001) or replicating Hofstede's Values Survey Module (VSM; Hoppe, 1990; Heuer, Cummings, and Hutabarat, 1999; Merrit, 2000; Schramm-Nielsen, 2000; Pheng and Yuquan, 2002). Of these, Hoppe's study (1990) has been used as an update of Hofstede's scores (Steenkamp, ter Hofstede and Wedel, 1999).

Three methodological considerations should be noted (Lenartowicz and Roth, 1999). First, values generally differ between socio-demographic groups so such variables should be controlled or large samples must be used to randomise their effects. In this regard, Douglas and Craig (1997: 385) proposed the adoption of the concept of a "culti-unit", defined "in terms of the racial, ethnic, demographic or socio-economic characteristics or specific interests of its members which provide a common bond, and establish a common *ethnie*". Second, the values' instrument requires subjects to understand the meaning of all values or personal interviews to assist them. Finally, DVI falls short of grasping cultural groups as "empirically there may be multiple solutions or combinations of relatively homogeneous groups" (Lenartowicz and Roth, 1999: 785).

(4) **Indirect Values Inference/Benchmarks (IVI)**. This approach is based on the use of secondary data to ascribe characteristics of cultural groupings without directly measuring members of the group. The most notable example of this approach is the use of Hofstede's scores of national cultures (Hofstede, 1984).

Lenartowicz and Roth (1999: 786) suggest caution in the use of the benchmarks approach: "The concern with this approach is potential measurement error arising from the extrapolation of cultural values from the group assessed by the benchmark study to the sample being surveyed". This method, with caveats, is deemed adequate for formulating hypothesis and providing measures of cultures for cross-cultural studies with an indirect approach.

All four methods have inherent weaknesses. Lenartowicz and Roth (1999: 787) contend that "no single methodology is able to address the inclusive set of criteria relevant to culture assessment in business studies".

Nonetheless, operationalisation of culture in terms of cultural dimensions as proposed by Hofstede (1984) has become the norm (Sekaran, 1983; Samiee and Jeong, 1994) and is used increasingly in International Marketing studies (Sondergaard, 1994; Engel, Blackwell, and Miniard, 1995; Dawar, Parker and Price, 1996; Sivakumar and Nakata, 2001). Specifically, the framework contributes to understanding intercultural communication (Samovar, Porter and Stefani, 1998), sex role portrayals in advertising (Milner and Collins, 1998), perceived risk (Mitchell and Vassos, 1997), innovativeness (Lynn and Gelb, 1996; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002; Van Everdingen and Waarts, 2003), interpersonal information exchange (Dawar, Parker and Price, 1996), advertising appeals (Albers-Miller and Gelb, 1996), and service evaluations (Donthu and Yoo, 1998; Liu, Furrer and Sudharshan, 2001; Birgelen et al, 2002).

Given the increasing use of the Hofstede's cultural framework, the adequacy of using his dimensions to operationalise the multidimensional, all-inclusive concept of culture, has been investigated. This issue is discussed in the next section.

### **2.3.3.1 –The Use of Cultural Dimensions**

The use of culture as an explanatory variable requires the identification of its components. In this section this issue is addressed, dealing with the following questions: Can the concept of culture be reduced to a limited number of dimensions? Can it be represented adequately by a number of dimensions for cross-cultural research? While it is recognised that dimensions cannot fully capture the concept of culture, do they, notwithstanding, constitute a useful approach to study culture and its impacts?

The usefulness of the concept of culture to explain cultural differences depends on being able to unpack it (Leung, 1989; Schwartz, 1994; Bagozzi, 1994; Samiee and Jeong, 1994; van de Vijver and Leung, 1997). This position can be illustrated by the following statements:

How we define culture is vital to the validity of cross-cultural studies. Including everything (norms, beliefs, social relations, material artefacts, etc) as some researchers do by implication, if not intent, explains nothing. We



merely revert to taking as cultural any difference across groups (Johnson, 1991: 143).

Differences in dependent variables should not be attributed to differences in culture unless components of culture have been identified. Likewise, group mean differences are much more meaningful when the investigator articulates why they should exist (Samiee and Jeong, 1994: 215) .

Culture isn't important unless we can specify what is it within and between different cultures that produces the commonalities and differences (Bagozzi, 1994: 8).

Differences between cultural groups can be attributed to culture. Culture is too global a concept to be meaningful as an explanatory variable, however, and should be replaced by its constituents (van de Vijver and Leung, 1997: 3).

The use of a limited number of dimensions to compare cultures has anthropological roots. Early scholars in this field argued that cultural diversity resulted from different answers in different societies to similar universal questions: "the existence of two sexes; the helplessness of infants; the need for satisfaction of the elementary biological requirements such as food, warmth and sex; the presence of individuals of different ages and of differing physical and other capacities" (Kluckhohn in Hofstede, 1984: 36). Parsons and Shills (1951) delineated cultural pattern variables or cultural dilemmas that define and categorize cultures: affectivity versus affective neutrality; self-orientation versus collectivity orientation; universalism versus particularism; ascription versus achievement and specificity versus diffuseness.

These contributions have influenced modal personality studies, focusing on "to what extent do the patterned conditions of life in a particular society give rise to certain distinctive patterns in the personality of its members?" (Inkeles and Levinson, 1969: 118). Social character, basic personality structure, or national character were some of the terminology proposed by Inkeles and Levinson (1969).

Identifying reliable dimensions to synthesize major distinguishing aspects of culture would constitute a major contribution to cross-cultural research. They would provide an alternative to conceptualise and measure culture as a complex, multidimensional structure rather than as a simple categorical variable.

Nevertheless, the use of dimensions to capture such a multidimensional construct as culture has not been without criticism. Namely, this approach has been criticized for its failure to fully capture all relevant aspects of culture:

Any application of a measurement instrument across several national cultures, or any attempt to make generalizations across national cultures, requires that in the effort to find areas of comparative commonalities other important characteristics may be ignored (Keillor and Hult, 1999: 80).

It would be a triumph of parsimony if many diverse cultural differences in decision making could be explained in terms of a single cultural disposition, such as individualism-collectivism. For this reason, the dispositional approach has attracted many advocates. Yet, the existing evidence for the dispositional view falls short (Briley, Morris and Simonson, 2000: 159).

While this criticism is valid, the benefits of this approach for International Marketing and cross-cultural research outweigh its limitations:

The identification of reliable dimensions of cultural variation should help create a nomological framework that is both capable of integrating diverse attitudinal and behavioural empirical phenomena and of providing a basis for hypothesis generation (Smith, Dugan, and Trompenaars, 1996: 232).

Additional emic dimensions are probably needed to characterize unique aspects of particular cultures. However, in the interest of parsimony, it is incumbent on the researcher to demonstrate that an apparently emic cultural variation cannot be represented adequately as a point along a universal dimension (Schwartz, 1994: 88).

Regarding the choice of dimensions most appropriate for conceptualising and operationalising culture, several contributions have been proposed. Table 2.4 compares Hofstede's dimensions with other approaches to unpack the concept of culture.

Clark (1990: 66) proposed the concept of national character as an integrating construct for cross-cultural studies. Based on modal personality studies, he offered a comprehensive framework for the assessment of national character, defined as "the pattern of enduring personality characteristics found among the populations of nations", for consumers and decision makers. The main dimensions of this framework were: relations to authority; relations to self; relations to risk and propensity to change (for consumers); and flexibility; need to achieve; and locus of control (for decision makers).

The national character concept was favoured by Keillor and Hult (1999: 79) because it allowed for “a level of reconciliation between the concepts of ‘culture’ and ‘nation’ as the components of national identity serve to bind societies together within national boundaries”. The dimensions they (1999: 68/9) proposed were: national heritage, “the importance to historical figures and events in history...the culture’s sense of their own unique history”; culture homogeneity, “the cultural uniqueness of a given society’s sense of national identity”; belief system, “the role which religion or supernatural beliefs play in facilitating cultural participation and solidarity” and consumer ethnocentrism, the degree to which “individuals, or societies, make cultural evaluations and attributions using their own cultural perspectives as the base line criteria”.

Another relevant question is whether the dimensions should differ depending on the phenomenon of interest. For example in a cross-cultural leadership study, an additional dimension (paternalism) was included (Dorfman and Howell, 1988). Regarding this question, the dominant position is to use universal dimensions of culture. Yet, very few cross-cultural studies use *all* dimensions as independent variables.

Finally, the question arises if it is possible to measure cultures along a continuum on each dimension. Support has been offered as long as “a substantial number of samples drawn from cultures arrayed along a cultural dimension for which theoretical linkages to the phenomenon have been generated” (Schwartz, 1994: 85) are used.

The analysis of these contributions, summarised in table 2.4, provides general justification for the use of Hofstede’s dimensions to make comparisons among nations. In support of the theoretical relevance of Hofstede’s framework, the dimensions are conceptually sound, grounded in the literature, and empirically validated.

Hofstede’s cultural framework constitutes, by far, the most influential national cultural framework (Steenkamp, 2001). Specifically his study remains the most comprehensive survey in terms of the number of national cultures samples (Smith, Dugan and Trompenaars, 1996).

Another attractive feature of this framework is that, in addition to providing an approach to classify and compare cultures, it is useful in formulating hypotheses for comparative

cross-cultural studies. Hofstede's scores capture societal differences in a robust manner and have been proved useful in Marketing research. In fact it is probably impossible to find any other framework that has been used by so many scholars in the Psychology, Sociology, or Management areas. Indeed, Hofstede's framework is very comprehensive and provides meaningful relationships with demographic, geographic, economic and political aspects of a society (Kale and Barnes, 1992). In this aspect it is unmatched by any other cultural framework: "The interdisciplinary nature of this application of Hofstede's dimensions is unique" (Sondergaard, 1994, 454). Thus, Hofstede's typology of culture is adopted to investigate cultural influences on Exploratory and Risk Taking Behaviour. However, given the limitations of this or any approach to fully capture the all-encompassing nature of culture, the hypotheses presented in the remainder of this work regarding the impact of culture will include simultaneously cultural values and Nationality.

In the following section, Hofstede's dimensions are presented.

Table 2.4 - Comparison of Hofstede's Cultural Framework with other Models

	Masculinity/Femininity	Individualism/Collectivism	Power distance	Uncertainty avoidance	Long term orientation	Other
Hofstede, 1984						
Hofstede; 1991; 2001						
Inkeles and Levinson. 1969 *	Conceptions of self		Relation to authority	Primary dilemmas or conflicts		
Triandis, 1995						
CCC, 1987	Human heartedness	Moral discipline	Integration		Confucian work dynamism	
Clark, 1990 *	Relations to self		Relation to authority	Relation to risk		
Trompenaars, 1997	Neutral/emotional	Universalism/particularism Individualism/communitarianism			Attitudes to time	Specific /diffuse Achievement/ascription Attitudes to the environment
Dorfman and Howell, 1988						Paternalism
Schwartz (1994)	Mastery/harmony	Autonomy/conservatism	Hierarchy/ egalitarianism			
Smith, Dugan and Trompenaars, 1996		Loyal involvement/utilitarian involvement	Conservatism/egalitarianism			Discussion of Dimension 3 deferred
Keillor and Hult, 1999						National heritage / Culture homogeneity / belief system / Consumer ethnocentrism
Steenkamp, 2001 *		Autonomy/collectivism	Egalitarianism/hierarchy	Uncertainty avoidance	Mastery/nurturance-	

\* Refers to theoretical contributions. The remainders are empirical studies

### 2.3.3.2 - Hofstede's Cultural Dimensions

Hofstede's research derives from an empirical study developed in about 70 countries with over 60 000 respondents and 116000 questionnaires (Hofstede, 1984, 1991, 2001). From previous research and theory (Inkeles and Levinson, 1969), Hofstede used the analysis to create four factors. Each country received an index on each dimension.

**Individualism-collectivism:** This dimension describes the kind of relationship individuals have in each culture. In individualistic societies, individuals are expected to look after themselves and their immediate family only whereas in collectivistic cultures, individuals are members of groups who are expected to look after them in exchange for loyalty. Examples of individualistic countries are: Australia, Canada, The US, the UK, and Holland, while Latin America countries are extremely collectivistic countries.

Collectivism has been shown to influence Innovativeness (Lynn and Gelb, 1996; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002; Yenyurt and Townsend, 2003; Van Everdingen and Waarts, 2003); perceived service performance (Birgelem et al, 2002), and advertising appeals (Albers-Miller and Gelb, 1996)

**Uncertainty avoidance:** "The extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations" (Hofstede, 1991: 113). This dimension deals with the need for well-defined rules for prescribed behaviour. Countries that score high on this dimension are Latin countries; Denmark, Great Britain, Hong Kong and Singapore are examples of countries scoring low.

The use of this dimension in Marketing studies has supported its influence on information exchange behaviour (Dawar, Parker and Price, 1996), innovativeness (Lynn and Gelb, 1996; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002, Van Everdingen and Waarts, 2003; Yenyurt and Townsend, 2003), and advertising appeals (Albers-Miller and Gelb, 1996).

**Power distance:** This dimension reflects the consequences of inequality in power and authority relations in society. It influences hierarchy and dependence relationships in the

context of family and organizations. In Europe, Germany, the UK, Ireland, and Scandinavian countries score low on this dimension.

The influence of Power distance has been confirmed for advertising appeals (Albers-Miller and Gelb, 1996); Information exchange behaviour (Dawar, Parker and Price, 1996); innovativeness (Yaveroglu and Donthu, 2002; Yenyurt and Townsend, 2003; Van Everdingen and Waarts, 2003), and perceived service performance (Birgelen et al, 2002).

**Masculinity-Femininity:** Dominant values in masculine countries are achievement and success and in feminine countries are caring for others and quality of life. The countries that score lower on masculinity are Sweden and Norway and the country that scores higher is Japan.

Masculinity has been found to be of relevance in Marketing studies. Research has supported its impact on sex role portrays (Milner and Collins, 1998); innovation (Van Everdingen and Waarts, 2003), and perceived service performance (Birgelen et al, 2002).

**Long-Term Orientation:** Long-term orientation “stands for the fostering of virtues oriented towards future rewards, in particular perseverance and thrift” (Hofstede, 2001: 359). This dimension was a late addition to Hofstede’s initial four, uncovered by Bond (1987). It was interpreted as representing a range of Confucian-like values and termed Confucian Dynamism. Hofstede (1991) later proposed the long- versus short-term designation as more appropriate for this dimension.

In long-term oriented cultures, frugality and perseverance are preferred virtues and deferred gratification of needs is accepted and encouraged while in short-term oriented cultures personal steadiness and stability and protecting one’s face prevail. East Asian countries are long-term oriented cultures and Philippines, Nigeria, and Pakistan display the lowest LTO index values<sup>1</sup>.

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<sup>1</sup> Values for Long-term orientation are only available for 23 countries.

Since long-term orientation is a more recent dimension and since data is available for a smaller number of countries, research on its impact is lacking. Still, Van Everdingen and Waarts confirmed the influence of this dimension on innovativeness (2003).

Hofstede's work has been simultaneously enthusiastically praised and acidly criticised. It has been deemed as "the beginnings of the foundation that could help scientific theory building in cross-cultural research" (Sekaran, 1983: 69). A review of the Social Science Citation Index (SSCI) resulted in 1036 quotations from culture's consequences in journals during the period 1980 to September 1993 (Sondergaard, 1994). However, scholars have also criticised Hofstede's work. These can be classified into criticisms to the proposed cultural dimensions and criticisms to the classification of countries in each of the dimensions.

First, empirical work that led to uncovering the initial four dimensions took place in 1967-73. This has led to some criticisms that the research is outdated. However, although cultures do change, this change is believed to be very slow (Sivakumar and Nakata, 2001) and relative cultural differences should be extremely persistent. Hofstede argued that culture change basic enough to invalidate the country index scores should not be recognizable for a long period, perhaps until 2100 (Hofstede, 2001):

"National cultural value systems are quite stable over time; the element of national culture can survive amazingly long, being carried away forward from generation to generation. For example countries that were once part of the Roman Empire still share some common value elements today, as opposed to countries without a Roman cultural heritage" (Hofstede and Usunier, 1999: 120).

Criticisms have also been expressed about the process of identification of dimensions. The dimensions have been considered to have been developed empirically rather than theoretically (Albers-Miller and Gelb, 1996) and the face validity of the dimensions has been questioned as "dimensions capitalize on chance" (Erez and Earley, 1993) and constitute a subjective and arbitrary aggregation of items (Fernandez et al, 1997; Dorfman and Howell, 1988). The exhaustiveness of the value dimensions has also been questioned (Schwartz 1994).



Using data from one single corporation has been considered a limitation (Schwartz, 1994, Erez and Earley 1993; Lenartowicz and Roth, 2001). Critics question the applicability of the dimensions to all cultures, emphasizing that “one can conjuncture that other types of samples might yield different dimensions and order of nations” (Schwartz, 1994, 90; Erez and Earley, 1993). Nonetheless, the need for matching samples derives from the difficulty of obtaining representative national samples and has been considered the right option for cross cultural studies. Hofstede’s response to this criticism is that what was measured were differences between national cultures and “any set of functionally equivalent samples from national populations can supply information about such differences” (Hofstede, 2001: 73).

These dimensions have been used to compare cultures, to support hypothesis, and as a theoretical framework for comparing cultures even if, in some cases, the actual scores are not used and the dimensions are measured with newly developed or adopted instruments (Lu, Rose and Blodgett, 1999). Although Hofstede’s work was developed in a work-related context and was originally applied to human resources management, it is being used increasingly in business and Marketing studies (Sondergaard, 1994; Engel, Blackwell, and Miniard, 1995; Dawar, Parker and Price, 1996; Sivakumar and Nakata, 2001; Shamkarmahesh, Ford and LaTour, 2003).

Given the scores presented by the United Kingdom and Portugal for these dimensions, the following hypotheses are proposed:

**H 1 - Portugal and the UK will display different Cultural Values, such that:**

- H 1.1 - Portugal will display a higher level of Long-term orientation than the UK
- H 1.2 - Portugal will display a higher level of Power distance than the UK.
- H 1.3 - Portugal will display a higher level of Uncertainty avoidance than the UK.
- H 1.4 - Portugal will display a higher level of Collectivism than the UK.
- H 1.5 - Portugal will display a lower level of Masculinity than the UK.

## 2.4 - Conclusion

In this chapter different perspectives regarding consumer behaviour at the international level were reviewed. The standardisation versus adaptation argument assumes far-reaching theoretical and practical relevance of for this question, thus this discussion was initiated with this debate.

This standardisation versus adaptation debate originated from polar fundamental theoretical perspectives of global/standardised versus local/customized Marketing policies (e. g. Walters, 1986; Wang, 1996a). While the standardisation literature has provided valuable insights about some aspects of consumer behaviour and subsequent strategy implications for international companies, it downplayed the profound impact of culture on consumer behaviour. Our discussion of standardisation in the context of the European Union (EU) fully illustrated the importance of culture. In fact, the EU “is the closet parallel to the ‘new global reality’ espoused by Ted Levitt (1983) and Kenichi Ohmae (1989)” (Kale, 1995: 46). Yet, doubts about the emergence of a European culture have persisted (Galland and Lemel, 1995) and an analysis of macro-environmental country characteristics over 28 years found that developed countries were in fact *diverging* (Craig, Douglas and Grein, 1992). It has been acknowledged that even at the national level, divergence among segments was increasing, not the opposite (Whitelock and Pimblett, 1997).

Adaptation advocates highlight the importance of culture. According to this view, concurrent with the homogenisation tendency, cultural idiosyncrasies, alongside with regional and individual differences would remain important as differentiating factors (Usunier, 1996; Wierenga, Pruyn and Waarts, 1996; Manrai and Manrai, 1996; Belk, 1996; Costa and Bamossy, 1995). In fact, it has been argued that culture becomes more important as a differentiating factor since the apparent convergence of behaviour has led to the resurgence of ethnic and cultural identity (Levitt, 1989; Firat, 1995; Bouchet, 1995; Costa and Bamossy, 1995; Belk, 1996). This phenomenon designated by “globalisation of fragmentation” (Firat, 1995) or “pluralization of consumption” (Levitt, 1989) has stressed the importance of considering culture’s contribution to the understanding of consumer behaviour.

Interestingly, Levitt was also one of the first authors to acknowledge that the globalisation trend coexisted with the opposite realities of heterogeneity, fragmentation and parochialism, the fact that “the more powerfully homogenized and relentlessly globalised the world’s communications and commerce get, the more varied its products and more numerous its consuming segments seem to become” (Levitt, 1989: 8). In his opinion, heterogeneity did not contradict the theory of global homogenisation; it only meant that heteroconsumer’s consumption preferences were driven towards pluralisation everywhere. Similarly, Belk (1996) elaborated on the multinationalisation consequences of culture. He argued that the globalisation of offer would not imply the globalisation of consumption, “cultures transform and appropriate the global into a unique system of local cultural meaning” (pp 29). Moreover, the rise of ethnic identity and nationalism were other forms of resistance to globalisation.

However, culture is a fuzzy concept. Several approaches have been proposed to allow the inclusion of such a multidimensional construct in research. As seen in the previous review, using the cultural dimensions approach has been favoured by many scholars. We do not intend to argue that the use of a few dimensions totally covers and describes the differences between cultures but it does constitute a simple, practical, usable shortcut to the integration of culture in research studies. Hofstede’s framework constitutes one such approach. In spite of some criticisms to these dimensions, the argument that Hofstede’s scores should validly capture cross-country differences has received extensive support as well (Lynn and Gelb, 1996). Thus, there is wide support in the literature for the use of this conceptualisation and operationalisation of culture. However, in order to fully accommodate all the aspects of culture, Nationality will also be used to discriminate between cultures.

In the next chapter, the question of exploratory behaviour and risk taking will be addressed.

## **CHAPTER 3 - LITERATURE REVIEW: EXPLORATORY AND RISK TAKING BEHAVIOUR**

**Consumer researchers need to identify elements of theory that are culture-sensitive. Conversely, cultural universals that allow for direct comparison across cultural samples on consumer behaviour constructs are in need of identification and explanation. (Malhotra and McCort, 2001: 260)**

### **3.1 – Introduction**

In the previous chapter, research supporting the relevance of culture as a cross-national determinant of consumer behaviour and the merits of using cultural dimensions as an operationalisation framework for culture was presented. One of these dimensions was directly related to risk and uncertainty. In this chapter, it is sought to further demonstrate the premise that risk taking consumption behaviour is culturally-sensitive. It will be argued that such risk taking can be adequately researched in consumer behaviour in conjunction with the concept of exploratory behaviour. Furthermore, it will be argued that such an approach encompasses all consumer behaviour dimensions that have been considered to constitute the consequences of the human need to engage in exploration of the environment (Raju, 1980; Raju and Venkatsen, 1980; Baumgartner and Steenkamp, 1996). These activities have been referred to in the literature under a number of different labels that have been used interchangeably or that overlap considerably, namely: exploratory behaviour (Raju, 1980; Raju and Venkatsen, 1980; Baumgartner and Steenkamp, 1996), variety seeking (Faison, 1980), novelty seeking (Hirschman, 1980), varied behaviour (McAlister and Pessemier, 1982), and risk taking (Raju, 1980; Raju and Venkatsen, 1980; Eshghi, 1985). Eshghi (1985), for example, held that the constructs of individual modernity, innovativeness, novelty seeking, and variety seeking overlap considerably. This project will not discuss the redundancy in these constructs (Singh, 1991) and proposes instead that studying risk taking in

conjunction with exploratory behaviour, provides a parsimonious and theoretically sound approach to the diversity of behaviours resulting from individuals' need to engage in exploration. While risk has been studied, studying it in conjunction with exploratory behaviour, offers a novel approach to this issue, which is suitable to address the influence of culture on this consumption behaviour.

Research in Psychology has shown that individuals display risk-averse *and* risk-seeking behaviours across a wide variety of situations (Dowling, 1986). Exploratory behaviour developed from psychological theories, according to which individuals possess a preferred level of arousal or stimulation (Optimum Stimulation Level - OSL) and their behaviour is designed to maintain that level. People engage in exploration and novelty seeking when the stimulation level falls below their OSL and vice versa (Raju, 1980; Raju and Venkatesh, 1980; Steenkamp and Baumgartner, 1992; Baumgartner and Steenkamp, 1996). This approach provides a dual-perspective examination of risk. Most Marketing studies of risk have viewed risk as negative and have assessed perceived risk of buying specific products/services and handling such risk in terms of risk-reducing strategies. The focus has been on whether and how much consumers perceived risk in particular buying or consuming decisions (Cunningham, 1967; Ross, 1975; Hoover, Green and Saegert, 1978; Gemunden, 1985; Dowling, 1986; Verhage, Yavas and Green, 1990; Havlena and DeSarbo, 1991; Stone and Gronhaug, 1993; Alden, Hoyer and Crowley, 1993; Dowling and Staelin, 1994; Mitchell, 1999; Mitra, Reiss and Capella, 1999) and how they dealt with that risk, using risk handling/reducing strategies (Roselius, 1971; Akaah and Korgaonkar, 1988; Verhage, Yavas and Green, 1990; Dowling and Staelin, 1994; Mitchell and Boustani, 1994).

Research in this area has conceptualised risky choice as a type of avoidance-avoidance conflict based on the assumption that most consumers are risk-averse and prefer safer to riskier products (Dowling, 1986). In contrast, the exploratory behaviour perspective of risk assumes that consumers may seek risk to increase stimulus complexity to escape boredom (Cox, 1967a; Hoyer and Ridgway, 1984; Dowling, 1986). In fact, by definition, risk presupposes a full range of unexpected consequences, which can be negative *or* positive (Cox, 1967a; Sitkin and Pablo, 1992). The latter accounts for consumers' acceptance and seeking of risk, uncertainty, and variety in their decisions. This perspective of risk is illustrated, for example, by the increasing popularity of risky

sports (Shoham, Rose and Kahle, 1997). Similarly, Zuckerman (1994: 27) acknowledged that “risk taking is a correlate of sensation seeking”. Sensation seekers do not engage in risky behaviour for itself; nor do they try to maximize risk. However, they are willing to accept the risks associated with novel and intense experiences. Moreover, this perspective adequately transmits the idea that consumer behaviour is not always rational, logical, and purposeful as suggested by the information paradigm which assumes that the consumers solve problems to achieve goals (Holbrook and Hirschman, 1982). Consumers engage in activities that are inherently satisfying, since they provide a way of introducing change and variability in their behaviour and thus escape routine (Cox, 1967a). This experiential perspective of consumer behaviour, emphasizing the symbolic, hedonic, and aesthetic nature of consumption, represents an important dimension of variety seeking (Holbrook and Hirschman (1982).

In strict definitional terms, uncertainty might be a more appropriate designation of the state consumers experience than risk. Following Penguin’s Dictionary of Economics, Stone and Gronhaug (1993: 40) define risk as “a state in which the number of possible events exceeds the number of events that will actually occur, and some measure of probability can be attached to them” while uncertainty is defined as “when no probabilities can be attached for each possible outcome”. Given their cognitive limitations, it is hardly conceivable that consumers can assign probabilities to the negative consequences of decisions, thus making the use of the term uncertainty more appropriate. Whereas the distinction between risk and uncertainty is common in other disciplines, the terms are used interchangeably in Marketing (Mitchell, 1999).

In this chapter, conceptualisations of exploratory behaviour and risk taking are reviewed. The chapter is structured as follows: first, the concepts of exploratory behaviour and risk taking are examined. Then, hypotheses about the relationships among and the impact of cultural dimensions on these constructs are developed.

### **3.2 - Exploratory Behaviour**

The general area of exploratory behaviour originated in Psychology studies regarding internal need for stimulation as the source of exploratory behaviour. This literature

suggests that individuals have a preferred (or optimal) stimulation level. When stimulation (complexity, arousal) falls below this level, individuals become bored and try to increase it to the desired level. In contrast, when stimulation surpasses the optimal level, individuals will try to reduce it (Raju, 1980; Raju and Venkatsen, 1980; Price and Ridgway, 1983; Hoyer and Ridgway, 1984). Stimuli with properties such as novelty, incongruity, ambiguity, or uncertainty have “arousal potential” and can be used to increase stimulation to the preferred level (Raju, 1980; Raju and Venkatsen, 1980).

Exploratory behaviour has been conceptualised as a multidimensional construct. Hirschman (1980: 284/5) conceptualised novelty seeking as a two-component construct: “seeking new and potentially discrepant information” and variety seeking or stimulus variation, “the extent to which individuals vary their choice among known stimuli”. Furthermore, she proposed a distinction between **inherent novelty seeking**, the **desire** for new stimuli, and **actualised novelty seeking**, the **actual** behaviour to acquire novel stimuli. She argued that inherent novelty seeking is conceptually indistinguishable from inherent innovativeness, the “willingness to adopt new products”.

Similarly, Raju and Venkatsen (1980: 258) acknowledged that consumers search for change in many cases and termed such search as exploratory behaviour. Expressing concern for insufficient attention to variety seeking, they recommended that more attention be paid to “the processes and dynamics that relate to the decisions by consumers to seek variety and to try the new or novel products or to pay more attention to a new commercial or advertisement” compared to the attention devoted to “consumer decision making and its culmination in repetitive behaviour characterized by brand loyalty, store loyalty and the like”. They proposed that exploratory behaviour was useful in studying responses to stimulus characteristics such as novelty and complexity, information-search behaviours of consumer, the effects of stimulus (e.g., advertising) repetition, and individual differences in exploratory behaviour. Subsequently, Raju (1980) investigated the relationship between Optimum Stimulation Level, personality traits, demographics, and exploratory behaviour. He developed a 39-item scale to measure general exploration tendencies. Based on the wording of the items and inter-item correlations, the items were grouped into seven response categories that have been used as a conceptualisation of exploratory behaviour. **Repetitive behaviour proneness** is the tendency to stick with the same response over time. **Innovativeness** is the

eagerness to buy or know about new product/services. **Risk taking** is a preference for taking risks or being adventurous. **Exploration through shopping** suggests a preference for shopping and investigation brands. **Interpersonal communication** is concerned with communicating with friends about purchases. **Brand switching** involves switching brands primarily for change or variety. Finally, **Information seeking** refers to showing interest in knowing about various product and brands mainly out of curiosity.

Raju grouped these exploratory responses into three motivations: risk taking, variety-seeking, and curiosity. Risk taking includes the risk taking and innovativeness categories. Variety-seeking includes brand switching and repetitive behaviour proneness. Finally, curiosity incorporates information-seeking, exploration through shopping, and interpersonal communication.

Price and Ridgway (1983; 679) held that exploratory behaviour could be divided into three types. **Exploratory purchase behaviour** refers to “variety seeking that involves product purchase and can assume the form of innovating and brand switching”. **Vicarious exploratory behaviour** refers to “variety seeking by engaging in behaviour such as reading about, talking to others about, or shopping for new and unfamiliar products”. Finally, **use innovativeness or variety in product use** is described by two behaviours: using a previously adopted product in a single novel way and “using a currently owned product in a wide variety of ways”.

Joachimsthaler and Lastovicka (1984) argued for using two dimensions of exploratory behaviour. Based on the argument that these are the most empirically stable measures, they retained two of Raju’s categories (1980): information seeking and innovativeness.

Steenkamp and Baumgartner (1992: 435) followed Raju’s categorization of exploratory behaviour as curiosity motivated, variety-seeking, and risk taking. Curiosity is defined as “the desire for knowledge for intrinsic reasons”; variety-seeking as “a means of obtaining stimulation in purchase behaviour by alternating between familiar choice objects simply for a change of pace”; and risk taking as behaviours involving a “tendency to take risks and explore new solutions to consumption problems”, of which innovativeness would constitute the best example.



Baumgartner and Steenkamp (1996: 124-5) proposed a two-factor conceptualisation of exploratory behaviour. **Exploratory acquisition of products** refers to the “consumer’s tendency to seek sensory stimulation in product purchase through risky and innovative product choices and varied and changing purchase and consumption experiences”. **Exploratory information seeking** “reflects a tendency to obtain cognitive stimulation through the acquisition of consumption-relevant knowledge out of curiosity”.

Thus, although the range of specific exploratory consumer behaviours may be extensive, it is possible to capture the concept through a reduced set of dimensions. The literature review suggests that previous conceptualisations distinguished between an information-search facet, a variety-seeking-in-purchase facet, and a risk taking facet (Hirshman, 1980; Joachimsthaler and Lastovicka, 1984) or could be further aggregated into these categories (Raju, 1980; table 3.1). Thus, a three-factor conceptualisation appears as a parsimonious account of exploratory behaviour: **Exploratory Information Search, Exploratory Consumption Behaviour and Exploratory Risk Taking**. **Exploratory Information Search** reflects the tendency to seek product and consumption related information out of curiosity. **Exploratory Consumption Behaviour** reflects the tendency to seek stimulation through new and varied purchases and consumption experiences. **Exploratory Risk Taking** captures the positive, inherently satisfying variety-seeking drive of exploratory behaviour.

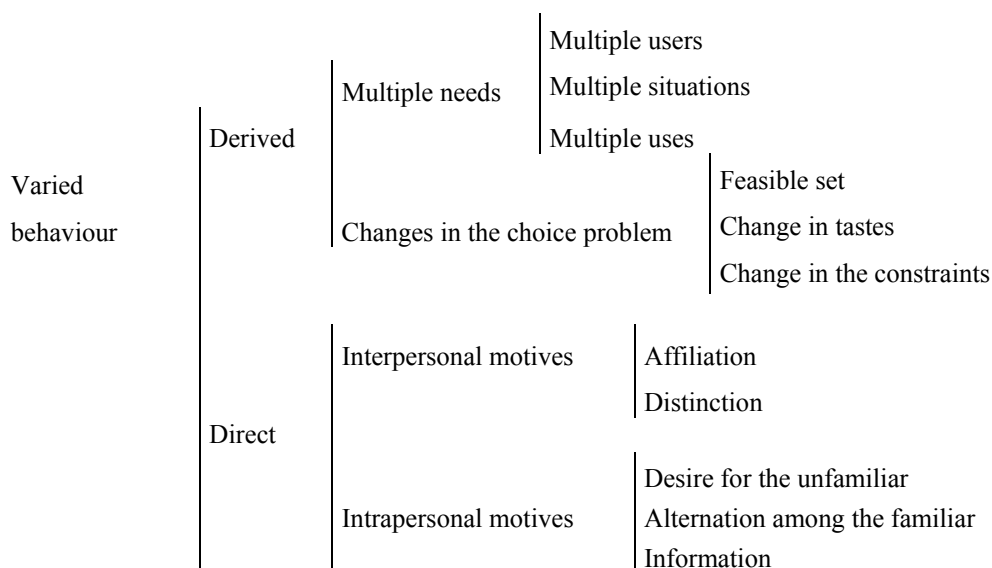
Table 3.1 - A comparison of conceptualisations of Exploratory and Risk Taking Behaviour

	<i>Exploratory Information Search</i>	<i>Exploratory Consumption Behaviour</i>	<i>Exploratory Risk Taking</i>
Hirschman, 1980	Seeking new information	Variety seeking or stimulus variation	
Raju, 1980	Curiosity	Variety seeking	Risk taking
Price and Ridgway, 1983	Vicarious exploratory behaviour	Exploratory purchase behaviour Use innovativeness	
Joachimsthaler and Lastovicka, 1984	Information seeking	Innovativeness	
Steenkamp and Baumgartner, 1992	Curiosity motivated behaviours	Variety seeking	Risk taking
Baumgartner and Steenkamp, 1996	Exploratory information seeking	Exploratory acquisition of products	

### 3.2.1 - Types of Exploratory Behaviour

Consumers engage in exploratory behaviour for many reasons, some of which have nothing to do with exploration. Bearing this in mind, Mcalister and Pessemier (1982: 313) presented a taxonomy of varied behaviour (Figure 3.2). Their purpose was to bypass the different meanings that had been attributed to variety-seeking behaviour. They avoided such designation and proposed ‘varied behaviour’ instead. Their taxonomy distinguished between **derived** and **direct varied behaviour**. Derived behaviour referred to varied behaviour motivated by forces other than “a preference for change in and of itself”, such as the case in which different users, different situations, different uses, or changes in the choice problem lead to changes in behaviour. Direct behaviour referred to inherently satisfying changing behaviour and could be caused by intrapersonal and interpersonal motives. Then, internal and external forces are the causes of this inherently satisfying aspect of changing behaviour. Internal forces (intrapersonal motives) include the desire for unfamiliar alternatives, for alternation among familiar alternatives, and for information. Interpersonal motives include a desire for group affiliation versus individual identity. In sum, the taxonomy distinguished between intrinsic and extrinsic varied behaviours.

Figure 3.1 - McAlister and Pessemier’s Taxonomy of Varied Behaviour



Adapted from McCallister and Pessemier, 1982: 312

Similarly, Hoyer and Ridgway (1984) proposed a model of exploratory purchase behaviour, defined as brand/product switching behaviour, to distinguish variety driven purchase exploration from exploratory purchases motivated by other forces (Figure 3.2).

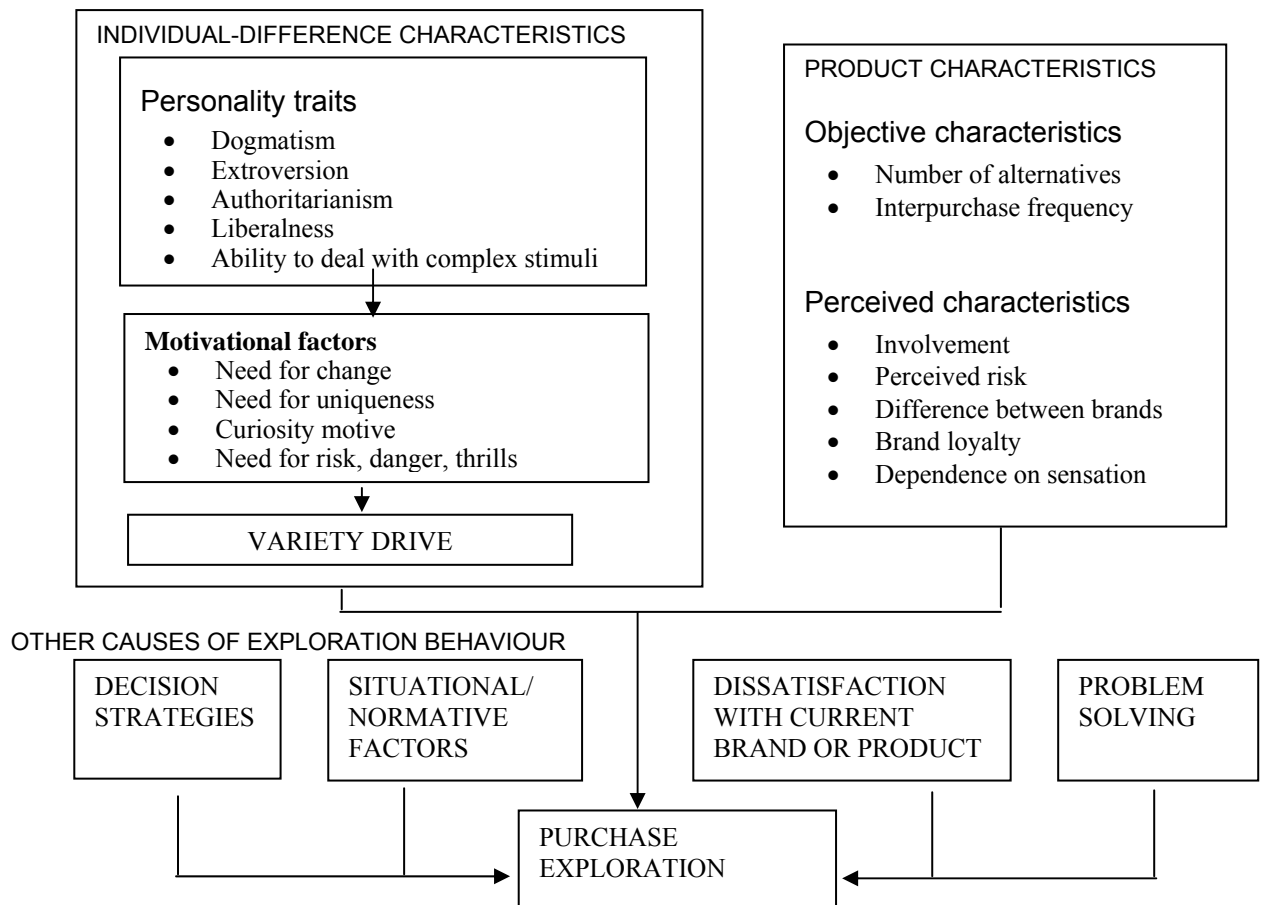
According to this model purchase exploration is presented as a result of four antecedent motives: **Decision strategies**, referring to the type of strategy used for choosing among brands/products (e. g., price-related strategies such as buying the cheapest brand or the brand on sale); **Situational and normative factors**, referring to the possibility of variety occurring due to situational variables such as special point-of-purchase display of another brand/product; **Dissatisfaction with current brand/product**, in this case, variety would be the result of the actual brand not satisfying the consumer and **Problem solving strategies**, pertaining to brand switching or innovating as a consequence of a need to solve a consumption problem.

Thus, switching behaviour resulting from such situations should not be confounded with exploratory behaviour derived from an internal need for variety. Variety-seeking exploratory purchase behaviour is a function of **individual-difference** and **product characteristics**.

**Individual-difference characteristics:** Personality traits and motivational factors. Personality traits that have been shown to be related to variety seeking include dogmatism, extroversion, authoritarianism, liberalness, ability to deal with complex or ambiguous stimulus, and creativity. Motivational factors include need for change that has been operationalised in various ways: need for new and unfamiliar stimuli, need for excitement and thrills, need for arousal and preference for irregularity, need for uniqueness, curiosity, and need for risk, danger, or thrills.

**Product characteristics:** Include objective product characteristics, the number of available alternatives and inter-purchase frequency and perceived or subjective product characteristics, referring to the degree of involvement, perceived risk of the product class, perceived difference between brands (substitutability), brand loyalty, and the dependence of neural sensation, such as taste.

Figure 3.2 - Hoyer and Ridgway's model of exploratory purchase behaviour



Source: Hoyer and Ridgway, 1984: 116

In this project we are concerned with variety behaviour, in which exploration occurs for stimulation purposes and as an inherently rewarding type of behaviour. Individual, motivational, and personality differences are the antecedents for this type of exploratory behaviour (direct varied behaviour [MacAllister and Pessemier, 1982] or variety-driven behaviour [Hoyer and Ridgway, 1984]). The psychological Optimum Stimulation Level (OSL) concept, to be discussed next, provides a conceptual and operational approach for these factors.

### 3.2.2 – Optimum Stimulation Level

Optimum Stimulation Level (OSL) characterizes individuals in terms of their response to environmental stimuli (Raju 1980). The concept, also termed *optimal level of*

*arousal*, originated in Psychology and can be traced to the nineteenth-century founder of experimental Psychology, Wilhelm Wundt. Wundt held that an optimal level of stimulation produced a positive feeling, an optimal level of sensation. This idea, however, was applied only to some senses, pressure, temperature, olfaction, and taste (Zuckermann, 1994). The concept was subsequently studied from a neuropsychological perspective (how did the brain perceive levels of stimulation), and in terms of its behavioural consequences. It evolved gradually and has been applied in areas such as social behaviour, cognition, activity, mood, and psychopathology (Zuckerman, 1994). A detailed review of the evolution of the concept in Psychology is outside the scope of this work (see Zuckerman, 1994).

Optimum Stimulation Level (OSL) varies across individuals. OSL theories premise that the relationship between stimulation and consumers' reactions follows an inverted U-shaped function, indicating that individuals prefer intermediate levels of stimulation (Raju, 1980; Raju and Venkatsen, 1980; Steenkamp and Baumgartner, 1992; Baumgartner and Steenkamp, 1996). High-OSL individuals are more likely to respond positively to new stimuli and situations. Low-OSL individuals are likely to prefer familiar situations and stimuli and avoid change and new or unusual situations. This idea of "differences in reactivity to different intensities of stimulation" (Zuckerman, 1994: 95) led Zuckerman to conceptualise a sensation-seeking personality trait that can be measured with a self-report questionnaire. "Sensation seeking is a trait defined by the seeking for varied, novel, complex and intense sensations and experiences and the willingness to take physical, social, legal and financial risks for the sake of such experience" (Zuckerman, 1994: 27). Thus, stimulation levels were found to be related to exploration of novel stimuli or situations and the willingness to accept risks for the sake of such experiences rather than as an end in itself (Zuckerman, 1994). Behavioural correlates of sensation-seeking include drug use, smoking, and participation in dangerous activities. For example, OSL was found to be related to the perceived benefits of risky sports (Shoham, Rose and Kahle, 1997)

OSL was a promising concept for Marketing application. Raju (1980) found that OSL was related positively with exploratory consumer behaviour. His findings suggested that high- and low-OSL individuals differed most with respect to risk taking and innovativeness, differed somewhat in brand switching and repetitive behaviour

proneness, and differed least in exploration involving information-seeking, shopping, and interpersonal communications. Subsequent studies supported the idea that OSL is positively related to the degree of exploratory behaviour (Joachimstahaler and Lastovicka, 1984; Wahlers, Dunn and Etzel, 1986), thus suggesting that OSL might be a determinant of exploratory consumer behaviour (Steenkamp and Baumgartner, 1992). Thus, the hypothesis is offered that:

H2: OSL will be positively related to exploratory behaviour.

### **3.3 - Risk Taking and Perceived Risk**

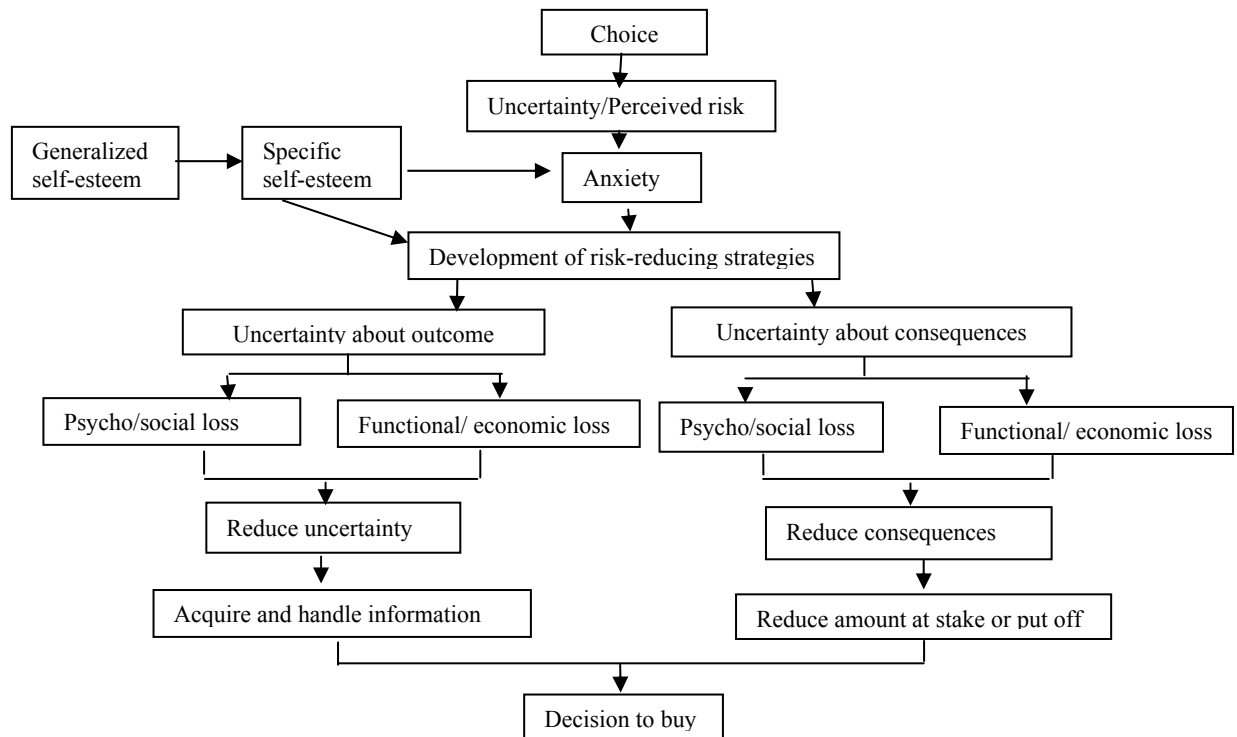
Risk behaviour was defined as “individuals’ decision-making behaviour in risky contexts” (Sitkin and Pablo, 1992: 11). Risk refers to the uncertainty of outcomes and the possibility of loss (Taylor, 1974), inherent in a wide variety of situations and dimensions of behaviour, from illicit substance abuse, to extreme sport practicing or stock market investment (Zuckerman, 1994). Consequently, risk has been studied in several disciplines. For example, within Psychology, attempts to answer the question “who fear what and why?” have centered on the cognitive aspects in risk perception and management, namely the mental models that individuals use in thinking about risk’s major issues in hazard perception management (Dake, 1991).

Consumption contains a risk dimension as well. Indeed, consumer behaviour was considered to be primarily a question of choice (Taylor, 1974). Consumers face uncertainty since choices’ outcomes could only be known in the future. Thus, risk interested Marketing scholars as early as the 1960s, when it was proposed that behaviour could be viewed as “an instance of risk taking” (Bauer, 1960: 389). Bauer argued that “Consumer behaviour involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which at least are likely to be unpleasant”. He suggested that many issues important for marketers (e. g., brand loyalty, added value of advertising, personal influence, group influence and impulse buying) could be better understood from a risk taking perspective. Bauer called upon Marketing researchers to investigate the concept of perceived risk. Similarly, Cox (1967a: 19) stated that “most

buying situations contain some type and degree of perceived risk". Cunningham (1967: 84; 108) distinguished risk and perceived risk since "the consumer can only react to the amount of risk she actually perceived and only to her subjective interpretation of that risk". His focus was on perceived risk, conceptualised as product-specific, since "the content and composition of perceived risk can be better understood in terms of the specific product category involved". These ideas have had a profound and long-lasting impact in consumer research becoming an often-used operational definition of risk and perceived risk. Indeed, the important perspective for consumer behaviour purposes is not whether there is objective risk in consumer decisions, but the subjective impression of risk felt by consumers.

Since then, risk has been widely researched and has been included in consumer behaviour models (Cunningham, 1967; Hoover, Green, and Saegert, 1978; Gemunden, 1985; Dowling, 1986; Verhage, Yavas, and Green, 1990; Mitchell, 1992; Stone and Gronhaug, 1993), mainly from an information search and processing perspective (Cox, 1967b; Gemunden, 1985; Dowling and Staelin, 1994). Cox (1967a: 10) contended that "risk handling is largely concerned with dealing with uncertainty, that is, with information handling". Thus, risk is most relevant in the alternative evaluation stage of decision-making, seen as an aspect consumers try to reduce to acceptable levels (Engel, Blackwell and Miniard, 1995), but also in other stages of the buying process (Mitchell and Boustani, 1994). Taylor (1974) proposed a risk taking theory, which specifies the concepts involved and their interrelationships. His model (Fig. 3.3) posits that perceived risk and the selection of risk handling strategies will be affected by individual factors. Consequently, it has been suggested that "empirical research will have to be 'purchase' specific and that it may be exceedingly difficult to generalize from one study to the next" (Taylor, 1974: 60).

Figure 3.3 - Taylor's theory of risk taking in consumer behaviour



Source: Taylor, 1974: 55

Subsequent risk research has focused mostly on specific products, services, or buying situations. Convenience products included fabric softener and dry spaghetti (Cunningham, 1967); shampoos, beer, deodorants, soft drinks, and laundry soaps (Schaninger, 1976), soap (Verhage, Yavas, and Green, 1990; Yavas, Verhage, and Green, 1992/3), toothpaste (Verhage, Yavas, and Green, 1990; Yavas, Verhage, and Green, 1992/3; Alden, Hoyer, and Crowley, 1993), coffee (Hoover, Green, and Saegert, 1978), and cereals (Mitchell and Boustani, 1994). Higher-involvement products included headache remedy (Cunningham, 1967), shirts, sport coats, pants (Schaninger, 1976), cars (Havlena and DeSarbo, 1991), dresses (Dowling and Staelin, 1994), personal computer (Stone and Gronhaug, 1993; Stone and Mason, 1995), and CD (Mitchell, Yamin and Pichene, 1996). Services included holidays (Mitchell and Vassos, 1997), opening check accounts, and selecting mail services and hairdresser (Mitra, Reiss and Capella, 1999). Buying situations included retail patronage modes (Hawes and Lumpkin, 1986), direct Marketing (Akaah and Korgaonkar, 1988; Jasper and Ouellette, 1994), and e-commerce (Choi and Lee, 2003). In general, this research has shown that



the higher its value, the more complicated it is, and the higher the involvement in it, the higher the product's perceived risk (Dowling, 1986; Dowling and Staelin, 1994; Mitchell, 1999).

Perceived risk includes two dimensions: uncertainty and consequences (Cunningham, 1967). Consumers perceive risk due to an uncertainty that their choice would meet their objectives and are concerned over the consequences of their choice's failure to meet those goals. Taylor (1974) argued that risk involved two uncertainties: about outcomes and consequences (Fig. 3.3). This perspective, in line with conceptualisations in other fields such as individual risk behaviour in organizational behaviour (Pablo, 1997: 4), has guided operationalisations of risk in empirical studies (Hoover, Green and Saegert, 1978; Verhage, Yavas and Green, 1990; Yavas, Verhage and Green, 1992/3).

Subsequent research discussed types of consumers' perceived losses. Roselius (1971) recognised four types of losses: time – waste of time, convenience, and effort resulting from faulty products; hazard – health/safety problems; ego – psychological and social aspects of experiencing problems with products; and money – financial loss involved in adjusting, repairing, or replacing products. Similarly, Jacoby and Kaplan (1972) identified five types of risk: financial; performance; physical; psychological; and social and Taylor (1974) two: psycho-social and financial. Later measures of risk perceptions have converged on financial, performance, physical, psychological, social, and convenience (Peter and Tarpey, 1975; Murray and Schlater, 1990), or time loss (Stone and Gronhaug, 1993; Stone and Mason, 1995; Mitchell, 1992; Schiffman and Kanuk, 2000):

**Social risk:** the risk that a poor product/service choice affects negatively the perception of other individuals about the purchaser.

**Financial risk:** The risk that the product/service purchased will not worth its cost.

**Physical risk:** The risk that the product/service may cause an health hazard to the consumer or others.

**Performance/Functional risk:** The risk that the product/service will not perform as expected.

**Time/convenience risk:** The risk that the consumer's time/effort and/or convenience have been wasted if the product/service does not perform as expected.

**Psychological risk:** The risk that a poor choice will bruise the consumer's ego.

Exceptions have used a subset of these, usually financial, performance (Venkatraman, 1991; Venkatraman and Price, 1990; Shimp and Bearden, 1982), or general risk perceptions (Eroglu and Machleit, 1990).

The two-dimensional (importance and probability of loss) and multi-facet (performance, social, physical, financial, time and psychological losses) nature of perceived risk has been widely accepted. Yet, Dowling (1986: 194) argued that "perceived risk is a somewhat 'fuzzy' construct" since it has been conceptualised and operationalised at different abstraction levels. Low-level measurement refers to a single product's perceived risk; medium-level measurement focuses on or across product-categories; finally, high-level abstraction measures resemble a personality trait. While low-level measurement should be a more powerful predictor of consumer behaviour, it suffers from low generalisability. This is similar to the Taylor's (1974) contention that research should be purchase-specific. Dowling (1986: 203) provided propositions about the nature of perceived risk and its impact on consumer behaviour:

**Risky choice proposition:** Individuals perceive risk in high involvement product choice situations;

**Wealth proposition:** Individuals have differing capacities to absorb monetary and non-monetary losses;

**Risk tolerance proposition:** An individual has an inherent predisposition to seek or avoid risk in purchase situations; and

**Risk threshold proposition:** An individual has a maximum and minimum threshold level of risk.

Situation-specific studies suggest that choice situations, not the consumer, should be the central issue in risk taking (Taylor, 1974). Yet, individual factors have been shown to impact risk taking and perceived risk. Taylor's (1974) comprehensive risk taking model

included generalized and specific self-esteem (Fig. 3.3). Schaninger (1976) investigated the relationships between perceived risk and personality traits (anxiety, self-esteem, and rigidity). Dowling's propositions emphasize the importance of individual factors in the perception of risk. Some consequences of these propositions involve the relationship between an individual's tolerance level and risk-reducing/taking behaviour:

When a product's perceived risk exceeds an individual's maximum tolerance level, it will be rejected or will cause the individual to attempt to reduce the risk involved. When a product's perceived risk fails to exceed an individual's minimum tolerance level, it may, under conditions of boredom, curiosity, or variety seeking, be rejected in favour of a more risky product. These conditions stimulate the individual to ignore or increase risk (Dowling, 1986: 204).

Later, *acceptable risk* was proposed as a two-type construct: "the point above which the product category is perceived as too risky to indulge in (e.g. skydiving/motor racing) and the point above which a specific product has an unacceptable level of perceived risk to purchase" (Dowling and Staeling, 1994: 120). Sitkin and Pablo (1992) distinguished between *risk propensity*, the observed likelihood of a person taking/avoiding risk, and *risk preference*, a character trait of being attracted to risk. They argued that risk preference *and* situational factors determined risk propensity. Weber and Milliman (1997) investigated if risk preferences constituted a constant for individuals. In the risky financial options' context, *risk preference* described "a person's choice when faced with two options that are equal in expected value but differ on a dimension assumed to affect the riskiness of options, for example the variance of outcomes" (Weber and Hsee, 1998: 1206). Similarly, Dowling and Staelin (1994: 120) distinguished between *product category risk*, "the person's perception of risk inherent in purchasing any particular product in a specific product category" and *product specific risk* "associated with the particular product being considered".

Thus, an important aspect is the relationship between individuals' risk taking propensity and their perceived situation-specific risk. Theoretical and empirical support for the relevance of individual differences in these aspects is found in the literature. Research on individual factors identified personality traits as intolerance of ambiguity, rigidity, and dogmatism (Raju, 1980) in what concerns exploratory behaviour and anxiety and

self-esteem, rigidity, and risk taking in what concerns perceived risk (Schaninger, 1976). Risk taking is negatively related to perceived risk (Schaninger, 1976). Similarly, Baumgartner and Steenkamp (1996) found that exploratory behaviour was related with risky purchases. Though research focusing on risk and exploratory tendencies specific personality trait and its influence in actual behaviour is an under-researched area in the literature (Baumgartner and Steenkamp, 1996). Thus the following hypotheses are proposed regarding risk taking at the individual (OSL) and consumer behaviour (exploratory behaviour) levels and perceived risk:

H3: Exploratory behaviour will be negatively related to perceived risk.

H4: OSL will be negatively related to perceived risk.

### **3.4 – The Influence of Culture on Exploratory and Risk Taking Behaviour**

This section discusses the impact of culture on exploratory behaviour and risk taking. At the most general level, the importance of being “aware of the existence and precise nature of cultural differences in perception and/or preferences” (Weber and Hsee, 1998: 1205) is increasingly recognised due to the growth of cross-cultural political and economic interactions. The relevance of culture for studies of exploratory behaviour is warranted by the fact that frameworks of culture identified risk as one of the facets that distinguish among cultures, as noted in the previous chapter. Hofstede (1984) and Steenkamp (2001) included Uncertainty Avoidance in their cultural frameworks and Clark (1990) proposed relation to risk as a characterizing consumer dimension in his framework for the assessment of national character.

Theoretical and empirical Marketing (Hoover, Green and Saegert, 1978; Verhage, Yavas and Green, 1990), Psychology (Dake, 1991; Weber, Hsee and Sokolowska, 1998; Weber and Hsee, 1998), and social anthropology studies (Douglas and Wildavsky, 1982) provide additional support for cultures’ influence on exploratory behaviour and risk taking. In these sciences, the question of what is feared and why (in terms of broad risks faced by humanity, such as technological and environmental dangers or war) generated contributions that premised that hazards’ perceptions are determined by social

and cultural reasons. Indeed, cultural theorists have proposed that individuals choose what and how much to fear to support their way of life:

The perception of risk is a social process. All society depends on combinations of confidence and fear (...) The different social principles that guide behaviour affect the judgment of what dangers should be most feared, what risk are worth taking, and who should be allowed to take them. (...) Consequently, research into risk perception based on a cultural model would try to discover what different characteristics of social life elicit different responses to danger (Douglas and Wildavsky, 1982: 6-8).

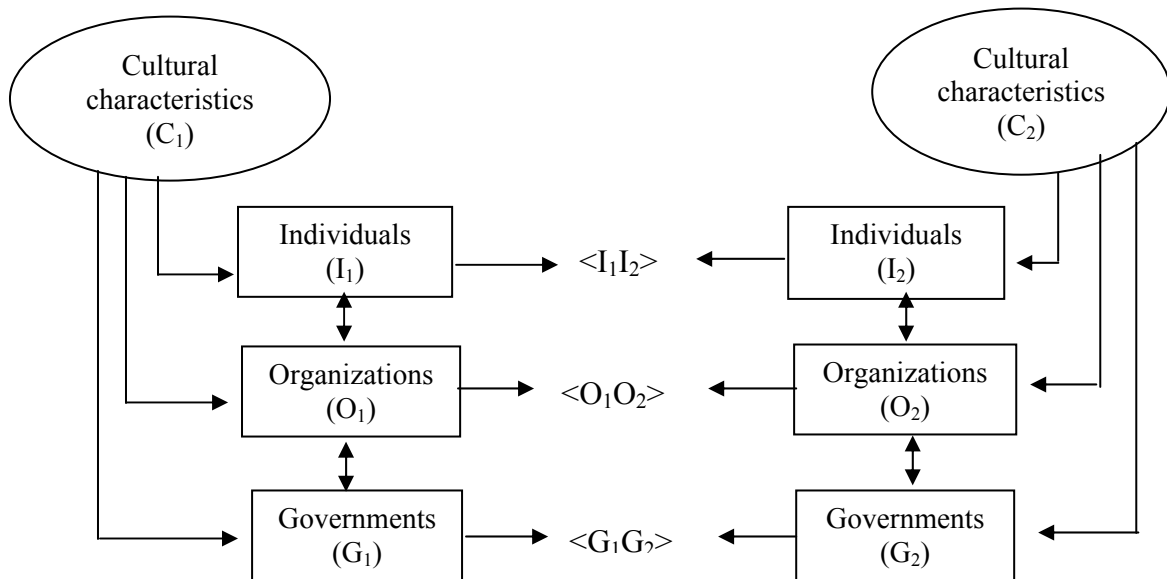
In fact, “social, historical, and cultural perspectives on risk may also be found, but these are too rare” (Dake, 1991: 62). Therefore, calls for further research on this area abound:

Cross-cultural research on risk has the potential to be a remarkably rich and complex field of enquiry... (R)isk research in cross-cultural contexts inevitably involves decision making under uncertainty, one of the most stimulating and fast moving areas of social science (...) Yet cross-cultural research on risk is a relatively new and undeveloped field of enquiry. We are struck by the importance of risk issues that could benefit from cross-cultural comparisons and by the scarcity of research results that directly address these issues. (McDaniels and Gregory, 1991: 103/4)

Further research has to establish more of causal examinations and explanations to determine the contribution of national culture to the concepts of risk perception and risk taking behaviour (Trimpop, 1994: 25).

McDaniels and Gregory (1991: 107) argued that cross-cultural risk taking and decision-making could be studied at the individual, organizational, and governmental levels (Figure 3.4). The individual level, which is of interest here, “involves research on how cultural differences influence patterns, heuristics, and norms in behavioural decision making and cognitive processes”. The research questions these authors suggested for all levels included “does culture influence risk taking?”

Figure 3.4 - Influences and comparisons at different levels of decision making



Source: McDaniels and Gregory, 1991: 107

However, in spite of the diverse consumer behaviours investigated cross-culturally, exploratory behaviour has been under-researched. Faison (1980) compared variety-seeking patterns across cultures and documented differences between Japanese and American tourists on desired variety for entrees, music, and toothpaste.

Later, Eshghi (1985) identified innovativeness, individual modernity, novelty-seeking, and variety-seeking as concepts most appropriate for cross-cultural consumer behaviour studies. Murray and Manrai (1993) conducted a study of Irish and American females, based on the premise that cultural differences in variety-seeking should exist between an environment stressing tradition, conservatism, and risk avoidance and a more challenging technological and less traditional social environment. The study indicated that Irish females had a lower need to engage in variety-seeking and achieved OSL consumption variety at a lower level than those in the US ones did.

Additional support for studying risk taking and exploratory behaviour comes from the OSL literature in Psychology. The proposition that OSL would be impacted by culture was suggested early in the Psychology literature. According to Berlyne (1960: 211), for example, OSL was determined by “personality factors, cultural factors, learning and

psychological states”. Thus, culture should influence exploratory behaviour directly *and* through OSL and perceived risk.

Thus, the following hypotheses are offered:

H5: Culture will be related with OSL.

H6: Culture will be related with Exploratory behaviour

H7: Culture will be related with perceived risk levels.

Specifically, in what concerns Cultural Values, these should affect consumers’ OSL, exploratory behaviour, and perceived risk. Hofstede (1984; 2001) presents differences between opposite poles of his five cultural dimensions, which should result in different attitudes in terms of exploratory behaviour and risk attitudes. Our discussion is based on Hofstede (1984, 1991, 2001), Hofstede and Bond (1984), and Rose, Kahle, and Shoham’s discussion of cultural dimensions and personal values (2000).

**Uncertainty Avoidance (UAI):** Hofstede (1991: 113) defined uncertainty avoidance as “the extent to which the members of a culture feel threatened by uncertain or unknown situations.” Compared to high uncertainty avoidance cultures, low-uncertainty-avoidance cultures are characterized by “more risk taking” (Hofstede, 1984: 132); “openness to change and innovations”; and “willingness to take unknown risks” (Hofstede, 2001: 160-1); “what is different, is curious” attitude (Hofstede, 1991: 125); and “preference for tasks with uncertain outcomes and calculated risks” (Hofstede, 2001: 169). Brand loyalty (closely related to the repetitive behaviour proneness and brand switching dimensions of exploratory behaviour [Raju, 1980]) should be higher in uncertainty-avoiding cultures (Milner, Fodness and Speece, 1993). Empirically, uncertainty avoidance affects innovativeness negatively (Lynn and Gelb, 1996; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002). On the other hand, high uncertainty avoidance should be associated with risk aversion (Nakata and Sivakumar, 1996) and higher risk was perceived by consumers of services from high-uncertainty-avoidance cultures (Mitchell and Vassos, 1997; Birgelen et. al., 2002).

Thus, it is expected that uncertainty avoidance will be negatively related to OSL and to exploratory behaviour. It should be related positively with perceived risk as “When cultures are high in uncertainty avoidance, consumers are resistant to change from

established patterns and will be focused on risk avoidance and reduction” (Steenkamp, ter Hofstede and Wedel, 1999: 59).

**Individualism/Collectivism (IND/COL):** In individualistic societies, “the ties between individuals are loose” (Hofstede, 1991: 51), and people “prefer to act as individuals rather than as members of a group” (Steenkamp, ter Hofstede and Wedel, 1999: 59). Thus, in individualistic societies, “individualism is an important personality characteristic” and there is less conformity (Hofstede, 2001: 236). Autonomy, variety, and individual initiatives are encouraged compared to collectivist societies, in which “individual initiative is socially frowned upon” (Hofstede, 1984: 166; Schwartz, 1992). Individualism is empirically related to a preference for risk taking (Dake, 1991).

In terms of consumer behaviour, store loyalty would be expected to be higher in collectivistic cultures and the sales of pleasure products/services would be higher in individualistic societies (Milner, Fodness and Speece, 1993). Similarly, high individualism suggests “a bias toward the pursuit of novelty, variety, and pleasure” (Kale, 1994: 44). Moreover, individualism affects innovativeness positively (Albers-Miller and Gelb, 1996; Birgelen et. al., 2002; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002).

In sum, collectivism should be negatively related to OSL and to exploratory behaviour. It should be related positively to Perceived Risk.

**Masculinity/Femininity (MAS/FEM):** Masculine and feminine cultures emphasize assertiveness and nurturance, respectively. Masculine countries present a “belief in individual decisions” (Hofstede, 2001: 298) and encourage competitiveness, advancement, and challenges. Masculinity affects innovativeness positively (Steenkamp, ter Hofstede and Wedel, 1999) whereas consumers’ loyalty, related to Raju’s exploratory behaviour (1980), is stronger in feminine cultures (Crotts and Erdman, 2000).

Consequently, femininity is expected to be negatively related to OSL and to exploratory behaviour. It should impact Perceived Risk positively.

**Power Distance (PDI):** Power distance is defined as “the extent to which the less powerful members of institutions and organizations within a country expect and accept



that power is distributed unequally” (Hofstede, 1991: 28). Large power distance societies emphasize equality and conformity in lieu of independence and freedom (Hofstede, 1984; 2001). They show “greater reliance on centralization and formalization of authority and greater tolerance for the lack of autonomy” (Yaveroglu and Donthu, 2002: 55). The coefficient of innovation was found to be negatively related to power distance (Yaveroglu and Donthu, 2002) and innovation penetration levels (Van Everdingen and Waarts, 2003).

Such arguments and findings lead to an expected negative relationship between power distance and OSL and exploratory behaviour. They suggest a positive relationship between power distance and Perceived Risk.

**Long-Term Orientation (LTO):** Long-term orientation “stands for the fostering of virtues oriented towards future rewards, in particular perseverance and thrift” (Hofstede, 2001: 359). This dimension was a late addition to Hofstede’s initial four, uncovered by Bond (1987). It was interpreted as representing a range of Confucian-like values and termed Confucian dynamism. Hofstede (1991) later proposed the long- versus short-term designation as more appropriate for this dimension. In long-term orientation cultures, frugality and perseverance are preferred virtues and deferred gratification of needs is accepted and encouraged. Long term oriented societies “look into the future, and they are risk averse” (Yaveroglu and Donthu, 2002: 57).

Applied to our context, long-term orientation of a country should lead to lower OSL and exploratory behaviour. It should increase risk perceptions.

**Summary of the five dimensions:** Figure 3.5 and Table 3.2 highlight the relationships among cultural dimensions, Exploratory and Risk Taking Behaviour, and risk perceptions. The nomological model follows the proposed three-dimensional conceptualisation (Exploratory Information Search, Exploratory Consumption Behaviour, and Exploratory Risk Taking). Formally, in line with the above review, the following hypotheses are proposed:

H5 B: Cultural Values will be related with OSL, such that:

H5.1: Long-term orientation will be negatively related to OSL.

H5.2: Power distance will be negatively related to OSL.

H5.3: Uncertainty avoidance will be negatively related to OSL.

H5.4: Collectivism will be negatively related to OSL.

H5.5: Masculinity will be positively related to OSL.

H6 B: Cultural Values will be related with exploratory behaviour, such that:

H6.1: Long-term orientation will be negatively related to exploratory behaviour.

H6.2: Power distance will be negatively related to exploratory behaviour.

H6.3: Uncertainty avoidance will be negatively related to exploratory behaviour.

H6.4: Collectivism will be negatively related to exploratory behaviour.

H6.5: Masculinity will be positively related to exploratory behaviour.

H7 B: Cultural Values will be related with Perceived Risk levels, such that:

H7.1: Long-term orientation will be positively related to Perceived Risk.

H7.2: Power distance will be positively related to Perceived Risk.

H7.4: Uncertainty avoidance will be positively related to Perceived Risk.

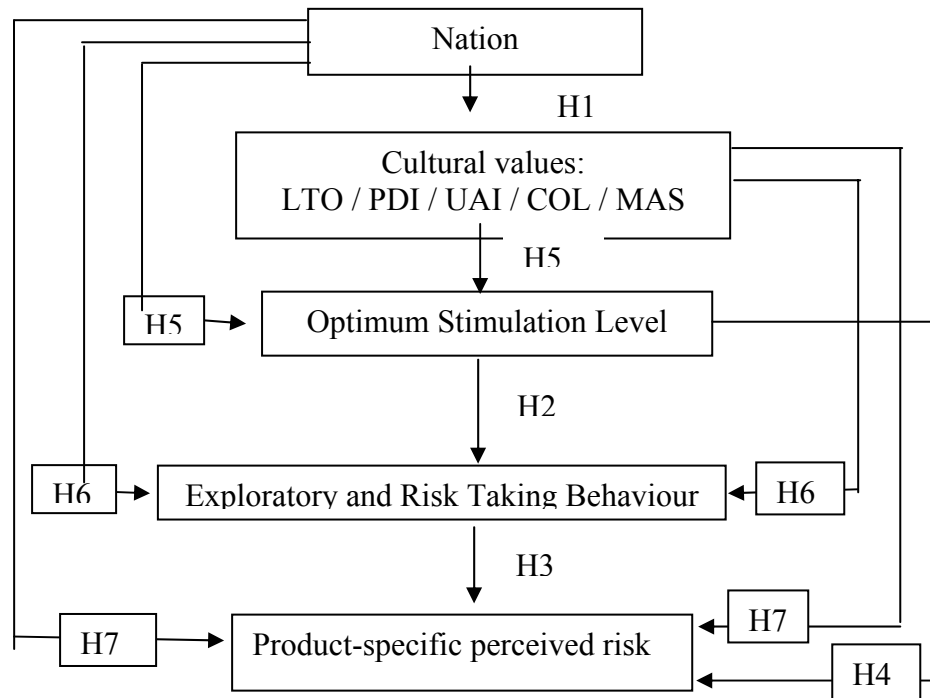
H7.5: Collectivism will be positively related to Perceived Risk.

H7.5: Masculinity will be negatively related to Perceived Risk.

Table 3.2 - Summary of hypothesis relating Exploratory Behaviour dimensions, Optimum Stimulation Level and Cultural Values

Exploratory Behaviour Dimension	Optimal Stimulation Level	Long-term orientation	Power distance	Uncertainty Avoidance	Collectivism	Masculinity
OSL	_____	-	-	-	-	+
Exploratory Consumption Behaviour	+	-	-	-	-	+
Exploratory Information Search	+	-	-	-	-	+
Exploratory Risk Taking	+	-	-	-	-	+
Perceived Risk	-	+	+	+	+	-

Figure 3.5 – A conceptual framework of cultural dimensions, OSL, Exploratory and Risk Taking Behaviour, and risk attitudes



### 3.5 - Conclusion

Culture can be incorporated into International Marketing research along different perspectives, two of which appear to have dominated the literature. First, replication studies in different nations assume that consumer behaviour theories and models can be tested cross-culturally. Such studies enrich theories and models in that their boundary conditions can be assessed in diverse environments (Sheth and Sethi, 1977). However, such inductive replications are not a systematic approach to the study of culture because they are context-specific. A more purposeful hypothetico-deductive approach to cross-cultural research has been encouraged (Sekaran, 1983: 65) and seen as a sign of maturity of research in which it would be possible “to develop hypotheses regarding known differences in behaviour and to test them”. This perspective requires the previous identification of culture-dependent consumer behaviours. These include general culture-dependent behaviours of interest to marketers, influencing multiple stages of consumer decision-making, in a wide variety of situations for many products.

Consequently, in this chapter, a systematic hypothetico-deductive approach was followed to identify exploratory behaviour as constituting a culturally dependent variable and assess the general impact of culture on risk taking and exploratory buying behaviour.

Furthermore, the study of exploratory behaviour is proposed from the perspective of risk taking. Studying both concepts in conjunction has two benefits: It provides a dual-perspective examination of risk and it allows addressing the influence of culture.

The dominant perspective in empirical research has conceptualised risk as a negative aspect, centering on assessing perceived risks and handling them in terms of risk-reducing strategies. The focus has been on whether and how much consumers perceived risk in particular buying or consuming decisions and how they dealt with that risk, using risk relievers. The concept of exploratory behaviour includes both perspectives of risk taking behaviour: avoidance and search of risk. Studying exploratory behaviour and risk taking together focuses simultaneously on the deliberate search of risk and variety and the “consumer” antecedents of risk taking. This positive perspective of risk thus accounts for consumers’ acceptance of and seeking for risk, uncertainty, and variety in their decisions.

The proposition that the levels of risk depend on the type of product and on the person is a well-established tenet in consumer behaviour (Hoover, Green and Saegert, 1978); yet, purchase-specific studies have resulted in low levels of generalisability. Relating the individual antecedents’ approach to risk attitude and to culture constitutes a higher level of abstraction approach. Furthermore, the need for further research on the “effect of individual differences at the consumer level on reactions to product attributes, with a view toward explaining individual preferences and perceived consumer risk in a manner that may prove useful managerially as a basis for segmentation” (Havlena and DeSarbo, 1991: 937) has been underlined. Moreover, it provides an approach to the study of the impact of culture. Several areas of enquiry, Marketing included, have stressed the influence of cultural dimensions on risk related issues. However, although the number of cross-cultural studies has increased in recent years, the concept of exploratory behaviour has not been object of such an approach. Yet considerable support is found in the literature for the premise that risk taking in general and Exploratory and Risk

Taking Behaviour are influenced by cultural dimensions. Consequently in this chapter hypotheses were offered regarding the hierarchy of the impact of cultural dimensions from the highest-level concept of OSL, to intermediate level Exploratory and Risk Taking Behaviour, to the lowest-level risk attitudes towards specific products.

This chapter concludes the theoretical framework of this study. In the following chapter, the methodological aspects of this research will be presented.

## CHAPTER 4 - RESEARCH METHODOLOGY

**Most areas of psychological enquiry are defined by their content; however, cross-cultural Psychology is defined primarily by its method. (Berry, 1980: 1)**

### 4.1 - Introduction

Together with a sound theoretical foundation, methodology issues are the building blocks of empirical studies. In this chapter, cross-cultural research methodological questions will be presented and answered. These questions cover the methods – “the conceptual basis or strategy of enquiry” and the techniques – “the procedures or tactics by which the strategy is implemented” (Green, Tull, and Albaum, 1988: X) that were used to develop operationalisations and guide the data collection process for this research. Conducting research in an international setting is much more complex than domestic research (Boyacigiller and Adler, 1991; Malhotra, 1999; Craig and Douglas, 2001). The research challenge is enhanced simultaneously by practical and theoretical questions. International research poses specific research design and logistical problems. In addition, especially in the case of cross-cultural research, the operational definition of constructs is complicated by the all-pervasive nature of culture influence and the changing dynamics of the global environment and consumer behaviour (Douglas and Craig, 1997).

Thus, methodological foundations have been widely considered a liability of International Marketing research, resulting in criticisms of lack of methodological rigor compared to domestic Marketing research (Green and White, 1976; Boddewyn, 1981; Albaum and Peterson, 1984; Aulakh and Kotabe, 1993; Douglas, Morrin and Craig, 1994; Douglas and Craig, 1997). These appreciations have led to an increased attention to the methodological framework of this study.

This chapter is organized as follows: first, cross-cultural research will be defined, then methodological questions involved in conducting cross-cultural research will be

presented based on the following steps: Problem definition; Developing an approach; Research design formulation; Field work; Data preparation and analysis, and finally, Report preparation and presentation (Malhotra, Agarwal and Peterson, 1996).

## **4.2 - Cross-Cultural Research**

This research has been conducted across two nations representing differing cultures. In the literature, such studies fall under the label of International Marketing research, comparative research, cross-national Marketing research, or cross-cultural research. Although these designations are sometimes used interchangeably, in most cases they carry different meanings and implications for research. The term cross-cultural, for example, is usually preferred in Psychology while the designation comparative was favoured in other fields (Berry, 1980). In what concerns cross-national and cross-cultural studies, it is not always possible to make a clear distinction, as national boundaries are often used as surrogates for culture, at least for the dominant culture (Samiee and Jeong, 1994). However, cross-national studies do not usually have the explicit concern of addressing the influence of culture on consumer behaviour (Douglas and Craig, 1997). Cross-cultural research, on the contrary, pertains to “research that has culture as its main independent or dependent variable but not as an extraneous and/or residual variable” (Nasif et al, 1991: 80). Thus, given that the primary emphasis of this project is the influence of culture, it was felt that the cross-cultural framework was more adequate for this research.

Cross-cultural research, hence, specifically refers to research including culture in the research design of the study. For example, regarding Psychology, Berry (1980: 5) states that the first aim of cross-cultural Psychology is “to comprehend the systematic covariation between cultural and behavioural variables”. Secondly, cross-cultural research aims at testing the universality and generality of theories and concepts. Triandis, Malpass and Davidson (1973: 356) distinguished two types of cross-cultural research: “(a) studies which attempt to determine the generality of a psychological law, or the universality of a phenomenon; and (b) studies showing differences in laws or phenomena between societies”, thus setting the tone for the definition of the objectives

of cross-cultural research. Similarly, Nasif et al (1991: 80) considered that “the outcome of cross-cultural research will be the identification of universalities and / or divergence in the independent-variable, dependent-variable relationships”. Lenartowicz and Roth (1999) maintained that the basic cross-cultural research questions in business studies were: examining a difference in business phenomena due to culture; comparing the effect of cultures on business phenomena; relating business phenomena with cultural characteristics; and relating business phenomena with cultural characteristics across cultures.

Accordingly, several typologies have been proposed for this type of research. Triandis, Malpass and Davidson (1973) offered the following classification of cross-cultural studies: **Ethnocentric and geocentric research**, focusing on identifying similarities among cultures; **Polycentric research**, focusing on the search of differences and, finally, **comparative and synergistic research**, which considered both similarities and differences among behaviour in different cultures. Elaborating on this classification, Adler (1983) proposed the following classification of cross-cultural management research studies: **Ethnocentric studies**, consisting in the replication in foreign countries of studies; **Polycentric research**, referring to individual studies of organizations in specific foreign countries; **Comparative research**, i.e. studies comparing organizations in many cultures; **Geocentric research**, consisting of studies of multinational organizations and, lastly, **Synergistic research**, studies of intercultural interaction within work settings.

Van de Vijver and Leung (1997) propose a taxonomy of cross-cultural studies based on two dimensions. The first dimension refers to the orientation of the study and distinguishes between exploratory and hypothesis testing studies. The second dimension refers to the consideration of contextual factors to explain cultural similarities and/or observed differences: some studies aim merely at documenting cultural similarities and differences while in other studies context variables, such as demographic or psychological variables, are included in order to explain the similarities and differences. By crossing these two dimensions, four types of cross-cultural can be identified as graphically illustrated in Table 4.1:



**Generalisability studies**, studies attempting to establish the generalisability of research findings obtained in one country to another country. Usually, these studies limit the analysis to the variables being compared and there is little or no reference to other cultural variables.

**Theory driven studies**, referring to studies in which specific cultural variables are included in the theoretical framework of the study. Thus, in order to validate the theoretical model, differences in these cultural variables are specifically sought for in the research design.

**Psychological difference studies** refer to studies in exploring cross-cultural differences for which there is no theory for predicting cross-cultural outcomes. Typically a measurement instrument is applied and means, standard deviations, reliability coefficients or nomological networks are compared.

**External validation studies** focus is exploratory thus there are no specific a priori hypotheses. Context variables are included in order to identify a posteriori variables that help to interpret observed cultural differences.

Table 4.1 - A taxonomy of cross-cultural studies

	Orientation more on	
	Hypotheses testing	Exploration
Yes	Generalisability	Psychological differences
No	Theory-driven	External validation

Source: van de Vijver and Leung, 1997

This project falls in the category of theory-driven studies as the influence of culture in exploratory behaviour and risk taking is addressed. This classification will determine all the methodological decisions discussed in this chapter.

Two major orientations can be followed in cross-cultural studies: **structure** and **level-oriented** cross-cultural studies (van de Vijver and Leung, 1997; Craig and Douglas, 2000). The first type focuses on relationships among variables and attempts to identify similarities and differences in these relationships across cultures. Structure-oriented studies focus on “is there a difference in the relation of variable X and Y between

country A and B?” or “are the nomological networks of conformity different across cultures” type of questions. The second type constitutes the majority of analyses in cross-cultural studies and focuses on “is there a significant difference in variable X between country A and B?” type of questions.

Each of the four types of cross-cultural studies described above can follow either a structure- or level-orientation. This distinction, however, should not be seen as a rigid dichotomy. As a matter of fact, both orientations are followed in this project: addressing the relationships between variables (Cultural Values → Optimum Stimulation Level → Exploratory and Risk Taking Behaviour → Perceived Risk) is the primary focus of the proposed hypotheses. These nomological relationships are proposed to be appropriate to both cultures. However, differences in risk taking and exploratory behaviour due to cultural influence are expected.

Compared to domestic and to cross-national research, cross-cultural Marketing research presents enhanced and specific methodological problems (Sekaran, 1983; Nasif et al, 1991; Malhotra, Agarwal and Peterson, 1996), stemming mostly from research design and implementation issues (Craig and Douglas, 2000). Sekaran (1983) considered that these concerns could be categorized under five groups: ensuring functional equivalence, problems of instrumentation, data-collection methods, sampling design issues and data analysis. Lenartowicz and Roth (1999: 782) specified: “methodological issues related to the conceptual foundation for research design and hypothesis formulation, equivalence, sampling, data collection methods, data analysis, effects of confounding variables, and the difficulty of conceptualising and assessing culture”. Malhotra, Agarwal and Peterson (1996) suggested that the methodological issues involved in cross-cultural research could be organized around a six-step framework: Problem definition; Developing an approach; Research design formulation; Field work; Data preparation and analysis, and, Report preparation and presentation. This constitutes a comprehensive framework for presenting multi-country research projects’ process. Thus, it will be followed in this discussion of the methodological aspects of cross-cultural research, in general, and of this project, in particular.

### 4.3 - Problem Definition

The formulation of the research problem is the first step of a research project and may be considered its “heart” (Green, Tull and Albaum, 1988). In cross-cultural research, the difficulty and importance of a precise definition of the research problem are enhanced (Malhotra, Agarwal and Peterson, 1996). Nasif et al (1991) considered this stage to be affected by the criterion problem of the culture concept, in terms of operational definition difficulties and the complexity in determining when culture is a contingency influence. While these problems led to criticisms to cross-cultural research (Sekaran, 1983; Nasif et al, 1991; Lenartowicz and Roth, 1999), they have been addressed in this project, starting from the theory framework stage.

Indeed the primary stage of the literature review phase of this project investigated what dimensions of consumer behaviour would be susceptible to cultural influence. During this stage, theories in international consumer behaviour and previous cross-cultural research findings were examined. The following questions were addressed: “Is culture (still) a relevant influence in international consumer behaviour? From the standpoint of international companies, what are the consumer behaviour dimensions that must, first of all, be considered from a cultural perspective? Can we offer a general theoretical model of culture’s influence on consumer behaviour?” (Soares and Farhangmehr, 2001: 1). Early formulations of the problem were discussed in supervision meetings, master and doctoral students meetings, research seminars, and national and international conferences (Soares and Farhangmehr, 2000a; 2000b; 2001). In this stage, risk related issues were identified as constituting a culturally sensitive consumer behaviour issue. Subsequently, research focused on identifying a construct that embodied the concept of risk from a consumer behaviour perspective. Exploratory behaviour was proposed as a broad consumer behaviour dimension that can be used to understand consumer behaviour across a wide variety of products and situations (Raju, 1980; Baumgartner and Steenkamp, 1996). Risk-taking and consumer behaviour are general behaviour traits of interest to Marketing decision makers, across all stages of consumer decision-making and in a wide variety of situations. Exploratory behaviour has been investigated in other cultural settings (Faison, 1980; Murray and Manrai, 1993). However, to the best of our

knowledge, research has not focused on relating this construct to culture and Cultural Values. In response to calls in the literature research on risk-taking, the approach followed in this project specifically investigates the impact of cultural characteristics. This question will be further developed in section 4.5 - Research design.

Hypotheses were thus developed from cultural influence literature across the Psychology, Sociology and Marketing disciplines. This approach was expected to “avoid treating just any differences found as cultural in origin” as culture “may be of little or no importance” (Johnson, 191: 142). In fact, “differences across populations in different countries, ethnic groups, or organizations need not be culturally based”. As a matter of fact, a number of confounding variables other than culture may influence risk responses, such as knowledge, experience, political and economic chances and expectations, cognitive heuristics, locus of control, and sense of mastery.

These issues led to the approach followed in this investigation. Based on the principle that an underlying theory is a pre-requisite to good research (Cavusgil and Das, 1997a), attention has been devoted to identifying and hypothesizing linkages between culture as an independent variable and the dependent variables included in the research model (chapters 2 and 3). Risk related aspects have been shown to constitute a culturally influenced dimension, thus justifying research on the impact of culture on exploratory behaviour and risk-taking, the focal constructs of this project. This stage is key as “potential confounds multiply with design and subject complexity, unavoidable attributes of cross-cultural research, the task of explicating culture-driven effects mandates carefully thought-out rationales up-front (Cavusgil and Das, 1997b: 214).

In order to compare two phenomena, they must share a common underlying process and differ to some extent simultaneously. There must be identity as well as variation at the observable phenomena level (Berry, 1980). Thus, comparability is a key issue at this stage (Green and White, 1976; Berry, 1980; Malhotra, Agarwal and Peterson, 1996; Craig and Douglas, 2000). Comparability may be attained by establishing the dimensional identity of phenomena by adopting universals or by empirically demonstrating equivalence of psychological concepts and data across cultural groups (Berry, 1980; Malhotra, Agarwal and Peterson, 1996).

Universals have been acknowledged in the social sciences (e. g. role differentiation, normative regulation of behaviour, and socialization). In Marketing, universality of behaviour has also been discussed and, for example, consumers' use of brand name, price, physical appearance and retailer reputation as signals of product quality have been considered to be Marketing universals, i. e. "segment- and product-specific consumer behaviours that are invariant across cultures or countries" (Dawar and Parker, 1994: 81).

Risk-taking can be considered to possess dimensional identity, as relation to risk and uncertainty constitute a universal cultural dimension and are thus comparable in the countries studied (Berry, 1980). Indeed, relation to risk has been consistently identified as a universal aspect that differentiates among cultures (Hofstede, 1984; Clark, 1990; Steenkamp, 2001). Furthermore, the search for an optimum level of arousal has been demonstrated to constitute a stable individual personality trait (Zuckerman, 1994). Exploratory behaviour is proposed to represent the translation of the risk cultural dimension into consumer behaviour and is thus proposed to share that construct universality.

Comparability may also be achieved by demonstrating the equivalence of constructs and data collected. These issues will be further developed in sections 4.5.1.1 – Equivalence and 4.6 - Fieldwork. Furthermore, the issue of comparability can also be analysed from a cultural research perspective which will be discussed in the following section.

#### **4.4 - Developing an Approach**

Cross-cultural research can be conducted following anthropological, sociological, or psychological perspectives (Malhotra, Agarwal and Peterson, 1996). The anthropological and sociological perspectives are group-level approaches; the former assesses cultural processes and behaviours directly while the latter focuses on behaviour resulting from social forces. The psychological perspective is an individual-level approach and is concerned with the way individuals "personalise social influences in their own cognitive organization" (ibidem: 11). This perspective has been deemed as

most appropriate for Marketing research given its usefulness in studying the way culture is represented in cognitive processes and expressed in behaviours.

A major issue regarding cross-cultural research at this stage pertains to the distinction between culture-specific and universal behaviours, referred to in the literature as the decision whether the study will be approached from an emic or etic viewpoints that were discussed in Chapter 2 (Triandis, Malpass, and Davidson, 1973; Berry, 1980; Sekaran, 1983; Adler, 1983). The etic perspective refers to behaviour as from outside the system, and as an essential initial approach to an alien culture. The emic approach, on the other hand, implies studying intensively a single culture in order to describe and understand indigenous, specific phenomena. This approach uses concepts eventually employed only in a given culture in order to try to obtain the best possible description of a phenomenon of that culture (Triandis, Malpass and Davidson, 1973). The etic perspective studies a culture employing universal concepts thus presupposing cultures can be compared along a number of universal dimensions. In contrast, the emic perspective presupposes that cultures can be described but not compared.

Thus, the emic-etic dilemma points to the difficulty in obtaining observations simultaneously adequate to capture cultural specificity and cross-culturally comparability (Lee and Green, 1991). Adler (1983) contends that there are simultaneous culture-specific and culture-general aspects to phenomena. However, this should not be assumed and cross-cultural research should include both perspectives. Being ‘cultural’ requires the emic viewpoint and ‘cross’ requires the etic perspective (Berry, 1980; Malhotra, Agarwal and Peterson, 1996). Etic research rests upon the principle that there is a shared frame of reference across culturally diverse samples, and construct measurement may be applied to all of the samples (Berry, 1989). Thus comparisons can be made even if a study fails to capture all emic aspects of a construct. When the universality of aspects being studied is assumed and a concept rooted in the researchers own culture is deemed to be adequate to the study and comparison of a phenomenon in another culture, an *imposed etics* (Berry, 1989) or *pseudoethics* (Triandis, Malpass and Davidson, 1973) is said to exist. The *pseudoethic* approach is a popular approach for cross-cultural studies despite criticisms that it has limited ability in detecting true cross-cultural differences (Samiee and Jeong, 1994). Berry (1989) suggests a *derived etic*

*approach*, which implies that researchers first attain emic knowledge about all the cultures in a study in order to become familiar with the relevant cultural differences and avoid cultural biases. Having done this, links between the emic aspects of the different cultures may be established and the comparisons are considered derived etics since they result from emic research in each of the cultures. This approach constitutes an adequate process of simultaneously capturing the emic perspective and allowing etic comparisons.

This process was followed in this project to the extent that concepts and measures used were developed in the Anglo-American research tradition and applied in Portugal. Careful analysis and discussion regarding the adequacy of the constructs to Portuguese consumers proved that the concepts and measures adequately fit the multidimensionality of exploratory behaviour in Portugal and in the UK. Clearly, it can be argued that such process is not flawless as it may result in a certain degree of researcher's subjectivity. Hence, Craig and Douglas (2000) prefer the label *assumed etics* in order to emphasize the implicit assumptions made by the researcher, an approach recommended for studies when more than one culture is involved.

#### 4.5 - Research Design Formulation

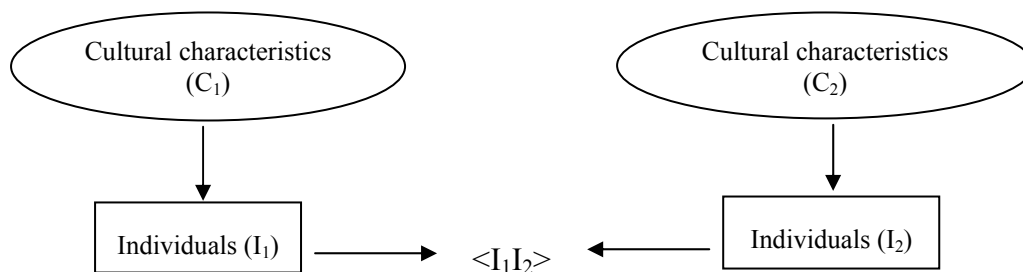
A research design involves the selection of methods and procedures for accomplishing the study and acquiring the information needed (Green, Tull and Albaum, 1988; Malhotra, 1999). Regarding the major purpose of the study, a research design may be classified as exploratory, descriptive or causal. An exploratory study is undertaken in order to identify or define a problem. Often, an exploratory study is the first stage of a larger study. A descriptive study is carried out with the purpose of characterizing the phenomena of interest. Finally, a causal study is concerned with the causal relationships between phenomena.

Craig and Douglas (2000) identified three types of research approaches. **Descriptive research** includes studies conducted in a single country with the purpose of understanding behaviour and Marketing environment. **Comparative research** refers to studies conducted in two or more countries with the purpose of comparing consumer or

organizational behaviour. This type of study has been common in early research and has been defined as “the systematic detection, identification, classification, measurement and interpretation of similarities and differences among phenomena” (Boddewyn, 1966: 149). Finally, **theoretical research** includes research developed with the purpose of examining the applicability and generalisability of theories, models and constructs developed in a different cultural setting. Reynolds, Simintiras and Diamantopoulos (2003) propose a fourth research type: **contextual research**, covering research aiming at examining attributes of a cross-national group.

This study fits into the theoretical research category. This approach answers calls in the literature for a greater emphasis on the examination of structures hypotheses and the development of research instruments to test those hypotheses in research designs for studies of cross-cultural risk and decision-making. This can be graphically represented as a U-shaped research design (Figure 4.1) involving “comparisons between cultures at a given level built on hypotheses regarding observed differences between cultural characteristics” (McDaniels and Gregory, 1991: 119).

Figure 4.1 - A U-shaped hypothesis regarding cross-cultural risk comparisons



Source: McDaniels and Gregory, 1991

Finally, the research design stage requires a number of nested decisions regarding data collection, starting with the choice of secondary versus primary data and qualitative versus quantitative approach. Although a wide variety of secondary data are available for international research (Malhotra, 1999), given the specific nature of this project, primary data had to be collected. A quantitative approach was selected given that literature review revealed that several variables were previously identified and several instruments had been proposed to measure them (e.g., Optimum Stimulation Level;



exploratory behaviour). However, relationships between culture and these variables are unresolved, so an explanatory focus was preferred.

Similar to domestic research, telephone, personal or mail interviewing can be used as survey methods in a cross-cultural setting. However, resources precluded the use of some survey methods. Given the merits of each method for locating and contacting respondents and obtaining information, as well as the constraints experienced by this project, personal interviewing was selected.

#### 4.5.1 - Measurement and Scaling

Measurement procedures contribute greatly to the quality of a research project (Green, Tull and Albaum, 1988). Measurement is defined as “a way of obtaining symbols to represent the properties of persons, objects, events, or states, which symbols have the same relevant relationship to each other as do the things represented” (ibidem: 242). Measurement issues are, therefore, deeply intertwined with conceptual and operational definitions of concepts.

##### **4.5.1.1 – Equivalence**

Equivalence is a critical issue at the cross-cultural research design stage (Green and White, 1976; Berry, 1980; Sekaran, 1983; Mullen, 1995; Malhotra, Agarwal and Peterson, 1996; Sin, Cheung and Lee, 1999; Sin, Hung and Cheung, 2001; Craig and Douglas, 2000). As referred to in section 4.3 – Problem definition, demonstrating the equivalence of phenomena is one of the forms of attaining comparability. When universality has not been established, it is imperative that construct equivalence is demonstrated. Construct equivalence, also labelled structural equivalence (van de Vijver and Leung, 1997), refers to constructs having the same meaning in different cultures. Achieving comparability requires examination of construct equivalence at the **(I) functional, (II) conceptual, (III) instrument and (IV) measurement levels** (Berry, 1980; Malhotra, Agarwal and Peterson, 1996, van de Vijver and Leung, 1997; Craig and Douglas, 2000).

**(I) Functional equivalence** concerns whether the concept or behaviour serve the same role in the cultures studied. Only when the behaviour in question developed in response to similar problems faced by the different cultures, may a meaningful comparison be established (Green and White, 1976; Sekaran, 1983). For example, bicycles may be a means of transport or recreation. Regarding institutions, functional equivalence has been considered un-provable, leading to the “Malinovskian dilemma” (after the famous anthropologist Bronislaw Malinowski), referring to the cross-cultural comparison of organizations that cannot, in fact, be compared (Adler, 1983).

**(II) Conceptual equivalence** refers to whether the concept is expressed in similar attitudes or behaviours across cultures. While functional equivalence pertains to objects and behaviour in society at the macro-level, conceptual equivalence refers to “the interpretation individuals place on objects, stimuli or behaviours, and whether these exist or are expressed in similar ways different countries and cultures” (Craig and Douglas, 2000: 158). Indeed, some concepts may be culture-bound and not applicable cross-culturally (Green and White, 1976), for example ‘saving face’ is prevalent in Chinese society and ‘philotimo’ is considered to be specific to the Greek culture (Craig and Douglas, 2000).

**(III) Measurement equivalence** is related to construct equivalence in so far as “the measure is an operational definition of the construct” (Craig and Douglas, 2000). Measurement equivalence thus pertains to whether scale items measure the underlying constructs equivalently in cross-national data. Three aspects must be considered: Calibration, translation/linguistic and scalar/metric equivalence (Malhotra, Agarwal and Peterson, 1996; Craig and Douglas, 2000).

**(III a) Calibration equivalence** assesses whether the measurement units are equivalent. In this project this question was pertinent regarding income categories used in the demographics information section of the questionnaire. Not only currency differs in Portugal and the UK, but, more importantly, income levels differ greatly. Thus, the solution adopted involved defining categories based on mean income in each country (Eurostat).

**(III b) Translation/linguistic equivalence** requires the instrument used to be translated and adapted to the languages of the different countries where the study is to be carried out to ensure equivalent meaning. Several aspects must be accounted for in order to achieve instrument equivalence: vocabulary; idiomatic; grammatical and syntactical experiential and conceptual equivalence (Sekaran, 1983). This type of equivalence may be ensured by back translation (Green and White, 1976; Sekaran, 1983; Mullen, 1995; Malhotra, Agarwal and Peterson, 1996; Cavusgil and Das, 1997). In the present study, a bilingual speaker, familiar with the cultures involved, translated the original English instrument to Portuguese. Subsequently, the questionnaire was back translated by a different bilingual speaker. Both versions were compared and changes were made until a final version was agreed on as a result of this iterative process.

**(III c) Scalar/Metric equivalence** examines whether the scales or scoring procedures used to establish the measures are equivalent and whether scores obtained in different research setting are equivalent.

**(IV) Instrument equivalence** is concerned with whether scales items, response categories and stimuli such as brands used in the questionnaire are interpreted similarly across cultures (Singh, 1995; Malhotra, Agarwal and Peterson, 1996). Instrument development, a difficult task in any research project, becomes even more complex in cross-cultural research (Green and White, 1976). The selection of measures must account for the fact measures must capture the same phenomenon in each of the cultures studied. The emic/etic dilemma previously mentioned also arises here. Research can employ emic or etic measures. An emic instrument would be constructed specifically to study a phenomenon only in the context of one culture, based on the assumption that it would take a different form in that culture. This approach would seriously limit cross-national comparisons. Green and White (1976) consider most data instruments to be emic since they were developed in the US, based on this country's assumptions. While this is indeed true, it may be too strict an interpretation of the etic/emic approach that would cast doubts on the generalisability of cross-cultural research conducted to date. Green and White (ibidem, 83) acknowledged the manifold difficulties of developing, if not 'culture-free', at least 'culture-fair' instruments. They concluded that consumers' researchers "will probably have to rely upon instruments which could not be considered

etic, but which serve the purpose of identifying the similarities or differences in the phenomenon being investigated. One possible strategy in this regard is to employ the same test in all nations ... and to 'tease' out the reasons for differences that may be uncovered". This approach will result in some basic understanding of the phenomena and allow for further hypotheses development.

Finally, equivalence must also be considered regarding data collection techniques. Response equivalence requires uniform data collection procedures in all cultures under study (Sekaran, 1983). Identical methods of introduction to the study and to the researcher, task instructions, closing remarks would contribute to equivalent motivation, goal orientation and response attitudes. In the current project this approach was followed, as will be described below in the Fieldwork section (4.6).

Thus, in order to ensure construct equivalence, the selection of the concepts employed in this research was based on their applicability in Portugal and the UK. Regarding exploratory behaviour, construct equivalence has been partially warranted by extending previous studies of exploratory behaviour in Ireland and the US. These countries are culturally similar to the UK (Samovar, Porter and Stefani, 1998; 1994; Caillat and Mueller, 1996) and establish a benchmark of comparison for the UK. In Portugal, exploratory discussions and master and doctoral seminars as well as supervising meetings, supported the idea that Portuguese consumers engaged in exploratory behaviour for the same motives documented in the literature (to introduce change and variability in their behaviour, thus escaping routine) and expressed in similar attitudes (varying their choices) in general. They also resembled the motives, attitudes, and behaviours as benchmarked against the UK specifically. A careful selection of products was carried out in order to identify products representing similar levels of risk and involvement for respondents in both countries: Cars and laptops. Convenience products were also selected based on the idea that they were used for similar functions in both countries, thus toothpaste and deodorant were used in both countries.

While equivalence issues are important in cross-cultural research, concerns about them can lead to a paradox (Sechrest et al, 1972 in Sekaran, 1983; Malhotra, Agarwal and Peterson, 1996; Usunier, 1998). These authors point out that attempts to achieve equivalence may obliterate or obscure important cultural differences. Consequently,

researchers should not become so concerned by various types of equivalences that they hinder the surfacing of cultural uniqueness.

#### **4.5.1.2 – Scale Construction**

Scaling is an extension of measurement to the extent that it implies designing a continuum on which measured objects are placed (Malhotra, 1999). In designing response scales or format, a number of issues must be considered in international settings, (e.g., respondents' educational levels, response styles and the significance and appropriateness of anchors). In developed countries, respondents may be familiar with market research and used to respond on interval and ratio scales. However, in developing countries ordinal scales may be more adequate due to lower education and consumer sophistication levels. Malhotra, Agarwal and Peterson (1996) contend that semantic differential scales may be pan-cultural as they have produced similar results when tested in a number of cultures. Nonetheless, caution must be taken in case of countries with significant cultural differences, in order to minimise scale type effects.

Another aspect pertains to the issue of response styles, i.e. the fact that responses may be influenced by factors other than what the items intend to measure. Response styles include acquiescence, extreme responding, use of a middle response category on rating scales, and socially desirable responding or courtesy bias (van Herk and Poortinga, 2001; Baumgartner and Steenkamp, 2001; Keillor, Owens and Pettijohn, 2001). This issue may contaminate questionnaire ratings thus hampering the validity of results and biasing conclusions.

In most Marketing studies, the threat of social desirability is of less importance, since questions do not pertain to socially sensitive issues (van Herk and Poortinga, 2001). In order to prevent acquiescence, either yea-saying or nay-saying, it has been proposed in the literature that the instrument has an equal number of positively and negatively keyed items (Churchill, 1979; Baumgartner and Steenkamp, 2001), thus cancelling out any form of systematic response bias. The use of mixed-worded scales constitutes a standard practice in Marketing research being adopted by 48% of the scales of the Handbook of Marketing Scales (Bearden and Netemeyer, 1999). However, this recommendation is

not without criticisms. Recently it has been argued that including reverse worded items may result in unintended problems by reducing a scale's reliability and obscuring its dimensionality, especially in cross-cultural settings (Wong, Rindfleisch and Burroughs, 2003). This problem, however, seems to be associated especially with young and uneducated respondents and does not apply to this project's subjects who are used to completing questionnaires. Moreover it has also been suggested that this problem is more acute in cultures emphasising agreeableness and deference as social norms, such as in some parts of Asia. Of the instruments used in the questionnaire used in this study, the Change Seeker Index – Short form (Steenkamp and Baumgartner 1995), the Risk Taking and Exploratory Behaviour Exploratory Tendencies in Consumer Behaviour Scales (Raju 1980), the Exploratory Buying Behaviour Tendencies (Baumgartner and Steenkamp 1996) and the Consumer Involvement Profile (Laurent and Kapferer, 1985) follow the reverse worded items use recommendation. However, the Cultural Values Scale (Yoo, Donthu and Lenartowics, 2001) and the risk scales (Cunningham, 1967 and Deering and Jacoby, 1972, for one side; Stone and Gronhaug, 1993 and Stone and Mason, 1995, for the other) do not include reverse coded items.

#### **4.5.1.3 – Reliability and Validity**

Reliability and validity are critical issues in establishing meaningful comparisons across cultures (Malhotra, Agarwal and Peterson, 1996). Reliability pertains to the extent to which scaling results over groups of individuals or over the same individual at different times are free from experimental error (Green, Tull and Albaum, 1988). Reliability issues are especially important in situations where there is little research experience, as reliability will have to be established for the measures used. Indeed, it has been demonstrated that the use of the same scales may present different reliabilities when used in multiple national contexts and when used by the same respondent regarding different stimulus (Parameswaran and Yaprak, 1987; Malhotra, Agarwal and Peterson, 1996). These differences are due to the fact that “the cross-national consumer research instrument appears to be a remarkably sensitive device to attenuations evoked by 1) attitudinal/perceptual/belief constructs; 2) the nature of such constructs (hard versus

soft); and 3) the national samples from which respondents are drawn” (Parameswaran and Yaprak, 1987: 46).

Craig and Douglas (2000) contend that in cross-cultural research reliability can be examined through **(I) consistency over time; (II) consistency across individuals; and (III) internal consistency of scales.**

**(I) Consistency over time** can be shown through test-retest reliability, which assesses if results obtained on two different occasions are comparable. This method is seldom used in cross-cultural research as obtaining adequate levels of response to a single administration is difficult and time consuming enough (Craig and Douglas, 2000).

**(II) Consistency across individuals** refers to whether different judges evaluate a number of items or objects similarly and is often used in early stages of scale construction. This method is also useful in classifying open-ended responses into categories. Similarly to the previous type of reliability, it is not common in cross-cultural research to have data suitable for calculating inter-judge reliability.

**(III) Checking if the measures are internally consistent** is the most common method for establishing reliability in multi-country research. The internal consistency of scales is typically assessed using Cronbach’s  $\alpha$  coefficients. In the scale development process it is also common to perform exploratory factor analysis of a large set of variables and calculate the coefficient  $\alpha$  for the resulting group of variables. In case of lengthy scales, internal consistency can also be assessed using a split-half approach. The scale is divided into two halves and the reliability coefficient is calculated for each half.

The use of the “within-method” triangulation has also been recommended for testing internal consistency. This approach is a triangulation design based on the use of “multiple techniques within a given method to collect and interpret data” (Jick, 1979: 603).

In this project, the internal consistency of scales approach was followed. Consequently, reliabilities across markets were obtained prior to comparing findings across markets (Craig and Douglas, 2000). Additionally, a “within-method” triangulation approach was

followed, given the use of multiple scales or indices focused on the same construct allowing for crosschecking for reliability (Jick, 1979).

Validity is defined as the extent to which differences in scale scores represent true differences of the characteristics being measured. Thus, validity pertains to the fact that data must be unbiased and relevant to the construct being measured (Green, Tull and Albaum, 1988; Malhotra, 1999). Validity can be assessed in terms of **(I) Content validity**, **(II) Criterion validity** or **(III) Construct validity**.

**(I) Content validity**, also termed face validity, refers to how representative the scale is of the dimensions or content of the characteristic or construct measured. However, assessing if the instrument adequately captures the entire domain of the construct being measured is an essentially subjective and judgemental process. Thus, in spite of contributing to the interpretation of scales scores, content validity should be complemented by a more formal evaluation of a scale's validity.

**(II) Criterion validity** refers to whether an external criterion can be obtained against which the scaling results can be matched and thus validated. Demographics, psychographics, or other scales can be used to check whether the scale performs as predicted in relation to these criterion variables. Based on the time period involved, there are two basic dimensions of criterion validity: concurrent and predictive validity.

**(II a) Concurrent validity** is examined when the data corresponding to the scale being assessed and the criterion variables are collected simultaneously.

**(II b) Predictive validity** is examined when criterion variables are collected at a different point in time.

**(III) Construct validity** corresponds to the question of what construct or characteristic the scale is in fact assessing. This type of validity pertains to a theoretical question, essentially different from the “does it work?” aspects. The researcher is interested in “why” the instrument works. The main relates to the theory relative to the nature of the construct being measured and its nomological net of relationships with other constructs. Construct validation involves convergent, discriminant and nomological validity.



**(III a) Convergent validity** addresses the question of whether there is correspondence between different methods of measurement of the construct.

**(III b) Discriminant validity** refers to the extent to which a scale does differ from other measures from constructs from which it is supposed to differ. It provides a primary “test” for the presence of method variance by demonstrating the extent to which the measure is unique and not a reflection of other constructs.

**(III c) Nomological validity** is the extent to which the scale correlates with different constructs as predicted by a theory. Thus in nomological validity the construct is related to a theoretical model of systematically interrelated constructs that allows for further deductions, interpretations and inferences. A nomological net of constructs is, thus, devised explaining the relationship between theoretical constructs.

This aspect is especially relevant for the development of scale stage. In what concerns cross-cultural research validity, especially construct validity cannot be established in advance. Assessing the cross-cultural applicability of theories implies in fact evaluating the applicability of scales, hence the validity of constructs in different cultural settings. Addressing construct validity is very closely related to theory development and testing with a scale being assessed while simultaneously its underlying theoretical constructs are being evaluated (Brewerton and Millward, 2001). In this project all the measures are validated scales from the literature. For each of the scales numerous estimates of validity are provided in the development of scale’s studies in terms of content, criterion and construct validity. Assessing the proposed relationships between constructs, namely in what refers to the Optimum Stimulation Level – Exploratory and Risk Taking Behaviour relationship, will establish construct validity, especially nomological validity for the samples of this study. This question will be assessed in Chapter six – Discussion and Conclusion.

Attaining construct validity and thus being able to predict and understand a concept is a quest for the social scientist. In cross-cultural research, however, it has been argued that a study conducted in culture A by researcher from culture B results in inherently ambiguous observations (Campbell, 1970; Berry, 1980; Malhotra, Agarwal and Peterson, 1996). The observations may be a function of the real phenomena in culture B

or a function of the observed bias derived from culture B. Ideally, this could only be overcome by conducting cross-cultural research study four times: Twice in culture B and twice in culture A (once with an observer from culture A and once with an observer from culture B). Given the obvious difficulties of such demand, the use of this multi-trait multi-measure approach in cross-cultural research has been limited (Berry, 1980).

#### 4.5.2 - Questionnaire Design

Designing a questionnaire implies deciding what information is needed from respondents and how it will be obtained, the content and phrasing of each question, the response format, the organization and sequencing of questions, the physical design and pre-testing (Green, Tull and Albaum, 1988). Thus, a number of vital operational aspects are decided at this phase. The key issue is the development of an instrument that is clear and easy to understand and administer (Craig and Douglas, 2000). This task poses additional difficulties when more than one culture is involved. Indeed the questionnaire must be adapted to each culture and should not be biased in terms of any one culture (Malhotra, Agarwal and Peterson, 1996). The key is formulating questions such that the necessary information is obtained and miscommunication is avoided. This may be more feasible for questions regarding demographics than for behavioural or product market data. Nevertheless, different categories may have to be specified even for demographics, as there may be differences across cultures. Finally, response format must also be carefully studied. The closed-questions approach was adopted in this project. The semantic differential scale has been considered to be pan-cultural, as it has consistently produced similar results in different cultures (Malhotra, 1999). Furthermore, multi-item Likert scales are common and, indeed, the recommended question format for measuring latent consumer behaviour constructs such as attitudes, beliefs and values (Wong, Rindfleisch and Burroughs, 2003). This project's questionnaire includes items measured with 5 point strongly agree to strongly disagree Likert scales. Although some of the original instruments used 7-point scales, it was felt that 5-point scales were more user-friendly for the samples studied. Following Malhotra (1999), multi-item scales were used to measure key variables to allow for the assessment of psychometric properties and to specify the structure of multidimensional constructs.

#### 4.5.2.1 – Measures

In this section, measures chosen to operationalise the different constructs involved in this work are presented.

#### ***I***      **Culture**

Due to the central role of Cultural Values to this research and to the difficulties in operationalization of the concept of culture, this variable has been object of a very special attention and exhaustive search for existing measures in the literature.

Lenartowicz and Roth (1999: 788) contend that multiple methods should be used for a rigorous assessment of culture (see section 2.3.3 – Definition, Conceptualisation, and Operationalization of Culture), as no single method “is sufficient to comply with all of the methodological and conceptual requirements for the valid identification of a cultural group”. Accordingly, in this project, different approaches were adopted for assessing culture: the Regional Affiliation approach, the Indirect Values approach and the Direct Value Inference approach.

The Regional Affiliation approach is based on the use of proxies. In this project, Nationality was used as a sample characteristic that reflects culture. Although caution is recommended in equating Nationality and culture, there is empirical support for within- and between-country differences (Hofstede, 1984 and Steenkamp, 2001). Nation can be used as a proxy for culture, since all members of a nation tend to share a similar language, history and religion as well as an understanding of institutional systems and a sense of identity (Dawar and Parker, 1994; Hofstede, 1984). This constitutes the most commonly approach to operationalise culture in empirical studies (e. g., Hoover, Green, and Seagert, 1978; Dawar and Parker, 1994; Steenkamp, ter Hofstede and Wedel, 1999; Yenyurt and Townsend, 2003). Thus, Nationality will be used as a first approach to conceptualise culture and denote general cultural differences not captured by Cultural Values.

Simultaneously, the use of Benchmarks, the Indirect Values Approach, which consists of ascribing characteristics of cultural groupings based on other studies, was also used. The use of the Indirect Values approach is based on Hofstede's scores (1984) to classify cultures. Accordingly, Portugal was classified as a collectivistic, feminist, long-term oriented, high uncertainty avoidance and high power distance culture while the UK presents an opposite profile.

Finally, the Direct Value Inference approach, based on measuring the values of subjects in a sample to infer cultural characteristics, was used. Thus, although Hofstede's classification of cultures provided a starting point for evaluating Cultural Values, the samples were further classified on cultural dimensions in a manner adequate to their characteristics. This approach presents the advantage of providing interval measures regarding cultural characteristics. However, measuring Cultural Values represented a major challenge for the project given the scarcity of scales to assess Cultural Values in the literature and the difficulties of assessing such a multidimensional construct as culture. Indeed, with the exception of the Individualism/Collectivism dimension which has received substantial attention in the Social Psychology field (Triandis et al, 1988; Triandis, 1995), validated instruments for measuring Cultural Values are scarce.

Different approaches have been proposed to assess Cultural Values: using individual values, using individual's perceptions of group values (Leung, 1989, 1995), or using what Hofstede termed an "ecological level of analysis". The analysis that uncovered Hofstede's values was based on correlations among items in each scale and factor analysis used to define the measures using mean scores from respondents aggregated at the national level before being subjected to analysis. However, the meaningfulness and usefulness of measures obtained based on an ecological level of analysis has been questioned for research operating at the micro level of analysis (Dorfman and Howell, 1988; Yoo, Donthu and Lenartowicz, 2001). The use of individual values has been supported as being more appropriate predictors of individual behaviour "unless collective Cultural Values are strongly shared by the members of the cultural group" (Lenartowicz, 2001: 150). A similar perspective is held by Dake (1991: 77) who proposed assessing culture from the "individual orientations toward what we think of as the ethos of a culture or the thought of an age" perspective:

Culture (...) provides a collectively held set of customs and meanings, many of which are internalised by the person, becoming part of personality and influencing transactions with the social and physical environment. Hence, orienting dispositions are viewed at the individual level as attributes of personality, to the degree that they are held by collectives they may also be viewed as cultural biases (Dake, 1991: 78).

Thus, a reliable scale for measuring Cultural Values at the individual level was the favoured option for measuring cultural dimensions. Following this approach, culture, usually conceived as an attribute at the societal level, is measured at the individual level as evidenced by the strength of an individual's belief in key cultural dimensions. The first option considered was Furrer, Liu and Sudharshan's (2000) Cultural Values scale. Based on some of the items proposed by Hofstede (1991) to describe the differences between the two poles of each cultural dimension, the authors proposed 20 items (four for each cultural dimension) to be measured on a 7-point Likert-type scale. Because the authors did not report reliability coefficients for their scale, a pre-test was conducted in Portugal to assess this aspect. The scale was translated and applied to a sample of 107 students (See appendixes 1 and 2 - Portuguese and English version). However, data analysis for this pre-test revealed that the scale did not present adequate reliability. Following contacts with Furrer and on the basis of his subsequent work with this scale, efforts were made to improve the instrument. Furrer's scale was initially taken as a base to identify reliable items for measuring culture. Items presenting the highest  $\alpha$ 's were retained. Then, additional items were selected from Hofstede's description of the key differences between opposing poles of cultural dimensions. Five judges were asked to identify the items that best described differences between Portugal and the UK. The judges, doctorate researchers in Marketing and social sciences familiar with the Portuguese and British cultures, analysed Hofstede's description of the five cultural dimensions. They, then, provided their selection of the items that best applied to the existing differences between Portugal and the UK. This led to the selection of additional items for each dimension and resulted in the scales for measuring Cultural Values presented in appendixes 3 and 4 (Portuguese and English version, respectively). This instrument was pre-tested with a sample of 59 Portuguese students. Simultaneously, the option of replicating Hofstede's questionnaire – the Value Survey Module (VSM), with proper adaptation to a sample of students, was also pre-tested (Appendixes 5 and 6)

These approaches provided interesting results that should be further developed as future research. Yet, given this project's characteristics, the use of previously developed valid and reliable instruments was deemed as more appropriate. Meanwhile, contacts were established directly with the authors of the Cultural Values Scale, CVSCALE, in order to obtain information relative to the scale details (Donthu and Yoo, 1998). A copy of the manuscript describing scale development and validation studies (Yoo, Donthu and Lenartowicz, 2001), and permission to use the scale, were obtained from the authors. This instrument includes 26 items to measure the five cultural dimensions, with advantages of applicability to general consumer situations, adequate psychometric properties, and use in previous studies (Donthu and Yoo, 1998; Lenartowicz and Roth, 2001a). Therefore, this instrument was used to measure Cultural Values at the individual level (Part 1 Values – Question 1 and 2 in the questionnaire – Appendixes 8 and 9).

Given the simultaneous use of Nationality and the CVSCALE to capture Culture, Hypotheses involving culture (H5, H6 and H7) will be unpacked into two hypotheses, A and B. Thus, for example H5: Culture will be related with Optimum Stimulation Level (OSL), will become H5.A – Nationality will be related with OSL and H5.B - Cultural Values will be related with OSL.

## **II Optimum Stimulation Level (OSL)**

Optimum Stimulation Level (OSL) is a personality trait, which refers to the level of stimulation from the environment that an individual perceives as comfortable (Raju, 1980; Raju and Venkatsen, 1980; Wahlers, Dunn and Etzel, 1986; Wahlers and Etzel, 1990; Steenkamp and Baumgartner, 1992; Baumgartner and Steenkamp, 1996; Zuckerman, 1994). Several self-report Optimum Stimulation Level measures have been proposed in the Psychology literature. These include: the Arousal Seeking Tendency scale – AST (Mehrabian and Russel, 1974), the Change Seeker Index – CSI (Garlington and Shimota, 1964) and its reduced, 7-item form, CSI – short form (Steenkamp and Baumgartner, 1995), the Sensation Seeking Scale (form V) – SSS - V, (Zuckerman, 1979) and the Novelty Experiencing Scale, NES (Pearson, 1970).

Given the relevance of this construct to consumer behaviour as a determinant of exploratory behaviour, all of these scales have been used in Marketing studies. The congruence of these measures of Optimum Stimulation Level with consumer exploratory behaviour was studied by Wahlers, Dunn and Etzel (1986) who concluded that the SSS and the AST have been used most widely in Marketing (Wahlers and Etzel, 1990). Later, a review and empirical examination of four Optimum Stimulation Level measures found that the AST, SSS, CSI, and NES scales showed adequate levels of convergent validity (Steenkamp and Baumgartner, 1992).

Thus, there were no major problems in identifying an instrument for measuring Optimum Stimulation Level. Given its usability, the CSI short form was selected (Steenkamp and Baumgartner, 1995). CSI assesses the “need for variation in one’s stimulus input in order to maintain optimal functioning” (Garlington and Shimota, 1964: 919). While the 95-item CSI may be considered as a preferred measure of Optimum Stimulation Level, its length poses practical problems. The short version was cross-culturally validated and showed better psychometric properties and better nomological validity than the original scale (Steenkamp and Baumgartner, 1992). Furthermore, the attractiveness of this scale as an alternative for the study of Optimum Stimulation Level is enhanced by the reduction of the data collection burden, thus favouring its use in Marketing research (Steenkamp and Baumgartner, 1995; Steenkamp and Burgess, 2002). Preliminary analysis of this scale suggested that item 3 (“I like a job that offers change, variety and travel, even if it involves some danger”) was double-barrelled, i. e., combined two questions into one (Malhotra, 1999). Given the sensitive nature of one of the questions, due to the recent terrorist strikes, it was decided to split this question, as it might cause some problems. This item was thus replaced by “I like a job that offers change and variety” and “I like a job that offers travel, even if it involves some danger” (see Part 2 – Change and Novelty, Question 1 in the Questionnaire – Appendix 8 and 9).

The Sensation Seeking Scale was also considered. This scale has evolved since 1964, the present version being SSS - form V, and has been extensively used in studies on social behaviour, cognition, activity, mood, and psychobiology (Zuckerman, 1994). The scale has also been used in consumer behaviour-related studies (Raju, 1980; Wahlers,

Dunn and Etzel, 1986; Wahlers and Etzel, 1990; Shoham, Rose and Kahle, 1997). This instrument consists of 40 pairs of forced choice format statements including four sub-dimensions: Thrill and adventure seeking (TAS), Experience seeking (ES), Disinhibition (DIS) and Boredom susceptibility (BS). Thrill and adventure seeking consists of items expressing desires to engage in sports or activities involving some physical danger or risk such as mountain climbing, parachute jumping, scuba diving, etc. Experience seeking items describe the desire to seek new experiences through the mind and senses by living in a nonconforming life style with unconventional friends, and through travel. Disinhibition contains items describing the need to desinhibit behaviour in the social sphere by drinking, partying and seeking variety in sexual partners. Finally, Boredom susceptibility was named for the items indicating an aversion for repetitive experience of any kind, routine work, or dull or predictable people. Given its length, only 2 sub-dimensions were included: TAS and ES (Part 2 – Change and Novelty, Question 2 in the Questionnaire – Appendixes 8 and 9). Indeed, Shoham, Rose and Kahle (1997) suggest that the TAS sub-dimension is the most consistent correlate of risk taking behaviour. In what concerns ES, choice was dictated by an analysis of the statements included in each dimension.

### ***III Exploratory Behaviour***

Raju (1980) introduced the concept of Exploratory tendency behaviour to designate behaviour aimed at modifying environmental stimulation. Raju developed a scale, Exploratory Tendencies in Consumer Behaviour Scales, ETCBS (Raju, 1980), composed of 39 items, rated on 7-point agree-disagree scales. Seven types of exploratory behaviours are included: Repetitive behaviour proneness; Innovativeness; Risk taking; Exploration through shopping; Interpersonal communication; Brand switching; and Information seeking. The ETCBS has shown high face validity, low social desirability and adequate reliability (e. g., Wahlers, Dunn and Etzel, 1986; Baumgartner and Steenkamp, 1996).

Building on Raju's scale, Baumgartner and Steenkamp (1996) developed the Exploratory Buying Behaviour Tendencies scale (EBBT). It refers to people's



disposition to engage in two forms of exploratory buying behaviour: Exploratory acquisition of products (EAP) and Exploratory information seeking (EIS). Each is measured by 10 items scored on 5-point strongly agree to strongly disagree scales.

Recently, another instrument was proposed in the literature, the Exploratory Tendency Scale, ETS (Grande, 2000), consisting of a composite measure of risks, loyalty and innovation proneness. This instrument includes 10 items and has been devised by selecting items from existing scales, through exploratory and confirmatory analyses.

In this research, the Exploratory Tendencies in Consumer Behaviour Scales (ETCBS; Raju, 1980) and the Exploratory Buying Behaviour Tendencies (EBBT; Baumgartner and Steenkamp, 1996) were used (Part 3 – General Buying Behaviour, Question 1 in the Questionnaire). Including the EBBT represented a minor addition to the questionnaire, as only 6 of its 20 items were not included in Raju's scale. A seventh item presents a slightly different wording. Raju's item: "When I see a new or different brand on the shelf, I often pick it up just to see what it is like", was re-worded by Baumgartner and Steenkamp (1996) to: "When I see a new or different brand on the shelf, I'm not afraid of giving it a try". We used both items, all rated on 5-point scales, as adopted throughout the questionnaire to reduce potential respondent confusion.

Based on the exploratory behaviour literature reviewed in chapter three, a three factor conceptualisation was proposed as adequate to capture the different facets of exploratory behaviour: Exploratory Information Search, Exploratory Consumption Behaviour and Exploratory Risk Taking. These facets will be assessed using ETCBS and EBBT indicators: Exploratory Information Search will be assessed using EIS and Information Seeking; Exploratory Consumption Behaviour using EAP and Exploration through shopping and finally, Exploratory Risk Taking using Risk taking.

#### ***IV Risk***

Risk has been conceptualised in Marketing studies mainly from a perceptual perspective (see Chapter 3, section 3.3 - Risk taking and Perceived Risk). Scales to measure Perceived Risk have been based on a two-dimensional risk conceptualisation proposed by Cunningham (1967). This operationalization of risk - uncertainty and consequences - has been widely adopted (Mitchell, 1999; e.g. of studies using this approach are: Deering and Jacoby, 1972; Hoover, Green, and Saegert, 1978; Verhage, Yavas, and Green, 1990; Yavas, Verhage, and Green, 1992/3).

Subsequent risk conceptualisations evolved towards a multi-faceted approach - performance, social, physical, financial, and psychological. This led to the development of several scales.

The risk (financial) scale is a three-item, nine-point bipolar-response summated rating scale measuring the perceived degree of financial risk with a specified product (Shimp and Bearden, 1982).

The Risk Perception (Composite) scale assesses the probability that a consumer perceives a given product purchase to involve six types of loss (Murray and Schlater, 1990). It includes 6 items rated on 7-point improbable to probable scales.

The Risk (performance/financial) scale includes four items rated on 5-point scales (very unimportant to very important). It measures the importance of several risk attributes related primarily to the performance or economic aspects of the purchase of a specific product (Venkatraman and Price, 1990).

The Risk (purchase) scale is a four-item Likert scale designed to assess a consumer's level of Perceived Risk associated with the purchase of a particular product (Eroglu and Machleit, 1990).

Finally, Stone and Gronhaug (1993) and Stone and Mason (1995) proposed Risk scales with three 7-point bipolar items (extremely agree to extremely disagree) per dimension

(Overall risk; Social risk; Time risk; Financial risk; Physical risk; Performance risk and Psychological risk).

Thus there have been a number of scales in the literature to assess Perceived Risk. Cunningham's two-dimensional approach (1967) was used for low-risk, convenience products (Part 4 – Question 1 and 2). This two-component model of Perceived Risk has been the mainstay of Perceived Risk research since it was suggested by Cunningham (1967). Different approaches have been used to combine these two elements of Perceived Risk into one Perceived Risk index: Multiplying and adding the two components (uncertainty and risk) have been used to combine these two elements of Perceived Risk into a Perceived Risk index. However, it has been argued that “an additive model might better predict risk perception in more cases than a multiplicative model” (Mitchell, 1999: 179). This approach was followed in this project. Subsequently, this index was averaged to make it a more easily interpreted scale (1-5).

Additionally, the 6-item Risk Perception – Composite scale (Murray and Schlater, 1990) was used to measure the multi-facet nature of risk (Part 4 - Question 3 of the Questionnaire – appendixes 8 and 9).

For the high-involvement products (car and laptop), a more comprehensive operationalisation of risk was adopted. This is due to the fact that research has shown that the higher the value of the product, the more complicated it is, and the higher the involvement in it, the higher its Perceived Risk (Dowling, 1986; Dowling and Staelin, 1994; Mitchell, 1999). The scales proposed by Stone and Gronhaug (1993) and Stone and Mason (1995) were used. These scales include 21 items, 3 per dimension: social, time, financial, physical, performance, psychological and overall risk (Part 5 - Question 2, items 1 to 21 and Part 6 - Question 2, *ibidem*). A comparison of the characteristics of the scales proposed in the literature supported the use of this instrument based on the inclusion of multiple items per dimension.

Additionally, the 4-item probability of a mispurchase facet of the Consumer Involvement Profiles (CIP; Laurent and Kapferer, 1985) was used. CIP assesses involvement as a multidimensional construct along five antecedents: the perceived importance of the product class; the subjective probability of making a mispurchase; the

symbolic or sign value attributed by the consumer to the product class, its purchase or its consumption; the hedonic value of the product class; and interest. The entire scale was included for later use for another project (Part 5 - Question 2, items 22 to 37 and Part 6 - Question 2, *ibidem*).

Appendix 7 sums up all the items used to tap each construct.

#### 4.5.3 - Sampling

Sampling issues represent a critical aspect of cross-cultural research. Indeed, the selection of the subgroup of the population for cross-cultural studies is a difficult task for several reasons. First, several questions must be dealt with at this stage: the number and selection of cultures and subjects for the study, samples' representativeness, and the independence of the cultures (Nasif et al, 1991). Thus, sampling should address the selection of cultural units followed by selecting respondents in each cultural unit (Berry, 1980; Malhotra, Agarwal and Peterson, 1996). Furthermore, compared with sampling in a domestic environment, there is a need to balance within-country representativeness with cross-national comparability (Usunier, 1998; Craig and Douglas, 2000; Reynolds, Simintiras and Diamantopoulos, 2003).

##### **4.5.3.1 - Sampling of Cultures**

The first step in sampling for cross-cultural studies concerns the selection of the specific cultures to be studied.

Regarding the selection stage, the use of country as a surrogate for culture has been widespread in studies in Marketing and other fields because nations provide a convenient approach to defining research units of analysis (Nasif et al, 1991). There are limitations to equating culture and country, given the inadequacy of political boundaries to capture the complexity of the concept of culture (Sheth and Sethi, 1977). Nevertheless, this practice has been deemed adequate and theoretically justified, except for culturally heterogeneously countries, such as India or Malaysia (Samiee and Jeong,

1994; Malhotra, Agarwal and Peterson, 1996). In fact, meaningful within-country commonalities and between-country value differences have been demonstrated (Nakata and Sivakumar, 1996; Steenkamp, ter Hofstede and Wedel, 1999). Consequently, the use of nation as a proxy for culture will be adopted in this project.

Three procedures for sampling cultures have been proposed (van de Vijver and Leung, 1997: 28). In **Convenience** sampling, the sampling of cultures does not result from the theoretical questions relevant to the study and is guided merely by matters of practicality. In **Systematic sampling**, the selection of cultures is determined by theoretical considerations: “To maximize the effectiveness of systematic sampling, effort should be made to select cultures that are far apart on the theoretical dimension on which they vary”. Finally, in **Random sampling**, cultures are drawn randomly.

Random and systematic sampling are recommended; however, random sampling is usually not practical, due to time and resources constraints. Systematic sampling is thus widely supported in the literature. Selecting cultures must be justified by the study’s objectives (Samiee and Jeong, 1994; Malhotra, Agarwal and Peterson, 1996). Samiee and Jeong (1994) contend that culture selection must fit into a framework to allow the emergence of meaningful results. Accordingly, a systematic sampling procedure was adopted in this project. Given that Cultural Values are a focal variable in this project, the selection of cultural units was determined by inspection of differences on this variable.

Given our review of the literature on culture and cultural dimensions, Hofstede’s (1984, 2001) indexes were selected to operationalise culture. These indexes are the most comprehensive set of measures of Cultural Values (Kale and Barnes, 1992; Smith, Dugan and Trompenaars, 1996). To improve reliability while enhancing generalisability, a set of countries offering similarities across a number of aspects while being as far apart as possible on the theoretical dimension of concern, was chosen (Alden, Hoyer and Lee, 1993; Sivakumar and Nakata, 2001). Thus, two countries, providing opposite profiles on all the cultural dimensions were selected: Portugal and the UK. These countries have similar characteristics as both are Western, EU countries sharing common Occidental values and a long history of commercial and political relationships. However, regarding cultural dimensions, they provide opposite profiles

(Table 4.2). For example, the Individualism dimension, the UK scored the highest and Portugal the lowest of the European countries studied by Hofstede (1984). They are also opposite (47/48<sup>th</sup> and 2<sup>nd</sup> of 53 cultures, respectively) on Uncertainty avoidance.

Table 4.2 - Scores and ranks for cultural dimensions between Portugal and the UK

	<b>Uncertainty Avoidance Score (Rank)*</b>	<b>Power Distance Score (Rank)*</b>	<b>Masculinity Score (Rank)*</b>	<b>Individualism Score (Rank)*</b>	<b>Long-Term Orientation Score (Rank)**</b>
<b>Portugal</b>	<b>104 (2)</b>	<b>63 (24/25)</b>	<b>31 (45)</b>	<b>27 (33/35)</b>	<b>65 (6) ***</b>
<b>UK</b>	<b>35 (47/48)</b>	<b>35 (42/44)</b>	<b>66 (9/10)</b>	<b>89 (3)</b>	<b>25 (18)</b>

\* based on a total of 50 countries and 3 regions

\*\* based on 23 countries

\*\*\* Values for Brazil used as an approximation for Portugal

Source: Hofstede (1984; 2001)

#### 4.5.3.2 - Sampling of Subjects

The second aspect concerns drawing samples from the chosen countries. There are two forms of achieving sample comparability: drawing nationally representative samples and selecting matched samples based on some set of characteristics of interest (Steenkamp and Baumgartner, 1998). Early contributions in cross-cultural research advocated the use of representative samples as the ideal situation.

To help ensure against alternative explanations of differences in results, the researcher should select samples in each nation that are as closely comparable as possible. One way to achieve sample comparability is to draw a truly representative sample from each nation under study (Green and White, 1976: 84).

Scholars recognize that the selection of a representative national sample is not easy, since researchers have difficulty determining which subjects are representatives of the central tendencies of the nation. The second best choice seems to be to select matched samples in the countries of investigation (Sekaran, 1983: 64).

Yet, the use of cross-cultural and cross-national representative samples presents often-insurmountable obstacles. For example, the use of representative samples presents the disadvantage that they “may exhibit extreme variation which could make cross-national

comparisons difficult” (Green and White, 1976). The alternative consists of drawing samples from a specific group of the countries’ populations, an option deemed adequate in a number of circumstances depending on the objective of the study. Berry (1980) suggested that matched samples might be more appropriate than representative random samples for theory testing studies and the literature justifies the advantages of use of homogeneous samples in some situations. If sampling is conducted to achieve representative samples of the target populations, they are unlikely to be comparable in terms of other characteristics. If these characteristics are important for the subject studied, effects might be confounded (Craig and Douglas, 2000). Consequently, the use of homogeneous, matched samples is no longer considered the ‘second best choice’ but the right approach for some types of international research, namely in the following circumstances (Reynolds, Simintiras and Diamantopoulos, 2000):

- (i) The type of research being conducted has culture/Nationality as a variable of interest;
- (ii) The construct(s) of interest is (are) relevant to the specific homogeneous samples chosen; and,
- (iii) Any matching that takes place is done using variables that are theoretically justifiable given (i) and (ii).

This practice will limit generalization of the findings but is more effective for identifying similarities and differences among nations. In fact, literature in cross cultural studies converges on the need of using matched samples if the purpose is identifying the impact of culture on dependent variables (Green and White, 1976; Hofstede, 1984; Dawar and Parker, 1994; van de Vijver and Leung, 1997; Cavusgil and Das, 1997; Reynolds, Simintiras and Diamantopoulos, 2003), where cognitive processes are examined (Douglas, Morrin and Craig, 1994), or for theory-application studies (Calder, Phillips and Tybout, 1981). The use of matched samples in cross national studies “makes the effect of Nationality differences...stand out unusually clearly” (Hofstede 1991; 13). Consequently, “for such studies (comparative and theoretical studies) (...) control of extraneous factors to ensure between country comparability is of paramount importance. Such comparability is facilitated by the use of homogeneous samples (Reynolds, Simintiras and Diamantopolous, 2003: 86)

Thus, the use of matched samples has been widely supported for cross-national theory testing. Moreover, the equivalence of the samples in terms of basic socio-economic characteristics has been acknowledged (Zuckerman, 1994; Malhotra, Agarwal and Peterson, 1996; van de Vijver and Leung, 1997). Given the theory-testing nature of this study about the impact of culture on exploratory behaviour, homogeneous samples were deemed desirable for this project to hold extraneous factors constant and isolate the “substantive domain of interest to the researcher” (Reynolds, Simintiras and Diamantopoulos, 2000).

#### 4.5.3.3 - Use of Students

Students’ use is a widespread practice in academic research and cross-national research in particular (e.g., Steenkamp and Baumgartner, 1992; Durvasula et al, 1993; Steenkamp and Baumgartner, 1995; Lysonski, Durvasula and Zotos, 1995; Baumgartner and Steenkamp, 1996; Lee and Ulgado, 1997; Mitra, Reiss and Capella, 1999; Daghfous, Petrof and Pons, 1999; Peterson, 2001; Ratner and Kahn, 2002; Choi and Lee, 2003). Caution in using students has been suggested, however. For example, while a study to investigate the use of students as surrogates for international consumers showed only limited support (Hampton, 1979), another study suggested such subjects were good substitutes for businesspeople when they had adequate background for the research task (Khera and Benson, 1970). Peterson (2001) advised that the use of students should be scrutinized, as their responses were slightly more homogeneous than those of non-student samples. However, advantages of sampling students include low-cost, availability, cooperation, and ease of following instructions (Hampton, 1979), which support their use as surrogates for other populations (Khera and Benson, 1970; Yavas, 1994). The usefulness of student samples depends on the research context: the problem, objectives, hypothesis, and setting (Hampton, 1979). Thus, the applicability of the construct of exploratory behaviour to students has to be warranted, in which case their use can enhance internal validity of the research. This aspect has been addressed during the exploratory stage of this project, in supervising meetings and in doctoral and master seminars. In sum, it is felt that students may allow for valid generalizations regarding the nomological net of constructs investigated.



Thus, given a) the cross-national nature of the study, implying the need for matched samples, b) the objectives of the study in terms of theory testing, stressing the importance of internal validity, and c) the constraints of this study in terms of timing and budget, we believe that using a sample of students is an adequate solution, allowing for the necessary control of all variables other than culture.

#### **4.6 – Fieldwork**

At the fieldwork stage, data collection takes place and further questions arise. In order to guarantee equivalence of administration and enhance the comparability of the data collected, attention must be paid to the following aspects (Sekaran, 1983; Nasif et al, 1991):

**Response equivalence** – uniform data collection procedures must be adopted. These include identical settings, methods of introduction to the study and researcher, and task instructions to minimize differences due to data collection procedures.

**Timing of data collection** – Data collection should be completed within a comparable time frame.

**Status and other psychological issues** – In societies with large status and authority differences, some techniques may be unwarranted. The fact that the researcher is a foreigner or that research is to be analysed and published abroad may trigger unexpected reactions from the respondents.

These methodological recommendations were accounted for and followed as closely as possible: uniform data collection procedures were adopted and timing was taken into consideration in that not too much time should elapse between data collection in each country.

Data collection took place in Portugal and in the UK in the period of November 2002 to February 2003. In Portugal, the questionnaire was administered during class time. Respondents, economics and management undergraduate students, were informed of the purpose of the study in very general terms by their instructor and their cooperation was

asked for. Then the interviewer introduced herself and the study's aims, distributed the questionnaires, and remained in class during their completion. Respondents were very cooperative and 172 questionnaires were delivered and completed. Of these, 161 were from respondents of Portuguese Nationality and were retained for analysis.

Due to increased difficulties in obtaining an acceptable sample size in UK, data collection took place in three Universities (Luton, Strathclyde and Teesside). Data collection was only possible through the cooperation of instructors in each of these institutions, whose collaboration is appreciated. First, questionnaires were sent out to these Universities for lecturers who had agreed to participate. Regarding the University of Teesside, data collection was undertaken by the author with the collaboration of a number of lecturers of the Teesside Business School. In order to deal with status and psychological issues, the interviewer was previously introduced to the students by local instructors. In either case, questionnaires were either completed during classes (the majority of cases) or distributed in classes for completion later and thus response rates were considerably lower in this case. Of the 181 questionnaires received from the UK, 9 were from respondents of different nationalities and 22 were incomplete and were excluded from analysis. Thus, the final sample included 161 respondents for Portugal and 153 for the UK, resulting in a total sample of 314 questionnaires.

However, the hypotheses that data collection was unaffected by unforeseen elusive cultural differences cannot be completely ruled out. For example, aspects such as a slightly greater resistance to completing questionnaires by students in the UK also played a role. Although the number of incomplete questionnaires was higher in the UK, no significant differences in the respondents' attitudes were detected.

This stage was a highly time-consuming phase of this research as a high number of contacts were established with researchers in several universities to ensure co-operation. In this type of research, data collection, the research setting, instructions and timing should be similar to guarantee equivalence of administration and enhance the comparability of the data collected (Sekaran, 1983; Nasif et al, 1991). In general, however, although it has been confirmed that "data is hard to get in cross-cultural research" (Nasif et al, 1991: 87), this stage provided very positive results.

## 4.7 - Data Preparation and Analysis

In this stage, raw data are compiled, analysed and interpreted so as to understand their full meanings and implications (Green, Tull and Albaum, 1988). This stage culminates the research process; however, it is deeply intertwined with previous decisions in the research chain. For example, certain analysis techniques require collection of specific types of data. Therefore, this represents the corollary of the process initiated with the formulation of the research questions and constitutes a complex challenge.

As in previous stages, the question of comparability needs to be addressed so that meaningful comparisons can be established. Besides the standard procedures to edit, code, and analyse data, two specific cross-cultural research questions must be addressed at this stage: whether the data should be standardised and the level of aggregation for data analysis (Craig and Douglas 2000; Malhotra, Agarwal and Peterson, 1999).

### 4.7.1 - Data Preparation

Raw data must be compiled and analysed so that collected information can be interpreted and understood. The data preparation process followed seven stages: Questionnaire checking → Editing → Coding → Transcribing → Cleaning data → Statistically adjusting data → Selecting a data analysis strategy (Malhotra, 1999).

Prior to any statistical analysis, it should be decided whether the data need to be standardised (Leung and Bond, 1989; van de Vijver and Leung, 1997; Malhotra and Peterson, 2001). Standardisation consists of converting variables to common metrics. Thus, data could be standardised within each culture, removing the mean of the data set obtained in each culture and dividing by the standard deviation of the data set (Leung and Bond, 1989; Triandis, 1995). This could be used to reduce or eliminate unwanted cross-cultural differences such as those due to response sets. Consider, for example, the case of some Mediterranean and East Asian cultures. The former, especially Arabs, tend to make strong, clear statements and prefer the extreme ends of scales. In East Asia, in contrast, modesty and controlled emotional expression is valued, and respondents tend

to use middle scale positions. Standardisation would neutralise these response style differences and allow for more meaningful comparisons of the effect of the independent variables (Malhotra, Agarwal and Peterson, 1999).

Yet, the use of non-standardised data is recommended for etic cross-cultural comparisons, once construct equivalence has been achieved (Singh, 1995; Malhotra, Agarwal and Peterson, 1996). Singh (1995: 600) favoured the use of non-standardised coefficients since (1) samples can only be compared by using these coefficients, (2) they “represent structural parameters that are likely to remain invariant (statistically) for estimates obtained from different samples”, and (3) such coefficients reflect an etic comparison standard. Similarly, Smith, Dugan and Trompenaars (1996: 244) considered that, if the questionnaire items include a variety of scales construed on the basis of hypothesized differences grounded in theory, standardizing across scales “would be very likely to eliminate variance that is substantive rather than artifactual”.

#### 4.7.2 - Data Analysis

Data analysis is the fundamental link between specifying a theoretical framework and drawing conclusions. Obviously, in cross-cultural as in domestic research, it involves much more than running a computer program of a statistical package and is interrelated with the all chain of the research process.

Cross-cultural analysis is characterised by specific issues. Cross-cultural research deals with data at different levels and a decision regarding level of analysis of the data is needed. Hence, the first decision regarding data analysis in cross-cultural analyses refers to the unit at which the analysis should be conducted. Based on the level of aggregation, cross-cultural data can be analyzed at three levels: **individual, within-country or cultural unit, and across-countries or cultural units** (Triandis, 1995; Malhotra, Agarwal and Peterson, 1999; Craig and Douglas, 2000; Malhotra and Peterson, 2001).

**Individual level analysis** refers to analysing the data separately for each respondent. For example, computing correlation coefficients or running a regression analysis for

each respondent. However, this is an approach rarely feasible and thus is not a common alternative even for domestic research.

**Within-country or cultural unit analysis** refers to analysing data separately for each country or cultural unit. This approach, also termed intra-country (Craig and Douglas, 2000) or intra-cultural analysis (Malhotra, 1999), is similar to analyses conducted in domestic research. Data analysis is conducted within a country leading to inferences relative to the pattern of relationships of the variables within that country. To the extent that the research may be replicated in different countries, comparisons can be made about these relationships in each country. However, “any comparisons across countries are made with the knowledge that there may be elements which are not comparable across countries” (Craig and Douglas, 2000: 290).

**Across-countries or cultural units analysis** refers to analysing the data from all countries simultaneously. This method can be conducted following two approaches: the data from all respondents can be pooled and analysed, which is referred to as a pan-cultural (Leung and Bond, 1989) or pan-country analysis (Douglas and Craig, 2000). Suppose a 20-item questionnaire is applied to 100 respondents in each of 10 different cultures. A pan-cultural factor analysis would be based on the correlations of the 20 items across the ten cultures. In other words, a [20x20] matrix based on 1000 observations per variable would be factor analysed. This level of analysis allows for the extraction of the universal factors that underlie the data (Triandis, 1995). Alternatively, data can be aggregated for each country and these aggregate statistics analysed. For example, means of variables for each country can be computed and then these means can be correlated. This constitutes a cross-cultural analysis approach (Malhotra, Agarwal and Peterson, 1999) or inter-country analysis (Craig and Douglas, 2000).

In this project both alternatives of across-countries or cultural units analysis will be used. Cross-cultural analysis is recommended to compare the findings between countries and investigate their similarities and differences and will be used to assess differences in the level of variables. The analysis of the proposed nomological model will be carried out using a pan-cultural analysis in which Nationality will be used as one of the variables that is proposed to impact Exploratory behaviour and risk taking.

Two stages are recommended for the analysis of cross-cultural data: examining the psychometric adequacy of instruments as a preliminary stage and exploring the research questions and testing hypotheses to address the main questions of the study (van de Vijver and Leung, 1997). In what concerns the main stage of analysis, the choice of statistical technique depends on the focus of the study: the differences in the level of variables or in the structure of variables (Section 4.2 – Cross-cultural research). Structure-oriented studies focus on comparing the nature of the relationship among a set of variables across countries. These studies require data analysis techniques that allow making inferences about the underlying structure of behaviour the relationships of variables. Cross-cultural methodology literature suggests the following techniques as appropriate for structure level studies: Correlation analysis; cluster analysis, multidimensional scaling, factor analysis, and structural equations (van de Vijver and Leung, 1997; Craig and Douglas, 2000). Correlation analysis constitutes the simplest approach to the examination of structural issues and has been widely used (Dawar, Parker and Price, 1996; Albers-Miller and Gelb, 1996; Cutler, Erdem and Javalgi, 1997; Furrer, Liu and Sudharshan, 2000; Yaveroğlu and Donthu, 2002). In what concerns more sophisticated techniques, Hierarchical Linear models have been proposed in cross-cultural research. This technique allows accounting for multilevel data and has been deemed useful in explaining the effects of individual-, culture-level variables, and their interactions on dependent variables. Following van de Vijver and Leung's (1997: 127) call for use of this "promising tool" in cross-cultural research, it has been used in a few studies (Steenkamp, ter Hofstede and Wedel, 1999 and Birgelem et al, 2002).

Level-oriented studies constitute the majority of cross-cultural studies. Techniques that are used to examine the levels of variables between countries are: cross-tabulation, t-tests, analysis of variance, analysis of covariance, Multivariate analysis of covariance, conjoint analysis and discriminant analysis (van de Vijver and Leung, 1997 and Craig and Douglas, 2000). Cross-tabulation and chi-square statistics are typically used in commercial research and are also common in academic research in conjunction with other techniques (e.g., Alden, Hoyer and Lee, 1993; Kustin, 1993; Cutler, Erdem and Javalgi, 1997; Lu, Rose and Blodgett, 1999; Malhotra and McCort, 2001). T-tests and analysis of variance are the most frequently used techniques to assess if variable means differ between countries (e.g., Sjolander, 1992; Donthu and Yoo, 1998; Malhotra and

McCort, 2001; LeBlanc and Herndon, 2001; van Everdingen and Waarts, 2003; Park and Jun, 2003). Analysis of variance is also used when more than two cultures are studied (e.g., Zaichkowsky, 1989; Han and Shavitt, 1994; Dawar and Parker, 1994; Aaker and Maheswaran, 1997; Fam and Merrilees, 1998; Donthu and Yoo, 1998; Malhotra and McCort, 2001). Cross-cultural studies using other techniques include Al-Khatib, Vitell and Rawwas (1997; discriminant analysis) and Mattila (1999; analysis of covariance).

Regression analysis has been considered “by far the most widely used and versatile dependence technique, applicable in every facet of business decision making” (Hair et al, 1998: 141). This technique is also frequently used in International Marketing research (Cutler, Erdem and Javalgi, 1997, van Everdingen and Waarts 2003; Yeniyurt and Townsend, 2003 and Park and Jun, 2003). Regression analysis evaluates the influence of one or more independent variables on a dependent variable in terms of the amount of variance of the dependent variable that the independent variable can explain. Multiple regression constitutes the logical extension of simple regression to situations in which there are several independent variables (termed predictors in regression analysis). Multiple regression allows a more sophisticated exploration of interrelationships among a set of variables than correlation analysis (Pallant, 2001).

This is a technique that can be used to both to assess differences in the level of variables or interrelation of variables questions. Data from different countries can be pooled and countries coded as dummy variables (van de Vijver and Leung, 1997 and Craig and Douglas, 2000), to assess the impact of culture/Nationality on the dependent variables.

Hierarchical multiple regression, also termed sequential regression, allows the researcher to enter independent variables into the regression equation in a pre-specified order, based on theoretical grounds. Thus, it is possible to assess what each independent variable is adding to the prediction of the dependent variable, after previous variables have been controlled for. This technique permits identifying the moderating effects of the culture scales. Stated differently, this method allows capturing the impact for the dimensions, a manifestation of culture, measured at the individual level and an impact for all other cultural aspects, not measured by the five (at the individual or any other level). This technique has been used to assess the impact of culture on a dependent

variable (Cutler, Erdem and Javalgi, 1997; van Everdingen and Waarts, 2003). Given its versatility and robustness, this technique will be used in this project.

#### **4.8 – Conclusion**

Cross-culture research presents methodological challenges due to the difficulties of conducting research in different national settings (Cavusgil and Das, 1997). Capturing the complexity of cultural influences poses problems, such as designing appropriate research approaches (Douglas and Craig, 1997) and including culture explicitly as a focal variable. While the importance of culture has been widely recognised, research on it is hampered by the problems inherent to its operationalisation (Chapter 2). Finally, these problems are enhanced by the changing dynamics of consumer behaviour:

Cross-cultural research, ever complex and challenging, has thus become even more challenging insofar as the rapid and continual evolving and commingling of the influences on consumer behaviour in different countries and cultural contexts mean that both the phenomena under study and their underlying determinants are in a constant state of flux (Douglas and Craig, 1997: 81).

In this chapter, the methodological problems in conducting cross-cultural research were presented, suggestions were made on how to deal with, reduce, or overcome them and the methodology adopted for this research was presented. This discussion highlighted that cross-cultural Marketing research cannot be treated as a mere extension of single-country Marketing research (Malhotra, Agarwal and Peterson, 1996). Indeed, cross-cultural Marketing research is still in an infancy stage of development (Usunier, 1998). “It is only by a reflexive attitude vis-à-vis their own cultures that management researchers will be able to search for cross-cultural equivalence and uncover true areas of non-equivalence” (Usunier, 1998: IX). Nonetheless, we are witnessing a growing emphasis on cross-cultural research, a natural result of the development of international market research (Malhotra, 2001). The evolution from replicating studies conducted mainly in the US to increasing methodological sophistication is a development that signals the maturation of the field.



Cross-cultural research is “fraught with conceptual and methodological pitfalls” (Douglas and Craig, 1997: 379; see also Green and White, 1976; Boddewyn, 1981; Albaum and Peterson, 1984; Aulakh and Kotabe, 1993; Douglas, Morrin and Craig, 1994; Malhotra, Agarwal and Peterson, 1996). However, the substantive *and* technical aspects of cross-cultural research should be emphasized. Stated differently, equivalence and comparability concerns should not preclude the identification of differences (Sechrest et al, 1972 in Sekaran, 1983; Malhotra, Agarwal and Peterson, 1996). In fact:

There is something vaguely ethnocentric in the absolute pursuit of ‘zero bias’ in cross cultural research, inasmuch as differences are not meant as useful information, but rather as a disturbing phenomenon for the research process that must in some way be eliminated, so that concepts, instruments, respondents and their responses are made comparable across nations and cultures and systematically viewed as different in degree rather different in nature (Usunier, 1998: 132).

Understanding culture is a difficult task. Designing a research project involving culture as a key explanatory variable raises many methodological issues. Yet, methodological sophistication is not enough; good theories and conceptualisations should accompany sound methodology. To this end, a theoretical/conceptual framework was developed; dimensions of cultural differences were articulated within the context of a grounded theory prior to the investigation; the relevance of culture to the specific context studied was assessed; the selection of cultures was based on a meaningful framework; and methodological aspects of cross-cultural research were accounted for (Samiee and Jeong, 1994; Douglas and Craig, 1997). The need to develop new creative approaches to probe the cultural underpinnings of behaviour has been emphasised (Craig and Douglas, 2001) and this project aims at offering a contribution towards that end.

In the following chapter, data analysis results will be presented.

## CHAPTER 5 - DATA ANALYSIS

**The competent analysis of research-obtained data requires a blending of art and science, of intuition and informal insight, of judgement and statistical treatment, combined with a thorough knowledge of the context of the problem being investigated (Green, Tull and Albaum, 1988: 379)**

### 5.1 - Introduction

In this chapter, data analysis will be carried out leading to the presentation and discussion of the empirical results of this project. The analysis process includes ordering, manipulating, and interpreting data to obtain answers to the research questions (Green, Tull, and Albaum, 1988). This stage constitutes a fundamental link in the research project chain. Raw data is processed into usable information, allowing for a discussion of the empirical findings, an evaluation of hypotheses, and an assessment of the nomological relations of the proposed model.

Specific issues of cross-cultural data analysis form the multi-tier character of such research, requiring analyses at different levels (Triandis, 1995; Malhotra, Agarwal, and Peterson, 1999; Craig and Douglas, 2000; Malhotra and Peterson, 2001). Therefore, in this chapter, the level of aggregation and the procedures used to analyse the data will be addressed prior to the presentation of results.

According to the literature, two major stages should be followed for the analysis of cross-cultural data: establishing the psychometric adequacy of the scales and exploring the research questions and testing the hypotheses to address the main questions of the study (Van de Vijver and Leung, 1997). Furthermore, cross-country comparisons can focus on differences in the level of variables or the structure of variables (van de Vijver and Leung, 1997). Accordingly, this chapter is organized as follows: the next section (5.2) will describe the data analysis process and procedures; in section 5.3, the psychometric adequacy of the constructs is examined; then differences in the level of variables will be presented and, finally, the main stage of data analysis will be presented

leading to the evaluation of the nomological model and the proposed relationships and hypotheses.

## **5.2 - Data Analysis Process**

Data analysis will be conducted at the across-countries level as refereed to in section 4.7.2 – Data analysis of Chapter 4 – Research Methodology approach, since this was deemed more adequate to the nature of the study.

Given the importance of comparability issues in cross-cultural studies, establishing psychometric properties of the measures is a critical pre-analysis step. Several criteria were followed to assess scales' reliability and dimensionality.

Cronbach's  $\alpha$  is the most common method for examining scales' reliability (internal consistency) in multi-country research (Craig and Douglas, 2000). Cronbach's  $\alpha$  ranges from 0 to 1, with values above 0.60 deemed to acceptable for exploratory research and 0.70 for advanced research (Nunally, 1978). Thus,  $\alpha$ 's were checked first to establish scales' reliability. Second, when a scale exhibited an inadequate  $\alpha$  coefficient, it was checked for potential improvement by excluding any of its items. Scale integrity was maintained whenever possible. However, in some cases items were excluded from the scale or, if the scale could not be improved, it was excluded from further analysis. Third, correlations between items were inspected to ensure that all the items in the scale were sufficiently inter-related. Finally, the scales were factor analyzed to check their dimensionality and ensure that uni-dimensional scales were indeed uni-dimensional and that multi-dimensional scales resulted in the right number of sub-scales and the right structure of item loadings on each.

Uni-dimensionality refers to a set of indicators that has only one underlying construct (Hair et al, 1998). Uni-dimensionality of each dimension is important because  $\alpha$  coefficients do not test the multidimensionality of a scale and conducting a principal components analysis has been recommended towards that end. If the difference between the first and the second eigenvalues is substantially large (assessed by inspecting scree plots) or if only one dimension is extracted, uni-dimensionality can be assumed (van de Vijver and Leung 1997).

Subsequently, overall scores for each of the multi-item measures were calculated. For the 5-point Likert scales that constitute the majority of the measures used in the questionnaire, these scores were calculated by averaging item scores for each scale. This option was preferred to summing item scores for data interpretability reasons, except for Thrill and adventure seeking (TAS) and Experience Seeking (ES), the two Sensation seeking scale (SSS) - form V sub-dimensions used to operationalise Optimum Stimulation Level (OSL). These scales are composed of ten pairs of forced choice statements and items (coded 0 or 1) were summated.

In what concerns the main stage of analysis, given the simultaneous level- and structure-orientation of this project, multiple regression analysis was used. Regression analysis can be used to analyse data from different countries. In this case, data from different countries can be pooled and countries coded as dummy variables (van de Vijver and Leung, 1997 and Craig and Douglas, 2000). If the regression coefficient of the dummy variable is significant, the two cultures differ on the dependent variable. Thus, a dummy variable was created (0=UK; 1=Portugal) to represent respondents' Nationality and accounts for national/cultural differences not captured by Cultural Values.

Hierarchical multiple regression analysis was the main technique used to assess the relationships between variables (see section 4.7.2 - Data analysis in the Methodology Chapter). Essentially, the dependent variables of interest were regressed hierarchically on the independent variables, which allows the researcher to decide in which order predictors enter the model (Field, 2000; Pallant, 2001).

The remainder of this chapter follows the data analysis process presented above. In the next section, reliability results will be presented, then the level- and structure-oriented analyses will be addressed.

### **5.3 – Reliability**

The cross-cultural methodology literature emphasised the importance of examining instruments' psychometric adequacy as a preliminary stage of the data analysis process. Thus, this section, examines the internal consistency of the scales and their reliability.

### 5.3.1 – Cultural Values

Culture constitutes a fundamental construct in this project. Identifying culture-sensitive aspects of consumer behaviour was the research question for this project leading to the proposition that exploratory and risk taking consumer behaviour should be considered from a cultural perspective. However, difficulties in assessing this concept exist (Chapter four - Research Methodology). In this project, the Cultural Values Scale (CVSCALE), developed by Yoo, Donthu and Lenartowics (2001), was used to assess culture at the individual level. It includes 26 items grouped into five dimensions: Power distance (PDI), Collectivism (COL), Uncertainty avoidance (UAI), Masculinity (MAS) and Long-term Orientation (LTO) - (section 4.5.2.1 – Measures / Part 1 Values – Question 1 and 2 in the questionnaire – Appendixes 8 and 9).

Reliability for the five CVSCALE dimensions was assessed by Cronbach's  $\alpha$ . (Table 5.1). The instrument has good reliability for Collectivism and Masculinity and modest but acceptable reliability for the remaining dimensions in the Portuguese sample (Nunally, 1978). For the UK sample, reliability coefficients are good, except for Uncertainty avoidance.

Table 5.1 - Reliability of the CVSCALE

	<i>Number of items</i>	<i>Portugal</i>	<i>n</i>	<i>UK</i>	<i>n</i>	<i>Pooled sample</i>	<i>n</i>
Long-term Orientation (LTO)	6	0.5544	155	0.7409	150	0.6852	305
Power Distance (PDI)	5	0.6122	159	0.7851	151	0.7213	308
Collectivism (COL)	6	0.7923	158	0.7186	148	0.7741	306
Masculinity (MAS)	4	0.7351	161	0.7844	150	0.7649	311
Uncertainty Avoidance (UAI)	5	0.6874	157	0.6866	151	0.6636	308

These results are consistent with previous findings in the literature in that the same scales may exhibit different reliabilities when used in multiple national contexts (Parameswaran and Yaprak, 1987; Malhotra, Agarwal, and Peterson, 1996 - see section 4.5.1.3 Reliability and validity). In addition, these coefficients are higher than those obtained in the study conducted to develop the scales - [0.53-0.75] for the Korean and [0.68-0.76] for the US sample (Yoo, Donthu, and Lenartowicz, 2001). Moreover, given the nature of culture and the difficulties in operationalizing it (Chapter two, Section

2.3.3 - Definition, conceptualisation and operationalization of culture), these results constitute a promising start.

Regarding the scale's dimensionality, factors analysis revealed that five factors adequately capture the data's structure. Setting the analysis to extract five factors revealed that all items load on the appropriate dimension for each sample separately and for the pooled sample, regardless of the extraction method (principal component or principal axis factoring) or the rotation method used (orthogonal or oblique). The structure of the data for both samples largely supports the five-factor structure of the CVSCALE. In sum, the scale presents adequate dimensionality.

Separate factor analyses of the five dimensions confirmed that all are uni-dimensional. Except for Long-term orientation (LTO), all dimensions presented one factor (eigenvalue > 1). Factor analysis of LTO results in two factors; yet, inspection of the scree plot revealed a significant difference between the two factors, thus supporting its uni-dimensionality.

### 5.3.2 - Optimum Stimulation Level

Three scales were used to measure the level of environmental stimulation an individual feels comfortable with (Raju, 1980): the Change seeker index (CSI) short form (Steenkamp and Baumgartner, 1995) and the Experience seeking (ES) and Thrill and Adventure Seeking (TAS) dimensions of the Sensation seeking scale (SSS) - form V (Zuckerman, 1994) (section 54.5.2.1 – Measures / Part 2 – Change and Novelty, Question 1 in the Questionnaire – Appendix 8 and 9). Table 5.2 shows that internal consistency is adequate for CSI and TAS; however,  $\alpha$  reliability of ES is low for the Portuguese and the pooled samples and could not be improved by deleting any item.

Table 5.2 - Reliability of OSL measures

	<i>Portugal</i>	<i>n</i>	<i>UK</i>	<i>n</i>	<i>Pooled sample</i>	<i>n</i>
CSI	0.6516	156	0.8028	150	0.7280	306
TAS	0.7444	154	0.7723	145	0.7549	299
ES	0.5308	145	0.6444	141	0.5784	286

In the case of CSI, previous  $\alpha$  estimates ranged from 0.82 to 0.92 across samples and 0.84 for the pooled sample (Steenkamp and Baumgartner, 1995). As for the two subscales of SSS – form V,  $\alpha$  ranged from 0.77 to 0.82 for TAS and 0.61 to 0.67 for ES (Zuckerman, 1979). Thus, ES had lower reliability than TAS in the original studies also.

In what concerns uni-dimensionality, factor analysis of the scales shows more than one factor (two for CSI and three for TAS and ES) but the scree plots drop sharply between the first and second component. Thus, these scales present adequate dimensionality.

Thus, the three measures will be used. ES will be retained for further analysis, in spite of its lower reliability in Portugal. First, in general, the pattern of the reliability coefficients shows that they are lower for Portugal than for UK. This may be due to the fact that, in spite of the back-translation process, the instruments, originally developed in English, would be more reliable when used in their native language. Second, it was felt that the ES scale is important to the model tested in this research. Given the exploratory nature of the research in Portugal, Churchill (1979) suggests, based on Nunally (1978), that in early basic research, reliabilities of 0.50 - 0.60 suffice.

### 5.3.3 - Exploratory and Risk Taking Behaviour

Exploratory and Risk Taking Behaviour (ERTB) is an individual difference variable of consumers' disposition to engage in behaviours aimed at modifying environmental stimulation. In Chapter three a three-factor conceptualisation of Exploratory and Risk Taking Behaviour was proposed: Exploratory Information Search, Exploratory Consumption Behaviour and Exploratory Risk Taking. These were measured using the Exploratory tendencies in consumer behaviour scales - ETCBS (Raju, 1989) and Exploratory buying behaviour tendencies scale - EBBT (Baumgartner and Steenkamp, 1996) - (Section 4.5.2.1 – Measures / Part 3 – General Buying Behaviour, Question 1 in the Questionnaire).

ETCBS includes seven exploratory behaviours whose reliability is presented in Table 5.3. Overall, the results are satisfactory, especially given the nature of the research. Exploration through shopping, Brand switching, and Information seeking presented adequate  $\alpha$ 's and the  $\alpha$ 's for Innovativeness and Risk taking could be improved by

excluding one and two items, respectively. For Innovativeness, initially based on 10 items, one item (“Even for an important dinner, I wouldn’t be wary of trying a new or unfamiliar restaurant”) was excluded. In the case of Risk taking, initially composed of nine items, two items (same as above and “If I buy appliances, I will buy only well-established brands”) were excluded. Finally, repetitive behaviour proneness and interpersonal communication were unreliable and were excluded from further analysis.

EBBT comprises two forms of Exploratory buying behaviour: Exploratory acquisition of products (EAP) and exploratory information seeking (EIS). The scales present adequate psychometric properties for both samples.

Table 5.3 - Reliability of Exploratory and Risk Taking Behaviour measures

		<i>Number of Items</i>	<i>Portugal</i>	<i>n</i>	<i>UK</i>	<i>n</i>	<i>Pooled sample</i>	<i>n</i>
ECTBS	Repetitive behavior proneness:	10	0.4854	155	0.4633	144	0.4607	299
	Innovativeness	9*	0.6763	155	0.7236	142	0.7027	297
	Risk taking	7**	0.7076	157	0.6500	142	0.7530	296
	Exploration through shopping	7	0.7603	158	0.6999	146	0.7180	304
	Interpersonal communication	3	0.4833	159	0.0899	147	0.3366	306
	Brand switching	7	0.6646	155	0.6355	142	0.6397	297
	Information seeking	12	0.7071	152	0.6401	144	0.6517	309
EBBT	EAP	10	0.7883	153	0.7717	142	0.7767	295
	EIS	10	0.8178	155	0.7351	143	0.7728	298

\* - One item excluded / \*\* - Two items excluded

Overall, reliability coefficients are very similar to the original studies. Regarding ETCBS,  $\alpha$  coefficients were not reported as reliability was established through Spearman-Brown coefficients, which ranged from 0.70 to 0.87 (Raju, 1980). Estimates of internal consistency for EBBT ranged from an  $\alpha$  of 0.75 to 0.84 (Baumgartner and Steenkamp 1996). Contrary to other measures,  $\alpha$  coefficients for Exploratory and Risk Taking Behaviour are mostly higher for the Portuguese sample.

Exploratory tendencies in consumer behaviour scales (ETCBS) dimensions were not originally based on a factor analysis and items were classified into dimensions based on their wording and inter-item correlations (Raju, 1980). Furthermore, many items were used in more than one category. In what concerns Exploratory buying behaviour



tendencies scale (EBBT), factors analysis of all items resulted in two factors. Running factor analysis setting the model for 2 factors reveals that all items load on the expected dimension, suggesting that the scale presents adequate dimensionality.

Factor analysis of the dimensions confirmed their uni-dimensionality. Innovativeness, Risk taking, Exploration through shopping, Brand switching, Information seeking (ETCBS), Exploratory information seeking, and Exploratory acquisition of products (EBBT) were all uni-dimensional.

#### 5.4.4 - Perceived Risk

Perceived Risk is a product-specific concept that refers to the uncertainty that consumers face about their choice meeting their objectives. Measures of Perceived Risk have followed two approaches depending on the nature of the product. Cunningham's two-dimensional, two-question (uncertainty and consequences) approach was used for low-risk convenience products (Cunningham, 1967). The multi-faceted nature of risk (performance, social, physical, financial, psychological, and convenience losses) was measured using the Risk Perception–Composite scale (Murray and Schlater, 1990) – Section 4.5.2.1 / Part 4 – Question 1 and 2 of the Questionnaire.

In what concerns laptops and cars, high involvement products, the 21, 5-point items, proposed by Stone and Gronhaug (1993) and Stone and Mason (1995) were used (3 items per dimension: social, time, financial, physical, performance, psychological, and overall risk). Additionally, the 4-item perceived probability of a mispurchase facet of the Consumer Involvement Profiles (CIP; Laurent and Kapferer, 1985) was used (Part 4 - Question 3 of the Questionnaire – appendixes 8 and 9).

Results reveal adequate internal consistency of all measures of the different facets of Perceived Risk, except for cars' social risk in the UK sample (0.58). These are similar to those obtained in previous studies. The risk scales were developed in a study to assess Perceived Risk in the computers' purchase (Stone and Gronhaug, 1993; Stone and Mason, 1995) with coefficients ranging from 0.59 (Physical risk) to 0.81 (Psychological risk). Regarding the Consumer involvement profile,  $\alpha$  obtained in the scale development study for the facet used here was 0.72.

Table 5.4 - Reliability of Perceived Risk measures

		<i>Number of items</i>	<i>Portugal</i>	<i>n</i>	<i>UK</i>	<i>n</i>	<i>Pooled sample</i>	<i>n</i>
Deodorant		6	0.7608	158	0.8683	143	0.8248	301
Toothpaste		6	0.8166	160	0.8909	140	0.8596	300
Car	Overall risk	3	0.7081	156	0.7693	129	0.7345	285
	Social risk	3	0.7274	156	0.5861	128	0.6856	284
	Time risk	3	0.8350	156	0.8821	130	0.8563	286
	Financial risk	3	0.6675	155	0.7357	130	0.6962	285
	Physical risk	3	0.7394	155	0.8317	128	0.8206	283
	Performance risk	3	0.6442	151	0.7781	127	0.7652	278
	Psychological risk	3	0.7536	155	0.9351	128	0.8532	283
	Probability of a mispurchase	4	0.7324	155	0.8184	124	0.7757	279
Laptop	Overall risk	3	0.7903	158	0.8717	129	0.8427	287
	Social risk	3	0.8135	154	0.8529	127	0.8591	281
	Time risk	3	0.7998	156	0.9116	128	0.8492	284
	Financial risk	3	0.8208	156	0.8723	127	0.8463	283
	Physical risk	3	0.8385	157	0.9052	128	0.8657	285
	Performance risk	3	0.7391	156	0.8546	129	0.8240	285
	Psychological risk	3	0.8349	158	0.9050	126	0.8740	284
	Probability of a mispurchase	4	0.7808	157	0.8106	126	0.7986	283

Factor analysis of the Risk perception composite scale for deodorant and toothpaste and the sub-scales of the Risk Scales and of the Consumer Involvement Profiles for laptops and cars resulted in the extraction of one factor with eigenvalue above one. This suggests adequate dimensionality of these scales.

#### 5.4.5 - Conclusion

In conclusion, internal consistency was assessed by computing Cronbach's  $\alpha$  for each multi-item scale. Overall, the British sample presents better internal consistency than the Portuguese sample, with the exception of Exploratory and Risk Taking Behaviour. Cronbach's  $\alpha$ 's obtained are similar to results of past research. With minor exceptions, the indices were deemed acceptable, given the exploratory nature of research. Indeed, with the exception of Repetitive behaviour proneness and Interpersonal communication, which presented low coefficients (below 0.50) and were excluded from further analysis,

results are generally above the 0.60 level (Nunnally, 1978) except for two, retained for their theoretical importance (LTO – 0.55 and ES – 0.53). Long term orientation (CVSCALE), Experience seeking (OSL), for Portugal and social risk for car for Great Britain present lower results.

#### **5.4. – Preliminary Data Analysis: Differences in the level of variables**

In this section, the level of variables in Portugal and the UK will be compared. Although the proposed model and hypotheses do not focus on level of differences between the two countries, this stage of the analysis is meant as an introduction to the main stage of assessing the proposed model and relationships between variables. Additionally, in some cases, it could serve as a preliminary test of some hypotheses.

This section starts by presenting respondents' profiles. Subsequently, means will be compared using independent samples t-tests, a test of the statistical significance of differences of two independent sample means (Hair et al, 1998). Together with ANOVA, t-tests are the most frequently used technique to assess mean differences across countries (e.g., Sjolander, 1992; Donthu and Yoo, 1998; Malhotra and McCort, 2001; LeBlanc and Herndon, 2001; van Everdingen and Waarts, 2003).

##### 5.4.1 - Respondent Profile

The questionnaire was completed by 314 respondents: 161 in Portugal and 153 in the UK. These include Portuguese respondents in Portugal and British ones in the UK, (questionnaires from respondents from other nationalities were excluded). Table 5.5 presents respondents' profiles by country. Given the student sample used, respondents are young (mean age is 20.48 in Portugal and 21.01 in the UK). Females constitute 68.3% of the Portuguese sample and 59.5% of the British sample. Females are slightly over represented but it should be noted that male/female ratios in the Universities where the study took place are: 48/52 in the University of Minho (University Academic Services) and 48/52 in Sthathclyde (<http://www.strath.ac.uk/culture/history.html>), 40/60 in Luton (<http://www.luton.ac.uk/livingandstudying/studenttypes>) and 43/57 in the

University of Teesside (<http://www.tees.ac.uk/sections/about/FactsAndFigures.cfm>). Concerning income, 39.8% of the Portuguese sample has household income up to €1499, 29.8% of €1500-€2999 and 13% above €3000. As for the British sample, 32.7% has household income up to £ 1999, 32% of £2000-£3999 and 22.9% above £4000.

Table 5.5 - Respondent profile by country

		<i>Portugal</i>		<i>UK</i>		<i>Pooled sample</i>	
		n	%	n	%	n	%
GENDER	Male	51	31.7	62	40.5	113	36
	Female	110	68.3	91	59.5	201	64
AGE	<= 19	55	34.2	60	39.2	115	36.6
	20-21	57	35.4	69	45.1	126	40.3
	>=22	49	30.3	24	15.9	73	23.1
	Mean		20.48		21.01		20.75
HOUSEHOLD	Up to £1999/€1499	64	39.8	50	32.7	114	36.3
INCOME	£2000-£3999/€1500-€2999	48	29.8	49	32.0	97	30.9
	£4000/ €3000or more	21	13.0	35	22.9	56	17.8
	missing	28	17.4	19	12.4	47	15.0
Total		161	100	153	100	314	100

#### 5.4.2 – Cultural Values

A Cultural values index was formed for each cultural dimension by averaging responses to the corresponding items (Yoo, Donthu and Lenartowicz, 2001). Therefore, for each dimension, 5 represents the maximum and 1 the minimum possible scores.

Means and t-tests for the five dimensions are reported in Table 5.6. In what concerns Long-term orientation, the mean score is 4.00 for Portugal and 3.76 for the UK, thus revealing that the British sample is less long-term oriented than the Portuguese sample ( $t = -4.365$ ; d. f. = 258;  $p < 0.001$ ).

In what concerns Power distance, the means are 1.94 for UK and 1.76 for Portugal, indicating low power distance for both. However, the mean is significantly higher in the

UK, similar to the original Power distance scores of 63 and 35 for UK and Portugal respectively ( $t = 2.710$ , d. f. = 279;  $p < 0.01$ )<sup>2</sup>.

Uncertainty avoidance means (3.73) are similar for both samples suggesting high uncertainty avoidance orientation. Thus, the results deviate from the original scores of 35 for UK and 104 for Portugal, a large un-replicated difference.

Regarding Collectivism, the mean is 3.48 in Portugal and 3.13 in the UK. While both samples reveal a collectivistic orientation, the Portuguese sample is significantly more so than the British one ( $t = -5.186$ , d. f. = 304;  $p < 0.001$ ). This is consistent with Hofstede's study, in which the Individualism score was 27 for Portugal and 89 for UK.

Finally, concerning Masculinity, both samples present a feminist orientation. The means are 2.25 for the British and 2.04 for the Portuguese sample. Yet, the Portuguese sample presents a significantly higher feminist orientation than the UK sample. Hofstede reported a feminine orientation for Portugal and masculine orientation for the UK (Masculinity scores were 31 and 66 for Portugal and the UK, respectively).

Table 5.6 - Comparison of Cultural Values mean scores

	<i>Portugal</i>			<i>UK</i>			<i>t-test</i>		
	n	mean	s.d.	n	Mean	s.d.	t-value	df	sig
<b>Long-term orientation (LTO)</b>	<b>155</b>	<b>4.00</b>	<b>0.382</b>	<b>150</b>	<b>3.76</b>	<b>0.572</b>	<b>-4.365</b>	<b>258.566</b>	<b>0.000</b>
<b>Power distance (PDI)</b>	<b>159</b>	<b>1.76</b>	<b>0.49</b>	<b>149</b>	<b>1.94</b>	<b>0.67</b>	<b>2.683</b>	<b>269.846</b>	<b>0.008</b>
Uncertainty avoidance (UAI)	157	3.73	0.49	151	3.73	0.51	-0.044	306	0.965
<b>Collectivism (COL)</b>	<b>158</b>	<b>3.48</b>	<b>0.57</b>	<b>148</b>	<b>3.13</b>	<b>0.57</b>	<b>-5.186</b>	<b>304</b>	<b>0.000</b>
<b>Masculinity (MAS)</b>	<b>161</b>	<b>2.04</b>	<b>0.82</b>	<b>150</b>	<b>2.25</b>	<b>0.93</b>	<b>2.086</b>	<b>297.772</b>	<b>0.038</b>

In conclusion, analyses of Cultural Values confirmed Hofstede's results (1984) in what concerns Long-term orientation and Collectivism.

<sup>2</sup> - See table 4.2 - Comparison of score ranks and scores for cultural dimensions between Portugal and Great Britain, page 122

### 5.4.3 – Optimum Stimulation Level

Optimum Stimulation Level (OSL) was measured by three scales. Change seeker index, CSI-short form originally included 7 items, one of which was split into two in this project. An overall CSI score calculated by averaging the 8 items. Ranging from 1 (low CSI) to 5 (high CSI), CSI indicates “the need for variation in one’s stimulus input in order to maintain optimal functioning” (Garlington and Shimota, 1964: 919). Thrill adventure seeking (TAS) and Experience seeking (ES), two sub-dimensions of SSS-form V, consist of 10 pair of forced-choice statements each, which were summed into indices of TAS and ES. These indices range between 0 and 10, with higher values indicating higher need for varied, novel, and complex sensations and experiences (Zuckerman, 1979).

Table 5.7 presents the overall means: 3.65 and 3.60 for CSI, 5.21 and 5.56 for TAS and 5.37 and 4.95 for ES for the Portuguese and British samples, respectively. T-tests show no significant differences between the two samples.

Table 5.7 - Mean scores for OSL measures

	Portugal			UK			Pooled sample			T-test		
	n	mean	s.d.	n	mean	s.d.	n	mean	s.d.	t-value	d.f.	sig
CSI	156	3.649	0.480	150	3.597	0.553	306	3.624	0.517	-0.884	304	0.377
TAS	140	5.207	2.543	130	5.561	2.687	270	5.377	2.614	1.1113	268	0.267
ES	143	5.370	1.882	131	4.946	2.050	274	5.167	1.972	-1.785	272	0.075

### 5.4.4 - Exploratory and Risk Taking Behaviour

Exploratory tendencies in consumer behaviour, ETCBS (Raju, 1980) and Exploratory buying behaviour tendencies, EBBT (Baumgartner and Steenkamp, 1996) scales operationalised Exploratory and Risk Taking Behaviour. Overall scores of the Exploratory and Risk Taking Behaviour categories were calculated by averaging items within each, accounting for the internal consistency results presented in the previous section (Section 5.3.3. – Exploratory and Risk Taking Behaviour), which excluded the

Repetitive behaviour proneness and Interpersonal communication dimensions as well as one and two items from the Innovativeness and Risk taking, respectively.

In what concerns the Exploratory Tendencies in Consumer Behaviour Scales, ETCBS (Raju, 1980), the five retained dimensions were: innovativeness, referring to the eagerness to buy or know about new products and services; risk taking, a preference for taking risks or being adventurous; Exploration through shopping, a preference for shopping and investigating; Brand switching, switching brands primarily for change and variety and, finally, Information seeking, referring to switching brands primarily for change and variety. Mean scores are presented in Table 5.8. High means stand for high innovativeness, risk taking, etc. UK and Portugal present similar means except for Innovativeness, in which the British present a significantly higher tendency.

The Exploratory Buying Behaviour Tendencies scale (EBBT) includes dispositions to seek sensory stimulation through purchasing risky and innovative products - Exploratory acquisition of products (EAP) and cognitive stimulation through acquiring consumption-related information out of curiosity - Exploratory information seeking (EIS) (Baumgartner and Steenkamp, 1996). Regarding EAP, the samples reveal medium tendency to enjoy unfamiliar, innovative, and varied products. Yet, British respondents are more interested in browsing, window shopping, and talking with other consumers about consumption and purchase related subjects ( $p=0.011$ ).

Table 5.8 - Mean scores for Exploratory and Risk Taking Behaviour measures

		Portugal			UK			t-tests		
		n	Mean	s.d.	n	Mean	s.d.	t-value	d.f.	sig
ECTBS	<b>Innovativeness</b>	<b>155</b>	<b>3.248</b>	<b>0.456</b>	<b>144</b>	<b>3.474</b>	<b>0.518</b>	<b>3.995</b>	<b>285.634</b>	<b>0.000</b>
	Risk taking	157	3.075	0.611	144	3.174	0.652	1.359	299	0.175
	Exploration shopping	146	3.570	0.625	158	3.501	0.614	0.964	302	0.336
	Brand switching	155	3.137	0.510	142	3.170	0.522	0.562	295	0.575
	Inf. seeking	152	3.250	0.465	143	3.266	0.485	0.295	293	0.768
EBBT	EAP	153	3.048	0.542	142	3.036	0.584	-0.178	286.551	0.858
	<b>EIS</b>	<b>155</b>	<b>3.538</b>	<b>0.585</b>	<b>143</b>	<b>3.362</b>	<b>0.599</b>	<b>-2.556</b>	<b>292.744</b>	<b>0.011</b>

#### 5.4.5 – Perceived Risk

Perceived Risk was measured differently for low (deodorant and toothpaste) and high involvement (car and laptop) products. Due to response fatigue and time limitations, multi-item scales were used only for high involvement products. Next, results concerning each case are presented separately.

##### **5.4.5.1 - Deodorant and Toothpaste**

Perceived Risk was measured for the convenience products (Deodorant and toothpaste) by averaging uncertainty and consequences' risk facets (Cunningham, 1967) – Section 4.5.2.1 – Measures / Part 4 – Question 1 and 2 of the Questionnaire (Appendixes 8 and 9). The six-item Risk Perception – Composite scale (Murray and Schlatter, 1990) was used to measure the multi-faceted nature of risk (Section 4.5.2.1 – Measures / Part 4 - Question 3 of the Questionnaire – appendixes 8 and 9).

Results for mean differences across the 6 dimensions are presented in Table 5.9. In general, financial, performance, physical and psychological loss is higher for Portugal for both products, reaching statistical significance for financial risk (deodorant) and for financial, performance and physical risk (toothpaste). However, social risk for both products and convenience risk for deodorant was higher for the UK sample, reaching significance for social risk (deodorant). An overall index was calculated by combining the dimensions, excluding social and convenience risk, since these present an opposite pattern of results compared to the remaining dimensions (Risk perception – Composite).



Table 5.9 - Mean scores for Perceived Risk measures – Deodorant and toothpaste

	Portugal			UK			T-test		
	n	Mean	s.d.	n	Mean	s.d.	t-value	d.f.	sig
DEODORANT									
Uncertainty and consequences	161	2.503	0.626	148	2.577	0.713	0.973	293.613	0.331
<b>Financial risk</b>	<b>160</b>	<b>3.18</b>	<b>0.981</b>	<b>143</b>	<b>2.74</b>	<b>1.137</b>	<b>-3.535</b>	<b>282.323</b>	<b>0.000</b>
Performance risk	160	3.37	0.836	144	3.22	1.11	-1.349	264.344	0.178
Physical risk	158	2.61	1.076	144	2.46	1.223	-1.122	286.204	0.263
Psychological risk	159	2.58	1.033	144	2.53	1.118	-0.449	301	0.654
<b>Social risk</b>	<b>160</b>	<b>2.11</b>	<b>1.001</b>	<b>145</b>	<b>2.38</b>	<b>1.179</b>	<b>2.169</b>	<b>283.834</b>	<b>0.031</b>
Convenience risk	158	2.67	0.906	145	2.83	1.186	1.284	268.778	0.200
<b>Risk Perception – Composite</b>	<b>158</b>	<b>2.93</b>	<b>0.69</b>	<b>143</b>	<b>2.73</b>	<b>0.92</b>	<b>-2.028</b>	<b>263.645</b>	<b>0.044</b>
TOOTHPASTE									
Uncertainty and consequences	161	2.543	0.628	148	2.550	0.676	0.097	307	0.923
<b>Financial risk</b>	<b>161</b>	<b>2.98</b>	<b>1.028</b>	<b>143</b>	<b>2.55</b>	<b>1.092</b>	<b>-3.527</b>	<b>302</b>	<b>0.000</b>
<b>Performance risk</b>	<b>161</b>	<b>3.20</b>	<b>0.914</b>	<b>142</b>	<b>2.89</b>	<b>1.109</b>	<b>-2.587</b>	<b>273.900</b>	<b>0.010</b>
<b>Physical risk</b>	<b>160</b>	<b>2.72</b>	<b>1.04</b>	<b>143</b>	<b>2.37</b>	<b>1.17</b>	<b>-2.704</b>	<b>285.904</b>	<b>0.007</b>
Psychological risk	161	2.45	1.06	142	2.27	1.18	-1.385	301	0.167
Social risk	161	2.04	0.96	142	2.15	1.16	0.845	275.069	0.399
Convenience risk	160	2.60	0.985	142	2.62	1.18	0.158	275.436	0.876
<b>Risk Perception – Composite</b>	<b>160</b>	<b>2.83</b>	<b>0.76</b>	<b>141</b>	<b>2.52</b>	<b>0.92</b>	<b>-3.170</b>	<b>273.259</b>	<b>0.002</b>

#### 5.4.5.2 - Car and Laptop

Two scales were used to assess Perceived Risk for cars and laptops. The Perceived Risk scale (Stone and Gronhaug, 1993; Stone and Mason, 1995) includes 21 items, three per dimension: social, time, financial, physical, performance, psychological, and overall risk. An overall index was formed by averaging the 18 risk items (overall risk indicators excluded). The 4-item probability-of-mispurchase facet of the Consumer Involvement Profile (CIP; Laurent and Kapferer, 1985) was also used. Means and t-tests results for the comparison of the samples' means are presented in Table 5.10. In general, similar to the results for low involvement products, Perceived Risks are higher in Portugal except for the overall and social risks, which were higher in the UK sample. In the case of social risk, there is a significant difference between the two samples.

Regarding cars, the Portuguese sample presents statistically significant higher levels of Perceived Risk for most dimensions, except probability of a mispurchase and financial, overall, and social risk. For the latter two the British sample perceived a statistically significant higher level of risk in the purchase of a car.

Concerning laptops, results indicate less pronounced and fewer statistically significant differences between the samples. Similar to cars, the British sample perceived statistically significant higher overall and social risks. Yet, the remaining dimensions confirm the general tendency of higher Perceived Risks for the Portuguese sample, which reached statistical significance for performance risk and probability of a mispurchase.

Table 5.10 - Mean scores for Perceived Risk measures – Car and laptop

	<i>Portugal</i>			<i>UK</i>			<i>T test</i>		
	n	Mean	s.d.	n	Mean	s.d.	t value	d.f.	sig
<b>CAR</b>									
Overall risk**	156	2.38	0.79	129	2.49	0.99	1.077	242.628	0.283
<b>Social risk**</b>	<b>156</b>	<b>1.82</b>	<b>0.67</b>	<b>128</b>	<b>2.36</b>	<b>0.76</b>	<b>6.323</b>	<b>282</b>	<b>0.000</b>
<b>Time risk</b>	<b>156</b>	<b>2.90</b>	<b>0.93</b>	<b>130</b>	<b>2.55</b>	<b>0.97</b>	<b>-3.082</b>	<b>284</b>	<b>0.002</b>
Financial risk	155	2.78	0.80	130	2.75	0.97	-0.250	249.637	0.803
<b>Physical risk</b>	<b>155</b>	<b>3.81</b>	<b>0.74</b>	<b>128</b>	<b>3.06</b>	<b>0.98</b>	<b>-7.110</b>	<b>232.783</b>	<b>0.000</b>
<b>Performance risk</b>	<b>155</b>	<b>3.86</b>	<b>0.58</b>	<b>127</b>	<b>3.26</b>	<b>0.84</b>	<b>-6.731</b>	<b>218.302</b>	<b>0.000</b>
<b>Psychological risk</b>	<b>155</b>	<b>3.81</b>	<b>0.74</b>	<b>128</b>	<b>3.06</b>	<b>0.98</b>	<b>-7.110</b>	<b>232.783</b>	<b>0.000</b>
Probability of a mis-purchase	155	3.22	0.77	124	3.16	0.86	-0.582	277	0.561
<b>Composite risk perception</b>	<b>148</b>	<b>3.15</b>	<b>0.49</b>	<b>123</b>	<b>2.82</b>	<b>0.68</b>	<b>-4.425</b>	<b>217.667</b>	<b>0.000</b>
<b>LAPTOP</b>									
<b>Overall risk **</b>	<b>158</b>	<b>2.17</b>	<b>0.82</b>	<b>129</b>	<b>2.55</b>	<b>1.04</b>	<b>3.434</b>	<b>241.366</b>	<b>0.001</b>
<b>Social risk**</b>	<b>154</b>	<b>1.61</b>	<b>0.60</b>	<b>127</b>	<b>2.28</b>	<b>0.89</b>	<b>7.162</b>	<b>213.748</b>	<b>0.000</b>
Time risk	156	2.69	0.87	128	2.58	0.98	-0.990	282	0.323
Financial risk	156	2.79	0.96	127	2.79	1.11	0.020	251.757	0.984
Physical risk	157	2.42	0.88	128	2.25	0.93	-1.589	283	0.113
<b>Performance risk</b>	<b>156</b>	<b>3.64</b>	<b>0.71</b>	<b>129</b>	<b>2.98</b>	<b>0.94</b>	<b>-6.533</b>	<b>234.571</b>	<b>0.000</b>
Psychological risk	158	2.14	0.75	126	2.12	0.98	-0.135	229.070	0.892
<b>Probability of a mis-purchase</b>	<b>157</b>	<b>3.42</b>	<b>0.71</b>	<b>126</b>	<b>3.11</b>	<b>0.82</b>	<b>-3.433</b>	<b>281</b>	<b>0.001</b>
Composite risk perception	148	2.55	0.50	121	2.48	0.72	-0.977	207.299	0.330

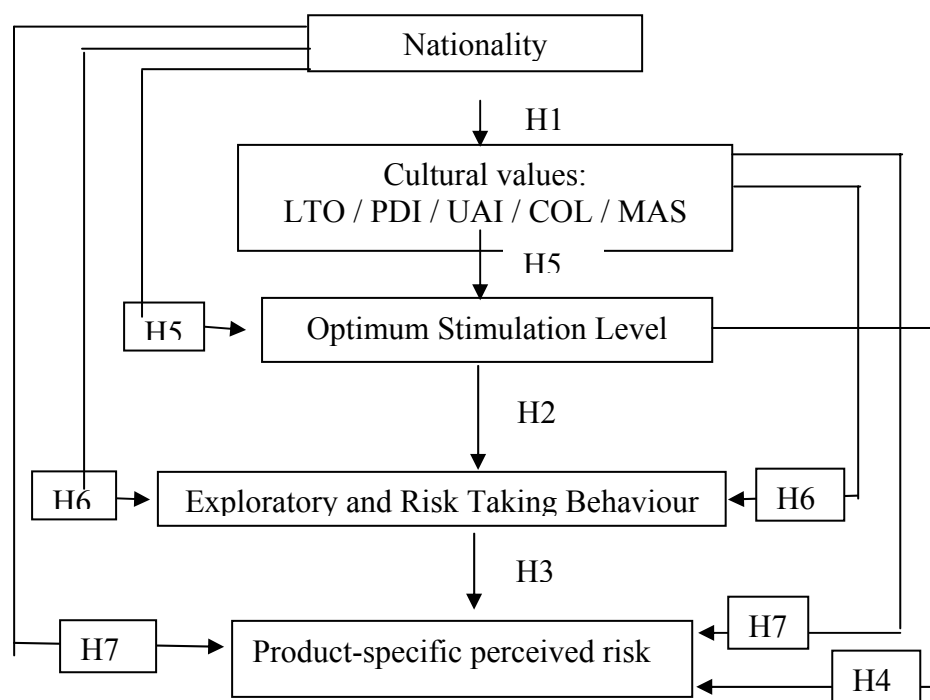
\*\* indicates higher Perceived Risk levels for United Kingdom

This stage of analysis served as a preliminary exploration and evaluation of results prior to the next stage.

### 5.5 -Analysis of Proposed Nomological Model

In this section, the proposed model will be evaluated. Relationships between variables will be analysed to evaluate the hypotheses. The nomological model was presented in Chapter Three - Literature Review: Exploratory behaviour and risk taking and is depicted below (Figure 5.1). Culture (Cultural Values and culture/Nationality aspects not captured by the 5-dimensional Cultural Values) is proposed to have a direct and a mediated influence on Optimum Stimulation Level (OSL), Exploratory and Risk Taking Behaviour (ERTB), and Perceived Risk.

Figure 5.1 – A conceptual framework of cultural dimensions, OSL, Exploratory and Risk Taking Behaviour, and risk attitudes



Data were analysed using hierarchical multiple regression. Several stages of hierarchical multiple regressions were carried out to evaluate the model's ability to predict exploratory behaviour and risk taking after controlling for the effect of mediating

variables. Using this method, different variables are entered into the regression in blocks in a predetermined order. The independent variables are entered into the equation in the order specified by the researcher based on theoretical grounds. This procedure allows to statistically control the effect of intervening variables. In the first step, a set of independent variables is entered, which constitutes Model 1. In the second step, a second group of independent variables is entered into the regression equation. In the second model that emerges from this analysis, the possible effect of the variables in the first model is ‘removed’ and it can be assessed whether the second set of independent variables can explain some of the remaining variance in the dependent variable (Model 2). This multi-stage analysis was repeated until all the intervening variables proposed in the model had been considered. For example, initially OSL was regressed on Cultural Values (Model 1), subsequently it was regressed on Cultural Values and Nationality (Model 2). This produced a two-block regression that accounted for the direct influence of culture/Nationality after the effect of the five Cultural Values had been accounted for.

This process resulted in a four-step regression (Nationality → Cultural Values → OSL → Exploratory and Risk Taking Behaviour → Perceived Risk), each block accounting for the predictor effect of a series of independent variables after the intervening effect of mediating variables had been accounted for (Pallant, 2001). Each block will be designated by Model 1, 2-4, depending on the stage of the regression.  $R^2$ , which indicates how much of the variance in the dependent variable is explained by the variables in each model, is used to evaluate each model. To evaluate how the independent variables included in the model contribute to the prediction of the dependent variable, B and Beta coefficients of the last model were analysed and significance values were checked to identify variables that make a significant contribution. Beta values for these variables indicate the strength of their contribution, when the overlapping effects of all other variables have been removed. A top-down approach was followed to present the results regarding each of the proposed relationships starting with Cultural Values.

### 5.5.1 - Cultural Values

Consistent with Hofstede’s scores (1984; 1991) the following were hypothesized:

**H 1 - Portugal and the UK will display different Cultural Values, such that:**

H 1.1 - Portugal will display a higher level of Long-term orientation than the UK

H 1.2 - Portugal will display a higher level of Power distance than the UK

H 1.3 - Portugal will display a higher level of Uncertainty avoidance than the UK

H 1.4 - Portugal will display a higher level of Collectivism than the UK.

H 1.5 - Portugal will display a lower level of Masculinity than the UK.

Each cultural value was regressed on Nationality to evaluate its impact. Except for Uncertainty Avoidance, the results of the regression models are significant and confirm the impact of Nationality on Long-term orientation, Power distance, Collectivism and Masculinity. However, for Power distance and Masculinity the impact is contrary to the expected direction as Beta presents negative values (Table 5.11).

Table 5.11 - Regression for hypothesis relating Nationality and Cultural Values

		B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
LONG-TERM ORIENTATION	Nationality	0.244	0.245	<b>0.000</b>		
	Constant	3.762		0.000		
	<b><math>R^2</math> ; F; p-values</b>				<b>0.060</b>	<b>19.295; 0.000</b>
POWER DISTANCE	Nationality	-0.183	-0.153	<b>0.007</b>		
	Constant	1.946		0.000		
	<b><math>R^2</math> ; F; p-values</b>				<b>0.023</b>	<b>7.344; 0.007</b>
UNCERTAINTY AVOIDANCE	Nationality	0.002	0.003	0.965		
	Constant	3.734		0.000		
	<b><math>R^2</math> ; F; p-values</b>				0.000	0.002; 0.965
COLLECTIVISM	Nationality	0.343	0.285	<b>0.000</b>		
	Constant	3.140		0.000		
	<b><math>R^2</math> ; F; p-values</b>				<b>0.081</b>	<b>26.897; 0.000</b>
MASCULINITY	Nationality	-0.209	-0.118	<b>0.037</b>		
	Constant	2.257		0.000		
	<b><math>R^2</math> ; F; p-values</b>				<b>0.014</b>	<b>4.390; 0.037</b>

Thus, Nationality emerges as a partial predictor of Cultural Values. H.1.1 and H1.4 are supported while H1.2, H1.3 and H1.5 are not. A significant impact emerges for Power distance (H1.2) and Masculinity (H1.5), however Beta indicates an impact contrary to the expected direction.

### 5.5.2 – Optimum Stimulation Level (OSL)

Optimum Stimulation Level is the first dependent variable proposed to be impacted by Cultural Values and Nationality. The following hypotheses were proposed:

H5 A – Culture (Nationality) will be related with OSL.

H5 B – Cultural Values will be related with OSL, such that:

H5.1 – Long-term orientation (LTO) will be negatively related to OSL.

H5.2 – Power distance (PDI) will be negatively related to OSL.

H5.3 – Uncertainty avoidance (UAI) will be negatively related to OSL.

H5.4 – Collectivism (COL) will be negatively related to OSL.

H5.5 – Masculinity (MAS) will be positively related to OSL.

Hypotheses relating Cultural Values and OSL were assessed first using correlation coefficients, which served as a preliminary test of the hypotheses. Experience seeking (ES), Thrill and adventure seeking (TAS) and Change seeker index (CSI; short form) scales served as indicators for OSL. As shown in Table 5.12, H5.1, H5.2 and H5.3 are confirmed. H5.1 is confirmed for ES (significant at the 0.01 level), H5.2 is confirmed for CSI (significant at the 0.05 level) and H5.3 is confirmed for ES and TAS (significant at 0.01 and 0.05, respectively). The negative impact of Collectivism does not emerge as significant. Finally, a statistically significant negative correlation exists between Masculinity and OSL, disconfirming hypothesis H5.5 (Table 5.12).

Table 5.12 - Correlation matrix of constructs in the model of factors influencing OSL

	Mean	s.d..	Pearson Correlations							
			1 - ES	2 - TAS	3 - CSI	4 - LTO	5 - PDI	6 - UAI	7 - COL	8 - MAS
1 - ES	5.167	1.972	1.000							
2 - TAS	5.377	2.614	0.395 **	1.00						
3 - CSI	3.624	0.517	0.312 **	0.394 **	1.00					
4 - LTO	3.886	0.499	-0.156 **	-0.077	0.058	1.00				
5 - PDI	1.851	0.597	-0.016 *	-0.015	-0.129 *	-0.109 *	1.00			
6 - UAI	3.735	0.504	-0.144 **	-0.128 *	-0.010	0.182 **	0.052	1.00		
7 - COL	3.317	0.603	-0.041	-0.027	0.048	0.127 *	0.002	0.118 *	1.00	
8 - MAS	2.148	0.881	-0.145 **	-0.016	-0.004	-0.096 *	0.267 **	0.087	0.039	1.00

\*\* Correlation is significant at the 0.01 level (1-tailed)

\* - Correlation is significant at the 0.05 level (1-tailed)

Hypotheses were then tested using regression analyses with three OSL measures. Linear regression of OSL against Cultural Values indicates that Cultural Values are predictors of OSL when using ES, but not TAS or CSI (Table 5.13). Using ES, a significant model emerges ( $F = 3.821$ ,  $p < 0.01$ ;  $R^2 = 0.071$ ) indicating that 7% of the variance in OSL is explained by the variables in model. For ES, Long-term orientation and Power distance are negatively related to OSL (Betas = -0.173; -0.134,  $p < 0.01$ ;  $p < 0.05$ , respectively). Table 5.13 reports these three analyses for OSL. Overall, two hypotheses are partially supported (H5.1 and H5.2) and three are not.

In order to evaluate whether Nationality predicts OSL after controlling for the effect of Cultural Values, a second step of hierarchical multiple regression was performed, using Nationality [(model 2), Table 5.14]. Using ES, Model 2, accounting for the direct impact of Nationality is also significant, indicating that Nationality is a significant predictor of OSL ( $F = 3.801$ ;  $p = 0.05$ ;  $R^2 = 0.085$ ). This indicates that Nationality explains 8,5% of the variance in OSL. Thus, Nationality presents both a direct and a mediated impact in OSL (as seen in the previous level – model 1). H5 A can be confirmed regarding the impact of Nationality on OSL.

Table 5.13 - Multiple regression for hypotheses relating Nationality, Cultural Values and OSL – Model summary

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
CSI	Model 1	0.030	0.030	1.703	0.134
	Model 2	0.030	0.000	0.042	0.838
<b>ES</b>	<b>Model 1</b>	<b>0.071</b>	<b>0.071</b>	<b>3.821</b>	<b>0.002</b>
	<b>Model 2</b>	<b>0.085</b>	<b>0.014</b>	<b>3.801</b>	<b>0.052</b>
TAS	Model 1	0.019	0.019	0.938	0.457
	Model 2	0.025	0.006	1.382	0.241

Table 5.14 - Multiple regression for hypotheses relating Nationality, Cultural Values and OSL (using ES as predictor for OSL)

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
<b>CD</b>	-	-0.682	-0.173	<b>0.007</b>		
<b>PDI</b>	-	-0.451	-0.134	<b>0.038</b>		
UAI	-	-0.309	-0.079	0.209		
COL	-	0.220	0.069	0.266		
MAS	+	-0.218	-0.098	0.134		
Constant		9.513		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.071</b>	<b>3.821; 0.002</b>
Model 2						
CD	-	-0.763	-0.193	<b>0.003</b>		
PDI	-	-0.425	-0.126	<b>0.050</b>		
UAI	-	-0.288	-0.074	0.239		
COL	-	0.101	0.032	0.621		
MAS	+	-0.181	-0.081	0.214		
<b>Nation</b>		0.502	0.128	<b>0.052</b>		
Constant		9.750		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.085</b>	<b>3.801; 0.052</b>

Statistically significant results confirming the hypotheses are in bold

### 5.5.2.1 - Overall Evaluation of Regression Models for OSL

An overall evaluation of hypothesis relating the impact of Cultural Values on OSL reveals that using regression, a more conservative test, H5 is confirmed, meaning that Cultural Values impact OSL. In what concerns the individual Cultural Values hypotheses, H5.1 and H5.2, regarding the negative impact of Long-term orientation and Power distance on OSL, were confirmed. Using the more lenient test of correlation, one more hypothesis was confirmed: H5.3 regarding the negative impact of Uncertainty avoidance (Table 5.15).



Table 5.15 - Summary of Hypotheses relating Cultural Values and OSL

	Long-term orientation		Power distance		Uncertainty avoidance		Collectivism		Masculinity	
	H5.1	Results	H5.2	Results	H5.3	Results	H5.4	Results	H5.5	Results
Regression (1)	-	-0.173**	-	-0.134*	-	-0.079	-	0.069	+	-0.098
Correlations (2)										
ES	-	-0.156**	-	-0.016*	-	-0.144**	-	-0.041	+	-0.145**
TAS	-	-0.077	-	-0.015	-	-0.128*	-	-0.027	+	-0.016
CSI	-	0.058	-	-0.129*	-	-0.010	-	0.0048	+	-0.004

(1) Entries are standardised regression coefficients using ES

(2) Entries are Pearson Correlations

\*\* p<0.01 / \* p<0.05

### 5.5.3 - Exploratory and Risk Taking Behaviour

In accordance with the proposed top-down evaluation of the nomological model, Exploratory and Risk Taking Behaviour will now be assessed. The following hypotheses were proposed regarding Exploratory and Risk Taking Behaviour and its predictors.

H2 – Optimum Stimulation Level (OSL) will be positively related to Exploratory and Risk Taking Behaviour.

H6 A – Culture (Nationality) will be related to Exploratory and Risk Taking Behaviour (ERBT).

H6 B – Cultural Values will be related to Exploratory and Risk Taking Behaviour (ERTB), such that:

H6.1 – Long-term orientation will be negatively related to ERTB.

H6.2 – Power distance will be negatively related to ERTB.

H6.3 – Uncertainty avoidance will be negatively related to ERTB.

H6.4 – Collectivism will be negatively related to ERTB.

H6.5 – Masculinity will be positively related to ERTB.

Multiple regression was performed for each of the dimensions of Exploratory and Risk Taking Behaviour: Exploratory Consumption Behaviour; Exploratory Information

Search and Exploratory Risk Taking (see section 3.2 - Exploratory behaviour) to test these hypotheses. Results will be presented separately for each of these facets.

This procedure involved three hierarchical steps. First, the direct impact of OSL on ERTB was assessed (Model 1). Second, Cultural Values were considered (Model 2). Third, Nationality was entered into the model (Model 3). This analysis was run three times for each OSL measure: Thrill and adventure seeking (TAS), Experience seeking (ES) and Change seeker index (CSI). – Short form. The findings are reported below and are substantively similar for the different OSL measures.

#### 5.5.3.1 - Exploratory Consumption Behaviour

Model 1, which accounts for the impact of Optimum Stimulation Level (OSL) on Exploratory Consumption Behaviour, is significant. OSL is a significant predictor of this ERTB facet (using ES -  $F = 69.737$ ,  $p < 0.001$ ;  $R^2 = 0.222$ ), explaining 22% of the variance in Exploratory Consumption Behaviour. This conclusion holds regardless of the measure used for OSL (Table 5.16). **Thus, H2 is confirmed.**

Model 2 refers to the direct influence of Cultural Values on Exploratory Consumption Behaviour and is significant for all OSL measures. Including Cultural Values in the analysis increases the variance explained by the model (incremental  $R^2$ ) after controlling for the effect of OSL by an additional 4.4%, 6.2% or 6.8% of the variance of Exploratory Consumption Behaviour (depending on the OSL measure). Consequently, Cultural Values have a direct impact on Exploratory Consumption Behaviour **confirming H6 B in what concerns the general influence of Cultural Values.** Regardless of the OSL measure, Cultural Values have a direct and indirect impact on Exploratory Consumption Behaviour and OSL is a partial mediator. In what concerns the evaluation of how the independent variable included in the model impacts ERTB, however, conclusions differ depending on the measures used (Tables 5.17 to 19). Collectivism (analyses using ES) and Power distance (analyses using TAS) impact Exploratory Consumption Behaviour ( $p < 0.05$ ). Thus, **H6.2 and H6.4 are confirmed**, meaning that (e.g., for Cultural Values) Collectivism and Power distance are negatively related to Exploratory and Risk Taking Behaviour. In what concerns other cultural dimensions,  $\beta$ 's directionally support the anticipated negative relationships but fail to

reach statistical significance. In what concerns Masculinity, a statistically significant impact is indicated by beta value for this variable (for TAS and CSI – Table 5.18 and 5.19). Contrary to the positive impact hypothesised, this relationship is negative.

Finally, the third model is not significant, suggesting that Nationality does not have a direct impact on Exploratory Consumption Behaviour; the impact of Nationality is fully mediated through Cultural Values and OSL (as before). **Thus H6 A is not confirmed.**

Table 5.16 summarizes model fits for all OSL measures; tables 5.17-19 present correlation coefficients for the three-step regression analysis.

Table 5.16 - Multiple regression for hypotheses relating Exploratory Consumption Behaviour, OSL; Cultural Values and Nationality – Model summary

		R <sup>2</sup>	Incremental R <sup>2</sup>	F change	p-value for difference in R <sup>2</sup>
CSI	<b>Model 1</b>	<b>0.089</b>	<b>0.089</b>	<b>26.589</b>	<b>0.000</b>
	<b>Model 2</b>	<b>0.151</b>	<b>0.062</b>	<b>3.888</b>	<b>0.002</b>
	Model 3	0.152	0.001	0.308	0.579
ES	<b>Model 1</b>	<b>0.222</b>	<b>0.222</b>	<b>69.737</b>	<b>0.000</b>
	<b>Model 2</b>	<b>0.266</b>	<b>0.044</b>	<b>2.871</b>	<b>0.015</b>
	Model 3	0.270	0.005	1.589	0.209
TAS	<b>Model 1</b>	<b>0.145</b>	<b>0.145</b>	<b>39.954</b>	<b>0.000</b>
	<b>Model 2</b>	<b>0.214</b>	<b>0.068</b>	<b>3.996</b>	<b>0.002</b>
	Model 3	0.214	0.000	0.29	0.866

Table 5.17 - Multiple regression for hypotheses relating Exploratory Consumption Behaviour, OSL, Cultural Values and Nationality (using ES as predictor for OSL)

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-values
Model 1						
ES	+	0.137	0.471	0.000		
Constant		2.336		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.222</b>	<b>69.737; 0.000</b>
Model 2						
ES	+	0.135	0.466	0.000		
CD	-	0.109	0.095	0.106		
PDI	-	-0.110	-0.108	0.068		
UAI	-	0.021	0.018	0.746		
COL	-	-0.108	-0.114	<b>0.042</b>		
MAS	+	0.043	-0.065	0.269		
Constant		2.490		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.266</b>	<b>14.459; 0.015</b>
Model 3						
ES	+	0.138	0.474	0.000		
CD	-	0.125	0.109	0.069		
PDI	-	-0.115	-0.114	0.056		
UAI	-	0.018	0.016	0.780		
COL	-	-0.086	-0.092	0.120		
MAS	+	-0.048	-0.074	0.217		
Nation		-0.088	-0.077	0.209		
Constant		2.423		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.270</b>	<b>12.651; 0.209</b>

Table 5.18 - Multiple regression for hypotheses relating Exploratory Consumption Behaviour, OSL, Cultural Values and Nationality (using TAS as predictor for OSL)

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
TAS	+	0.079	0.381	<b>0.000</b>		
Constant		2.600		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.145</b>	<b>39.954; 0.000</b>
Model 2						
TAS	+	0.078	0.377	<b>0.000</b>		
CD	-	-0.040	-0.038	0.536		
PDI	-	-0.149	-0.160	<b>0.011</b>		
UAI	-	0.064	0.059	0.335		
COL	-	-0.089	-0.095	0.113		
MAS	+	-0.095	-0.152	0.014 *		
Constant		3.300		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.214</b>	<b>10.413; 0.002</b>
Model 3						
TAS	+	0.078	0.378	0.000		
CD	-	-0.042	-0.040	0.523		
PDI	-	-0.147	-0.158	0.012		
UAI	-	0.0651	0.060	0.331		
COL	-	-0.917	-0.098	0.116		
MAS	+	-0.948	-0.152	0.016		
Nation		0.0119	0.011	0.866		
Constant		3.303		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.214	8.892; 0.866

\* - significant but opposite the proposed hypothesis

Table 5.19 - Multiple regression for hypotheses relating Exploratory Consumption Behaviour, OSL, Cultural Values and Nationality (using CSI as predictor for OSL)

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
CSI	+	0.331	0.299	<b>0.000</b>		
Constant		1.856		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.089</b>	<b>26.859; 0.000</b>
Model 2						
CSI	+	0.330	0.298	<b>0.000</b>		
CD	-	-0.064	-0.057	0.330		
PDI	-	-0.106	-0.109	0.068		
UAI	-	-0.024	-0.022	0.707		
COL	-	-0.088	-0.094	0.100		
MAS	+	-0.104	-0.163	0.006 *		
Constant		2.913		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.151</b>	<b>7.907; 0.002</b>
Model 3						
CSI	+	0.331	0.299	0.000		
CD	-	-0.056	-0.051	0.396		
PDI	-	-0.110	-0.113	0.061		
UAI	-	-0.027	-0.024	0.683		
COL	-	-0.078	-0.084	0.166		
MAS	+	-0.107	-0.167	0.006		
Nation		-0.038	-0.035	0.579		
Constant		2.890		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.152	6.804; 0.579

\* - significant but opposite the proposed hypothesis

### 5.5.3.2 - Exploratory Information Search

Regarding Exploratory Information Search, regardless of the OSL measure used, model 1 is not significant (Table 5.20). Thus, OSL does not impact the EIS dimension of ERTB. **Thus, H2 is disconfirmed for the Information search facet of ERTB.** Model 2, which accounts for the direct impact of Cultural Values on Exploratory Information Search, is significant [Table 5.20; (e.g., for CSI,  $F = 7.358$ ;  $p < 0.000$ ;  $R^2 = 0.142$ )]. This

result holds for all OSL measures. This indicates that cultural dimensions have only a direct impact on this facet of ERTB, **confirming H6 B** (i. e., Cultural Values are related to the Exploratory Information Search of Exploratory and Risk Taking Behaviour). Similar to Exploratory Consumption Behaviour, this conclusion holds for all measures of OSL. In what concerns the evaluation of each cultural value, Long term orientation (LTO), Power distance (PDI) and Masculinity (MAS) are significant predictors regardless of the measure of OSL (Tables 5.21 to 5.23). However, the influence of Long-term orientation and Masculinity is opposite the hypothesized direction: MAS presents a negative impact and LTO presents a positive impact on this facet of Exploratory and Risk Taking Behaviour. Thus, only **H6.2 is confirmed for Exploratory Information Search: Power distance is negatively related to ERTB.**

Finally, model 3 is not significant (Table 5.20). Nationality does not impact Exploratory Information Search directly and its impact is fully mediated by subsequent variables in the model, **disconfirming H6 A.**

Table 5.20 summarizes the model fit for all OSL measures and tables 5.21 to 23 present correlation coefficients for the three-step regression analysis.

Table 5.20 - Multiple regression tests for hypotheses relating Exploratory Information Search, OSL, Cultural Values and Nationality

		R <sup>2</sup>	Incremental R <sup>2</sup>	F change	p-value for difference in R <sup>2</sup>
CSI	Model 1	0.005	0.005	1.257	0.263
	<b>Model 2</b>	<b>0.142</b>	<b>0.138</b>	<b>8.543</b>	<b>0.000</b>
	Model 3	0.145	0.003	0.900	0.344
ES	Model 1	0.001	0.001	0.315	0.575
	<b>Model 2</b>	<b>0.138</b>	<b>0.137</b>	<b>7.560</b>	<b>0.000</b>
	Model 3	0.142	0.003	0.959	0.328
TAS	Model 1	0.000	0.000	0.019	0.889
	<b>Model 2</b>	<b>0.116</b>	<b>0.116</b>	<b>6.104</b>	<b>0.000</b>
	Model 3	0.122	0.006	1.518	0.219

Table 5.21 - Multiple regression for hypotheses relating Exploratory Information Search; OSL, Cultural Values and Nationality (using TAS as predictor)

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
TAS	+	0.020	0.009	0.889		
Constant		3.459		0.000		
Regression R <sup>2</sup> ; F; p-values					0.000	0.019; 0.889
Model 2						
TAS	+	0.043	0.019	0.759		
LTO	-	0.184	0.158	<b>0.015</b>		
PDI	-	-0.154	-0.156	<b>0.019</b>		
UAI	-	0.035	0.030	0.642		
COL	-	-0.610	-0.060	0.341		
MAS	+	-0.0135	-0.198	0.003 *		
Constant		3.379		0.000		
Regression R <sup>2</sup> ; F; p-value					<b>0.116</b>	<b>5.090; 0.000</b>
Model 3						
TAS	+	0.005	0.024	0.695		
CD	-	0.165	0.142	0.031		
PDI	-	-0.145	-0.147	0.027		
UAI	-	0.044	0.038	0.558		
COL	-	-0.081	-0.081	0.218		
MAS	+	-0.130	-0.191	0.004		
Nation		0.099	0.082	0.219		
Constant		3.399		0.000		
Regression R <sup>2</sup> ; F; p-values					0.122	4.589; 0.219

\* - significant but opposite the proposed hypothesis



Table 5.22 -Multiple regression for hypotheses relating Exploratory Information Search, OSL, Cultural Values and Nationality (using CSI as predictor)

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-values
Model 1						
CSI	+	0.080	0.068	0.263		
Constant		3.160		0.000		
Regression R <sup>2</sup> ; F; p-values					0.005	1.257; 0.263
Model 2						
CSI	+	0.033	0.029	0.621		
CD	-	0.200	0.167	<b>0.005</b>		
PDI	-	-0.171	-0.166	<b>0.006</b>		
UAI	-	0.038	0.032	0.580		
COL	-	-0.020	-0.020	0.728		
MAS	+	-0.154	-0.224	0.000 *		
Constant		3.111		0.000		
Regression R <sup>2</sup> ; F; p-values					<b>0.142</b>	<b>7.358; 0.000</b>
Model 3						
CSI	+	0.033	0.029	0.621		
CD	-	0.186	0.156	0.010		
PDI	-	-0.165	-0.161	0.009		
UAI	-	0.043	0.037	0.621		
COL	-	-0.037	-0.037	0.621		
MAS	+	-0.150	-0.217	0.009		
Nation		0.070	0.059	0.533		
Constant		3.144		0.000		
Regression R <sup>2</sup> ; F; p-values					0.145	6.433; 0.344

\* - significant but opposite the proposed hypothesis

Table 5.23 - Multiple regression for hypotheses relating Exploratory Information Search OSL, Cultural Values and Nationality (using ES as predictor)

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-values
Model 1						
ES	+	0.011	0.00	0.575		
Constant		3.413		0.000		
Regression R <sup>2</sup> ; F; p-values					0.001	0.315; 0.575
Model 2						
ES	+	0.000	0.000	1.000		
CD	-	0.153	0.126	<b>0.048</b>		
PDI	-	-0.197	-0.186	0.004		
UAI	-	0.102	0.084	0.177		
COL	-	-0.023	-0.023	0.708		
MAS	+	-0.148	-0.211	0.001 *		
Constant		3.241		0.000		
Regression R <sup>2</sup> ; F; p-value					<b>0.138</b>	<b>6.360; 0.000</b>
Model 3						
ES	+	-0.001	-0.006	0.924		
CD	-	0.140	0.115	0.076		
PDI	-	-0.194	-0.182	0.005		
UAI	-	0.105	0.087	0.163		
COL	-	-0.041	-0.041	0.520		
MAS	+	-0.143	-0.204	0.002		
Nation		0.078	0.064	0.328		
Constant		3.292		0.000		
Regression R <sup>2</sup> ; F; p-values					0.142	5.587; 0.328

\* significant but opposite the proposed hypothesis

### 5.5.3.3 - Exploratory Risk Taking

Running a three-step hierarchical regression analysis for Exploratory Risk Taking, the third facet of Exploratory and Risk Taking Behaviour, results in a statistically significant model for the impact of OSL (model 1 – Table 5.24). Similar to the previous facets, the results are invariant to the OSL measure used, with the exception that model 3 is significant when using Experience seeking (ES). Thus, **H2 is confirmed**, and OSL

is positively related to all of the proposed facets of Exploratory and Risk Taking Behaviour.

Model 2, representing the direct influence of Cultural Values on this facet of Exploratory and Risk Taking Behaviour, is not significant, suggesting that the impact of Cultural Values is fully mediated through OSL. Consequently, **H6 B is disconfirmed in what concerns the relationship of Cultural Values and Exploratory Risk Taking.** This result is common to all OSL indicators.

Finally, model 3, accounting for the influence of Nationality on Exploratory Risk Taking is significant only when using ES as measure for OSL. Thus a conservative evaluation of the impact of Nationality on **ERTB is that H6 A be disconfirmed regarding the role of Nationality also and its impact is mostly mediated.**

Table 5.24 summarizes the model fit for all the OSL measures and tables 5.25-27 present correlation coefficients for the three-step regression analysis.

Table 5.24 - Multiple regression for hypotheses relating Exploratory Risk Taking, OSL, Cultural Values and Nationality – Model summary

		R <sup>2</sup>	Incremental R <sup>2</sup>	F change	p-value for difference in R <sup>2</sup>
<b>CSI</b>	<b>Model 1</b>	<b>0.092</b>	<b>0.092</b>	<b>27.537</b>	<b>0.000</b>
	Model 2	0.121	0.029	1.784	0.116
	Model 3	0.130	0.010	2.925	0.088
<b>ES</b>	<b>Model 1</b>	<b>0.185</b>	<b>0.185</b>	<b>55.969</b>	<b>0.000</b>
	Model 2	0.211	0.026	1.560	0.172
	Model 3	0.225	0.015	4.508	0.035
<b>TAS</b>	<b>Model 1</b>	<b>0.168</b>	<b>0.168</b>	<b>47.777</b>	<b>0.000</b>
	Model 2	0.195	0.028	1.592	0.163
	Model 3	0.199	0.004	1.159	0.283

Table 5.25 - Multiple regression for hypotheses relating Exploratory Risk Taking, OSL, Cultural Values and Nationality (using TAS as predictor)

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
TAS	+	0.096	0.410	0.000		
Constant		2.592		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.168</b>	<b>47.777; 0.000</b>
Model 2						
TAS	+	0.095	0.407	0.000		
CD	-	-0.075	-0.062	0.316		
PDI	-	-0.104	-0.100	0.110		
UAI	-	0.079	0.065	0.291		
COL	-	-0.089	-0.085	0.160		
MAS	+	-0.046	-0.065	0.298		
Constant		3.184		0.000		
Regression $R^2$ ; F; p-values					0.195	9.389; 0.136
Model 3						
TAS	+	0.094	0.403	0.000		
CD	-	-0.058	-0.048	0.447		
PDI	-	-0.112	-0.107	0.087		
UAI	-	0.072	0.059	0.341		
COL	-	-0.070	-0.066	0.287		
MAS	+	-0.050	-0.071	0.253		
Nation		-0.086	-0.069	0.283		
Constant		3.159		0.000		
Regression $R^2$ ; F; p-values					0.199	8.219; 0.283

Table 5.26 - Multiple regression for hypotheses relating Exploratory Risk Taking, OSL, Cultural Values and Nationality (using CSI as predictor)

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-values
Model 1						
CSI	+	0.372	0.303	<b>0.000</b>		
Constant		1.779		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.092</b>	<b>27.537; 0.000</b>
Model 2						
CSI	+	0.378	0.308	0.000		
CD	-	-0.082	-0.065	0.277		
PDI	-	-0.057	-0.053	0.380		
UAI	-	-0.045	-0.036	0.540		
COL	-	-0.095	-0.090	0.120		
MAS	+	-0.063	-0.088	0.145		
Constant		2.804		0.000		
Regression R <sup>2</sup> ; F; p-values					0.121	6.142; 0.116
Model 3						
CSI	+	0.379	0.308	0.000		
CD	-	-0.057	-0.045	0.456		
PDI	-	-0.068	-0.064	0.296		
UAI	-	-0.053	-0.042	0.472		
COL	-	-0.061	-0.058	0.338		
MAS	+	-0.071	-0.099	0.100		
Nation		-0.135	-0.107	0.088		
Constant		2.730		0.000		
Regression R <sup>2</sup> ; F; p-values					0.130	5.721; 0.088

Table 5.27 -Multiple regression for hypotheses relating Exploratory Risk Taking, OSL, Cultural Values and Nationality (using ES as predictor)

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-values
Model 1						
ES	+	0.139	0.431	<b>0.000</b>		
Constant		2.392		0.000		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.185</b>	<b>55.596; 0.000</b>
Model 2						
ES	+	0.139	0.430	0.000		
CD	-	0.059	0.046	0.444		
PDI	-	-0.105	-0.094	0.123		
UAI	-	0.025	0.020	0.730		
COL	-	-0.133	-0.127	0.029		
MAS	+	0.008	0.012	0.842		
Constant		2.677		0.000		
<b>Regression R<sup>2</sup>; F; p-value</b>					0.211	10.734; 0.172
Model 3						
ES	+	0.144	0.444	<b>0.000</b>		
CD	-	0.090	0.070	0.251		
PDI	-	-0.112	-0.101	0.098		
UAI	-	0.0194	0.015	0.793		
COL	-	-0.092	-0.088	0.147		
MAS	+	-0.001	-0.002	0.974		
Nation		-0.168	-0.132	<b>0.035</b>		
Constant		2.547		0.000		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.475</b>	<b>9.979;0.035</b>

#### 5.5.3.4 - Overall Evaluation of Regression Models for Exploratory and Risk Taking Behaviour

Given the use of three Exploratory and Risk Taking Behaviour (ERTB) facets and three OSL measures, a summary of hypotheses is useful. Table 5.28 summarises the regression analyses conducted in this section.

Model 1, referring to the positive influence of OSL on ERTB (H2), is significant for two facets of ERTB: Exploratory Consumption Behaviour and Exploratory Risk Taking. It is not significant for Exploratory Information Search.

Second, hypotheses about the impact of Cultural Values were proposed (model 2). These relationships were confirmed in general in what concerns Cultural Values for Exploratory Consumption Behaviour and Exploratory Information Search but not for Exploratory Risk Taking. Regarding the influence of each cultural value, results indicate that Power Distance (H6.2) constitutes a predictor for Exploratory Consumption Behaviour and Exploratory Information Search and Collectivism (H 6.4) is negatively related to Exploratory Consumption Behaviour.

Finally, regarding the impact of Nationality (model 3), the majority of the analyses emerge as non-significant, meaning that this variable does not have a significant direct impact on ERTB and its impact is fully mediated through Cultural Values and OSL.

Table 5.28 - Overall evaluation of regression models for Exploratory and Risk Taking Behaviour

OSL measures	Exploratory and Risk Taking Behaviour (ERTB)								
	Exploratory Consumption Behaviour			Exploratory Information Search			Exploratory Risk Taking		
	Mod 1	Mod 2	Mod 3	Mod 1	Mod 2	Mod 3	Mod 1	Mod 2	Mod 3
TAS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	Sig
CSI	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	NS
ES	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	NS

Sig – significant

NS – Not significant

#### 5.5.4 - Product Specific Perceived Risk

The last set of multiple regressions examine the impact of the variables analysed so far on Perceived Risk for two types of products: two high involvement (car and laptop) and two low involvement consumer products (deodorant and toothpaste). Hypotheses covered the impact of Exploratory and Risk Taking Behaviour (ERTB), Optimum stimulation level (OSL), Nationality and Cultural Values on Perceived Risk. Specifically:

H3 - Exploratory and Risk Taking Behaviour will be negatively related to Perceived Risk towards specific products.

H4 - OSL will be negatively related to Perceived Risk.

H7 A - Culture (Nationality) will be related with Perceived Risk levels.

H7 B - Cultural Values will be related with Perceived Risk levels, such that:

H7.1 - Long-term orientation will be positively related to Perceived Risk.

H7.2 - Power distance will be positively related to Perceived Risk.

H7.4 - Uncertainty avoidance will be positively related to Perceived Risk.

H7.5 - Collectivism will be positively related to Perceived Risk.

H7.5 - Masculinity will be negatively related to Perceived Risk.

These hypotheses will be evaluated separately for each product: deodorant, toothpaste, laptops and cars. In this last stage of hierarchical multiple regression, Model 1 accounts for the direct impact of ERTB on Perceived Risk, Model 2 for the direct impact of OSL on Perceived Risk, model 3 for the direct impact of cultural dimensions on Perceived Risk and model 4 for the direct impact of Nationality on Product-Specific Perceived Risk.

Nine sets of regressions are done for each product: for each of the three indicators for OSL and for the three facets of ERTB. Given the number of tables, only those summarizing model fit are presented here. Tables presenting the correlation coefficients will be presented in the Appendixes (Appendix 10 – Tables Chapter 5). An overall evaluation of the hypotheses will be presented in the end of the section.

#### **5.5.4.1 – Deodorant**

An overall index of Perceived Risk was calculated using 4 dimensions of Perceived Risk (social and convenience excluded for reasons explained earlier). The results of 4-step regressions for each facet of Exploratory and risk taking (ERTB) and for each Optimum Stimulation Level (OSL) predictor are presented below [Table 5.29 – using Change seeker index (CSI); Table 5.30 using Thrill and adventure seeking (TAS) and finally Table 5.31, using Experience seeking (ES)].



Model 1, representing the direct influence of ERTB on Perceived Risk, is significant for Exploratory Risk Taking and Exploratory Consumption Behaviour for all OSL measures. Negative  $\beta$ s for ERTB measures in Model 1 confirm **H3** (Tables 5.32 - 5.40 ; Appendixes to Chapter 5). Consumers with higher Exploratory and Risk Taking Behaviour display lower levels of Perceived Risk for Exploratory Risk Taking and Exploratory Consumption Behaviour. The hypothesis is not confirmed for Exploratory Information Search.

Model 2 accounts for OSL's direct influence on Perceived Risk. Model 2 is significant for Exploratory Information Search, using ES (Table 5.31) but it is not in other scenarios (Tables 5.29 and 5.30). Thus, **H4 stating that OSL will be negatively related to Perceived Risk levels, is weakly supported; most of OSL's impact is mediated.**

Model 3 represents the direct influence of Cultural Values on Perceived Risk and is not significant for deodorant (Tables 5.29 to 5.31). Cultural Values have a fully mediated impact on risk and **H7 B is disconfirmed.**

Finally, Model 4 accounts for Nationality's direct impact on Perceived Risk and is significant **confirming H7 A** for all OSL measures and ERTB (Tables 5.29-5.31). Nationality has a partially mediated impact on Product-Specific Perceived Risk.

Table 5.29 - Multiple regression for hypotheses relating Perceived Risk for deodorant, ERTB, OSL, Cultural Values and Nationality – Model summary (using CSI)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	<b>Model 1</b>	<b>0.026</b>	<b>0.026</b>	<b>7.222</b>	<b>0.008</b>
	Model 2	0.032	0.005	1.497	0.222
	Model 3	0.040	0.008	0.446	0.816
	<b>Model 4</b>	<b>0.058</b>	<b>0.018</b>	<b>4.964</b>	<b>0.027</b>
Exploratory Consumption Behaviour	<b>Model 1</b>	<b>0.062</b>	<b>0.062</b>	<b>17.534</b>	<b>0.000</b>
	Model 2	0.069	0.007	1.891	0.170
	Model 3	0.072	0.003	0.183	0.969
	<b>Model 4</b>	<b>0.096</b>	<b>0.024</b>	<b>6.870</b>	<b>0.009</b>
Exploratory Information search	Model 1	0.001	0.001	0.258	0.612
	Model 2	0.001	0.000	0.002	0.961
	Model 3	0.019	0.018	0.926	0.465
	<b>Model 4</b>	<b>0.044</b>	<b>0.025</b>	<b>6.744</b>	<b>0.010</b>

Table 5.30 - Multiple regression for hypotheses relating Perceived Risk for deodorant, ERTB, OSL, Cultural Values and Nationality – Model summary (using TAS)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	<b>Model 1</b>	<b>0.022</b>	<b>0.022</b>	<b>5.265</b>	<b>0.023</b>
	Model 2	0.022	0.000	0.024	0.876
	Model 3	0.035	0.012	0.577	0.718
	<b>Model 4</b>	<b>0.057</b>	<b>0.023</b>	<b>5.368</b>	<b>0.021</b>
Exploratory Consumption Behaviour	<b>Model 1</b>	<b>0.059</b>	<b>0.059</b>	<b>14.413</b>	<b>0.000</b>
	Model 2	0.060	0.001	0.359	0.550
	Model 3	0.068	0.008	0.365	0.872
	<b>Model 4</b>	<b>0.097</b>	<b>0.029</b>	<b>7.120</b>	<b>0.008</b>
Exploratory Information Search	Model 1	0.001	0.001	0.130	0.719
	Model 2	0.005	0.004	0.978	0.324
	Model 3	0.022	0.017	0.810	0.544
	<b>Model 4</b>	<b>0.049</b>	<b>0.027</b>	<b>6.344</b>	<b>0.012</b>

Table 5.31 - Multiple regression for hypotheses relating Perceived Risk for deodorant, ERTB, OSL, Cultural Values and Nationality– Model summary (using ES)

		R <sup>2</sup>	Incremental R <sup>2</sup>	F change	p-value for difference in R <sup>2</sup>
Exploratory Risk Taking	<b>Model 1</b>	<b>0.024</b>	<b>0.024</b>	<b>5.829</b>	<b>0.016</b>
	Model 2	0.035	0.011	2.791	0.096
	Model 3	0.039	0.004	0.184	0.969
	<b>Model 4</b>	<b>0.068</b>	<b>0.029</b>	<b>7.183</b>	<b>0.008</b>
Exploratory Consumption Behaviour	<b>Model 1</b>	<b>0.058</b>	<b>0.058</b>	<b>14.552</b>	<b>0.000</b>
	Model 2	0.064	0.006	1.503	0.221
	Model 3	0.066	0.002	0.106	0.991
	<b>Model 4</b>	<b>0.101</b>	<b>0.035</b>	<b>9.040</b>	<b>0.003</b>
Exploratory information search	Model 1	0.002	0.002	0.546	0.461
	<b>Model 2</b>	<b>0.037</b>	<b>0.035</b>	<b>8.516</b>	<b>0.004</b>
	Model 3	0.040	0.003	0.158	0.977
	<b>Model 4</b>	<b>0.075</b>	<b>0.034</b>	<b>8.536</b>	<b>0.004</b>

#### 5.5.4.2 – Toothpaste

A similar set of analyses to that performed for Deodorant was done for this product.

Model 1 is not significant in the majority of the cases (Tables 5.41 to 5.43). When using Change seeker index (CSI) short form, however, the results indicate a significant impact regarding Exploratory Risk Taking and Exploratory Consumption Behaviour. Given these results, overall, **H3 is only partially confirmed.**

Model 2, accounting for the influence of OSL is generally not significant. The only exception is EIS, when ES is used as predictor for OSL. **Thus, H4 stating the negative relation of OSL on Perceived Risk, is only partially confirmed and its impact is mostly mediated.**

Model 3 reflects the impact of Cultural Values. Model 3 is not significant, meaning that the impact of Cultural Values is fully mediated by OSL and ERTB. Consequently, **H7 B is not confirmed by the data.**

Finally, Model 4 is significant in all sets of analysis. **H7 A, referring to the impact of Nationality in Perceived Risk is, then, also confirmed** for this product and its impact is direct and indirect.

Thus, the results are very similar to the regression analysis for deodorant, thus reinforcing the results.

Tables 5.41 to 5.43 below present the regression model summary. Tables presenting the regression coefficients for the nine sets of analysis for this product are in the appendixes (Appendixes to chapter 5 – Table 5.44 to Table 5.52).

Table 5.41 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, ERTB, OSL, Cultural Values and Nationality– Model summary (using ES)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	Model 1	0.014	0.014	3.306	0.070
	Model 2	0.024	0.011	2,676	0.103
	Model 3	0.049	0.025	1,235	0.294
	<b>Model 4</b>	<b>0.070</b>	<b>0.021</b>	<b>5,169</b>	<b>0.024</b>
Exploratory consumption behaviour	<b>Model 1</b>	<b>0.028</b>	<b>0.028</b>	<b>6.884</b>	<b>0.009</b>
	Model 2	0.038	0.010	2.467	0.118
	Model 3	0.058	0.020	0.981	0.430
	<b>Model 4</b>	<b>0.083</b>	<b>0.025</b>	<b>6.436</b>	<b>0.012</b>
Exploratory Information search	Model 1	0.008	0.008	1.848	0.175
	Model 2	<b>0.040</b>	<b>0.032</b>	<b>7.967</b>	<b>0.005</b>
	Model 3	0.060	0.020	0.976	0.433
	<b>Model 4</b>	<b>0.081</b>	<b>0.021</b>	<b>5.295</b>	<b>0.022</b>

Table 5.42 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, ERTB, OSL, Cultural Values and Nationality– Model summary (using TAS)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	Model 1	0.014	0.014	3.263	0.072
	Model 2	0.017	0.003	0.771	0.381
	Model 3	0.043	0.026	1.198	0.311
	<b>Model 4</b>	<b>0.062</b>	<b>0.019</b>	<b>4.464</b>	<b>0.036</b>
Exploratory consumption behaviour	<b>Model 1</b>	<b>0.026</b>	<b>0.026</b>	<b>6,041</b>	<b>0.015</b>
	Model 2	0.028	0.002	0.515	0.474
	Model 3	0.049	0.021	1,003	0.417
	<b>Model 4</b>	<b>0.074</b>	<b>0.025</b>	<b>5.906</b>	<b>0.016</b>
Exploratory information search	Model 1	0.003	0.003	0.623	0.431
	Model 2	0.016	0.013	3.013	0.084
	Model 3	0.045	0.030	1.396	0.227
	<b>Model 4</b>	<b>0.061</b>	<b>0.016</b>	<b>3.783</b>	<b>0.053</b>

Table 5.43 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, ERTB, OSL; Cultural Values and Nationality– Model summary (using CSI)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	<b>Model 1</b>	<b>0.018</b>	<b>0.018</b>	<b>4.783</b>	<b>0.030</b>
	Model 2	0.022	0.004	1.204	0.274
	Model 3	0.055	0.032	1.780	0.117
	Model 4	0.070	0.015	4.276	<b>0.040</b>
Exploratory consumption behaviour	Model 1	0.034	0.034	9.284	<b>0.003</b>
	Model 2	0.037	0.003	0.879	0.349
	Model 3	0.063	0.026	1.416	0.219
	Model 4	0.083	0.020	5.647	<b>0.018</b>
Exploratory information search	Model 1	0.006	0.006	1.632	0.203
	Model 2	0.006	0.000	0.067	0.796
	Model 3	0.045	0.039	2,084	0.068
	<b>Model 4</b>	<b>0.061</b>	<b>0.016</b>	<b>4.348</b>	<b>0.038</b>

### 5.5.4.3 - Laptop

In testing the proposed model regarding laptop, the probability of a mispurchase facet of Consumer involvement profile (CIP) was used for the regression analysis.

In this case, Model 1 of hierarchical regression analysis accounts for the impact of Exploratory and Risk Taking Behaviour (ERTB) on Perceived Risk. Model 1 is non-significant for Exploratory Information Search and there is some support for the significance of the negative relationship of ERTB and Perceived Risk in the case of Exploratory Risk Taking and Exploratory Consumption Behaviour (Tables 5.53 to 5.55). **H3 stating the negative relationship of ERTB and Perceived Risk is, thus, disconfirmed** for Exploratory Information Search and partially supported for the remaining facets of ERTB.

Model 2 tests H4, concerning the impact of OSL in Perceived Risk. This model is not significant. **H4 is disconfirmed regarding laptops and its impact is fully mediated.**

Model 3 captures the direct impact of Cultural Values and is also not significant in all sets of analysis. This means that, similar to the low involvement products, OSL and ERTB fully mediate the impact of Cultural Values. **H7 B is, thus, disconfirmed.**

Model 4 is significant indicating that Nationality does impact Perceived Risk levels towards laptops and its impact is direct and indirect. **H7 A is confirmed.**

Below are tables summarizing the regression models (Tables 5.53 to 5.55). Similarly to the remaining products, the regression coefficients tables for the nine sets of analysis are in the appendixes section (Tables 5.56 to 5.64).

Table 5.53 - Multiple regression for hypotheses relating Perceived Risk for laptops, ERTB, OSL; Cultural Values and Nationality– Model summary (using ES)

		<b>R<sup>2</sup></b>	<b>Incremental R<sup>2</sup></b>	<b>F change</b>	p-value for difference in R <sup>2</sup>
Exploratory Risk Taking	<b>Model 1</b>	<b>0.008</b>	<b>0.008</b>	<b>1.915</b>	0.168
	Model 2	0.009	0.000	0.102	0.750
	Model 3	0.045	0.036	1.741	0.126
	Model 4	0.080	0.035	8.755	<b>0.003</b>
Exploratory consumption behaviour	Model 1	0.003	0.003	0.785	0.377
	Model 2	0.006	0.003	0.687	0.408
	Model 3	0.035	0.029	1.398	0.226
	Model 4	0.071	0.036	8.927	<b>0.003</b>
Exploratory Information search	Model 1	0.000	0.000	0.018	0.894
	Model 2	0.002	0.002	0.491	0.484
	Model 3	0.031	0.029	1,335	0.250
	<b>Model 4</b>	<b>0.064</b>	<b>0.033</b>	<b>7,776</b>	<b>0.006</b>

Table 5.54 - Multiple regression for hypotheses relating Perceived Risk for laptops, ERTB, OSL; Cultural Values and Nationality– Model summary (using TAS)

		<b>R<sup>2</sup></b>	<b>Incremental R<sup>2</sup></b>	<b>F change</b>	p-value for difference in R <sup>2</sup>
Exploratory Risk Taking	<b>Model 1</b>	<b>0.014</b>	0.014	3.263	0.072
	Model 2	0.017	0.003	0.771	0.381
	Model 3	0.043	0.026	1.198	0.311
	Model 4	0.062	<b>0.019</b>	<b>4464</b>	<b>0.036</b>
Exploratory consumption behaviour	Model 1	0.029	<b>0.029</b>	<b>6.516</b>	<b>0.011</b>
	Model 2	0.033	0.004	0.837	0.361
	Model 3	0.077	0.044	2.040	0.074
	Model 4	0.128	<b>0.051</b>	<b>12,314</b>	<b>0.001</b>
Exploratory Information search	Model 1	0.005	0.005	1,155	0.284
	Model 2	0.020	0.014	3,235	0.073
	Model 3	0.044	0.025	1,110	0.356
	<b>Model 4</b>	<b>0.085</b>	<b>0.041</b>	<b>9,523</b>	<b>0.002</b>

Table 5.55 - Multiple regression for hypotheses relating Perceived Risk for laptops, ERTB, OSL, Cultural Values and Nationality– Model summary (using CSI)

		R <sup>2</sup>	Incremental R <sup>2</sup>	F change	p-value for difference in R <sup>2</sup>
Exploratory Risk Taking	<b>Model 1</b>	<b>0.016</b>	<b>0.016</b>	<b>4.053</b>	<b>0.045</b>
	Model 2	0.019	0.004	0.938	0.334
	Model 3	0.054	0.035	1.816	0.110
	<b>Model 4</b>	<b>0.095</b>	<b>0.041</b>	<b>11.063</b>	<b>0.001</b>
Exploratory consumption behaviour	<b>Model 1</b>	<b>0.021</b>	<b>0.021</b>	<b>5.492</b>	<b>0.020</b>
	Model 2	0.029	0.008	2.060	0.152
	Model 3	0.065	0.036	1.877	0.099
	<b>Model 4</b>	<b>0.101</b>	<b>0.036</b>	<b>9.714</b>	<b>0.002</b>
Exploratory Information search	Model 1	0.006	0.006	1,467	0.227
	Model 2	0.007	0.001	0.335	0.563
	Model 3	0.034	0.027	1,359	0.240
	<b>Model 4</b>	<b>0.070</b>	<b>0.036</b>	<b>9,466</b>	<b>0.002</b>

#### 5.5.4.4 – Car

Finally, hypotheses relative to Product-Specific Perceived Risk were evaluated in relation to car. Similarly to the previous products, a 4-step hierarchical regression analysis was conducted to test the proposed model. Similarly to the previous products, this analysis was carried out for each facet of Exploratory and Risk Taking Behaviour and using each OSL indicator, resulting in nine analyses (Table 5.68 to 76).

Model 1 accounts for impact of ERTB on car-specific Perceived Risk. This model is significant for Exploratory Risk Taking and Exploratory Consumption Behaviour. It is not significant for Exploratory Information Search. This result is consistent with the results obtained for the remaining products. **Thus, H3, referring to the negative relationship of ERTB and Perceived Risk is confirmed for two ERTB facets.**

Model 2 refers to H3, regarding the negative impact of OSL in Perceived Risk. Model 2 is significant in four out of the nine analyses. Especially in the case of Exploratory Information Search there is support for the hypotheses except when using CSI as a



measure for OSL. Regarding the remaining facets this measure, CSI is the only one resulting in a significant model. **Thus, H4 is partially confirmed.**

Model 3 accounts for the direct impact of Cultural Values on car-specific Perceived Risk. Model 3 is not significant, similar to the other products. **Thus, H7 B is not supported** and the impact of Cultural Values is fully mediated through OSL and ERTB.

Model 4 capturing the direct influence of Nationality in Perceived Risk is significant. **H7 A is confirmed** and the impact is direct and indirect.

Below Tables 5.65 to 5.67 present the Model summary for each of the facets of ERTB, using each of the indicators for OSL. Tables 5.68 to 5.76, in the Appendixes, present the regression coefficients.

Table 5.65 - Multiple regression for hypotheses relating Perceived Risk for Cars, ERTB, OSL; Cultural Values and Nationality– Model summary (using ES)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	<b>Model 1</b>	<b>0.021</b>	<b>0.021</b>	<b>4,836</b>	<b>0.029</b>
	Model 2	0.023	0.002	0.518	0.473
	Model 3	0.036	0.012	0.567	0.726
	<b>Model 4</b>	<b>0.101</b>	<b>0.065</b>	<b>15.834</b>	<b>0.000</b>
Exploratory consumption behaviour	<b>Model 1</b>	<b>0.047</b>	<b>0.047</b>	<b>11.099</b>	<b>0.001</b>
	Model 2	0.048	0.001	0.147	0.702
	Model 3	0.067	0.019	0.905	0.479
	<b>Model 4</b>	<b>0.135</b>	<b>0.068</b>	<b>17.075</b>	<b>0.000</b>
Exploratory Information search	Model 1	0.005	0.005	1,223	0.270
	<b>Model 2</b>	<b>0.022</b>	<b>0.017</b>	<b>3,845</b>	<b>0.051</b>
	Model 3	0.042	0.019	0.860	0.509
	<b>Model 4</b>	<b>0.110</b>	<b>0.068</b>	<b>16.482</b>	<b>0.000</b>

Table 5.66 - Multiple regression for hypotheses relating Perceived Risk for Cars, ERTB, OSL, Cultural Values and Nationality– Model summary (using TAS)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	<b>Model 1</b>	<b>0.039</b>	<b>0.039</b>	<b>8.652</b>	<b>0.004</b>
	Model 2	0.045	0.006	1.432	0.233
	Model 3	0.064	0.018	0.814	0.541
	Model 4	0.105	0.041	9.415	0.233
Exploratory consumption behaviour	<b>Model 1</b>	<b>0.066</b>	<b>0.066</b>	<b>14.906</b>	<b>0.000</b>
	Model 2	0.072	0.006	1.353	0.246
	Model 3	0.109	0.037	1.695	0.137
	<b>Model 4</b>	<b>0.151</b>	<b>0.042</b>	<b>10.215</b>	<b>0.002</b>
Exploratory Information search	Model 1	0.006	0.006	1.251	0.265
	<b>Model 2</b>	<b>0.027</b>	<b>0.021</b>	<b>4.608</b>	<b>0.033</b>
	Model 3	0.053	0.026	1.156	0.332
	<b>Model 4</b>	<b>0.087</b>	<b>0.034</b>	<b>7.612</b>	<b>0.006</b>

Table 5.67 - Multiple regression for hypotheses relating Perceived Risk for Cars, ERTB, OSL, Cultural Values and Nationality– Model summary (using CSI)

		$R^2$	Incremental $R^2$	F change	p-value for difference in $R^2$
Exploratory Risk Taking	<b>Model 1</b>	<b>0.023</b>	<b>0.023</b>	<b>5.842</b>	<b>0.016</b>
	<b>Model 2</b>	<b>0.043</b>	<b>0.020</b>	<b>5.135</b>	<b>0.024</b>
	Model 3	0.052	0.009	0.453	0.811
	<b>Model 4</b>	<b>0.103</b>	<b>0.050</b>	<b>13.372</b>	<b>0.000</b>
Exploratory consumption behaviour	<b>Model 1</b>	<b>0.049</b>	<b>0.049</b>	<b>12.471</b>	<b>0.000</b>
	<b>Model 2</b>	<b>0.083</b>	<b>0.034</b>	<b>8.962</b>	<b>0.003</b>
	Model 3	0.097	0.014	0.743	0.592
	<b>Model 4</b>	<b>0.151</b>	<b>0.054</b>	<b>14.833</b>	<b>0.000</b>
Exploratory Information search	Model 1	0.003	0.003	0.806	0.370
	Model 2	0.012	0.009	2.212	0.138
	Model 3	0.034	0.021	1.034	0.398
	<b>Model 4</b>	<b>0.091</b>	<b>0.057</b>	<b>14.754</b>	<b>0.000</b>

#### 5.5.4.5 - Overall Evaluation of Hypotheses for Perceived Risk

Since hypotheses relative to Product-Specific Perceived Risk were evaluated for four products and included different alternatives, an overall evaluation is needed. Table 5.77 presents the results for the four-step hierarchical regression analyses conducted for Exploratory and Risk Taking Behaviour (ERTB) facet for these products, providing a comprehensive perspective of the proposed relationships for the four products.

Model 1 is generally significant for Exploratory Consumption Behaviour and Exploratory Risk Taking but not for Exploratory Information Search. **H3 about the negative impact of Exploratory and Risk Taking Behaviour (ERTB) on Perceived Risk, is mostly supported.**

Model 2 accounts for the direct influence of OSL on Perceived Risk. With few exceptions, especially for Exploratory Information Search, this model is mostly not significant. Thus, **H4 stating that OSL will be negatively related to Perceived Risk levels, receives weak support and most of the impact of OSL is mediated.**

Model 3 refers to **H7 B** and the direct impact of Cultural Values. **H7 B is disconfirmed** for the four products and for the three ERTB facets and their impact is fully mediated.

Finally, model 4 accounting for the direct impact of Nationality on Perceived Risk is significant. **H7 A is thus confirmed** and its impact is direct and indirect.

Table 5.77 - Overall results of regression models for Perceived Risk

	Exploratory and Risk Taking Behaviour (ERTB)											
	Exploratory Consumption Behaviour				Exploratory Information Search				Exploratory Risk Taking			
	Mod 1	Mod 2	Mod 3	Mod 4	Mod 1	Mod 2	Mod 3	Mod 4	Mod 1	Mod 2	Mod 3	Mod 4
Deodorant												
TAS	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>
CSI	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>
ES	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>
Toothpaste												
TAS	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>
CSI	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>
ES	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>
Laptop												
TAS	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>
CSI	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>
ES	NS	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>
Car												
TAS	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	NS
CSI	<b>Sig</b>	<b>Sig</b>	NS	<b>Sig</b>	NS	NS	NS	<b>Sig</b>	<b>Sig</b>	<b>Sig</b>	NS	<b>Sig</b>
ES	<b>Sig</b>	NS	NS	<b>Sig</b>	NS	<b>Sig</b>	NS	<b>Sig</b>	<b>Sig</b>	NS	NS	<b>Sig</b>

Sig – Significant

NS – Not significant

## 5.6 – Chapter Summary

This stage constituted the analysis phase of the research process, allowing for processing raw data into usable information. Hypothesis derived from the literature were tested empirically and were confirmed or disconfirmed.

Following cross-cultural methodological recommendations, two stages were followed in this analysis: checking the psychometric adequacy of instruments and testing the hypotheses. Two aspects were considered in the main stage of analysis: exploring the differences in the level of variables and analysing the structure of variables. T-tests were used in the first stage while in the second, regression was used. Correlation analysis was also used as a first crude test for some hypotheses.

Reliability results are positive, overall. To the best of our knowledge, scales used in this project have not been previously used in research in Portugal. Given the importance of reliability issues in situations where there is little research, the internal consistency results obtained are very satisfactory.

In this project, the influence of culture and Cultural Values in a hierarchical framework of domain-specific individual traits (OSL; Exploratory and Risk Taking Behaviour and Product-Specific Perceived Risk) as well as the relationships between these constructs is evaluated. A summary and discussion of the findings is provided in the next chapter.

## **CHAPTER 6 - DISCUSSION AND CONCLUSION**

**Theory building is an evolutionary process. Each new concept or framework may provide an explanation that was not possible before. Gradually, with new insights about phenomena, we can develop a more complete understanding (Cavusgil, 1998: 109).**

### **6.1 – Introduction**

This chapter aims to provide a full picture of the study by bringing together the research findings and contributions to international and cross-cultural Marketing.

This chapter is organized in the following manner: in section 6.2, findings for each hypothesis are summarised and discussed within the context of research examined in Chapters 2-3. Based on this section, major conclusions about the research problem are emphasized (section 6.3). In section 6.4, the theoretical implications of this research are provided while practical implications for International Marketing are presented in section 6.5. Limitations followed by suggestions for further research conclude this chapter.

### **6.2 – Discussion of Findings**

In this section, an overall evaluation of hypotheses is presented. A table (Table 6.1), as well as the nomological model of the proposed relationships summarizing the evaluation of hypotheses (Figure 6.1), is presented and the results are discussed.

Table 6.1 - Overall evaluation of hypotheses

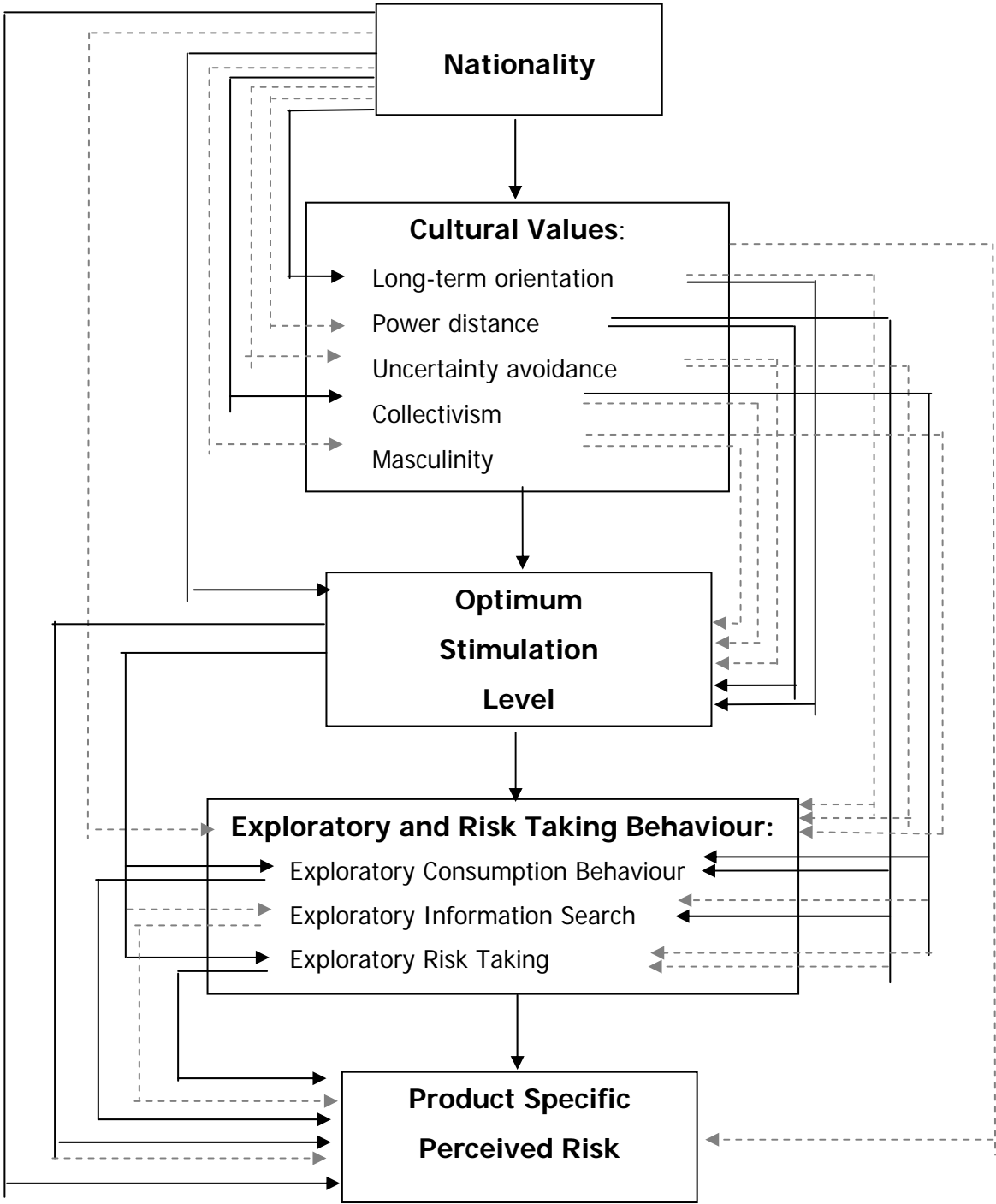
CONSTRUCTS Hypotheses	Preliminary analysis	Regression			
		Expected Beta sign	Beta sign	Significance	Assessment
<b>CULTURE (NATIONALITY)</b>	T test				
NATIONALITY – CULTURAL VALUES					
H 1 – Nationality will impact Cultural Values, such that:					
H1.1 - Portugal will display a higher level of LTO	Sig	+	+	Sig	<b>Supported</b>
H1.2 - Portugal will display a higher level of PDI.	*	+	-	*	Not Supported
H1.3 – Portugal will display a higher level of UAI.	n. s.	+	+	n. s.	Not Supported
H1.4 – Portugal will display a higher level of COL.	Sig	+	+	Sig	<b>Supported</b>
H1.5 - Portugal will display a lower level of MAS.	*	-	+	*	Not Supported
NATIONALITY – OSL					
H5 A: Nationality will be related to OSL.				Sig	Partially Supported (ES only)
NATIONALITY – ERTB					
H6 A –Nationality will be related to ERTB.				n. s.	N. S. (except for ERT using ES)
NATIONALITY –PERCEIVED RISK					
H7 A – Nationality will be related to Perceived Risk levels				Sig	<b>Supported</b>
<b>CULTURAL VALUES</b>	Correlation				
CULTURAL VALUES – OSL					
H5 B: Cultural Values will be related to OSL:					
H5.1: LTO will be negatively related to OSL.	Sig (ES)	-	-	Sig	Partially Supported (ES only)
H5.2: PDI will be negatively related to OSL.	Sig (ES/CSI)	-	-	Sig	<b>Supported</b>
H5.3: UAI will be negatively related to OSL.	Sig(ES/TAS)	-	-	n. s.	Not Supported
H5.4: COL will be negatively related to OSL.	n. s.	-	+	n. s.	Not Supported
H5.5: MAS will be positively related to OSL.	*	+	-	n. s.	Not Supported
CULTURAL VALUES - ERTB					
H6 B - Cultural Values will be related to ERTB:					
H6.1- LTO will be negatively related to ERTB.		-	+/-	Sig	<b>S.</b> (ECB/EIS) / N. S. (ERT)
H6.2 - PDI will be negatively related to ERTB.		-	-	*	Not Supported
H6.3 - UAI will be negatively related to ERTB.		-	+/-	Sig	<b>S.</b> (ECB/EIS) / N. S. (ERT)
H6.4 - COL will be negatively related to ERTB.		-	+	n. s.	Not Supported
H6.5 - MAS will be positively related to ERTB.		+	-	Sig	<b>S.</b> (ECB) / N. S. (EIS/ERT)
CULTURAL VALUES – PERCEIVED RISK					
H7 B: Cultural Values will be related to Perceived Risk:					
H7.1: LTO will be positively related to Perceived Risk.		+		n. s.	Not Supported
H7.2: PDI will be positively related to Perceived Risk.		+			
H7.3: UAI will be positively related to Perceived Risk.		+			
H7.4: COL will be positively related to Perceived Risk.		+			
H7.5: MAS will be negatively related to Perceived Risk.		-			
<b>OPTIMUM STIMULATION LEVEL (OSL)</b>					
OSL – ERTB					
H2 – OSL will be positively related to ERTB.		+	+	Sig	<b>S.</b> (ECB/ERT) / N. S. (EIS)
OSL – PERCEIVED RISK					
H4: OSL will be negatively related to Perceived Risk.		-	-	n. s.	P. S. (EIS) / N. S. (ECB/ERT)
<b>EXPLORATORY AND RISK TAKING BEHAVIOUR (ERTB)</b>					
ERTB – PERCEIVED RISK					
H3: ERTB will be negatively related to Perceived Risk.		-	-	Sig	<b>S.</b> (ECB/ERT) / N. S. (EIS)

Sig – Significant / n. s. – Not Significant / S. – Supported / P.S. – Partially Supported / N. S. - Not Supported

\* Significant contrary to the proposed hypotheses

ECB – Exploratory Consumption Behaviour / ERT – Exploratory Risk Taking / EIS – Exploratory Information Search

Figure 6.1 - Relationships between variables of the proposed model



—————➔ Relationship is supported /partially supported  
-----➔ Relationship is not supported



### 6.2.1 - Culture

Assessing the impact of culture on a hierarchical model of relationships constituted the core of this project. The conceptual catalyst of this study was that culture has not been sufficiently addressed in the standardisation vs. adaptation debate within International Marketing. This paucity of research highlighted the need to consider whether some dimensions of consumer behaviour could be better understood when studied from a cultural point of view. Given the difficulties associated with operationalising culture, Nationality and Cultural Values were used to capture culture. Thus, the findings are presented for both approaches.

Culture was hypothesised to impact all subsequent constructs in the model: Optimum Stimulation Level - OSL (H5 A and H5 B), Exploratory and Risk Taking Behaviour - ERTB (H6 A and H6 B) and Perceived Risk (H7 A and H7 B). Simultaneously, H1 was proposed to address the impact of Nationality on Cultural Values. Below, the findings relative to each of these relationships are discussed.

#### **6.2.1.1 – Nationality – Cultural Values**

Analyses of differences in Cultural Values between nations confirmed that Nationality was a partial predictor of Cultural Values. Hypotheses H1.1 (Portugal will display a higher level of Long-term orientation than the UK) and H1.4 (Portugal will display a higher level of collectivism than the UK) were supported (Table 6.1) while H1.2, H1.3 and H1.5 were not. Although a significant impact was found for Power Distance (H1.2) and Masculinity (H1.5), these results ran contrary to the expected direction.

Thus, overall, the results for Long-term orientation and Collectivism presented a pattern similar to Hofstede's study while they differed for Power Distance and Masculinity (and Uncertainty avoidance, which did not differ; Hofstede, 1984).

There are several possible explanations for these differences. First, caution is called for when comparing the results to Hofstede's scores. In fact, this comparison involves

measures at different levels: Hofstede's cultural scores are based on data analysis and index calculations at the country level, while the Cultural Values Scale (CVSCALE) measures Cultural Values at the individual level (Yoo, Donthu and Lenartowicz, 2001). Although nations tend to show stability in their cultures, an enormous diversity exists in Cultural Values among members of any given nation. Indeed, Hofstede compares culture to the "software of the mind" and considers it as one of the three levels of human mental programming: human nature, culture and personality. Human nature stands for "what all human beings have in common". Culture is "the collective programming of the mind which distinguishes the members of one group or category of people from another". Finally, personality, is the individual's "unique personal set of mental programs which (s)he does not share with any other human being" (Hofstede, 1991: 5-6). Thus, culture can only partially explain individual behaviour and values. One advantage of measuring Cultural Values at the individual level is that it constitutes a more meaningful measure of Cultural Values than assigning an overall measure to all members of a given culture (Yoo, Donthu and Lenartowicz, 2001).

Second, replications of Hofstede's studies using his Value Survey Module with different samples and at different points in time have obtained different results in terms of cultural dimensions. For example, Heuer, Cummings, and Hutabarat (1999) found empirical support for a narrowing of the differences in Individualism and Collectivism between Indonesia and the U.S. A study of cross-cultural differences for 9,400 pilots in 19 countries (neither Portugal nor UK were included) successfully replicated Hofstede's indexes but came to the conclusion that specific characteristics of the sample, occupational context and the environment should be taken into consideration (Merrit, 2000). A similar result was reported by Hoppe (1990), who used Hofstede's items to measure Cultural Values using an elite sample of alumni from the Salzburg seminar. This study has been used as an update of Hofstede's Cultural Values (i.e., Lynn, Zinkhan and Harris, 1993; Roth 1995; Steenkamp, ter Hofstede and Wedel, 1999; Birgelen et al, 2002). In Hoppe's study, Portugal was presented as a low Power Distance and Uncertainty Avoidance country (Table 6.2) since scores for Portugal were substantially lower than those obtained by Hofstede. Studies that measured Hofstede's values using different scales also reported variations in country rankings in relation to his original data (Fernandez et al. 1997).

Third, differences in Power Distance and Uncertainty avoidance may also be attributed to evolution in Cultural Values. Although culture is considered to be stable, it has been 30 years since Hofstede's data was collected. Portugal, in particular, has undergone major changes in the two last decades, especially after joining the EC.

Table 6.2 - Comparison of Hofstede's and Hoppe's Cultural Values scores

	Power Distance		Uncertainty Avoidance		Individualism		Masculinity		Long-Term Orientation	
	Hofstede	Hoppe	Hofstede	Hoppe	Hofstede	Hoppe	Hofstede	Hoppe	Hofstede	Hoppe
Portugal	63	11	104	24	27	45	31	24	65 (*)	(**)
UK	35	4	35	33	89	91	66	7	25	(**)

\* value for Brazil (Hofstede, 2001)

\*\* not included

#### 6.2.1.2 – Culture – Optimum Stimulation Level

The impact of culture on Optimum Stimulation Level (OSL) was partially supported in relation to Nationality and Cultural Values. Regarding Nationality, H5 A was supported for one of the three OSL indicators (Experience Seeking). Zuckerman (1994) reports a number of studies using the Sensation Seeking Scale (SSS) in which national differences were found in OSL. As for Cultural Values, H5 B which refers to the impact of Cultural Values on OSL, is supported for H5.1 and H5.2 regarding the negative impact of Long-term orientation and Power distance on OSL. H5.3 regarding the negative impact of Uncertainty Avoidance is also supported, but only by the weaker test of the correlation results. The fact that the culture - OSL relationship did not hold for the Thrill and Adventure Seeking and the Change Seeker Index (short form) is explainable in the light of previous research using diverse OSL scales in which these measures did not perform equally well in all tasks (Steenkamp and Baumgartner, 1992).

This pattern of results confirms suggestions made in the Psychology literature that OSL is determined, among others, by cultural factors (Berlyne, 1960). In spite of this early contention in the Psychology literature, studies designed to test the impact of culture and Cultural Values on OSL have not been reported. Research has focused on the role of OSL as an enduring individual disposition relative to the level of environmental

stimulation individuals feel comfortable with (Steenkamp and Baumgartner, 1992). This study further contributes the notion that the sensation/change-seeking tendency may be more than an individual personality level variable. The finding that OSL is a trait that is systematically related to culture constitutes an important theoretical and practical finding and will be further developed in sections 6.4 and 6.5 below.

### **6.2.1.3 – Culture – Exploratory and Risk Taking Behaviour**

The influence of culture on Exploratory and Risk Taking Behaviour (ERTB) was not consistent across Nationality and Cultural Values. The direct impact of Nationality on Exploratory and Risk Taking Behaviour was not confirmed (H6 A). However, the direct impact of Cultural Values was supported for Exploratory Consumption Behaviour and Exploratory Information Search (but not for Exploratory Risk Taking). There seem to be no empirical studies regarding the impact of Cultural Values on Exploratory Behaviour. Using Hofstede's scores, however, innovativeness (a related trait) has been extensively studied in relation to Cultural Values (Lynn and Gelb, 1996; Albers-Miller and Gelb, 1996; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002; Birgelen et. al., 2002). The influence of Cultural Values on ERTB can be partially interpreted in light of the above-mentioned studies.

Regarding the influence of each Cultural value, Long-term orientation (LTO) was not significantly related to ERTB. Although in general  $\beta$ s were in accordance with the hypothesis for the Exploratory consumption behaviour facet, there was significant support for the positive impact of LTO only for Exploratory Information Search.

This hypothesis was based on the suggestion that societies rating high on Long-Term Orientation would be low on innovation (Yaveroglu and Donthu, 2002). This argument was not empirically tested as Long-Term Orientation data was not available for many of the countries used in the Yaveroglu-Donthu study. Yet, a study about the adoption of Enterprise Resource Planning (ERP) found support for the opposite hypothesis: the higher the country's Long-term orientation, the more likely companies in that country would be to adopt innovations. These contrasting effects suggest that the impact of culture on consumer behaviour may be more complex than previously anticipated. This

question will be further addressed in the next section where the general impact of culture is evaluated.

Power Distance (H6.2) had a significant impact upon Exploratory Consumption Behaviour and Exploratory Information Search, consistent with the results of previous studies. Power distance was negatively related to the coefficient of innovation (Yaveroglu and Donthu, 2002) and to innovation penetration levels (Van Everdingen and Waarts, 2003). This value appears to have a consistent impact on consumer behaviour.

Concerning Collectivism, its impact on Exploratory and Risk Taking Behaviour (H 6.4) was based on previous research (Hofstede, 1984, 1991, 2001; Steenkamp, ter Hofstede and Wedel, 1999) and was partially confirmed in this study. Although Collectivism was negatively related to Exploratory Consumption Behaviour, it was not with other ERTB facets. Thus, in combination with the results of previous studies, the impact of collectivism might be more complex than expected and requires further investigation. For example, using Hofstede's scores, van Everdingen and Waarts (2003: 13) found that the effect of individualism/collectivism on innovations adoption changed over time: "apparently at early stages of the diffusion curve individualism works positive in getting the diffusion process started, while at later stages of the diffusion curve the process seems to be accelerated in collectivistic cultures".

The negative impact of Uncertainty avoidance on Exploratory and Risk Taking Behaviour (H5.3) was not supported. In comparison with other studies, this is puzzling since the negative relationship of Uncertainty avoidance with innovativeness has been consistently supported by empirical studies (Lynn and Gelb, 1996; Steenkamp, ter Hofstede and Wedel, 1999; Yaveroglu and Donthu, 2002; van Everdingen and Waarts, 2003). However, a study investigating the effect of cultural dimensions in the adoption of new products found that, whereas in nations with better economic conditions uncertainty avoidance was negatively related to penetration rates, this relationship tended to be positive for less developed countries (Yeniyurt and Townsend, 2003). In his latest edition, Hofstede (2001: 148) recognised that many readers of his earlier work had interpreted this dimension as risk avoidance and thus made the following clarification: "Uncertainty avoidance does not equal risk avoidance...More than escape

from risk, uncertainty avoidance leads to an escape from ambiguity.” He stressed that, although people in countries with low uncertainty avoidance demonstrate a low sense of urgency and acceptance of familiar and unfamiliar risks, in high uncertainty avoidance cultures people often engage in risky behaviour to reduce ambiguities.

Contrary to the proposed hypothesis, it was found that Masculinity directly impacted Exploratory and Risk Taking Behaviour. That is, Feminine values were positively related to Exploratory and risk-taking behaviour. The hypothesis was based on previous findings that Masculinity positively affected innovativeness (Steenkamp, ter Hofstede and Wedel, 1999) and that consumer loyalty was stronger in feminine countries (Crotts and Erdman, 2000). This finding, however, was consistent across different measures for both Exploratory and Risk Taking Behaviour facets that were impacted by Cultural Values: Exploratory Consumption Behaviour and Exploratory Information Search. A similar result was obtained by van Everdingen and Waarts (2003) who suggested that the unexpected negative influence of Masculinity might be due to the specific nature of the product used in their study – Enterprise Resource Planning (ERP) systems, which “focus on sharing information within companies and working together, which are values that are generally associated more with feminine than masculine countries” (ibidem: 13). Yeniurt and Townsend’s study (2003) also failed to provide support for the positive effect of this dimension. Incidentally, other studies focusing on the influence of cultural dimensions on innovativeness did not include Masculinity as a predictor (Yaveroglu and Donthu, 2002; Lynn and Gelb, 1996). This lack of support for the positive effect of Masculinity suggests that the result obtained in the present work may represent more than an incongruent finding and points towards a more equivocal influence of Masculinity than found in previous consumer behaviour studies.

### **6.2.1.4 – Product-Specific Perceived Risk**

Perceived Risks were assessed for four products using different scales to measure the multi-dimensional facets of risk for lower- and higher- involvement products. A rather consistent pattern of results was obtained in that the Portuguese sample perceived a higher level of risk in general. Statistically significant results were obtained relative to

financial risk for deodorant; financial, performance, and physical risk for toothpaste; time, physical, performance, and psychological risk for car; and performance and probability of a mispurchase for laptops. However, Social risk presented an opposite tendency. For both lower and higher involvement products, the UK sample perceived a higher level of social risk with the differences reaching statistical significance for deodorants, laptops, and cars. The overall risk for Laptops and cars was also higher for the UK sample. This highlights the need to consider the different facets of risk as well as the specific nature of some dimensions of risk, which may be explained by culture. Indeed, social constraints have been described as particularly strong for the British (Clark, 1990). For example, Gannon (2001) contends that British people do not appreciate individuals who stand out. Thus, the strong British sense of order, tradition, modesty, and group consensus (Gannon, 2001) can influence and explain this result since social risk refers precisely to the risk that a poor choice may result in social embarrassment.

Although Nationality impacted Product-Specific Perceived Risk (H7 A), the influence of Cultural Values on Perceived Risk was not supported (H7 B).

Overall, these results confirmed the influence of culture. Considering these aspects of consumer behaviour from a cultural point of view enhances an understanding of Optimum Stimulation Level, Exploratory and Risk Taking Behaviour, and Product-specific perceived risk. This suggests the relevance of culture for cross-cultural research and segmentation. However, it also underscores the importance of using multiple conceptualisations and operationalisations of culture in the face of the difficulties emphasised throughout this study, which complicate cross-cultural research. This project contributed towards this end by operationalising culture with both Nationality and Cultural Values thus allowing for the capturing of different aspects of culture. By utilising this dual conceptualisation, it is not believed that the multidimensional elusive concept of culture is fully represented. It is felt, however, that this study draws valuable conclusions regarding the role of culture in consumer behaviour.

### 6.2.2 – Optimum Stimulation Level

Consistent with the proposed hierarchical model of relationships, Optimum Stimulation Level was hypothesised to impact Exploratory and Risk Taking Behaviour and Product-Specific Perceived Risk.

#### **6.2.2.1 – Optimum Stimulation Level – Exploratory and Risk Taking Behaviour**

The positive influence of Optimum Stimulation Level (OSL) on Exploratory and Risk Taking Behaviour (ERTB) was confirmed for two of its facets: Exploratory Consumption Behaviour and Exploratory Risk Taking (H2). This finding holds true for all OSL indicators and is consistent with previous studies on the direct impact of OSL on exploratory behaviour (Raju, 1980; Joachimstahaler and Lastovicka, 1984; Wahlers, Dunn and Etzel, 1986; Steenkamp and Baumgartner, 1992; Baumgartner and Steenkamp, 1996). The effect of OSL on Exploratory Information Search was not found to be significant. Previous studies concluded that OSL had a stronger effect on risk-taking than on curiosity-related responses (Raju, 1980; Baumgartner and Steenkamp, 1996). Raju (1980) called for further research on this issue and suggested that high and low OSL consumers might display similar curiosity-related behaviours. In high OSL individuals, however, these behaviours would reflect a genuinely exploratory tendency (“the desire to explore something unfamiliar”) while in low OSL individuals, these would represent a risk reducing strategy. Such information search activities were thus carried out due to somewhat opposite reasons than those leading to Exploratory Information Search activities: to reduce rather than increase variability. Baumgartner and Steenkamp (1996: 128), on the other hand, contend that this result is due to the fact that the OSL scales “tap mostly sensory forms of stimulation”.

This result is consistent with the different pattern of impacts on Perceived Risk displayed by ERTB facets discussed below in section 6.2.3. relative to the specific aspects of the cognitive-oriented facet of exploratory behaviour.



### 6.2.2.2 – Optimum Stimulation Level – Perceived Risk

In the majority of cases, Optimum Stimulation Level did not directly impact Product-Specific Perceived Risk. For the Exploratory Information Search facet, however, there was some evidence for the existence of such a relationship (H4). Thus, with the exception of Exploratory Information Search, the impact of OSL was fully mediated by Exploratory Risk Taking behaviour (ERTB). This result emphasises the need for and the relevance of an intermediate variable between the OSL general personality trait and consumer behaviour. A variable such as ERTB is, therefore, a mediator between the impact of an individual general preference for stimulation (Zuckerman, 1994) and a domain-specific measure. This domain specific measure represents the tendency to engage in Exploratory and Risk Taking Behaviour which acts as a Product-Specific Perceived Risk predictor. Stated differently, although the OSL of an individual constitutes a general measure of the degree of his or her preference for novel, varied and intense sensations, there is a need for a consumer behaviour trait expressing the disposition for engaging in exploratory consumer-related behaviour. This conclusion is consistent with the fact that research on trait theory has shown that general traits or attitudes are often weakly related to behaviour. There is some evidence suggesting that turning to “dispositional variables that are more closely linked to the particular behaviour in question” (Ajzen, 1987: 36 in Baumgartner and Steenkamp, 1996: 132) leads to better predictions and understanding of behaviour.

### 6.2.3 – Exploratory and Risk Taking Behaviour

Exploratory and Risk Taking Behaviour was negatively related to Perceived Risk for the Exploratory Consumption Behaviour and Exploratory Risk Taking facets (H3). H3 stated that consumers with higher Exploratory and Risk Taking Behaviour would display lower levels of Perceived Risk towards specific products and was based on the relationship identified in the literature between an individual's risk-taking tendencies and the level of perceived situation-specific risk (Schaninger, 1976). Although, in general, the literature indicates that individual risk propensity will influence risk taking,

there is a dearth of empirical studies linking risk tendencies to Perceived Risk. Empirical support for this relationship is provided by the present work.

The fact that this effect was not significant for Exploratory Information Search is consistent with the different pattern of relationships displayed by this facet as compared with Exploratory Consumption Behaviour and Exploratory Risk Taking (see section 6.2.2.1. Optimum Stimulation Level – Exploratory and Risk Taking Behaviour). This difference justifies the separation of exploratory behaviour into sensory- and cognitive-oriented dimensions of exploration. This conclusion is strengthened by the fact that there is a broad similarity of result patterns for the various indicators and products used (three Optimum Stimulation Level measures and Perceived Risk across four different products), which constitute a “within-method” triangulation approach. Within-method triangulation refers to “multiple techniques within a given method to collect and interpret data. For quantitative methods such as survey research, this can take the form of multiple scales or indices focused on the same construct” (Jick, 1979, 603).

Furthermore, these results suggest that a study of the relationship between information seeking behaviours and Perceived Risk strategies cannot be undertaken exclusively from the exploratory motivational perspective. Information search has previously been studied in relation to Perceived Risk from a risk-reducing strategy perspective. A positive relationship between Perceived Risk and information search has been acknowledged by Cox (1967) and several studies have placed information search as a top risk handling strategy (e.g., Gemunden, 1985; Urbany et al., 1989, Shiffman and Kanuk, 2000). While such research has mostly focused on the Perceived Risk-information search relationship, this project, to a certain extent, investigates the opposite. Although this effect was not confirmed, studying information seeking activities simultaneously in the sphere of risk reducing strategies, the stages of consumer behaviour decision models and exploratory behaviours should provide a more complete perspective of information search.

### **6.3 –The Role of Culture in Consumer Behaviour**

The research question lending the main impetus for this project was: would the inclusion of culture as an explanatory variable enrich an understanding of consumer behaviour in international settings?

Overall, evidence was found for the influence of culture on Exploratory and Risk Taking Behaviour. Indeed, the proposed model was mostly confirmed by the data. Culture, both in terms of Nationality and Cultural Values, impacted all subsequent layers of constructs such that:

- Nationality had an impact on Cultural Values, a partially mediated impact on Optimum Stimulation Level, a fully mediated impact on Exploratory and Risk Taking Behaviour and a partially mediated impact on Product-Specific Perceived Risk;
- Cultural Values had a direct impact on Optimum Stimulation Level, a partially mediated impact on Exploratory and Risk Taking Behaviour and a fully mediated impact on Perceived Risk;
- Optimum Stimulation Level served as a general predictor of risk attitudes since it impacted Exploratory Consumption Behaviour and Exploratory Risk Taking. Furthermore, Optimum Stimulation Level had a fully mediated impact on Perceived Risk. These facets of Exploratory and Risk Taking Behaviour, furthermore, were predictors of Product-Specific Perceived Risk. Optimum Stimulation Level, as seen previously, was not directly related to Perceived Risk. Thus, Optimum Stimulation Level and Exploratory and Risk Taking Behaviour appear to capture different aspects of an individual risk-taking attitude.

Inasmuch as not all Cultural Values were related to subsequent constructs, the influence of culture was not very large. Long-term orientation and Power distance were negatively related to Optimum Stimulation Level. Additionally, Power distance and Collectivism were negatively related to Exploratory and Risk Taking Behaviour (Exploratory Consumption Behaviour and Exploratory Information Search and Exploratory Consumption Behaviour, respectively). Literature has emphasized the need

to probe the influence of culture on behaviour. The fact that culture is an antecedent variable of a given phenomenon is not, in and of itself, sufficient for adding understanding to that phenomenon: “culture is not a meaningful variable from a substantive point of view...Culture is an umbrella concept encompassing a host of characteristics, and we need to decompose (unpackage) the concept into more meaningful antecedents” (van de Vijver and Leung, 1997: 140).

Moreover, as Culture is not a uni-dimensional variable, it may be unsound to expect it to have a clear and direct impact on consumer behavior. Briley, Morris and Simonson proposed the dynamic nature of cultural influence (see Chapter 2 – section 2.3.2 – Consumer behaviour and the influence of culture) which contends that “consumers’ cultural tendencies may be active or dormant, depending on the **shopping** situation and the state of mind it evokes” (2000: 159). This approach conceptualises culture not as a chronic disposition but as a dynamic influence that is carried to the fore when some aspect of the task at hand “requires that decision makers draw on knowledge structures that differ cross-culturally”. This theory was supported by a number of studies with Asian and American subjects in which the influence of culture translated into different choice patterns, with this influence being activated only when subjects were asked to justify their options. That is, reflecting upon the underlying reasons would elicit cultural knowledge that otherwise would not have been made apparent. Consequently, a scant result in terms of the effect of culture should not be interpreted as evidence of similarity, supporting the universalist stance that culture is largely irrelevant.

Furthermore, culture is a combination of values, tendencies and dimensions, some of which might have conflicting influences. For example, Nakata and Sivakumar (1996: 66) proposed that each of the five cultural dimensions have differing effects on the new product development process depending on the stage considered (initiation versus implementation). For example, they maintain that “low levels of uncertainty avoidance facilitate the initiation phase of new product development through risk taking and minimal planning and controls” but, on the other hand, “high levels of uncertainty avoidance facilitate implementation by emphasis on risk aversion and tight planning and controls”. Similarly, Van Everdingen and Waarts (2003) found support for the temporal-dependent effect of individualism/collectivism. Research in Psychology has

suggested that collectivism could also be associated with greater risk taking. However, a study aimed at testing the so-called “Cushion hypothesis”, the idea that individuals in collectivistic cultures would benefit from in-group protection (Weber and Hsee, 1998), found these apparent differences in risk preferences rooted in risk perception rather than in attitude differences towards Perceived Risk.

It also worth noting that most research on the effects of culture compares Western and Eastern countries (Lee and Green, 1991: the US and China; Tse et al, 1988: Canada, Hong Kong and China; Alden, Hoyer and Lee, 1993: Korea, Germany, Thailand and the US; Yoo and Donthu, 2002: Korea and the US). In the present work, although countries demonstrating maximum differences on Hofstede’s scores were studied, it is nonetheless true that these countries share a strong European Western heritage as well as long lasting historical ties which could potentially eclipse the influence of culture.

The present research sheds light on the consequences of Long-term Orientation, Collectivism and Power Distance values and enriches an understanding of culture’s influence on consumers. However, it must be recognised that theoretical and empirical foundations of the consequences culture has on consumer behaviour in general and Exploratory and Risk Taking Behaviour in particular still require further investigation.

In conclusion, this study offers insight into the role of culture and thus contributes to the gradual, evolutionary process of theory building in the field of cross-cultural consumer behaviour and International Marketing. These theoretical contributions are presented within the next section.

### **6.4 – Theoretical Implications**

This study contributes to theoretical development through theory testing and generalisation and by providing new insights into less explored areas.

International consumer research has often been characterised as a neglected area within consumer behaviour (Sheth and Sethi, 1977; Raju, 1995; Manrai and Manrai, 1996; Luna and Gupta, 2001 – see Chapter 2 Literature review – From the standardisation debate to culture sensitive adaptation - section 2.3.2.2 – International consumer

research). Moreover, international consumer behaviour studies have been criticised for being “disappointing in terms of theorizing” (Boddewyn, 1981: 64) or “devoid of conceptual frameworks” (Albaum and Peterson, 1984: 169) since only a few studies have focused on relationships between Marketing phenomena and characteristics of the societal system and tended to be descriptive and exploratory. Deeper cultural and structural explanations for uncovered similarities and differences were generally not proposed (Boddewyn, 1981; Albaum and Peterson, 1984; Douglas, Morrin, and Craig, 1994; Wang, 1996a; Douglas and Craig, 1997). Thus, such studies were subject to the criticism that they were “primarily concerned with describing variation across nations with regard to consumer behaviour patterns or to factors that underlie consumer behaviour, such as wives’ working status” (Lee and Green, 1991: 289) and few consumer models have, in fact, been formally subjected to cross-cultural validation.

Given such criticisms, according to the research approach typology discussed in Chapter 4 – Research Methodology; Section 4.5 – Research Design Formulation, the present work has been designed as a theory-based empirical study. First, a contribution is made to International Marketing theory through examining the applicability of theories, models and constructs developed in different cultural settings. Second, support is provided for some relationships that constitute promising indicators for new consumer behaviour theories. Despite the fact that some of these relationships have been suggested in the literature, they have not been held up to empirical scrutiny before. As for other effects, mainly for the hypotheses about the influence of culture, although theoretical support exists in the literature, relationships have not been explicitly formulated and this contribution to knowledge is offered based on truly “new” findings. Third, support is given to the role and relevance of using cultural dimensions as a framework for unpacking major components of culture for international consumer marketing (Leung, 1989; Schwartz, 1994; Bagozzi, 1994; Samiee and Jeong, 1994; van de Vijver and Leung, 1997).

With respect to the examination of the generalisability of theoretical models, many calls have been made for cross-cultural validation of consumer behaviour theories which are widely accepted in Anglo-American literature. Many consumer behaviour models include Western, industrialized nation-bound assumptions. As a prerequisite measure,

this requires assessing the applicability of frameworks developed in one country in other countries so as to ensure theories' generalisability (Albaum and Peterson, 1984; Cote and Tansuhaj, 1989; Lee and Green, 1991; Durvasula et al, 1993; Steenkamp and Baumgartner, 1998). Furthermore, these theories are in many cases rooted in Psychology, a discipline that is also highly culture-bound (Triandis, 1999). This is the case for Optimum Stimulation Level, a construct that originated in Psychology. A first contribution of this study is, thus, cross-national and cross-cultural validation of the theory that Optimum Stimulation Level impacts consumer exploratory tendencies (Raju, 1980; Joachimstahaler and Lastovicka, 1984; Wahlers, Dunn and Etzel, 1986; Steenkamp and Baumgartner, 1992).

The generalisability of constructs was also supported. This study confirmed the construct validity of the scales involved for two national samples. Construct validity refers to what construct or characteristic the scale is, in fact, assessing (Green, Tull and Albaum, 1988) and can be established through nomological validity (Chapter 4 – Research methodology; section 4.5.1.3 – Reliability and validity). Nomological validity deals with the degree to which predictions from a theoretical network containing the concept under scrutiny are confirmed (Bearden and Netemeyer, 1999). These predictions were corroborated for the Optimum Stimulation Level – Exploratory and Risk Taking Behaviour relationship, which was established in the literature, as well as for a wider net of nomological relationships including new influences such as the Culture – Optimum Stimulation Level; Culture – Exploratory and Risk Taking Behaviour; Culture – Perceived Risk; and Exploratory and Risk Taking Behaviour – Perceived Risk impacts. These relationships were argued theoretically in the literature but were neither formulated nor investigated previously. Support for this conceptual network of relationships simultaneously confirms the nomological validity of the scales used and contributes to developing and testing new theoretical relationships (Brewerton and Millward, 2001). Generating and exploring a corpus of hypotheses relating dimensions of culture to consumer behaviour represents this study's contribution in terms of theory-building and advancing the frontiers of knowledge in this area.

From a different perspective, this finding has a twofold interpretation inasmuch as both the universal and culture-specific nature of consumer behaviour are valid. The fact that

there is evidence for the cross-cultural validity of tested theories and that the concept of Exploratory and Risk Taking Behaviour is not culture-bound builds a strong case for the seemingly global applicability of the need for stimulation. This finding is in line with research indicating that some aspects of consumer behaviour are universal and relatively invariant across cultures (Cox, 1965; Alden, Hoyer and Lee, 1993; Dawar and Parker, 1994; LeBlanc and Herndon, 2001). Simultaneously, support has been found for the impact of culture on Optimum Stimulation Level, Exploratory and Risk Taking Behaviour and Perceived Risk. The key for resolving this seeming contradiction rests in the inclusion of culture as an explanatory variable.

The lack of a conceptual framework for understanding and interpreting the link between cultural context and consumer behaviour is likely the most acute criticism leagued against research in international and cross-cultural Marketing:

Also lacking is a strong conceptual framework, clearly articulating how and why one might expect to find differences or similarities across countries. This problem is common to other social sciences and stems at least in part from the ambiguity surrounding the term culture as well as the complexity of macro-cultural influences. As a result, findings tend to be fragmentary, and difficult to generalize beyond the immediate scope of a given study. Consequently, it is difficult to integrate findings and build them into a coherent body of knowledge relating to cross-cultural consumer behaviour (Douglas and Craig, 1997: 384).

In the present study, Culture (Nationality) and cultural dimensions measured at the individual level have been proposed as explanations for behaviour. Support has been found for the role of Long-term orientation, Power distance and Collectivism, suggesting these Cultural Values to be meaningful elements for such a comprehensive conceptual framework. The relevance of these dimensions has been shown for different aspects of consumer behaviour, services and advertising. Their impact on other aspects of consumer behaviour (such as decision styles, attitudes towards advertising and household decision-making) requires further study. Yet, Cultural Values clearly stand out as useful variables for claiming the role of a cultural framework. This study further strengthens the case for establishing Cultural Values as reliable dimensions for synthesising major distinguishing aspects of culture. This would constitute a welcomed contribution to cross-cultural studies (Leung, 1989; Schwartz, 1994; Bagozzi, 1994; Samiee and Jeong, 1994; van de Vijver and Leung, 1997): “something is to be learned



by taking existing theories and measures from one culture to another. But more progress will be made when we identify theoretical differences” (Bagozzi, 1994: 9). The fact that results of studies using measures of Cultural Values at the individual level are similar to conclusions of research using Hofstede’s indices is important as it reinforces the relevance of cultural dimensions.

Another major contribution pertains to Exploratory and Risk Taking Behaviour. Its relevance is warranted by the fact that it constitutes an individual trait that influences Product-Specific Perceived Risk. As such, its relationship to actual behaviour is stronger than that demonstrated by Optimum Stimulation Level, a higher-level individual trait.

With respect to the tri-partite conceptualisation of Exploratory and Risk Taking Behaviour, the Exploratory Risk Taking and Exploratory Consumption Behaviour facets serve as better indicators of the general attitude towards risk-taking in terms of consumer behaviour than Exploratory Information Search that seems to capture a distinct aspect. Exploratory Information Search is influenced by Cultural Values but is not related to Product-Specific Perceived Risk. Differences in findings across Exploratory and Risk Taking Behaviour facets lend support to the proposed operationalisation of Exploratory and Risk Taking Behaviour: Exploratory Risk Taking captures individuals’ risk taking propensity; Exploratory Consumption Behaviour captures sensory stimulation-driven Exploratory and Risk Taking Behaviour; and Exploratory Information Search accounts for the cognitive stimulation-driven Exploratory and risk-taking behaviour.

Far from only offering a theoretical contribution, the results obtained in this study lead to important managerial suggestions, which will be the topic of the next section.

### **6.5 – Managerial Implications**

The need for scholarly work on managerially relevant studies has been acknowledged (Malhotra, Peterson and Kleiser, 1999) and cross-cultural studies have obvious practical

implications for International Marketing, International Management, International Business Negotiations and Diplomacy.

The rapidly increasing importance of International Marketing has led marketers to try to improve their understanding of how consumers and markets differ around the globe for the purpose of building more effective Marketing strategies. Cavusgil (1998) proposes a schema of all knowledge areas that constitute the foundations of global Marketing competence. He considers that competence and global Marketing success rests on a tripartite foundation constituted by cross-border transactions' knowledge, cross-cultural knowledge and country-market knowledge. Cross-border transactions' knowledge refers to issues such as international logistics and human resource development. Cross-cultural knowledge includes cross-cultural negotiations skills, for example. Country market knowledge covers issues such as configuration of value-adding activities in target markets, entry modes, global market opportunity assessment and research, market entry planning and strategy and product strategy adaptation/standardisation. This study contributes to two of these key managerial competences: country-market knowledge and cross-cultural knowledge, through the support provided to Hofstede's framework in general, and vis-à-vis the samples studied in particular. Although generalisation of relationships to different cultures must be assessed before general conclusions can be drawn, it is proposed that Hofstede's framework may constitute a valid preliminary assessment of a given culture. While this is clearly insufficient for fully understanding a culture and all its members, international management practices often reveal an absence of cultural sensitivity. Thus, using this framework could greatly improve cross-cultural training. Moreover, as this research strengthens the case for the relevance of cultural dimensions, it should encourage more research on their impact and hence extend the applicability of cultural dimensions.

Customer knowledge, the fundamental mission of Marketing, is arrived at through sound market knowledge and clearly enhancing the understanding of how cultural dimensions affect behaviour. Conceptual frameworks, models and theories that are applicable across different national environments help in the identification of common market segments. As such, segmenting, targeting and positioning can be significantly improved. As discussed in Chapter 2 – Literature review – From the Standardisation

Debate to Culture Sensitive Adaptation, the international segmentation literature has produced a number of approaches aimed at reconciling the concept of globalisation with the Marketing task of identifying homogeneous consumer groups. Segmentation holds the answer to the standardisation/adaptation dilemma, which has been so heatedly debated within the arena of International Marketing. Measuring culture at the individual level, juxtaposed with the finding that Optimum Stimulation Level and Exploratory and Risk Taking Behaviour are impacted by culture, signifies that these constructs are useful for identifying transnational consumer segments with similar risk and exploratory preferences. To date, literature has emphasised the role Exploratory and Risk Taking Behaviour may assume in identifying segments with different switching and repeat-buying behaviours: “adequate attention has not been devoted to the long-term market share implications of variety-seeking behaviour” (Malhotra, Peterson and Kleiser, 1999: 165). These segments would be expected to respond similarly to company offers aimed at meeting individual needs for stimulation.

### **6.6 – Limitations**

This research sought to relate a highly abstract construct (culture) to increasingly lower-level concepts related to consumer behaviour ending in Product-Specific Perceived Risk. The focus has been to cover all stages of this hierarchical model. Given the span of variables covered, detailed research into each of the constructs was beyond the scope of this work. However, the impact of culture may well be more apparent when in-depth studies of each of these constructs are pursued. Nonetheless, in this study an etic approach was followed (Chapter 4 – Research Methodology; section 4.4 – Developing an Approach). To a certain extent, this implies sacrificing a thorough study of each culture in exchange for a universal look at behaviour allowing for establishing comparisons between cultures. A qualitative, emic study probing into the impact of culture would provide a deeper, more descriptive and interpretative view. However, an etic approach seems to be a more adequate perspective for International Marketing given the increasing integration of markets. As such, assessing similarities and differences among markets can be a preliminary step towards adaptation/standardisation decisions and for identifying global opportunities.

The use of multiple cultures in cross-cultural studies has been advocated as a tool for gaining a better understanding of the effects of culture on behaviour (Sekaran 1983; Nasif et al, 1991; Samiee and Jeong, 1994). Yet, some critics question the use of two-nation studies as a cross-cultural design. However, given the meaningful framework followed for selecting the cultures for this study, it is assumed that the use of two cultures does not reduce its relevance. In a similar vein, Sekaran (1983: 64) holds that “we should probably not discourage well-designed 2-nation studies, the findings from which can be systematically integrated. This would also encourage more purposeful hypothetico-deductive cross-cultural research”. The relevance of studies involving fewer cultures for theory testing and consolidation has also been emphasised: “theory testing and validation can be a cumulative endeavour building upon a series of investigations instead of a few multi-country mega studies” (Cavusgil and Das, 1997: 216).

A commonly held limitation of cross-cultural studies is that results may not generalise to other goods, markets, or cultures. This is also true for this study. The proposed nomological model tested here requires future tests in different national and cultural settings before its universality can be proclaimed.

Equivalence is a critical issue in cross-cultural research and one that possibly remains open to questioning. In spite of efforts towards this end, variance cannot be completely ruled out. Indeed, some authors consider it to be very difficult to achieve perfect equivalence in cross-cultural research. It has been argued that a study conducted in one culture by researchers from another results in inherently ambiguous observations (Campbell, 1970; Berry, 1980; Malhotra, Agarwal and Peterson, 1996). To overcome this problem, a study would have to be conducted four times (in both cultures by observers from both cultures).

Another difficulty associated with cross-national studies lies in instrument equivalence. The common practice of using likert scales containing a mixture of positive and reverse worded items has raised doubts regarding its cross-cultural applicability. In fact, such practice has been questioned in domestic research as well. For example, it has been suggested that the use of reverse-polarity items may degrade scale unidimensionality (Herche and Engelland, 1996) and the problems associated with mixed-worded items

are more pronounced in cross-cultural settings (Wong, Rindfleisch and Burroughs, 2003).

In this project, a back translation process was followed to guarantee equivalence of the questionnaire. This constitutes a widely recommended practice for these kinds of studies (Green and White, 1976; Sekaran, 1983; Mullen, 1995; Malhotra, Agarwal, and Peterson, 1996; Cavusgil and Das, 1997). Yet, van de Vijver and Leung (1997: 39) expressed concerns in cross-cultural Psychology literature: “a translation-back translation procedure pays more attention to the semantics and less to connotations, naturalness, and comprehensibility”. They recommend an alternative cultural decentering approach, consisting of the use of a decentered instrument simultaneously developed in many languages involving a multicultural, multilingual team (van de Vijver and Leung, 1997).

Clearly, equivalence limitations could only be overcome through a network of researchers working together in joint-projects in different cultures. Due to obvious resource constraints, this approach was not a viable option for the present study.

To maintain parity, samples were matched across the two countries, an important requirement for research aimed at identifying the impact of culture (Green and White, 1976; Hofstede, 1984; Dawar and Parker, 1994; van de Vijver and Leung, 1997; Cavusgil and Das, 1997; Reynolds, Simintiras and Diamantopoulos, 2000, Reynolds, Simintiras and Diamantopoulos, 2003 - See section Chapter 4 – Research Methodology; section 4.5.2 – Sampling). A common approach for achieving sample equivalence in international research is the use of student samples, which has been deemed adequate for the purposes of the present research. However, limitations associated with samples in terms of generalising results to the general population must be noted.

Another limitation of this study stems from the specific nature of culture inasmuch as theoretical and operational difficulties surrounding the concept of culture obviously complicate cross-cultural research (see Chapter 2 – Literature Review – From the Standardisation Debate to Culture-Sensitive Adaptation; Section 2.3.3 – Definition, Conceptualisation, and Operationalization of Culture).

First, distinguishing culture from other environmental factors is challenging. Physical, economic, political, social and cultural dimensions interact with Marketing actors, processes, structures and functions in direct and indirect ways (Boddewyin, 1966). For example, an alternative hypothesis for the higher Perceived Risk levels identified in this work might be economic reasons as income levels differ greatly between Portugal and the UK (Eurostat, 2000). However, the inclusion of a large number of environmental variables for explaining similarities and differences in Marketing has also been questioned. Boddewyin (1966: 150) holds that a relatively small number of environmental variables should be used in comparative Marketing at the risk of ending up comparing environments rather than Marketing systems: “while comparative studies are somewhat precariously balanced between Marketing itself and its environment, one must be careful not to throw out the Marketing ‘baby’ with the environmental ‘bath’, or smother it in a ‘blanket’ of social context”.

Similarly, it is difficult to isolate cultural influences from contextual short-term situational ones. Weber, Hsee and Sokolwska explain: “It is important to know – but not easy to establish – whether observed national differences in behavior are truly cultural, i. e. are the result of longstanding differences in cultural norms and values which are not easily modified, or whether they are more malleable and transient because they result from current situational circumstances” (Weber, Hsee and Sokolowska, 1998: 171).

However, the need to meaningfully include the concept of culture in cross-cultural studies is well worth the effort required to develop and use different approaches to operationalise this construct (Manrai and Manrai, 1996; McCort and Malhotra, 1993; Clark, 1990; Nasif et al, 1991; Dawar, Parker and Price, 1996; Lenartowicz and Roth, 1999). The options explored in this study regarding this question provided interesting and fruitful conclusions, in spite of the associated difficulties and limitations.

Understanding, explaining and predicting behaviour in the global consumer culture is an incremental process. Each step raises additional questions. This study constitutes an opening chapter unveiling a sequence of “Russian dolls”, which have to be discovered step by step. In the next section, some suggestions are offered for further research towards this end.

## 6.7 – Directions for Further Research

As discussed in the above section, this research has limitations that present opportunities for future work. Two types of suggestions are outlined in this section: alternative approaches to data generation and analysis and future research in exploratory and risk taking and related behaviours.

Consumer behaviour (as with all social phenomena) is complex and can be studied from different perspectives and levels. This study provides rich results that can be compared to the multi-layers of an onion. Unearthing the inner layer requires further investigation. Likewise, to gain access to the core of cultural influence, in-depth studies of the impact of culture should be conducted. Using a combination of methods, as proposed by the triangulation approach, should contribute to “a more complete, holistic and contextual portrayal of the unit(s) under study” (Jick, 1979: 603). In this work, a within-method triangulation approach allowed for cross-checked reliability. A more sophisticated approach would use “between-methods triangulation” for convergent validation. A qualitative methodology such as in-depth interviews could complement the survey results and clarify some of its puzzling findings. The use of complementary methods would also allow for the studying of Exploratory and Risk Taking Behaviour from an emic perspective. Cultural decentering of the instrument, namely that of developing specific instruments for each culture, may uncover different aspects of Exploratory and Risk Taking Behaviour (van de Vijver and Leung, 1997). Fruitful results could also be obtained with cross-cultural collaboration. Researcher interaction has been deemed essential for effective international studies (Cavusgil and Das, 1997). Rich possibilities also lie in collaboration across disciplines such as Psychology, Sociology and Ethnography. This cross-fertilization of disciplines and researchers’ cultural backgrounds should provide a holistic and interpretative view of such a complex and multifaceted area of enquiry

The dynamic model of cultural influence (Briley, Morris and Simonson, 2000) also suggests that different research designs and in-depth studies should be used to capture the elusive influence of culture. In addition to studying the direct impact of cultural variables, investigating the role of culture as a moderating variable between Optimum

Stimulation Level and exploratory and risk taking behavior could also be pursued. As a research question, it may be proposed that Cultural Values either magnify or minimize the impact of Optimum Stimulation Level on Exploratory and Risk Taking Behaviour.

A difficulty in this project was identifying a broad level indicator of risk preferences (Sitkin and Pablo, 1992; Weber and Tsee, 1998). Optimum Stimulation Level has been used in Marketing and consumer behaviour studies as a proxy for an individual attraction to risk indicating the likelihood of engaging in risky activities. However, these results stress the fact that the impact of Optimum Stimulation Level on Perceived Risks is mediated by the tendency to engage in Exploratory and Risk Taking Behaviour (Raju, 1980; Joachimstahaler and Lastovicka, 1984; Steenkamp and Baumgartner, 1992; Baumgartner and Steenkamp, 1996). Still, further research is needed on the conceptualisation and operationalisation of Exploratory and Risk Taking Behaviour as well as on the relationship between risk taking and risk perceptions.

In fact, the adopted approach has been to consider that culturally influenced individual risk taking preferences impact Perceived Risk. However, the opposite causal relationship could also be argued. Thus, an interesting question for further research is whether the opposite relationship applies. Does the product-specific level of risk impact product specific Exploratory and Risk Taking Behaviour? Recent research in Psychology has shown that for a variety of research domains (gambling, stock market and commuting decisions), between-subject differences in apparent risk preference might be the result of differences in attitude towards Perceived Risk or in the way risk is perceived and defined. For example, a study about entrepreneurs found them to differ from other managers not in terms of greater willingness to take risks, but rather on the former having overly optimistic perceptions of the risks involved in risky choices (Weber and Hsee, 1998).

From a different perspective, the conclusions of this study also point to different, although related, directions for research, namely that of investigating the different dimensions of information search activities. This study includes the information-seeking facet of Exploratory and Risk Taking Behaviour. However, information search plays a wider role in consumer behaviour and its relation to Perceived Risk and risk taking can focus on different perspectives.



The reciprocal relationship between information search and Perceived Risk could take place within the context of a framework for consumer information search such as the one proposed by Bloch, Sherrel and Ridgway (1986). This framework distinguishes between pre-purchase search and ongoing search. Pre-purchase search is defined as information seeking and processing activities consumers engage in to facilitate some specific buying decision while ongoing search refers to search activities that are independent of specific purchase needs or decisions (Bloch, Sherrel and Ridgway, 1986). Experiencing fun and pleasure would be a motive exclusively for ongoing search (together with building a database of information for future use). The sole motive for pre-purchase search would be making better purchase decisions (hence reducing risk).

A number of alternative analytic approaches might be used on the present data. One promising method is the use of structural modeling and path analysis, using the LISREL or EQS statistical packages. The use of this method has been increasing in cross-cultural studies and has been presented as constituting a “particularly useful method to test and refine conceptual models across countries” (Craig and Douglas, 2000) as it allows for both a test of the overall model and of the specific relationships among variables.

Cross-cultural studies are an area experiencing increasing sophistication as new methods and techniques are proposed to overcome longstanding dilemmas in cross-cultural methodology. A number of methodological contributions have been recently put forth which could be used in further studies in this area.

One of the questions relates to sampling. Although representative samples are not adequate for cross-cultural research, matched samples are not without their limitations. Lenartowicz and Roth (2001b: 10) suggest a methodology to “select a sub-sample of subjects within a group in the way that their values can represent properly the values of their culture” – RDVI – Refined Direct Value Inference. This methodology is based on selecting “cultural experts”, the set of subjects whose values are more similar and consequently more likely to display values which represent their culture. This concept is operationalised through an index that measures agreement between individuals – Cohen’s weighted Kappa. In short, this method is aimed at allowing for the identification of a subset within the group that could serve as key informants given that they agree on what the values of the cultural group are and thus minimize measurement

errors. Moreover, the utilisation of this method would contribute to solving the measurement of culture dilemma as it would help "clarify the distinctiveness of what is reflected by collective Cultural Values and what is reflected by the aggregation of the individual values" (Lenartowicz and Roth, 2001b: 21).

Statistical methods have been evolving as well as opening new methods for research. Studies investigating the impact of culture on individual level concepts and using variables measured at the national level such as Hofstede's dimensions (original scores) include two levels of aggregation. In this case, exploratory behaviour and risk occur at the individual level, while cultural characteristics occur at the country level. These studies are, therefore, designated as multi-level (Bryk and Raudenbush, 1992; Steenkamp, ter Hofstede and Wedel, 1999; van Birgelen et al, 2002). The levels are hierarchical in the sense that customers are nested within countries. This type of data, despite its prevalence in behavioural and social research, cannot be adequately analysed using conventional statistical techniques (Bryk and Raudenbush, 1992; Osborne, 2000). Hierarchical linear models permit for the analysis of hierarchically nested data structures, allowing for the estimation of cross-level effects such as the interactive effects of individual and country level variables, that is to "test hypotheses on how variables measured at the country level affect relations occurring at the individual level" (Steenkamp, ter Hofstede and Wedel, 1999: 63). Hierarchical linear models enable the simultaneous estimation of relationships and interactive effects of variables at two or more levels. Using this technique would allow for analysing the effects of Hofstede scores on dependent variables instead of solely using cultural dimensions at the individual level. Traditional statistical packages do not perform this kind of analysis and specific computer programs have been recently developed towards this end (for example van Birgelen et al, 2002 used MLwiN 1.0 developed in 1999 and Steenkamp, ter Hofstede, and Wedel, 1999 used HLM – Hierarchical Linear and Nonlinear Modeling, presently in version 5).

## 6.8 – Conclusion

The journey undertaken in this dissertation was inspired by Levitt's article in its praise of Globalisation (Levitt, 1983). The initial project aimed at investigating the extent to which Levitt's predictions regarding consumers' convergence were materializing in the context of the European Union. The research focus evolved as the research question shifted from "are consumers becoming more similar" to "what makes consumers different" and "how does culture influence consumer behaviour". Following this trajectory, it was sought to identify the dimensions of consumer behaviour that would be more susceptible to cultural influences. Risk related aspects were identified as one general trait of behaviour that would be particularly culture-sensitive. The present study does not aim at providing final conclusions as to the aspects of consumer behaviour that should be considered from a cultural point of view. Furthermore, it does not claim to clearly fathom how culture influences consumer behaviour. It may be stated, however, that a fundamental starting point for international marketers is to begin by assessing the impact of culture on consumers. The relevance of culture in Exploratory and Risk Taking Behaviour, moreover, is confirmed in this work thereby answering an often-asked question in international research (e.g., Tse et al, 1988; Lenartowicz and Roth, 2001; Okazaki, 2004) concerning whether or not culture matters and plays a shaping role in consumer behaviour.

Despite the conceptual evolution of the initial research question, Levitt's ideas continue to peak the interest of the author. Globalisation trends have driven and will continue to drive consumers towards assimilation in many ways. Markets have clearly become global within the areas of trade and commercial integration. There is also growing evidence of emerging global cultures (Bird and Stevens, 2003) with emphasis on modernity, technology, freedom and individual choice (Steenkamp, 2001). This, however, does not minimise the need for understanding the impact of culture. On the contrary, the challenge of comprehending how culture affects consumers is enhanced. The increased pace of globalisation has not decreased the importance of cultural variation. The importance of the multifaceted ways in which culture shapes behaviour is enhanced since it is less obvious now than in the past. Convergence cannot be taken for

granted given the resilient and profound impacts of culture on consumer behaviour (e.g., McCort and Malhotra, 1993; Usunier, 1996). This scenario stresses the importance of cross-cultural Marketing research (Malhotra, 2001; Craig and Douglas, 2001). However, the undertaken review of International Marketing literature revealed that insufficient attention has been paid to the impact of culture on consumer behaviour. The obstacles to cross-cultural research are noteworthy (Manrai and Manrai, 1996; McCort and Malhotra, 1993; Clark, 1990; Nasif et al, 1991; Dawar, Parker and Price, 1996; Lenartowicz and Roth, 1999). These difficulties obviously complicate cross-cultural research and have been used as arguments for downplaying the conclusions of cross-cultural studies. One way to surmount these criticisms and assess the real contribution of studies is to advance knowledge by providing full disclosure and thoroughness (Samiee and Jeong, 1994).

As cross-cultural research evolves, focus is shifting from widening the range of constructs that are studied cross-culturally to a deepening of explorations surrounding these matters. Clearly, studies aimed at assessing the applicability of theories pave the way for research probing into the relationships and levels of construct displayed by different cultures. Cross-cultural Marketing research has made substantial progress with respect to conceptual and definitional issues, theories and substantive findings, and in dealing with methodological problems (Malhotra, 2001). The present project offers a contribution towards the furthering of this progress. Still, the field is ripe for increased sophistication of designs, methodologies and more inclusive nomological nets of construct relationships.

## Appendixes

**Appendix 1 - Furrer, Liu and Sudharshan (2000) scale to measure  
cultural values – Portuguese version**

Por favor indique até que ponto concorda ou discorda das afirmações seguintes, assinalando com um círculo o número que melhor descreve a sua opinião.

	Concordo totalmente				Discordo totalmente
1. É normal as pessoas estarem dispostas a sacrificar-se por um fim.	1	2	3	4	5
2. A incerteza é um aspecto normal da vida e deve-se aceitar cada dia como é.	1	2	3	4	5
3. Devem respeitar-se as tradições.	1	2	3	4	5
4. Deveria haver, e há até certo ponto, interdependência entre as pessoas menos e mais poderosas.	1	2	3	4	5
5. As obrigações sociais devem ser respeitadas a qualquer preço.	1	2	3	4	5
6. As pessoas devem ser perseverantes em relação a resultados a longo prazo.	1	2	3	4	5
7. As pessoas são quem são, independentemente do grupo do qual fazem parte.	1	2	3	4	5
8. É frequente haver muito stress e um sentimento subjectivo de ansiedade entre as pessoas.	1	2	3	4	5
9. O dinheiro e os bens materiais são importantes.	1	2	3	4	5
10. Os homens devem ser assertivos, ambiciosos e duros.	1	2	3	4	5
11. As pessoas menos poderosas devem estar dependentes das mais poderosas.	1	2	3	4	5
12. As desigualdades entre as pessoas devem ser minimizadas.	1	2	3	4	5
13. É normal ter receio de situações ambíguas e de riscos desconhecidos.	1	2	3	4	5
14. As pessoas são quem são pela sua posição nos laços sociais aos quais pertencem.	1	2	3	4	5
15. As desigualdades entre as pessoas são normais e desejáveis..	1	2	3	4	5
16. As pessoas crescem para tratar de si e da sua família mais próxima.	1	2	3	4	5
17. Não se devem revelar as emoções.	1	2	3	4	5
18. Os valores mais importantes numa sociedade são a preocupação com os outros e a preservação.	1	2	3	4	5
19. Quer os homens quer as mulheres podem ser meigos e preocupar-se com as pessoas com quem se relacionam.	1	2	3	4	5
20. As pessoas devem ser protegidas pela sua família e em compensação devem-lhe lealdade.	1	2	3	4	5

Sexo: Feminino ☐

Masculino ☐

**Appendix 2 - Furrer, Liu and Sudharshan (2000) scale to measure  
cultural values – English version**



Please indicate your degree of agreement or disagreement with the following statements. Please note that 1 stands for Totally agree and 7 for Totally disagree. Circle the number that best describes your opinion.

Statements	Strongly agree				Strongly disagree
1. Willingness to subordinate oneself for a purpose is normal.	1	2	3	4	5
2. Uncertainty is a normal feature of life and each day is accepted as it comes.	1	2	3	4	5
3. Traditions should be respected.	1	2	3	4	5
4. There should be, and there is to some extent, interdependence between less and more powerful people.	1	2	3	4	5
5. Social obligations should be respected regardless of cost.	1	2	3	4	5
6. People should be perseverant toward long-term results.	1	2	3	4	5
7. People are identified independently of the groups they belong to.	1	2	3	4	5
8. People are identified by their position in the social networks to which they belong.	1	2	3	4	5
9. Money and material things are important.	1	2	3	4	5
10. Men are supposed to be assertive, ambitious and tough.	1	2	3	4	5
11. Less powerful people should be dependent on the more powerful.	1	2	3	4	5
12. Inequalities among people should be minimized.	1	2	3	4	5
13. Inequalities among people are both expected and desired.	1	2	3	4	5
14. High stress and subjective feeling of anxiety are frequent among people.	1	2	3	4	5
15. Fear of ambiguous situations and of unfamiliar risks is normal.	1	2	3	4	5
16. Everyone grows up to look after him/herself and his/her immediate family only.	1	2	3	4	5
17. Emotions should not be shown.	1	2	3	4	5
18. Dominant values in society are the caring for others and preservation.	1	2	3	4	5
19. Both men and women are allowed to be tender and to be concerned with relationships.	1	2	3	4	5
20. An extended family member should be protected by other member in exchange for loyalty.	1	2	3	4	5

Gender:    Feminine ☐                      Masculine ☐

### **Appendix 3 - Pre-tested scale to measure cultural values – Portuguese version**

## QUESTIONÁRIO

Estamos a preparar um estudo sobre diferenças culturais. Nesse sentido, gostaríamos de solicitar a sua contribuição, respondendo a algumas questões.

A sua opinião é muito importante! Não há respostas certas ou erradas a este questionário. Por favor, esteja à vontade para fazer todas as observações e reparos que entender, ao lado das questões ou no final.

Muito obrigada pela sua colaboração!

Ana Maria Soares

1 – As afirmações seguintes descrevem atitudes opostas das sociedades quanto a aspectos como família, trabalho e ideias. Entre cada uma das posições extremas há várias posições intermédias. Para cada par de afirmações, escolha a posição que, de uma forma geral, melhor descreve a forma de pensar ou agir da maior parte das pessoas do seu país, independentemente de se identificar com essa posição ou não.

De uma forma geral, no nosso país:

1. Os pais tratam os filhos de igual para igual	1	2	3	4	5	Os pais ensinam os filhos a serem obedientes
2. Os subordinados esperam ser consultados	1	2	3	4	5	Os subordinados esperam que lhes seja dito o que fazer
3. Pensa-se que as desigualdades entre as pessoas deveriam ser minimizadas	1	2	3	4	5	Pensa-se que desigualdades entre as pessoas são simultaneamente esperadas e desejadas
4. Privilégios e símbolos de status são mal vistos	1	2	3	4	5	Privilégios e símbolos de status são esperados e comuns
5. Pensa-se que todos deveriam ter direitos iguais	1	2	3	4	5	Pensa-se que as pessoas com poder têm privilégios
6. As pessoas com poder tentam parecer menos poderosas do que são	1	2	3	4	5	As pessoas com poder tentam impressionar o mais possível.
7. Os filhos tratam os pais de igual para igual	1	2	3	4	5	Os filhos tratam os pais com respeito
8. As pessoas sentem muito stress e sentimento subjectivo de ansiedade	1	2	3	4	5	As pessoas sentem pouco stress e sentimento subjectivo de bem estar
9. Aceitam-se os riscos com os quais as pessoas estão familiarizadas e receiam-se situações ambíguas e riscos não familiares	1	2	3	4	5	As pessoas estão à vontade em situações ambíguas e com riscos com os quais não estão familiarizadas
10. Pensa-se que só devem existir as regras estritamente necessárias	1	2	3	4	5	Há uma necessidade emocional de regras, mesmo que estas nunca funcionem
11. Há tolerância para com ideias e comportamentos diferentes e inovadores	1	2	3	4	5	Há supressão de ideias e comportamentos diferentes e resistência à inovação
12. Leis e regras: são poucas e genéricas	1	2	3	4	5	Leis e regras: são muitas e detalhadas
13. Aceita-se que os cidadãos protestem	1	2	3	4	5	Pensa-se que se deve reprimir o protesto dos cidadãos
14. Há uma atitude positiva dos cidadãos face às instituições	1	2	3	4	5	Há uma atitude negativa dos cidadãos face às instituições
15. As pessoas e relações humanas calorosas são importantes	1	2	3	4	5	O dinheiro e as coisas materiais são importantes

16. Pensa-se que quer os homens quer as mulheres devem ser moderados e humildes	1	2	3	4	5	Pensa-se que os homens devem ser assertivos, ambiciosos e duros.
17. Quer os homens quer as mulheres podem ser carinhosos e preocupar-se com as pessoas com quem se relacionam.	1	2	3	4	5	Espera-se que as mulheres sejam carinhosas e que se preocupem com as pessoas com quem se relacionam
18. Quer os rapazes quer as raparigas podem chorar.	1	2	3	4	5	As raparigas choram; os rapazes não
19. Trabalha-se para viver	1	2	3	4	5	Vive-se para trabalhar
20. Ênfase na igualdade, solidariedade e qualidade da vida laboral	1	2	3	4	5	Ênfase na equidade, competição entre colegas e desempenho
21. Há um número relativamente grande de mulheres eleitas para cargos políticos	1	2	3	4	5	Há um número relativamente pequeno de mulheres eleitas para cargos políticos
22. As pessoas crescem no seio de famílias alargadas ou outros grupos que continuam a protegê-las ao longo da vida a troco de lealdade	1	2	3	4	5	As pessoas são educadas para tratar de si e da sua família mais próxima (nuclear) apenas
23. A identidade individual é baseada na rede social à qual se pertence	1	2	3	4	5	A identidade é baseada no indivíduo.
24. A harmonia deve ser sempre mantida e as confrontações directas devem ser evitadas	1	2	3	4	5	Ser directo é uma característica de uma pessoa honesta
25. Os interesses colectivos prevalecem sobre os interesses individuais	1	2	3	4	5	Os interesses individuais prevalecem sobre os interesses colectivos
26. A vida privada é invadida pelos grupos	1	2	3	4	5	Cada um tem direito à sua privacidade
27. As opiniões são predeterminadas pelos grupos aos quais se pertence	1	2	3	4	5	Espera-se que cada um tenha a sua opinião pessoal
28. A ideologia de igualdade prevalece sobre a ideologia de liberdade individual	1	2	3	4	5	A ideologia de liberdade individual prevalece sobre a ideologia de igualdade

Alguns elementos de caracterização:

a) Sexo:                      Feminino      1 ☐                      Masculino      2 ☐

b) Nacionalidade:      Portuguesa      1 ☐                      Outra                      2 ☐ Qual \_\_\_\_\_

Muito obrigada por ter terminado o seu questionário!

Use este espaço se desejar fazer algum comentário ou sugestão. Obrigada!

## **Appendix 4 - Pre-tested scale to measure cultural values – English version**

## QUESTIONNAIRE

This questionnaire presents a scale for classification of different cultures and it is being pre-tested for future use in a research project. Please feel free to write down any observations or remarks next to the questions or at the end of the questionnaire. Your response is fundamental for us! Thank you very much for your cooperation!

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The following statements describe different types of cultures. For each pair of opposite statements choose the position that, in general, best describes the culture of your country and the way most people think, act and feel, regardless the fact you identify with that position or not.

29. Inequalities among people should be minimized	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Inequalities among people are both expected and desired
30. Parents treat children as equals	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Parents teach children obedience
31. Subordinates expect to be consulted	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Subordinates expect to be told what to do
32. Privileges and status symbols are frowned upon	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Privileges and status symbols (for managers) are both expected and popular
33. All should have equal rights	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	The powerful have privileges
34. Powerful people try to look less powerful than they are	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Powerful people try to look as impressive as possible
35. Children treat parents as equals	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Children treat parents with respect
36. High stress ;subjective feeling of anxiety .	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Low stress and subjective feeling of well-being
37. Acceptance of familiar risks; fear of ambiguous situations and of unfamiliar risks	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	comfortable in ambiguous situations and with unfamiliar risks
38. There should not be more rules than is strictly necessary	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Emotional need for rules, even if these will never work
39. Tolerance of deviant and innovative ideas and behavior	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Suppression of deviant ideas and behavior; resistance to innovation
40. Few and general laws and rules	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Many and precise laws and rules
41. Citizen protest acceptable	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Citizen protest should be repressed
42. Citizens positive towards institutions	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Citizens negative towards institutions
43. People and warm relationships are important	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Money and material things are important
44. Everybody is supposed to be modest	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Men are supposed to be assertive, ambitious and tough.
45. Both men and women are allowed to be tender and to be concerned with relationships.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Women are supposed to be tender and to take care of relationships
46. Both boys and girls are allowed to cry.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Girls cry, boys don't.
47. Work in order to live	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Live in order to work
48. Stress on equality, solidarity, and quality of work life	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Stress on equity, competition among colleagues, and performance

49. International conflicts should be resolved by negotiation and compromise	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	International conflicts should be resolved by a show of strength or by fighting
50. People are born into extended families or other ingroups which continue to protect them in exchange for loyalty	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Everyone grows up to look after him/herself and his/her immediate (nuclear) family only
51. Identity is based in the social network to which one belongs	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Identity is based in the individual
52. Harmony should always be maintained and direct confrontations avoided	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Speaking one's mind is a characteristic of an honest person
53. Collective interests prevail over individual interests	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Individual interests prevail over collective interests
54. Private life is invaded by group(s)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Everyone has a right to privacy
55. Opinions are predetermined by group membership	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Everyone is expected to have a private opinion
56. Ideologies of equality prevail over ideologies of individual freedom	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	Ideologies of individual freedom prevail over ideologies of equality

## 2 – A few things about yourself:

Gender:      Feminine    1☐

Masculine    2☐

Nacionality    Portuguese    1☐

Other    2☐ \_\_\_\_\_

Thank you very much for filling in the questionnaire!

## **Appendix 5 - Hofstde's scale – Value Survey Module – Portuguese version**



## QUESTIONÁRIO

Estamos a preparar um estudo sobre as expectativas das pessoas quanto à sua vida profissional no futuro. Nesse sentido, gostaríamos de solicitar a sua contribuição, respondendo a algumas questões.

A sua opinião é muito importante! Não há respostas certas ou erradas a este questionário. Por favor, esteja à vontade para fazer todas as observações e reparos que entender, ao lado das questões ou no final.

Muito obrigada pela sua colaboração!

Ana Maria Soares

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Por favor, leia as questões atentamente e responda assinalando a sua resposta com um círculo.

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1 – Na sua opinião, com que frequência ocorrem as seguintes situações:

*Por favor, assinale a sua resposta numa escala de 1 a 5, em que 1 significa “Muito frequentemente” e 5 significa “Muito raramente”.*

	Muito frequentemente	Frequentemente	Às vezes	Raramente	Muito raramente
1. Os alunos terem receio de expressar discordância dos seus professores	1	2	3	4	5
2. As pessoas terem receio de expressar discordância dos seus superiores nos seus empregos	1	2	3	4	5
3. Os alunos sentirem-se tensos ou nervosos na sala de aulas	1	2	3	4	5
4. As pessoas sentirem-se tensos ou nervosos no trabalho	1	2	3	4	5

2 - Durante quanto tempo pensa que:

	2 anos no máximo	Entre 2 e 5 anos	Mais do que 5 anos (mas provavelmente com saída antes da reforma)	Até à reforma
a. irá trabalhar para a mesma empresa ou organização, depois de terminar a sua licenciatura?	1	2	3	4
b. as pessoas normalmente trabalham para a mesma empresa ou organização?	1	2	3	4

3 – Pense nos factores que seriam importantes para si num emprego ideal. Até que ponto seriam importantes para si cada um dos seguintes aspectos:

*Assinale a sua resposta numa escala de 1 a 5, em que 1 significa “De extrema importância” e 5 significa “Muito pouco ou nada importante”.*

	De extrema importância	Muito importante	Mais ou menos importante	Pouco importante	Muito pouco ou nada importante
1. Ter tempo suficiente para a sua vida pessoal ou familiar	1	2	3	4	5
2. Ter tarefas que constituam um desafio e que lhe proporcionem um sentimento pessoal de realização	1	2	3	4	5
3. Ter pouca pressão e stress no emprego	1	2	3	4	5
4. Ter boas condições físicas de trabalho (boa ventilação e iluminação, espaço de trabalho adequado, etc)	1	2	3	4	5
5. Ter um bom relacionamento de trabalho com o seu supervisor directo	1	2	3	4	5
6. Ter segurança de emprego	1	2	3	4	5
7. Ter bastante liberdade para adoptar a sua própria forma de trabalhar	1	2	3	4	5
8. Trabalhar com pessoas que cooperam umas com as outras	1	2	3	4	5
9. Ser consultado pelo seu/sua supervisor/a directa em relação às suas decisões	1	2	3	4	5
10. Dar um real contributo para o sucesso da sua empresa ou organização	1	2	3	4	5
11. Ter oportunidade de aumentar a sua remuneração	1	2	3	4	5
12. Viver numa área agradável para si e para a sua família	1	2	3	4	5
13. Ter oportunidade de progredir para cargos melhores	1	2	3	4	5
14. Ter um trabalho com uma certa variedade e aventura	1	2	3	4	5
15. Trabalhar numa empresa ou organização prestigiada e bem sucedida	1	2	3	4	5
16. Ter oportunidade de ajudar os outros	1	2	3	4	5
17. Ter um cargo bem definido em que as exigências são claras	1	2	3	4	5
18. Ter boas regalias adicionais	1	2	3	4	5
19. Usar totalmente as suas capacidades e conhecimentos no trabalho	1	2	3	4	5
20. Ter o reconhecimento que merece quando faz um bom trabalho	1	2	3	4	5
21. Ter oportunidade de formação para melhorar as suas capacidades e conhecimentos ou para obter novas capacidades e conhecimentos	1	2	3	4	5

4 – Até que ponto concorda ou discorda da seguinte afirmação:

*Por favor, assinale a sua resposta numa escala de 1 a 5, em que 1 significa “Concordo totalmente” e 5 significa “Discordo totalmente”.*

	Concordo totalmente	Concordo	Não conc. nem disc.	Discordo	Discordo totalmente
As regras da empresa não devem ser ultrapassadas mesmo quando o empregado pensa que é o melhor para a empresa.	1	2	3	4	5

5 - As descrições abaixo referem-se a quatro tipos diferentes de gestores/superiores. Leia, por favor, estas descrições:

Tipo de gestor/superior	Descrição
Tipo 1	Normalmente toma decisões rapidamente e comunica-as aos subordinados de uma forma clara e firme. Espera que os subordinados cumpram as decisões lealmente e sem levantar dificuldades.
Tipo 2	Normalmente toma decisões rapidamente, mas antes de avançar tenta explicá-las integralmente aos subordinados. Apresenta-lhes as razões para as decisões tomadas e responde a quaisquer questões que os subordinados possam ter.
Tipo 3	Normalmente consulta os subordinados antes de tomar decisões. Ouve os seus conselhos, tem-nos em consideração e depois anuncia a sua decisão. Espera que todos trabalhem lealmente para a implementar quer estejam ou não em concordância com os conselhos que os subordinados deram.
Tipo 4	Normalmente convoca uma reunião com os subordinados quando há uma decisão importante a tomar. Coloca o problema ao grupo e convida à discussão. Aceita o ponto de vista da maioria como a decisão a tomar

Em relação aos quatro tipos de gestor/superior acima mencionados, assinale:

	Tipo 1	Tipo 2	Tipo 3	Tipo 4	Nenhum dos tipos
a. sob a supervisão de qual preferiria trabalhar.	1	2	3	4	5
b. a qual pensa que corresponde a maior parte dos gestores/superiores do nosso país?	1	2	3	4	5

6 - Alguns elementos de caracterização:

- a. Sexo:                      Feminino    1 ☐                      Masculino    2 ☐
- b. Nacionalidade:    Portuguesa    1 ☐                      Outra                      2 ☐ Qual \_\_\_\_\_

Muito obrigada por ter terminado o seu questionário!

Use este espaço se desejar fazer algum comentário ou sugestão. Obrigada!

## **Appendix 6 - Hofstde's scale – Value Survey Module – English version**

## QUESTIONNAIRE

This questionnaire contains a number of questions regarding your attitude towards classes and your expectations regarding your professional life in the future. It is being pre-tested for future use in a research project. Your contribution is, thus, very important!

Please read the questions carefully and select the appropriate answer by ticking (X) the appropriate box (☐).

1 - Try to think of those factors which would be important to you in an ideal job. How important would it be to you to:

	Of utmost importance	Very important	Of moderate importance	Of little importance	Of very little or no importance
	1	2	3	4	5
1. Have sufficient time left for your personal or family life	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2. Have challenging tasks to do, from which you can get a personal sense of accomplishment	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
3. Have little tension and stress on the job	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
4. Have good physical working conditions (good ventilation and lighting, adequate work space, etc)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
5. Have a good working relationship with your direct supervisor	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
6. Have security of employment	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
7. Have considerable freedom to adopt your own approach to the job	1 (	2 (	3 (	4 (	5 (
8. Work with people who cooperate well with one another	1 (	2 (	3 (	4 (	5 (
9. Be consulted by your direct supervisor in his/her decisions	1 (	2 (	3 (	4 (	5 (
10. Make a real contribution to the success of your company or organization	1 (	2 (	3 (	4 (	5 (
11. Have an opportunity for higher earnings	1 (	2 (	3 (	4 (	5 (
12. Live in an area desirable to you and your family	1 (	2 (	3 (	4 (	5 (
13. Have an opportunity for advancement for higher-level jobs	1 (	2 (	3 (	4 (	5 (
14. Have an element of variety and adventure in the job	1 (	2 (	3 (	4 (	5 (
15. Work in a prestigious, successful company or organization	1 (	2 (	3 (	4 (	5 (
16. Have an opportunity to help others	1 (	2 (	3 (	4 (	5 (
17. Work in a well defined job situation where the requirements are clear	1 (	2 (	3 (	4 (	5 (

18. Have good fringe benefits	1 (	2 (	3 (	4 (	5 (
19. Fully use your skills and abilities on the job	1 (	2 (	3 (	4 (	5 (
20. Get the recognition you deserve when you do a good job	1 (	2 (	3 (	4 (	5 (
21. Have training opportunity to improve your skills and knowledge or to learn new skills and knowledge	1 (	2 (	3 (	4 (	5 (

2 - How often do you feel nervous or tense in classes?

I always feel this way	Usually	Sometimes	Seldom	I never feel this way
1 (	2 (	3 (	4 (	5 (

3 - How frequently, in your experience, does the following problem occur: students being afraid to express disagreement with their professors?

Very frequently	Frequently	Sometimes	Seldom	Very seldom
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

4 - How long do you think you will continue working for the organization or company you will work, once you graduate from the university?

Two years at the most	From two to five years	More than five years (but I will probably leave before I retire)	Until I retire
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

5 - The descriptions below apply to four different types of managers/superiors. First, please read through these descriptions:

Manager/superior 1: Usually makes decisions promptly and communicates them to subordinates clearly and firmly. Expects subordinates to carry out the decisions loyally and without raising difficulties.

Manager/superior 2: Usually makes decisions promptly, but before going ahead, tries to explain them fully to subordinates. Gives them the reasons for the decisions and answers whatever questions subordinates may have.

Manager/superior 3: Usually consults with subordinates before reaching decisions. Listens to their advice, considers it and then announces decision. Expects them all to work loyally to implement it whether or not it is in accordance with the advice subordinates gave.

Manager/superior 4: Usually call a meeting with subordinates when there is an important decision to be made. Puts the problem before the group and invites discussion. Accepts the majority viewpoint as the decision.

Now, for the above types of manager, please mark the one which you would prefer to work under:

Manager/ superior 1	Manager/superior 2	Manager/superior 3	Manager/superior 4
---------------------	--------------------	--------------------	--------------------

1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
----------------------------	----------------------------	----------------------------	----------------------------

6 - And, to which one of the above four types of manager/superior would you say most managers/superiors in this country most closely correspond?

Manager/ superior 1	Manager/superior 2	Manager/superior 3	Manager/superior 4	They do not correspond closely to any of them
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	1 <input type="checkbox"/>

7 – Please indicate your degree of agreement or disagreement with the following statement:

Company rules should not be broken, even when the employee thinks it is in the company's best interest.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	1 <input type="checkbox"/>

2 – A few things about yourself:

Gender:	Feminine	1 <input type="checkbox"/>	Masculine	2 <input type="checkbox"/>
Nacionality	Portuguese	1 <input type="checkbox"/>	Other	2 <input type="checkbox"/> _____

Thank you very much for filling in the questionnaire!



## **Appendix 7 - Items used to tap each construct**

Sub-constructs (scales) Items	Question number
<b>CULTURE</b>	
<b>Cultural values - CVSCALE</b> (Yoo, Donthu and Lenartowicz, 2001)	
Power distance	
People in higher positions should make most decisions without consulting people in lower positions. People in higher positions should not ask the opinions of people in lower positions too frequently. People in higher positions should avoid social interaction with people in lower positions. People in lower positions should not disagree with decisions by people in higher positions. People in higher positions should not delegate important tasks to people in lower positions.	2 1 - 5
Uncertainty avoidance	
It is important to have instructions spelled out in detail so that I always know what I'm expected to do. It is important to closely follow instructions and procedures. Rules and regulations are important because they inform me of what is expected of me. Standardised work procedures are helpful. Instructions for operations are important.	2 6 - 10
Collectivism	
Individuals should sacrifice self-interest for the group (either at school or the work place). Individuals should stick with the group even through difficulties. Group welfare is more important than individual rewards. Group success is more important than individual success. Individuals should only pursue their goals after considering the welfare of the group. Group loyalty should be encouraged even if individual goals suffer.	2 11 - 16
Masculinity	
It is more important for men to have a professional career than it is for women. Men usually solve problems with logical analysis; women usually solve problems with intuition. Solving difficult problems usually requires an active, forcible approach, which is typical of men. There are some jobs that a man can always do better than a woman.	2 17 - 20
Confucian dinamism values	
Careful management of money (Thrift) Going on resolutely in spite of opposition (Persistence) Personal steadiness and stability Long-term planning Giving up today's fun for success in the future Working hard for success in the future	1 1-6
<b>OPTIMUM STIMULATION LEVEL</b>	
<b>Change Seeker Index - short form</b> (Steenkamp and Baumgartner, 1995) (2)	
I like to continue doing the same old things rather than trying new and different things. ( ) I like to experience novelty and change in my daily routine. I like a job that offers change, variety and travel, even if it involves some danger. I am continually seeking new ideas and experiences I am continuously changing activities When things get boring, I like to find some new and unfamiliar experience. I prefer a routine way of life to an unpredictable one full of change. (-)	Part 2 1 1 - 8
OBS: Item 3 split into: I like a job that offers change and variety and I like a job that offers travel, even if it involves some danger.	

<b>Sensation seeking scale (Form V) – Zuckerman, 1979</b>		
TAS – Thrill and adventure seeking		
<p>I often wish I could be a mountain climber. / I can't understand people who risk their necks climbing mountains</p> <p>A sensible person avoids activities that are dangerous / I sometimes like to do things that are a little frightening</p> <p>I would like to take up the sport of water-skiing. / I would not like to take up water-skiing.</p> <p>I would like to try surf-board riding / I would not like to try surf-board riding</p> <p>I would not like to learn to fly an airplane. / I would like to learn to fly an airplane.</p> <p>I prefer the surface of the water to the depths. / I would like to go scuba diving.</p> <p>I would like to try parachute jumping. / I would never want to try jumping out of a plane with or without a parachute.</p> <p>I like to dive off the high board. / I don't like the feeling I get standing on the high board (or I don't go near it at all).</p> <p>Sailing long distances in small sailing crafts is foolhardy. / I would like to sail a long distance in a small but seaworthy sailing craft.</p> <p>Skiing fast down a high mountain slope is a good way to end up on crutches. / I think I would enjoy the sensations of skiing very fast down a high mountain slope.</p>	<p>Part 2</p> <p>2</p> <p>Items 1, 4, 7, 9, 12, 13, 14, 15, 18, 19,</p>	
ES – Experience seeking		
<p>I dislike all body odours. / I like some of the earthy body smells.</p> <p>I like to explore a strange city or section of town by myself, even if it means getting lost. / I prefer a guide when I am in a place I don't know well.</p> <p>I have tried marijuana or would like to. / I would never smoke marijuana.</p> <p>I would not like to try any drug which might produce strange and dangerous effects on me. / I would like to try some of the new drugs that produce hallucinations.</p> <p>I like to try foods that I have never tasted before. / I order the dishes with which I am familiar, so as to avoid disappointment or unpleasantness.</p> <p>I would like to take off a trip with no pre-planned or definite routes or timetables. / When I go on a trip I like to plan my route and timetable fairly carefully.</p> <p>I prefer the "down-to-earth" kinds of people as friends. / I would like to make friends in some of the "far out" groups like artists or "hippies".</p> <p>I would like to meet some persons who are homosexuals (men or women). / I stay away from anyone I suspect of being "gay".</p> <p>The essence of good art is in its clarity, symmetry of form and harmony of colours. / I often find beauty in the clashing colours and irregular forms of modern painting.</p> <p>People should dress according to some standards of taste, neatness and style. / People should dress in individual ways even if the effects are sometimes strange.</p>	<p>Part 2</p> <p>2</p> <p>Items 2, 3, 5, 6, 8, 10, 11, 16, 17, 20</p>	
<b>EXPLORATORY AND RISK TAKING BEHAVIOUR</b>		
<b>Risk taking and exploratory behaviour Exploratory Tendencies in Consumer behaviour scales - Raju 1980 (1) (**)Part 3; Question 1 Items 1-46</b>		
Repetitive behavior proneness		
<p>Even though certain food products are available in a number of different flavors, I always tend to buy the same flavor.</p> <p>If I like a brand, I rarely switch from it just to try something different.</p> <p>I get bored with buying the same brands even <i>if</i> they are good.</p> <p>I would get tired of flying the same airline every time.</p> <p>I would prefer to keep using old appliances and gadgets even if it means having to get them fixed, rather than buying new ones every few years.</p> <p>A lot of the time I feel the urge to buy something really different from the brands I usually buy.</p> <p>If I did a lot of flying, I would probably like to try all the different airlines, instead of flying just one most of the time.</p>		

Innovativeness	
	<p>When I see a new or different brand on the shelf, I often pick it up just to see what it is like.</p> <p>I am the kind of person who would try any new product once.</p> <p>A new store or restaurant is not something I would be eager to find out about.</p> <p>I am very cautious in trying new/different products.</p> <p>Even for an important date or dinner, I wouldn't be wary of trying a new or unfamiliar restaurant.</p> <p>I would rather wait for others to try a new store or restaurant than try it myself.</p> <p>When I see a new brand somewhat different from the usual, I investigate it.</p> <p>Investigating new brands of grocery and other similar products is generally a waste of time.</p> <p>When I hear about a new store or restaurant, I take advantage of the first opportunity to find out more about it.</p> <p>I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.</p>
Risk taking	
	<p>When I eat out, I like to try the most unusual items the restaurant serves, even if I am not sure I would like them.</p> <p>I am the kind of person who would try any new product once.</p> <p>When I go to a restaurant, I feel it is safer to order dishes I am familiar with.</p> <p>I am very cautious in trying new/different products.</p> <p>Even for an important date or dinner, I wouldn't be wary of trying a new or unfamiliar restaurant.</p> <p>I would rather stick with a brand I usually buy than try something I am not very sure of.</p> <p>I never buy something I don't know about at the risk of making a mistake.</p> <p>If I buy appliances, I will buy only well-established brands.</p> <p>I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.</p>
Exploration through shopping	
	<p>I have little interest in fads and fashions.</p> <p>I like to shop around and look at displays.</p> <p>I like to browse through mail order catalogs even when I don't plan to buy anything.</p> <p>I shop around a lot for my clothes just to find out more about the latest styles.</p> <p>I hate window shopping.</p> <p>When I see a new brand somewhat different from the usual, I investigate it.</p> <p>I enjoy exploring several different alternatives or brands while shopping.</p>
Interpersonal communication	
	<p>I don't like to talk to my friends about my purchases.</p> <p>I like introducing new brands and products to my friends.</p> <p>My friends and neighbors often come to me for advice.</p>
Brand switching	
	<p>I enjoy sampling different brands of commonplace products for the sake of comparison.</p> <p>I would rather stick with a brand I usually buy than try something I am not very sure of.</p> <p>If I like a brand, I rarely switch from it just to try something different.</p> <p>I get bored with buying the same brands even <i>if</i> they are good.</p> <p>A lot of the time I feel the urge to buy something really different from the brands I usually buy.</p> <p>If I did a lot of flying, I would probably like to try all the different airlines, instead of flying just one most of the time.</p> <p>I enjoy exploring several different alternatives or brands while shopping.</p>

Information seeking		
<p>I get very bored listening to others about their purchases.</p> <p>I like to browse through mail order catalogs even when I don't plan to buy anything.</p> <p>I often read the information on the package of products just out of curiosity.</p> <p>I shop around a lot for my clothes just to find out more about the latest styles.</p> <p>A new store or restaurant is not something I would be eager to find out about.</p> <p>I generally read even my junk mail just to know what it is about.</p> <p>I enjoy sampling different brands of commonplace products for the sake of comparison.</p> <p>I usually throw away mail advertisements without reading them.</p> <p>I don't care to find out what types or brand names of appliances and gadgets my friends have. I often read advertisements just out of curiosity.</p> <p>I rarely read advertisements that just seem to contain a lot of information.</p> <p>When I hear about a new store or restaurant, I take advantage of the first opportunity to find out more about it.</p>		
<b>Exploratory Buying behaviour tendencies – Baumgartner and Steenkamp, 1996 **</b>		
Exploratory Acquisition of Products		
<p>Even though certain food products are available in a number of different flavors, I tend to buy the same flavor. (*)</p> <p>I would rather stick with a brand I usually buy than try something I am not very sure of. (*)</p> <p>I think of myself as a brand loyal consumer. (*)</p> <p>When I see a new brand on the shelf, I'm not afraid of giving it a try.</p> <p>When I go to a restaurant, I feel it is safer to order dishes I am familiar with. (*)</p> <p>If I like a brand, I rarely switch from it just to try something different. (*)</p> <p>I am very cautious in trying new or different products. (*)</p> <p>I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.</p> <p>I rarely buy brands about which I am certain how they will perform. (*)</p> <p>I usually eat the same kinds of food on a regular basis. (*)</p>		
Exploratory Information Search		
<p>Reading mail advertising to find out what's new is a waste of time. (*)</p> <p>I like to go window shopping and find out about the latest styles.</p> <p>I get very bored listening to others about their purchases (*)</p> <p>I generally read even my junk mail just to know what it is about.</p> <p>I don't like to shop around just out of curiosity. (*)</p> <p>I like to browse through mail order catalogs even when I don't plan to buy anything.</p> <p>I usually throw away mail advertisements without reading them. (*)</p> <p>I like to shop around and look at displays.</p> <p>I don't like to talk to my friends about my purchases. (*)</p> <p>I often read advertisements just out of curiosity.</p>		
<p>** Items from Exploratory Tendencies in Consumer Behaviour Scales (Raju 1980) and Exploratory Buying behaviour tendencies (Baumgartner and Steenkamp, 1996) are randomised in Part 3, Question 1 of the Questionnaire</p>		
<b>RISK</b>		
<p><b>Uncertainty / Consequences risk</b> (Cunningham, 1967; Deering and Jacoby, 1972 Deering and Jacoby, 1972; Hoover, Green, and Saegert, 1978; Verhage, Yavas, and Green, 1990; Yavas, Verhage, and Green, 1992/3)</p>		
<p>How certain are you that....</p> <p>A brand of deodorant /toothpaste you have never tried will satisfy you as well as your usual brand Please indicate your degree of agreement or disagreement with the following statements</p> <p>There is a great deal of danger in trying a brand of deodorant / toothpaste I have never used before</p>		Part 4 Questions 1 and 2

<b>Risk perception (composite) (Murray and Schlater (1990)</b>		
<p>What is the probability that the purchase of an unfamiliar alternative for deodorant / toothpaste will lead to:</p> <p>A financial loss because it would function poorly or would not meet your expectations based on the amount of money required to pay for it?</p> <p>A performance loss because it would function poorly or would not meet your needs, desires, or expectations very well?</p> <p>A physical loss because it would not be safe, would become unsafe, or would be dangerous or harmful?</p> <p>A psychological loss because it would not fit well with your self-image or self-concept? A social loss because others would think less highly of you?</p> <p>A loss of convenience because you would have to waste a lot of time and effort before having your needs satisfied?</p>		Part 4 Question 3
<b>Risk Scale (Stone, Gronhaug, 1993; Stone and Mason, 1995) (1)</b>		
<b>Overall risk</b>		
<p>Overall, the thought of buying a personal computer causes me to be concerned with experiencing some kind of loss if I went ahead with the purchase.</p> <p>All things considered, I think I would be making a mistake if I bought a personal computer within the next 12 months for my use at home. When all is said and done, I really feel that the purchase of a personal computer within the next 12 months poses problem for me that I just don't need.</p>		Part 5 Question 2 Items 1-3
<b>Social risk</b>		
<p>If I bought a personal computer within the next 12 months for use at home, I think I would be held in higher esteem by my associates at work.</p> <p>The thought of buying a personal computer within the next 12 months for use at home causes me concern because some friends would think I was just being showy. (*)</p> <p>My purchase of a personal computer within the next 12 months for use at home would cause me to be thought of as being foolish by some people whose opinion I value.</p>		Part 5 Question 2 Items 4-6
* Rephrased based on Risk perception (composite) Murray and Schlater (1990): The thought of buying a personal computer within the next 12 months for use at home causes me concern because some friends would think less highly of me.		
<b>Time risk</b>		
<p>My purchasing a personal computer within the next 12 months for use at home makes me concerned that I would have to spend too much time learning how to use the computer.</p> <p>The demands on my schedule are such that purchasing a personal computer within the next 12 months for use at home concerns me, because it would create even more time pressures on me that I don't need.</p> <p>My purchasing a personal computer within the next 12 months for use at home could lead to an inefficient use of my time from playing computer games, understanding various software packages, and so forth.</p>		Part 5 Question 2 Items 7-9
Items rephrased to translate time loss in the choice process according to the dominant view in the literature that time risk relates to "time planning, purchasing execution and opportunity time costs" (Mitchell and Vassos, 1997)		

Financial risk		
	<p>My purchasing a laptop would be a bad way to spend my money</p> <p>If I bought a laptop for myself, I would be concerned that the financial investment I would make would not be wise.</p> <p>If I bought a laptop for myself, I would be concerned that I really would not get my money's worth from this product.</p>	<p>Part 5</p> <p>Question 2</p> <p>Items 10-12</p>
Physical risk		
	<p>One concern I have about purchasing a personal computer within the next 12 months for use at home is that eye strain for some members of the family could result, due to overuse of the computer.</p> <p>My purchase a personal computer within the next 12 months for use at home leads to concerns about whether the product could lead to some uncomfortable physical side-effects such as bad sleeping, backaches, and the like.</p> <p>Because personal computers may not be completely safe, when I contemplate purchasing a personal computer within the next 12 months for use at home, I become concerned about potential physical risks associated with this product.</p>	<p>Part 5</p> <p>Question 2</p> <p>Items 13-15</p>
Performance risk		
	<p>As I consider the purchase of a personal computer within the next 12 months for home use, I worry about whether the product will really perform as well as it is supposed to.</p> <p>If I were to purchase of a personal computer within the next 12 months for home use, I become concerned that the computer will not provide the level of benefits that I would be expecting.</p> <p>The thought of purchasing of a personal computer within the next 12 months for home use causes me to be concerned for how really dependable and reliable that product will be.</p>	<p>Part 5</p> <p>Question 2</p> <p>Items 16-18</p>
Psychological risk		
	<p>The thought of purchasing a personal computer within the next 12 months for use at home makes me feel psychologically uncomfortable.</p> <p>The thought of purchasing a personal computer within the next 12 months for use at home gives me a feeling of unwanted anxiety.</p> <p>The thought of purchasing a personal computer within the next 12 months for use at home causes me to experience unnecessary tension.</p>	<p>Part 5</p> <p>Question 2</p> <p>Items 19-21</p>
<b>Consumer Involvement Profile (CIP)</b> (Laurent and Kapferer, 1985)		
Perceived product importance / risk		
	<p>When you choose a laptop, it is not a big deal if you are making a mistake. (*)</p> <p>It is really annoying to purchase laptops-that are not suitable.</p> <p>If, after I bought laptops, my choice (s) prove to be poor, I would really be upset.</p>	<p>Part 5</p> <p>Question 2</p> <p>Items 22-24</p>

(\*) Reverse coded

(1) Scale altered from 7-point bipolar scales from extremely agree to extremely disagree to 5 point scale strongly disagree to strongly agree

(2) Scale changed from -2 (completely false) to 2 (Completely true) to 1 to 5 – Completely false a Completely true

## **Appendix 8 - Questionnaire – Portuguese version**





## QUESTIONÁRIO

A cultura é uma parte importante da nossa vida. No entanto, não é claro de que forma esta influencia as pessoas enquanto consumidores. Algumas pessoas acreditam que a globalização irá atenuar as diferenças culturais e promover a convergência dos consumidores. Outras, porém, pensam que ignorar diferenças culturais profundamente arraigadas está na origem de muitos mal-entendidos e erros a nível internacional.

Estamos a levar a cabo uma pesquisa para estudar esta questão. Este estudo está a ser realizado simultaneamente em várias universidades em Portugal e no Reino Unido. É um estudo concebido para contribuir para a compreensão das diferenças culturais e do seu impacto no comportamento de consumo. Para ilustrar estas diferenças foi seleccionado um conjunto de produtos: desodorizante, pasta dos dentes, café, computador portátil e automóvel.

Pedimos a sua ajuda, respondendo ao questionário anexo. Dependemos das suas respostas! O questionário é fácil e o seu preenchimento levar-lhe-á apenas cerca de 25 minutos. O questionário é confidencial e os dados serão tratados apenas de forma agregada. Não há respostas certas ou erradas! Responda a todas as questões da forma que melhor descreve o seu comportamento.

Desde já agradecemos a sua contribuição!

---

Ana Maria Soares  
Universidade do Minho

## I - Valores

1 – Até que ponto são importantes para si os seguintes valores?

*Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.*

Nada importante	Não importante	Neutral	Importante	Muito importante
1	2	3	4	5

1. Gestão cuidadosa do dinheiro (Poupança)	1	2	3	4	5
2. Avançar decididamente apesar da oposição (Persistência)	1	2	3	4	5
3. Segurança e estabilidade pessoal	1	2	3	4	5
4. Planeamento a longo prazo	1	2	3	4	5
5. Abdicar do prazer no presente por sucesso no futuro	1	2	3	4	5
6. Trabalhar duramente para obter sucesso no futuro	1	2	3	4	5

2 – As afirmações seguintes referem-se aos valores dominantes numa cultura. Por favor, indique até que ponto concorda ou discorda com cada uma das afirmações.

*Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.*

Discordo totalmente	Discordo	Não concordo nem discordo	Concordo	Concordo totalmente
1	2	3	4	5

1. As pessoas que ocupam posições superiores deveriam tomar a maior parte das decisões sem consultar as pessoas que ocupam posições inferiores.	1	2	3	4	5
2. As pessoas que ocupam posições superiores não deveriam pedir a opinião das pessoas que ocupam posições inferiores com demasiada frequência.	1	2	3	4	5
3. As pessoas que ocupam posições superiores deveriam evitar a interacção social com pessoas que ocupam posições inferiores.	1	2	3	4	5
4. As pessoas que ocupam posições inferiores não deveriam discordar de decisões de pessoas que ocupam posições superiores.	1	2	3	4	5
5. As pessoas que ocupam posições superiores não deveriam delegar tarefas importantes em pessoas que ocupam posições inferiores.	1	2	3	4	5
6. É importante ter instruções especificadas detalhadamente de forma que eu saiba sempre o que é suposto eu fazer.	1	2	3	4	5
7. É importante seguir instruções e procedimentos rigorosamente.	1	2	3	4	5
8. As regras e regulamentos são importantes porque me informam do que se espera de mim.	1	2	3	4	5
9. Procedimentos de trabalho standardizados são úteis.	1	2	3	4	5
10. As instruções de actuação são importantes.	1	2	3	4	5
11. Os indivíduos deveriam sacrificar o interesse próprio pelo grupo (quer na escola quer no local de trabalho).	1	2	3	4	5
12. Os indivíduos deveriam manter-se unidos mesmo perante as dificuldades.	1	2	3	4	5
13. O bem-estar do grupo é mais importante do que as recompensas individuais.	1	2	3	4	5
14. O sucesso do grupo é mais importante do que o sucesso individual.	1	2	3	4	5
15. Os indivíduos só deveriam prosseguir os seus objectivos depois de levarem em consideração o bem-estar do grupo.	1	2	3	4	5
16. A lealdade ao grupo deveria ser encorajada mesmo em detrimento dos objectivos individuais.	1	2	3	4	5
17. Ter uma carreira profissional é mais importante para os homens do que para as mulheres.	1	2	3	4	5

18. Normalmente os homens resolvem os problemas com análise lógica, e as mulheres com a intuição.	1	2	3	4	5
19. Resolver problemas difíceis requer normalmente uma abordagem activa e enérgica, que é típica dos homens.	1	2	3	4	5
20. Há tarefas que um homem pode sempre fazer melhor do que uma mulher.	1	2	3	4	5

3 – Segue-se uma lista do que algumas pessoas procuram ou querem na vida. Por favor, estude cuidadosamente a lista e depois avalie até que ponto é importante cada aspecto na sua vida diária.

**Assinale com um círculo o número que melhor descreve a sua posição.**

	Nada importante					Muito importante				
1. Sentimento de pertença	1	2	3	4	5	6	7	8	9	
2. Excitação e entusiasmo	1	2	3	4	5	6	7	8	9	
3. Relacionamentos calorosos com os outros	1	2	3	4	5	6	7	8	9	
4. Realização pessoal	1	2	3	4	5	6	7	8	9	
5. Ser bem conceituado	1	2	3	4	5	6	7	8	9	
6. Diversão e aproveitar a vida	1	2	3	4	5	6	7	8	9	
7. Segurança	1	2	3	4	5	6	7	8	9	
8. Respeito por si próprio	1	2	3	4	5	6	7	8	9	
9. Sentimento de realização	1	2	3	4	5	6	7	8	9	

## II – Mudança e novidade

1 – Em termos gerais, como se sente em relação à mudança e coisas novas na sua vida? Por favor, leia as afirmações seguintes e indique se as considera verdadeiras ou falsas.

Use a escala e **assinale com um círculo o número que melhor descreve a sua posição.**

Completamente falso	Falso	Nem verdadeiro nem falso	Verdadeiro	Completamente verdadeiro
1	2	3	4	5

1. Prefiro continuar a fazer as coisas habituais do que experimentar coisas novas e diferentes.	1	2	3	4	5
2. Gosto de ter novidade e mudança na minha rotina diária.	1	2	3	4	5
3. Gosto de uma profissão que proporcione mudança e variedade.	1	2	3	4	5
4. Estou continuamente à procura de novas ideias e experiências.	1	2	3	4	5
5. Estou sempre a mudar de actividades.	1	2	3	4	5
6. Quando as coisas ficam aborrecidas, gosto de arranjar uma experiência nova e desconhecida.	1	2	3	4	5
7. Prefiro um tipo de vida rotineira a uma vida imprevisível cheia de mudanças.	1	2	3	4	5
8. Gosto de uma profissão que envolva viagens, mesmo que implique algum perigo.	1	2	3	4	5

2 – Cada um dos itens seguintes tem duas opções, A e B. Por favor indique qual a opção que melhor descreve **as suas preferências e sentimentos**. Em alguns casos pode encontrar itens nos quais as duas opções se aplicam a si. Escolha aquele que descreve as suas preferências e sentimentos mais fielmente. Em alguns casos pode encontrar itens nos quais lhe desagradam as duas opções. Nestes casos, assinale a opção que lhe desagrade menos. **Por favor responda a todos os itens com uma só opção.** Estamos interessados nas suas, e somente nas suas, preferências e sentimentos. Por favor, responda com toda a franqueza, fazendo uma avaliação honesta de si próprio

1.	A	Uma pessoa sensata evita actividades perigosas
	B	Às vezes gosto de fazer coisas um bocadinho assustadoras.
2.	A	Não gosto de nenhum odor corporal.
	B	Gosto de alguns dos odores corporais.
3.	A	Já experimentei ou gostaria de experimentar haxixe.
	B	Nunca fumaria haxixe.
4.	A	Gosto de mergulhar da prancha mais alta.
	B	Não gosto da sensação de estar na prancha mais alta (ou nem sequer me aproximo dela).
5.	A	Gosto de explorar sozinho uma cidade ou zona da cidade desconhecida, mesmo que me possa perder.
	B	Quando estou num local que não conheço muito bem prefiro ter um guia.
6.	A	Gosto de experimentar comidas que nunca provei.
	B	Encomendo os pratos aos quais estou habituado(a), para evitar desilusões ou dissabores.
7.	A	Frequentemente gostaria de poder ser alpinista.
	B	Não consigo compreender porque é que as pessoas arriscam a vida a subir montanhas.
8.	A	Prefiro para amigos as pessoas do tipo terra-a-terra.
	B	Gostaria de fazer amigos em alguns grupos mais “marginais”, como artistas ou hippies.
9.	A	Prefiro a superfície da água às profundezas.
	B	Gostaria de fazer mergulho.
10.	A	Gostaria de conhecer pessoas que são homossexuais (homens ou mulheres).
	B	Mantenho-me longe de qualquer pessoa de que suspeite ser “gay”.
11.	A	Gostaria de partir para uma viagem sem um itinerário definido nem pré-planeado e sem horários.
	B	Quando vou de viagem gosto de planear o meu itinerário e horário com bastante cuidado.
12.	A	Gostaria de me dedicar à prática de esqui aquático.
	B	Não gostaria de me dedicar à prática de esqui aquático.
13.	A	Gostaria de experimentar o salto de paraquedas.
	B	Eu nunca quereria experimentar saltar de um avião, com ou sem paraquedas.
14.	A	Gostaria de experimentar fazer surf.
	B	Não gostaria de experimentar fazer surf.
15.	A	Eu não gostaria de aprender a pilotar um avião.
	B	Eu gostaria de aprender a pilotar um avião.
16.	A	Eu não gostaria de experimentar nenhuma droga que me pudesse provocar efeitos estranhos e perigosos.
	B	Eu gostaria de experimentar algumas das novas drogas que provocam alucinações.
17.	A	As pessoas deveriam vestir-se segundo alguns padrões de gosto, asseio e estilo.
	B	As pessoas deveriam vestir-se de forma individual mesmo que o efeito seja às vezes estranho.
18.	A	Navegar longas distâncias em pequenas embarcações à vela é imprudente.
	B	Eu gostaria de navegar uma longa distância numa embarcação à vela pequena embora resistente.
19.	A	Esquiar muito depressa por uma encosta alta abaixo é uma boa forma de acabar de muletas.
	B	Penso que iria apreciar a sensação de esquiar muito depressa por uma encosta alta abaixo.
20.	A	A essência da boa arte está na sua clareza, simetria de formas e harmonia de cores.
	B	Muitas vezes acho bonito o choque de cores e formas irregulares da pintura moderna.

### III – Comportamento de compra geral

1 – Por favor, indique até que ponto concorda ou discorda das afirmações seguintes:

Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.

Discordo totalmente	Discordo	Não concordo nem discordo	Concordo	Concordo totalmente
1	2	3	4	5

1. Apesar de alguns produtos alimentares estarem disponíveis numa série de sabores diferentes, tenho tendência para comprar sempre o mesmo sabor	1	2	3	4	5
2. Interesse-me pouco por modas e tendências.	1	2	3	4	5
3. Quando vou comer ao restaurante, gosto de experimentar os pratos mais fora do comum que este serve, mesmo quando não tenho a certeza de que vou gostar.	1	2	3	4	5
4. Gosto de andar às compras e ver os produtos expostos.	1	2	3	4	5
5. Aborrece-me muito ouvir os outros falarem sobre as suas compras.	1	2	3	4	5
6. Gosto de folhear catálogos mesmo quando não tenciono comprar nada.	1	2	3	4	5
7. Quando vejo uma marca nova ou diferente na prateleira, muitas vezes pego nela só para ver como é.	1	2	3	4	5
8. Leio com frequência a informação na embalagem dos produtos só por curiosidade.	1	2	3	4	5
9. Sou o tipo de pessoa que experimentaria qualquer produto novo.	1	2	3	4	5
10. Ando muito às compras de roupa só para saber mais sobre as últimas tendências.	1	2	3	4	5
11. Normalmente não fico ansioso por saber mais acerca de uma nova loja ou restaurante.	1	2	3	4	5
12. Quando vou a um restaurante, acho mais seguro encomendar pratos que já conheço.	1	2	3	4	5
13. Sou muito cauteloso em relação a experimentar produtos novos/diferentes.	1	2	3	4	5
14. Mesmo para uma data ou jantar importante, eu não teria problemas em experimentar um restaurante novo ou pouco conhecido.	1	2	3	4	5
15. Normalmente leio até os folhetos que recebo na caixa de correio só para saber do que se trata.	1	2	3	4	5
16. Não gosto de falar aos meus amigos sobre as minhas compras.	1	2	3	4	5
17. Gosto de experimentar marcas diferentes de produtos comuns para comparar.	1	2	3	4	5
18. Gosto de dar a conhecer marcas e produtos novos aos meus amigos.	1	2	3	4	5
19. Prefiro continuar com uma marca que compro normalmente do que tentar algo em relação ao qual não tenho muita certeza.	1	2	3	4	5
20. Normalmente deito fora a publicidade que recebo no correio sem a ler.	1	2	3	4	5
21. Se gosto de uma marca, raramente mudo para experimentar algo diferente.	1	2	3	4	5
22. Não tenho interesse em saber que tipos ou marcas de aparelhos e acessórios os meus amigos têm.	1	2	3	4	5
23. Detesto andar a ver montras.	1	2	3	4	5
24. Muitas vezes leio a publicidade só por curiosidade.	1	2	3	4	5
25. Prefiro esperar que outros experimentem uma nova loja ou restaurante do que experimentá-la eu mesmo.	1	2	3	4	5
26. Aborrece-me comprar as mesmas marcas mesmo se forem boas.	1	2	3	4	5
27. Quando vejo uma nova marca algo diferente do habitual, procuro saber mais.	1	2	3	4	5
28. Nunca compro algo que não conheço para não correr o risco de cometer um erro.	1	2	3	4	5
29. Eu ficaria cansado de voar sempre pela mesma companhia aérea.	1	2	3	4	5
30. Quando compro equipamentos, compro só marcas conceituadas.	1	2	3	4	5
31. Investigar novas marcas de mercearia e outros produtos semelhantes é normalmente uma perda de tempo.	1	2	3	4	5

32. Os meus amigos e vizinhos vêm pedir-me conselhos muitas vezes.	1	2	3	4	5
33. Raramente leio anúncios que apenas parecem conter muita informação.	1	2	3	4	5
34. Quando sei de uma nova loja ou restaurante, aproveito logo a primeira oportunidade para descobrir mais.	1	2	3	4	5
35. Prefiro continuar a usar os velhos aparelhos e acessórios mesmo de tenha que os mandar reparar, do que comprar novos de poucos em poucos anos.	1	2	3	4	5
36. Muitas vezes sinto um impulso para comprar algo realmente diferente das marcas que normalmente compro.	1	2	3	4	5
37. Gosto de arriscar comprando marcas desconhecidas só para introduzir alguma variedade nas minhas compras.	1	2	3	4	5
38. Se eu viajassem de avião com muita frequência, gostaria provavelmente de experimentar todas as companhias aéreas, em vez de viajar só com uma a maior parte das vezes.	1	2	3	4	5
39. Gosto de explorar várias alternativas ou marcas diferentes quando faço compras.	1	2	3	4	5
40. Considero-me um consumidor leal.	1	2	3	4	5
41. Quando vejo uma marca nova ou diferente na prateleira, não tenho receio de a experimentar.	1	2	3	4	5
42. Raramente compro marcas se não tenho a certeza do seu bom desempenho.	1	2	3	4	5
43. Normalmente como o mesmo tipo de comida regularmente.	1	2	3	4	5
44. Ler a publicidade enviada pelo correio para saber as novidades é uma perda de tempo.	1	2	3	4	5
45. Gosto de ir ver as montras e descobrir as últimas tendências.	1	2	3	4	5
46. Não gosto de andar às compras só por curiosidade.	1	2	3	4	5

#### IV – Compra de desodorizante e dentífrico

##### 1 – Até que ponto tem a certeza de que...

Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.

Nunca tenho a certeza	Quase nunca	Às vezes	Tenho normalmente a certeza	Tenho muita certeza
1	2	3	4	5

1. Uma marca de desodorizante que nunca experimentou o(a) irá satisfazer tanto como a sua marca habitual?	1	2	3	4	5
2. Uma marca de dentífrico que nunca experimentou o(a) irá satisfazer tanto como a sua marca habitual?	1	2	3	4	5

##### 2 – Por favor, indique até que ponto concorda ou discorda das seguintes afirmações:

Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.

Discordo totalmente	Discordo	Não concordo nem discordo	Concordo	Concordo totalmente
1	2	3	4	5

1. Há uma grande dose de perigo em experimentar uma marca de desodorizante que nunca usei.	1	2	3	4	5
2. Há uma grande dose de perigo em experimentar uma marca de dentífrico que nunca usei.	1	2	3	4	5

### 3.1 – Qual a probabilidade de que a compra de uma alternativa desconhecida de desodorizante leve a...

Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.

Extremamente improvável	Moderadamente Improvável	Neutral	Moderadamente provável	Extremamente provável
1	2	3	4	5

1. Uma perda em termos financeiros porque funciona mal ou fica aquém das suas expectativas face ao preço que custou?	1	2	3	4	5
2. Uma perda em termos de desempenho porque funciona mal, ou não vai muito de encontro às suas necessidades, desejos ou expectativas?	1	2	3	4	5
3. Uma perda em termos físicos porque não é segura, se torna insegura, ou é perigosa ou prejudicial?	1	2	3	4	5
4. Uma perda em termos psicológicos porque não se coaduna com a sua auto-imagem ou o seu auto-conceito?	1	2	3	4	5
5. Uma perda em termos sociais porque os outros irão ter uma opinião menos boa de si?	1	2	3	4	5
6. Uma perda em termos de conveniência porque terá que desperdiçar muito tempo e esforço até ter as suas necessidades satisfeitas?	1	2	3	4	5

### 3.2 – Qual é a probabilidade de que a compra de uma alternativa desconhecida de dentífrico leve a...

1. Uma perda em termos financeiros porque funciona mal ou não vai muito de encontro às suas expectativas face ao preço que custou?	1	2	3	4	5
2. Uma perda em termos de desempenho porque funciona mal, ou fica não vai muito de encontro às suas necessidades, desejos ou expectativas?	1	2	3	4	5
3. Uma perda em termos físicos porque não é segura, se torna insegura, ou é perigosa ou prejudicial?	1	2	3	4	5
4. Uma perda em termos psicológicos porque não se coaduna com a sua auto-imagem ou o seu auto-conceito?	1	2	3	4	5
5. Uma perda em termos sociais porque os outros irão ter uma opinião menos boa de si?	1	2	3	4	5
6. Uma perda em termos de conveniência porque terá que desperdiçar muito tempo e esforço até ter as suas necessidades satisfeitas?	1	2	3	4	5

## V – Compra de um computador portátil

Nesta parte do questionário irá encontrar algumas questões sobre a compra de computador portátil.

1 – Possui computador portátil?      Sim    ☐    Não    ☐

2 – Responda às questões seguintes tendo em mente a sua primeira compra de um computador portátil ou uma compra para substituir o que actualmente tem.

*Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.*

Discordo totalmente	Discordo	Não concordo nem discordo	Concordo	Concordo totalmente
1	2	3	4	5

1. De uma forma geral, a ideia de comprar um portátil faz-me recear sofrer algum tipo de perda se eu viesse a concretizar a compra.	1	2	3	4	5
2. Bem vistas as coisas, acho que cometeria um erro se comprasse um portátil.	1	2	3	4	5
3. Ao fim e ao cabo, parece-me realmente que a compra de um portátil me coloca problemas de que não preciso.	1	2	3	4	5
4. Se eu comprasse um portátil, acho que os meus colegas teriam mais consideração por mim.	1	2	3	4	5
5. A ideia de comprar um portátil preocupa-me porque alguns amigos poderiam ter uma opinião menos positiva de mim.	1	2	3	4	5
6. A minha compra de um portátil levaria a que algumas pessoas, cuja opinião é importante para mim, me considerassem insensato.	1	2	3	4	5
7. Uma preocupação que tenho em relação à compra de um portátil é que teria que dedicar muito tempo a indagar sobre as características do produto para poder fazer a melhor escolha.	1	2	3	4	5
8. Sinto uma certa preocupação em comprar um portátil porque a decisão de compra me causaria mais pressão em termos de dispêndio de tempo.	1	2	3	4	5
9. Um receio que tenho em relação à compra de um portátil é o de que teria que perder muito tempo e energia até poder ver as minhas necessidades satisfeitas.	1	2	3	4	5
10. A compra de um portátil não seria uma boa forma de gastar o meu dinheiro.	1	2	3	4	5
11. Se eu comprasse um portátil, sentiria o receio de que o investimento financeiro realizado não fosse sensato.	1	2	3	4	5
12. Se eu comprasse um portátil, sentiria a preocupação de que ele pudesse não valer realmente o dinheiro.	1	2	3	4	5
13. Um receio que tenho em relação à compra de um portátil é o de vir a ter problemas de visão devido a excesso de uso do portátil.	1	2	3	4	5
14. Um receio que tenho em relação à compra de um portátil é o de que poderia dar origem a alguns efeitos secundários desconfortáveis, tais como dormir mal, dores de costas, etc.	1	2	3	4	5
15. Dado que os portáteis podem não ser completamente seguros, quando considero a compra de um portátil, preocupam-me os riscos físicos potenciais associados a este produto.	1	2	3	4	5
16. Quando considero a compra de um portátil, preocupo-me se o produto irá ter um desempenho tão bom como é suposto.	1	2	3	4	5
17. Se eu fosse comprar um portátil, sentiria o receio que o portátil não me proporcionasse o nível de benefícios que eu esperaria.	1	2	3	4	5
18. A ideia de comprar um portátil faz-me recear até que ponto ele será fiável e de confiança.	1	2	3	4	5
19. Psicologicamente, a ideia de comprar um portátil faz-me sentir pouco à vontade.	1	2	3	4	5
20. A ideia de comprar um portátil dá-me uma sensação de ansiedade indesejada.	1	2	3	4	5
21. A ideia de comprar um portátil provoca-me uma tensão desnecessária.	1	2	3	4	5



22. Quando se escolhe um portátil, não é um grande problema se se cometer um erro.	1	2	3	4	5
23. É realmente aborrecido comprar um portátil que não é adequado.	1	2	3	4	5
24. Se, depois de eu ter comprado um portátil, a minha escolha se viesse a revelar má, eu ficaria realmente perturbado(a).	1	2	3	4	5
25. Quando se compra um portátil, nunca se sabe se realmente se comprou o portátil que se deveria ter comprado.	1	2	3	4	5
26. Quando estou perante uma prateleira cheia de portáteis, sinto sempre grande dificuldade para fazer a minha escolha.	1	2	3	4	5
27. Escolher um portátil é bastante complicado.	1	2	3	4	5
28. Quando se compra um portátil nunca se tem a certeza de se ter feito uma boa escolha.	1	2	3	4	5
29. Pode dizer-se muito acerca de uma pessoa pelo portátil que ela escolhe.	1	2	3	4	5
30. O portátil comprado por mim dá uma ideia do homem/mulher que eu sou.	1	2	3	4	5
31. O portátil diz um pouco sobre a pessoa que o compra.	1	2	3	4	5
32. Dá-me prazer comprar um portátil.	1	2	3	4	5
33. Comprar um portátil é como comprar um presente para mim.	1	2	3	4	5
34. Os portáteis são uma espécie de prazer para mim.	1	2	3	4	5
35. Eu atribuo grande importância aos portáteis.	1	2	3	4	5
36. Pode afirmar-se que os portáteis me interessam muito.	1	2	3	4	5
37. Portáteis é um assunto que me deixa totalmente indiferente.	1	2	3	4	5

## VI – Compra de um automóvel

Nesta parte do questionário, encontra algumas questões relativas à compra de um automóvel.

1 – Possui automóvel? Sim ☐ Não ☐

2 – Responda às questões seguintes tendo em mente a sua primeira compra de um automóvel ou uma compra para substituir o que actualmente tem.

Use a escala e **assinale com um círculo** o número que melhor descreve a sua posição.

Discordo totalmente	Discordo	Não concordo nem discordo	Concordo	Concordo totalmente
1	2	3	4	5

1. De uma forma geral, a ideia de comprar um automóvel faz-me recear sofrer algum tipo de perda se eu viesse a concretizar a compra.	1	2	3	4	5
2. Bem vistas as coisas, acho que cometeria um erro se comprasse um automóvel.	1	2	3	4	5
3. Ao fim e ao cabo, parece-me realmente que a compra de um automóvel me coloca problemas de que não preciso.	1	2	3	4	5
4. Se eu comprasse um automóvel, acho que os meus colegas teriam mais consideração por mim.	1	2	3	4	5
5. A ideia de comprar um automóvel preocupa-me porque alguns amigos poderiam ter uma opinião menos positiva de mim.	1	2	3	4	5

6. A minha compra de um automóvel levaria a que algumas pessoas, cuja opinião é importante para mim, me considerassem insensato.	1	2	3	4	5
7. Uma preocupação que tenho em relação à compra de um automóvel é que teria que dedicar muito tempo a indagar sobre as características do produto para poder fazer a melhor escolha.	1	2	3	4	5
8. Sinto uma certa preocupação em comprar um automóvel porque a decisão de compra me causaria mais pressão em termos de dispêndio de tempo.	1	2	3	4	5
9. Um receio que tenho em relação à compra de um automóvel é o de que teria que perder muito tempo e energia até poder ver as minhas necessidades satisfeitas.	1	2	3	4	5
10. A compra de um automóvel não seria uma boa forma de gastar o meu dinheiro.	1	2	3	4	5
11. Se eu comprasse um automóvel, sentiria o receio de que o investimento financeiro realizado não fosse sensato.	1	2	3	4	5
12. Se eu comprasse um automóvel, sentiria a preocupação de que ele pudesse não valer realmente o dinheiro.	1	2	3	4	5
13. Um receio que tenho em relação à compra de um automóvel diz respeito às condições de segurança em caso de acidente de viação.	1	2	3	4	5
14. A compra de um automóvel faz-me sentir o receio de que o carro não seja seguro, se venha a tornar inseguro ou seja perigoso ou prejudicial.	1	2	3	4	5
15. Dado que os carros podem não ser completamente seguros, quando penso comprar um carro, preocupam-me os riscos físicos potenciais associados a este produto.	1	2	3	4	5
16. Quando considero a compra de um automóvel, preocupo-me se este irá ter um desempenho tão bom como é suposto.	1	2	3	4	5
17. Se eu fosse comprar um automóvel, sentiria o receio que o automóvel não me proporcionasse o nível de benefícios que eu esperaria.	1	2	3	4	5
18. A ideia de comprar um automóvel leva-me a recear até que ponto ele será fiável e de confiança.	1	2	3	4	5
19. Psicologicamente, a ideia de comprar um automóvel faz-me sentir pouco à vontade.	1	2	3	4	5
20. A ideia de comprar um automóvel dá-me uma sensação de ansiedade indesejada.	1	2	3	4	5
21. A ideia de comprar um automóvel provoca-me uma tensão desnecessária.	1	2	3	4	5
22. Quando se escolhe um automóvel, não é um grande problema se se cometer um erro.	1	2	3	4	5
23. É realmente aborrecido comprar um automóvel que não é adequado.	1	2	3	4	5
24. Se, depois de eu ter comprado um automóvel, a minha escolha se viesse a revelar má, eu ficaria realmente perturbado(a).	1	2	3	4	5
25. Quando se compra um automóvel, nunca se sabe realmente se se comprou o automóvel que se deveria ter comprado.	1	2	3	4	5
26. Quando estou perante uma loja cheia de automóveis, sinto sempre grande dificuldade para fazer a minha escolha.	1	2	3	4	5
27. Escolher um automóvel é bastante complicado.	1	2	3	4	5
28. Quando se compra um automóvel, nunca se tem a certeza de se ter feito um boa escolha.	1	2	3	4	5
29. Pode dizer-se muito acerca de uma pessoa pelo automóvel que ela escolhe.	1	2	3	4	5
30. O automóvel comprado por mim dá uma ideia do homem/mulher que eu sou.	1	2	3	4	5
31. O automóvel diz um pouco sobre a pessoa que o compra.	1	2	3	4	5
32. Dá-me prazer comprar um automóvel.	1	2	3	4	5
33. Comprar um automóvel é como comprar um presente para mim.	1	2	3	4	5
34. Os automóveis são uma espécie de prazer para mim.	1	2	3	4	5
35. Eu atribuo grande importância aos automóveis.	1	2	3	4	5
36. Pode afirmar-se que os automóveis me interessam muito.	1	2	3	4	5
37. Automóveis é um assunto que me deixa totalmente indiferente.	1	2	3	4	5

## VII – Algumas informações sobre si

1- Sexo:

Masculino 1 ☐ Feminino 2 ☐

2 – Idade: \_\_\_\_\_ anos

3 – Estado civil:

Solteiro 1 ☐ Casado(a) ou união de facto 2 ☐ Separado(a) ou divorciado(a) 3 ☐ Viúvo(a) 4 ☐

4 – Nacionalidade: Portuguesa 1 ☐ Outra 2 ☐ Qual? \_\_\_\_\_

5 – Nacionalidade do pai: Portuguesa 1 ☐ Outra 2 ☐ Qual? \_\_\_\_\_

6 – Nacionalidade da mãe: Portuguesa 1 ☐ Outra 2 ☐ Qual? \_\_\_\_\_

7 – Já viveu fora do seu país? Sim 1 ☐ Onde? \_\_\_\_\_ Não 2 ☐

Quando? \_\_\_\_\_

Durante quanto tempo? \_\_\_\_\_

9 – Qual é o rendimento mensal líquido total da sua família (i. e, depois de impostos)?

Até €1499 1 ☐ €1500-€2999 2 ☐ Mais de €3000 3 ☐

10 – Incluindo-o(a) a si, quantas pessoas (adultos e crianças) vivem actualmente na sua casa? \_\_\_\_\_

FIM

Muito obrigada por ter respondido a este questionário!

## **Appendix 9 - Questionnaire – English version**



## CONSUMER SURVEY

Culture is an important part of our life. However, it is unclear how culture influences people as consumers. Some people believe that globalisation will erase cultural differences and promote consumer similarity. Others think that failing to recognize deep-rooted cultural differences leads to misunderstandings and international mistakes.

We are carrying out a survey in order to study this question. This research is being conducted simultaneously in several universities in Portugal and in the United Kingdom. It is a study designed to contribute to the understanding of cultural differences and their impact on people's consumption behaviour. A number of products have been chosen to illustrate these differences: deodorant, toothpaste, laptops and cars.

We ask for your help by answering the enclosed questionnaire. We depend on your answers! The survey is easy and it will only take you about 25 minutes to complete it. The questionnaire is confidential and data will be treated at the aggregate level only. There are no right or wrong answers! Please answer all questions in a way that best describes your behaviour.

Many thanks in advance for your contribution!

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Ana Maria Soares  
University of Minho

## Part 1- Values

1 – How important are the following values to you?

Use the scale and **circle** the number that best describes your position.

Very unimportant	Unimportant	Neither	Important	Very important
1	2	3	4	5

7. Careful management of money (Thrift)	1	2	3	4	5
8. Going on resolutely in spite of opposition (Persistence)	1	2	3	4	5
9. Personal steadiness and stability	1	2	3	4	5
10. Long-term planning	1	2	3	4	5
11. Giving up today's fun for success in the future	1	2	3	4	5
12. Working hard for success in the future	1	2	3	4	5

2 - The following statements pertain with the dominant values in culture. Please indicate your degree of agreement or disagreement with each of the statements.

Use the scale and **circle** the number that best describes your position.

Strongly disagree	Disagree	Neither	Agree	Strongly agree
1	2	3	4	5

21. People in higher positions should make most decisions without consulting people in lower positions.	1	2	3	4	5
22. People in higher positions should not ask the opinions of people in lower positions too frequently.	1	2	3	4	5
23. People in higher positions should avoid social interaction with people in lower positions.	1	2	3	4	5
24. People in lower positions should not disagree with decisions by people in higher positions.	1	2	3	4	5
25. People in higher positions should not delegate important tasks to people in lower positions.	1	2	3	4	5
26. It is important to have instructions spelled out in detail so that I always know what I'm expected to do.	1	2	3	4	5
27. It is important to closely follow instructions and procedures.	1	2	3	4	5
28. Rules and regulations are important because they inform me of what is expected of me.	1	2	3	4	5
29. Standardised work procedures are helpful.	1	2	3	4	5
30. Instructions for operations are important.	1	2	3	4	5
31. Individuals should sacrifice self-interest for the group (either at school or the work place).	1	2	3	4	5
32. Individuals should stick with the group even through difficulties.	1	2	3	4	5
33. Group welfare is more important than individual rewards.	1	2	3	4	5
34. Group success is more important than individual success.	1	2	3	4	5
35. Individuals should only pursue their goals after considering the welfare of the group.	1	2	3	4	5
36. Group loyalty should be encouraged even if individual goals suffer.	1	2	3	4	5
37. It is more important for men to have a professional career than it is for women.	1	2	3	4	5
38. Men usually solve problems with logical analysis; women usually solve problems with intuition.	1	2	3	4	5
39. Solving difficult problems usually requires an active, forcible approach, which is typical of men.	1	2	3	4	5
40. There are some jobs that a man can always do better than a woman.	1	2	3	4	5

3 - The following is a list of things that some people look for or want of life. Please study the list carefully and then rate each thing on how important it is in your daily life.

*Circle the number that best describes your position.*

	Very unimportant						Very important		
1. Sense of belonging	1	2	3	4	5	6	7	8	9
2. Excitement	1	2	3	4	5	6	7	8	9
3. Warm relationships with others	1	2	3	4	5	6	7	8	9
4. Self fulfilment	1	2	3	4	5	6	7	8	9
5. Being well respected	1	2	3	4	5	6	7	8	9
6. Fun and enjoyment of life	1	2	3	4	5	6	7	8	9
7. Security	1	2	3	4	5	6	7	8	9
8. Self-respect	1	2	3	4	5	6	7	8	9
9. A sense of accomplishment	1	2	3	4	5	6	7	8	9

## Part 2 – Change and novelty

1 - In general terms, how comfortable do you feel with change and novelty in your life? Please read the following statements and indicate whether you consider them true or false.

*Use the scale and **circle** the number that best describes your position.*

Completely false	False	Neutral	True	Completely true
1	2	3	4	5

1. I like to continue doing the same old things rather than trying new and different things.	1	2	3	4	5
2. I like to experience novelty and change in my daily routine.	1	2	3	4	5
3. I like a job that offers change and variety.	1	2	3	4	5
4. I am continuously seeking new ideas and experiences.	1	2	3	4	5
5. I am continually changing activities.	1	2	3	4	5
6. When things get boring, I like to find some new and unfamiliar experience.	1	2	3	4	5
7. I prefer a routine way of life to an unpredictable one full of change.	1	2	3	4	5
8. I like a job that offers travel, even if it involves some danger.	1	2	3	4	5

**2 -** Each item below has two options, A or B. Please indicate which option best describes **your preferences or feelings**. In some cases you may find items in which both choices apply to you. Choose the one which describes your preferences and feelings more accurately. In some cases you may find items in which you dislike both choices. In these cases, mark the choice you dislike the least. Please respond to **all items with only one choice**. We are interested in your preferences and feelings and nobody else's. Be frank and give an honest appraisal of yourself.

21.	A	A sensible person avoids activities that are dangerous.
	B	I sometimes like to do things that are a little frightening.
22.	A	I dislike all body odours.
	B	I like some of the earthy body smells.
23.	A	I have tried marijuana or would like to.
	B	I would never smoke marijuana.
24.	A	I like to dive off the high board.
	B	I don't like the feeling I get standing on the high board (or I don't go near it at all).
25.	A	I like to explore a strange city or section of town by myself, even if it means getting lost.
	B	I prefer a guide when I am in a place I don't know well.
26.	A	I like to try foods that I have never tasted before.
	B	I order the dishes with which I am familiar, so as to avoid disappointment or unpleasantness.
27.	A	I often wish I could be a mountain climber.
	B	I can't understand people who risk their necks climbing mountains.
28.	A	I prefer the "down-to-earth" kinds of people as friends.
	B	I would like to make friends in some of the "far out" groups like artists or "hippies".
29.	A	I prefer the surface of the water to the depths.
	B	I would like to go scuba diving.
30.	A	I would like to meet some persons who are homosexuals (men or women).
	B	I stay way from anyone I suspect of being "gay".
31.	A	I would like to take off a trip with no pre-planned or definite routes or timetables.
	B	When I go on a trip I like to plan my route and timetable fairly carefully.
32.	A	I would like to take up the sport of water-skiing.
	B	I would not like to take up water-skiing.
33.	A	I would like to try parachute jumping.
	B	I would never want to try jumping out of a plane with or without a parachute.
34.	A	I would like to try surf-board riding.
	B	I would not like to try surf-board riding.
35.	A	I would not like to learn to fly an airplane.
	B	I would like to learn to fly an airplane.
36.	A	I would not like to try any drug which might produce strange and dangerous effects on me.
	B	I would like to try some of the new drugs that produce hallucinations.
37.	A	People should dress according to some standards of taste, neatness and style.
	B	People should dress in individual ways even if the effects are sometimes strange.
38.	A	Sailing long distances in small sailing crafts is foolhardy.
	B	I would like to sail a long distance in a small but seaworthy sailing craft.
39.	A	Skiing fast down a high mountain slope is a good way to end up on crutches.
	B	I think I would enjoy the sensations of skiing very fast down a high mountain slope.
40.	A	The essence of good art is in its clarity, symmetry of form and harmony of colours.
	B	I often find beauty in the clashing colours and irregular forms of modern painting.



## Part 3 – General buying behaviour

1 – Please indicate your degree of agreement or disagreement with the following statements:

*Use the scale and **circle** the number that best describes your position.*

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
	1	2	3	4	5
1. Even though certain food products are available in a number of different flavours, I always tend to buy the same flavour.	1	2	3	4	5
2. I have little interest in fads and fashions.	1	2	3	4	5
3. When I eat out, I like to try the most unusual items the restaurant serves, even if I am not sure I would like them.	1	2	3	4	5
4. I like to shop around and look at displays.	1	2	3	4	5
5. I get very bored listening to others about their purchases.	1	2	3	4	5
6. I like to browse through mail order catalogs even when I don't plan to buy anything.	1	2	3	4	5
7. When I see a new or different brand on the shelf, I often pick it up just to see what it is like.	1	2	3	4	5
8. I often read the information on the package of products just out of curiosity.	1	2	3	4	5
9. I am the kind of person who would try any new product once.	1	2	3	4	5
10. I shop around a lot for my clothes just to find out more about the latest styles.	1	2	3	4	5
11. A new store or restaurant is not something I would be eager to find out about.	1	2	3	4	5
12. When I go to a restaurant, I feel it is safer to order dishes I am familiar with.	1	2	3	4	5
13. I am very cautious in trying new/different products.	1	2	3	4	5
14. Even for an important date or dinner, I wouldn't be wary of trying a new or unfamiliar restaurant.	1	2	3	4	5
15. I generally read even my junk mail just to know what it is about.	1	2	3	4	5
16. I don't like to talk to my friends about my purchases.	1	2	3	4	5
17. I enjoy sampling different brands of commonplace products for the sake of comparison.	1	2	3	4	5
18. I like introducing new brands and products to my friends.	1	2	3	4	5
19. I would rather stick with a brand I usually buy than try something I am not very sure of.	1	2	3	4	5
20. I usually throw away mail advertisements without reading them.	1	2	3	4	5
21. If I like a brand, I rarely switch from it just to try something different.	1	2	3	4	5
22. I don't care to find out what types or brand names of appliances and gadgets my friends have.	1	2	3	4	5
23. I hate window shopping.	1	2	3	4	5
24. I often read advertisements just out of curiosity.	1	2	3	4	5
25. I would rather wait for others to try a new store or restaurant than try it myself.	1	2	3	4	5
26. I get bored with buying the same brands even if they are good.	1	2	3	4	5
27. When I see a new brand somewhat different from the usual, I investigate it.	1	2	3	4	5
28. I never buy something I don't know about at the risk of making a mistake.	1	2	3	4	5
29. I would get tired of flying the same airline every time.	1	2	3	4	5
30. If I buy appliances, I will buy only well-established brands.	1	2	3	4	5
31. Investigating new brands of grocery and other similar products is generally a waste of time.	1	2	3	4	5
32. My friends and neighbours often come to me for advice.	1	2	3	4	5
33. I rarely read advertisements that just seem to contain a lot of information.	1	2	3	4	5

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
	1	2	3	4	5
34. When I hear about a new store or restaurant, I take advantage of the first opportunity to find out more about it.	1	2	3	4	5
35. I would prefer to keep using old appliances and gadgets even if it means having to get them fixed, rather than buying new ones every few years.	1	2	3	4	5
36. A lot of the time I feel the urge to buy something really different from the brands I usually buy.	1	2	3	4	5
37. I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.	1	2	3	4	5
38. If I did a lot of flying, I would probably like to try all the different airlines, instead of flying just one most of the time.	1	2	3	4	5
39. I enjoy exploring several different alternatives or brands while shopping.	1	2	3	4	5
40. I think of myself as a brand loyal consumer.	1	2	3	4	5
41. When I see a new brand on the shelf, I'm not afraid of giving it a try.	1	2	3	4	5
42. I rarely buy brands about which I am uncertain how well they will perform.	1	2	3	4	5
43. I usually eat the same kinds of food on a regular basis.	1	2	3	4	5
44. Reading mail advertising to find out what's new is a waste of time.	1	2	3	4	5
45. I like to go window shopping and find out about the latest styles.	1	2	3	4	5
46. I don't like to shop around just out of curiosity.	1	2	3	4	5

#### Part 4 – Purchase of deodorant and toothpaste

Please consider the following products: deodorant and toothpaste.

1 – How certain are you that....

Use the scale below and **circle** the number that best describes your position.

Never certain	Almost Never certain	Sometimes certain	Usually certain	Very certain
1	2	3	4	5

1. A brand of deodorant you have never tried will satisfy you as well as your usual brand?	1	2	3	4	5
2. A brand of toothpaste you have never tried will satisfy you as well as your usual brand?	1	2	3	4	5

2 – Please indicate your degree of agreement or disagreement with the following statements.

Use the scale below and **circle** the number that best describes your position.

Strongly disagree	Disagree	Neither	Agree	Strongly agree
1	2	3	4	5

1. There is a great deal of danger in trying a brand of deodorant I have never used before.	1	2	3	4	5
2. There is a great deal of danger in trying a brand of toothpaste I have never used before.	1	2	3	4	5

**3.1 - What is the probability that the purchase of an unfamiliar alternative for deodorant will lead to:**

Use the scale below and **circle** the number that best describes your position.

Extremely improbable	Moderately improbable	Neither	Moderately probable	Extremely probable
1	2	3	4	5

6. A financial loss because it would function poorly or would not meet your expectations based on the amount of money required to pay for it?	1	2	3	4	5
7. A performance loss because it would function poorly or would not meet your needs, desires, or expectations very well?	1	2	3	4	5
8. A physical loss because it would not be safe, would become unsafe, or would be dangerous or harmful?	1	2	3	4	5
9. A psychological loss because it would not fit well with your self-image or self-concept?	1	2	3	4	5
10. A social loss because others would think less highly of you?	1	2	3	4	5
7. A loss of convenience because you would have to waste a lot of time and effort before having your needs satisfied?	1	2	3	4	5

**3.2 - What is the probability that the purchase of an unfamiliar alternative for toothpaste will lead to:**

1. A financial loss because it would function poorly or would not meet your expectations based on the amount of money required to pay for it?	1	2	3	4	5
2. A performance loss because it would function poorly or would not meet your needs, desires, or expectations very well?	1	2	3	4	5
3. A physical loss because it would not be safe, would become unsafe, or would be dangerous or harmful?	1	2	3	4	5
4. A psychological loss because it would not fit well with your self-image or self-concept?	1	2	3	4	5
5. A social loss because others would think less highly of you?	1	2	3	4	5
6. A loss of convenience because you would have to waste a lot of time and effort before having your needs satisfied?	1	2	3	4	5

## Part 5 – Purchase of a laptop

In this part of the questionnaire you will find a few questions regarding the purchase of a laptop.

1 - Do you own a laptop? Yes ☐ No ☐

2 – Answer the following bearing in mind your first purchase of a laptop or a purchase to replace the laptop you already own.

*Use the scale and **circle** the number that best describes your position.*

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
	1	2	3	4	5
1. Overall, the thought of buying a laptop causes me to be concerned with experiencing some kind of loss if I went ahead with the purchase.	1	2	3	4	5
2. All things considered, I think I would be making a mistake if I bought a laptop.	1	2	3	4	5
3. When all is said and done, I really feel that the purchase of a laptop poses problems for me that I just don't need.	1	2	3	4	5
4. If I bought a laptop, I think my colleagues would hold me in higher esteem.	1	2	3	4	5
5. The thought of buying a laptop causes me concern because some friends would think less highly of me.	1	2	3	4	5
6. My purchase of a laptop would cause me to be thought of as being foolish by some people whose opinion I value.	1	2	3	4	5
7. My purchasing a laptop concerns me because I would have to spend too much time finding out about product features in order to choose the best laptop for me.	1	2	3	4	5
8. Purchasing a laptop concerns me because the purchase decision would create even more time pressures on me that I don't need.	1	2	3	4	5
9. My purchasing a laptop concerns me because I would have to waste a lot of time and effort before having my needs satisfied.	1	2	3	4	5
10. My purchasing a laptop would be a bad way to spend my money.	1	2	3	4	5
11. If I bought a laptop for myself, I would be concerned that the financial investment I would make would not be wise.	1	2	3	4	5
12. If I bought a laptop for myself, I would be concerned that I really would not get my money's worth from this product.	1	2	3	4	5
13. One concern I have about purchasing a laptop is that I would suffer from eye strain, due to overuse of the laptop.	1	2	3	4	5
14. My purchase of a laptop leads to concerns about whether the product could lead to some uncomfortable physical side-effects such as bad sleeping, backaches, and the like.	1	2	3	4	5
15. Because laptops may not be completely safe, when I contemplate purchasing a laptop, I become concerned about potential physical risks associated with this product.	1	2	3	4	5
16. As I consider the purchase of a laptop, I worry about whether the product will really perform as well as it is supposed to.	1	2	3	4	5
17. If I were to purchase a laptop, I would become concerned that the laptop will not provide the level of benefits that I would be expecting.	1	2	3	4	5
18. The thought of purchasing a laptop causes me to be concerned for how really dependable and reliable that product will be.	1	2	3	4	5
19. The thought of purchasing a laptop makes me feel psychologically uncomfortable.	1	2	3	4	5

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
	1	2	3	4	5
20. The thought of purchasing a laptop gives me a feeling of unwanted anxiety.	1	2	3	4	5
21. The thought of purchasing a laptop causes me to experience unnecessary tension.	1	2	3	4	5
22. When you choose a laptop, it is not a big deal if you are making a mistake.	1	2	3	4	5
23. It is really annoying to purchase a laptop that is not suitable.	1	2	3	4	5
24. If, after I bought a laptop, my choice (s) prove to be poor, I would really be upset.	1	2	3	4	5
25. Whenever one buys a laptop, one never really knows it is the one that should have been bought.	1	2	3	4	5
26. When I face a shelf of laptops, I always feel a bit at a loss to make my choice.	1	2	3	4	5
27. Choosing a laptop is rather complicated.	1	2	3	4	5
28. When one purchases laptops, one is never certain of one's choice.	1	2	3	4	5
29. You can tell a lot about a person by the laptop he or she chooses.	1	2	3	4	5
30. The laptop I buy gives a glimpse of the type of man/woman I am.	1	2	3	4	5
31. The laptop you buy tells a little bit about you.	1	2	3	4	5
32. It gives me pleasure to purchase a laptop.	1	2	3	4	5
33. Buying a laptop is like buying a gift for myself.	1	2	3	4	5
34. Laptops are somewhat of a pleasure to me.	1	2	3	4	5
35. I attach great importance to laptops.	1	2	3	4	5
36. One can say laptops interest me a lot.	1	2	3	4	5
37. Laptops are a topic that leaves me totally indifferent.	1	2	3	4	5

## Part 6 – Purchase of a car

In this part of the questionnaire you will find a few questions regarding the purchase of a car.

1 - Do you own a car? Yes ☐ No ☐

2 – Answer the following questions bearing in mind your first purchase of a car or a purchase to replace the car you already own.

Use the scale and **circle** the number that best describes your position.

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
	1	2	3	4	5
1. Overall, the thought of buying a car causes me to be concerned with experiencing some kind of loss if I went ahead with the purchase.	1	2	3	4	5
2. All things considered, I think I would be making a mistake if I bought a car.	1	2	3	4	5
3. When all is said and done, I really feel that the purchase of a car poses problems for me that I just don't need.	1	2	3	4	5
4. If I bought a car, I think my colleagues would hold me in higher esteem.	1	2	3	4	5
5. The thought of buying a car causes me concern because some friends would think less highly of me.	1	2	3	4	5

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
	1	2	3	4	5
6. My purchase of a car would cause me to be thought of as being foolish by some people whose opinion I value.	1	2	3	4	5
7. My purchasing a car concerns me because I would have to spend too much time finding out about product features in order to choose the right car for me.	1	2	3	4	5
8. Purchasing a car concerns me, because the purchase decision would create even more time pressures on me that I don't need.	1	2	3	4	5
9. My purchasing a car concerns me because I would have to waste a lot of time and effort before having my needs satisfied.	1	2	3	4	5
10. My purchasing a car would be a bad way to spend my money.	1	2	3	4	5
11. If I bought a car for myself, I would be concerned that the financial investment I would make would not be wise.	1	2	3	4	5
12. If I bought a car for myself, I would be concerned that I really would not get my money's worth from this product.	1	2	3	4	5
13. One concern I have about purchasing a car regards the safety features of the car in case of a traffic accident.	1	2	3	4	5
14. As I consider the purchase of a car, I worry that car will not be safe, will become unsafe or will be dangerous or harmful.	1	2	3	4	5
15. Because cars may not be completely safe, when I contemplate purchasing a car, I become concerned about potential physical risks associated with this product.	1	2	3	4	5
16. As I consider the purchase of a car, I worry about whether the product will really perform as well as it is supposed to.	1	2	3	4	5
17. If I were to purchase of a car, I become concerned that the car will not provide the level of benefits that I would be expecting.	1	2	3	4	5
18. The thought of purchasing a car causes me to be concerned for how really dependable and reliable that product will be.	1	2	3	4	5
19. The thought of purchasing a car makes me feel psychologically uncomfortable.	1	2	3	4	5
20. The thought of purchasing a car gives me a feeling of unwanted anxiety.	1	2	3	4	5
21. The thought of purchasing a car causes me to experience unnecessary tension.	1	2	3	4	5
22. When you choose a car, it is not a big deal if you are making a mistake.	1	2	3	4	5
23. It is really annoying to purchase a car that is not suitable.	1	2	3	4	5
24. If, after I bought a car, my choice (s) prove to be poor, I would really be upset.	1	2	3	4	5
25. Whenever one buys a car, one never really knows it is the one that should have been bought.	1	2	3	4	5
26. When I face several cars, I always feel a bit at a loss to make my choice.	1	2	3	4	5
27. Choosing a car is rather complicated.	1	2	3	4	5
28. When one purchases cars, one is never certain of one's choice.	1	2	3	4	5
29. You can tell a lot about a person by the car he or she chooses.	1	2	3	4	5
30. The car I buy gives a glimpse of the type of man/woman I am.	1	2	3	4	5
31. The car you buy tells a little bit about you.	1	2	3	4	5
32. It gives me pleasure to purchase a car.	1	2	3	4	5
33. Buying a car is like buying a gift for myself.	1	2	3	4	5
34. Cars are somewhat of a pleasure to me.	1	2	3	4	5
35. I attach great importance to cars.	1	2	3	4	5
36. One can say cars interest me a lot.	1	2	3	4	5
37. Cars are a topic that leaves me totally indifferent.	1	2	3	4	5

### Part 7 - A few things about yourself

1- Are you:

Male 1 ☐ Female 2 ☐

2 – Your age: \_\_\_\_\_ years

3 - Your Marital status:

Single 1 ☐ Married or living as a couple 2 ☐ Divorced or separated 3 ☐ Widowed 4 ☐

4 - What Nationality are you? \_\_\_\_\_

5 - What Nationality is your father? \_\_\_\_\_

6 - What Nationality is your mother? \_\_\_\_\_

7 - Have you ever lived away from your home country? Yes 1 ☐ No 2 ☐  
Where? \_\_\_\_\_  
When? \_\_\_\_\_  
For how long? \_\_\_\_\_

8 - What is your household 's total net income per month (that is, after taxes and deductions)?

Up to £1999 1 ☐ £2000-£3999 2 ☐ £4000 or more 3 ☐

9 - How many people (adults and children) are currently living in your household, including yourself? \_\_\_\_\_

THE END

Thank you very much for taking the time to complete this questionnaire!

## **Appendix 10 - Tables - Chapter 5**



Table 5.32 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.214	-0.163	<b>0.006</b>		
Constant		3.509		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.026</b>	<b>7.222; 0.008</b>
Model 2						
Exploratory Risk Taking	-	-0.245	-0.185	0.004		
CSI	-	0.125	0.077	0.222		
Constant		3.151		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.032	4.366; 0.222
Model 3						
Exploratory Risk Taking	-	-0.229	-0.174	0.008		
CSI	-	0.133	0.082	0.205		
CD	+	0.034	0.019	0.763		
PDI	+	0.081	0.058	0.374		
UAI	+	0.097	0.059	0.344		
COL	-	0.007	0.006	0.929		
MAS	-	0.011	0.012	0.852		
Constant		2.376		0.001		
<b>Regression <math>R^2</math>; F; p-values</b>					0.040	1.553; 0.816
Model 4						
Exploratory Risk Taking	-	-0.213	-0.162	<b>0.013</b>		
CSI	-	0.124	0.077	0.234		
CD	+	-0.007	-0.004	0.948		
PDI	+	0.105	0.075	0.252		
UAI	+	0.112	0.068	0.275		
COL	-	-0.055	-0.040	0.545		
MAS	-	0.026	0.028	0.663		
Nationality		0.246	0.149	<b>0.027</b>		
Constant		2.468		0.001		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.058</b>	<b>2.000; 0.027</b>

Table 5.33 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory cons. behaviour	-	-0.367	-0.250	<b>0.000</b>		
Constant		3.945		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.062</b>	<b>17.534; 0.000</b>
Model 2						
Exploratory cons. behaviour	-	-0.404	-0.275	0.000		
CSI	-	0.139	0.086	0.170		
Constant		3.558		0.000		
Regression $R^2$ ; F; p-values					0.069	9.742; 0.170
Model 3						
Exploratory cons. behaviour	-	-0.396	-0.270	0.000		
CSI	-	0.147	0.091	0.158		
CD	+	0.034	0.020	0.754		
PDI	+	0.049	0.035	0.591		
UAI	+	0.067	0.041	0.508		
COL	-	-0.007	-0.005	0.934		
MAS	-	-0.010	-0.011	0.869		
Constant		3.072		0.000		
Regression $R^2$ ; F; p-values					0.072	2.871; 0.969
Model 4						
Exploratory cons. behaviour	-	-0.387	-0.263	0.000		
CSI	-	0.137	0.084	0.185		
CD	+	-0.015	-0.008	0.895		
PDI	+	0.080	0.057	0.380		
UAI	+	0.082	0.050	0.417		
COL	-	-0.080	-0.058	0.369		
MAS	-	0.007	0.008	0.898		
Nationality		0.284	0.172	<b>0.009</b>		
Constant		3.214		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.096</b>	<b>3.428; 0.009</b>

Table 5.34 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Expl. information search	-	-0.042	0.031	0.612		
Constant		2.971		0.000		
Regression $R^2$ ; F; p-value					0.001	0.258; 0.612
Model 2						
Expl. information search	-	-0.042	0.031	0.615		
CSI	-	-0.004	-0.003	0.961		
Constant		2.988		0.000		
Regression $R^2$ ; F; p-value					0.001	0.130; 0.961
Model 3						
Expl. information search	-	-0.039	-0.029	0.670		
CSI	-	0.007	0.005	0.942		
CD	+	0.122	0.070	0.295		
PDI	+	0.114	0.081	0.224		
UAI	+	0.083	0.051	0.419		
COL	-	0.046	0.034	0.597		
MAS	-	0.005	0.006	0.930		
Constant		1.770		0.017		
Regression $R^2$ ; F; p-values					0.019	0.698; 0.465
Model 4						
Expl. Information Search	-	-0.055	-0.040	0.546		
CSI	-	0.005	0.003	0.957		
CD	+	0.072	0.042	0.531		
PDI	+	0.135	0.096	0.147		
UAI	+	0.102	0.062	0.323		
COL	-	-0.023	-0.017	0.797		
MAS	-	0.020	0.022	0.746		
Nationality		0.286	0.173	<b>0.010</b>		
Constant		1.963		0.008		
Regression $R^2$ ; F; p-value					<b>0.044</b>	<b>1.467; 0.010</b>

Table 5.35 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.197	-0.149	<b>0.023</b>		
Constant		3.463		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.022</b>	<b>5.265; 0.023</b>
Model 2						
Exploratory Risk Taking	-	-0.204	-0.154	0.033		
TAS	-	0.003	0.011	0.876		
Constant		3.463		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.022	2.634; 0.876
Model 3						
Exploratory Risk Taking	-	-0.205	-0.155	-20.112		
TAS	-	0.007	0.024	0.325		
CD	+	-0.022	-0.013	-0.182		
PDI	+	0.095	0.036	0.514		
UAI	+	0.165	0.102	10.490		
COL	-	-0.007	-0.005	-0.075		
MAS	-	0.002	0.003	0.044		
Constant		2.843		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.035	1.157; 0.718
Model 4						
Exploratory Risk Taking	-	-0.194	-0.147	0.045		
TAS	-	0.010	0.033	0.651		
CD	+	-0.071	-0.041	0.561		
PDI	+	0.078	0.057	0.417		
UAI	+	0.187	0.116	0.090		
COL	-	-0.070	-0.049	0.483		
MAS	-	0.0175	0.019	0.785		
Nationality		0.273	0.166	<b>0.021</b>		
Constant		2.874		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.057</b>	<b>1.703; 0.021</b>

Table 5.36 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
Exploratory consumer behaviour	-	-0.361	-0.243	<b>0.000</b>		
Constant		3.929		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.059</b>	<b>14.413; 0.000</b>
Model 2						
Exploratory consumer behaviour	-	-0.385	-0.259	0.000		
TAS	-	0.012	0.042	0.550		
Constant		3.931		0.000		
Regression $R^2$ ; F; p-values					0.060	7.366; 0.550
Model 3						
Exploratory consumer behaviour	-	-0.395	-0.265	0.000		
TAS	-	0.016	0.053	0.452		
CD	+	-0.009	-0.005	0.937		
PDI	+	0.007	0.006	0.935		
UAI	+	0.143	0.089	0.191		
COL	-	-0.023	-0.016	0.809		
MAS	-	-0.020	-0.022	0.753		
Constant		3.548		0.000		
Regression $R^2$ ; F; p-values					0.068	2.336; 0.872
Model 4						
Exploratory consumer behaviour	-	-0.398	-0.268	0.000		
TAS	-	0.020	0.066	0.350		
CD	+	-0.062	-0.036	0.600		
PDI	+	0.041	0.030	0.668		
UAI	+	0.170	0.106	0.117		
COL	-	-0.093	-0.066	0.338		
MAS	-	-0.006	-0.006	0.930		
Nationality		0.306	0.186	<b>0.008</b>		
Constant		3.617		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.097</b>	<b>2.990; 0.008</b>

Table 5.37 -Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	-0.032	-0.024	0.719		
Constant		2.948		0.000		
Regression $R^2$ ; F; p-value					0.001	0.130; 0.719
Model 2						
Exploratory Information Search	-	-0.030	-0.023	0.731		
TAS	-	-0.020	-0.065	0.324		
Constant		3.052		0.000		
Regression $R^2$ ; F; p-value					0.324	0.554; 0.324
Model 3						
Exploratory Information Search	-	-0.018	-0.013	0.850		
TAS	-	-0.015	-0.048	0.473		
CD	+	0.062	0.037	0.608		
PDI	+	0.109	0.081	0.255		
UAI	+	0.130	0.082	0.234		
COL	-	0.032	0.024	0.731		
MAS	-	-0.005	-0.005	0.943		
Constant		1.947		0.005		
Regression $R^2$ ; F; p-value					0.022	0.736; 0.544
Model 4						
Exploratory Information Search	-	-0.039	-0.029	0.677		
TAS	-	-0.010	-0.033	0.613		
CD	+	0.017	0.010	0.887		
PDI	+	0.134	0.100	0.161		
UAI	+	0.156	0.098	0.152		
COL	-	-0.031	-0.022	0.752		
MAS	-	0.006	0.007	0.920		
Nationality		0.292	0.178	<b>0.012</b>		
Constant		2.060		0.003		
Regression $R^2$ ; F; p-value					<b>0.049</b>	<b>1.452; 0.012</b>

Table 5.38 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.199	-0.155	<b>0.016</b>		
Constant		3.460		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.024</b>	<b>5.892; 0.016</b>
Model 2						
Exploratory Risk Taking	-	-0.133	-0.103	0.145		
ES	-	-0.049	-0.118	0.096		
Constant		3.510		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.035	4.364; 0.096
Model 3						
Exploratory Risk Taking	-	-0.132	-0.103	0.155		
ES	-	-0.045	-0.107	0.144		
CD	+	-0.007	-0.004	0.948		
PDI	+	-0.001	-0.001	0.990		
UAI	+	0.056	0.035	0.599		
COL	-	-0.007	-0.006	0.933		
MAS	-	0.046	0.050	0.467		
Constant		3.233		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.039	1.357; 0.969
Model 4						
Exploratory Risk Taking	-	-0.100	-0.078	0.276		
ES	-	-0.058	-0.138	0.059		
CD	+	-0.057	-0.032	0.636		
PDI	+	0.020	0.014	0.832		
UAI	+	0.064	0.040	0.541		
COL	-	-0.082	-0.061	0.374		
MAS	-	0.064	0.069	0.314		
Nationality		0.307	0.188	<b>0.008</b>		
Constant		3.368		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.068</b>	<b>2.116; 0.008</b>

Table 5.39 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.340	-0.240	<b>0.000</b>		
Constant		3.861		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.058</b>	<b>14.552; 0.000</b>
Model 2						
Exploratory consumer behaviour	-	-0.280	-0.198	0.006		
ES	-	-0.036	-0.088	0.221		
Constant		3.866		0.000		
Regression $R^2$ ; F; p-values					0.064	8.043; 0.221
Model 3						
Exploratory consumer behaviour	-	-0.279	-0.197	0.008		
ES	-	-0.035	-0.084	0.259		
CD	+	0.013	0.008	0.910		
PDI	+	-0.032	-0.022	0.747		
UAI	+	0.017	0.011	0.872		
COL	-	-0.024	-0.018	0.788		
MAS	-	0.041	0.044	0.523		
Constant		3.786		0.000		
Regression $R^2$ ; F; p-value					0.066	2.330; 0.991
Model 4						
Exploratory consumer behaviour	-	-0.252	-0.178	<b>0.016</b>		
ES	-	-0.048	-0.114	0.121		
CD	+	-0.043	-0.024	0.719		
PDI	+	-0.003	-0.002	0.979		
UAI	+	0.024	0.015	0.815		
COL	-	-0.107	-0.080	0.239		
MAS	-	0.062	0.067	0.324		
Nationality		0.338	0.208	<b>0.003</b>		
Constant		3.956		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.101</b>	<b>3.240; 0.003</b>



Table 5.40 - Multiple regression for hypotheses relating Perceived Risk for deodorant, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	-0.065	-0.048	0.461		
Constant		3.059		0.000		
Regression $R^2$ ; F; p-value					0.002	0.546; 0.461
Model 2						
Exploratory Information Search	-	-0.060	-0.045	0.486		
ES	-	-0.080	-0.186	<b>0.004</b>		
Constant		3.453		0.000		
Regression $R^2$ ; F; p-value					<b>0.037</b>	<b>4.540; 0.004</b>
Model 3						
Exploratory Information Search	-	-0.060	-0.045	0.523		
ES	-	-0.075	-0.174	0.009		
CD	+	0.062	0.035	0.613		
PDI	+	0.0485	0.034	0.632		
UAI	+	0.038	0.024	0.723		
COL	-	0.011	0.008	0.902		
MAS	-	0.002	0.003	0.967		
Constant		2.903		0.000		
Regression $R^2$ ; F; p-value					0.040	1.387; 0.977
Model 4						
Exploratory Information Search	-	-0.081	-0.060	0.385		
ES	-	-0.083	-0.194	<b>0.004</b>		
CD	+	0.014	0.008	0.907		
PDI	+	0.065	0.045	0.514		
UAI	+	0.051	0.031	0.635		
COL	-	-0.072	-0.052	0.451		
MAS	-	0.020	0.022	0.758		
Nationality		0.336	0.203	<b>0.004</b>		
Constant		3.185		0.000		
Regression $R^2$ ; F; p-value					<b>0.075</b>	<b>2.320; 0.004</b>

Table 5.44 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.177	-0.133	<b>0.030</b>		
Constant		3.096		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.018</b>	<b>4.783; 0.030</b>
Model 2						
Exploratory Risk Taking	-	-0.204	-0.153	0.017		
CSI	-	0.114	0.070	0.274		
Constant		2.768		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.022	2.995; 0.274
Model 3						
Exploratory Risk Taking	-	-0.162	-0.122	0.059		
CSI	-	0.105	0.064	0.318		
CD	+	0.011	0.007	0.918		
PDI	+	0.090	0.063	0.332		
UAI	+	0.181	0.108	0.084		
COL	-	0.094	0.067	0.283		
MAS	-	0.076	0.081	0.205		
Constant		1.310		0.076		
<b>Regression <math>R^2</math>; F; p-value</b>					0.055	2.140; 0.117
Model 4						
Exploratory Risk Taking	-	-0.144	-0.108	0.092		
CSI	-	0.098	0.060	0.347		
CD	+	-0.023	-0.013	0.840		
PDI	+	0.111	0.077	0.235		
UAI	+	0.194	0.116	0.062		
COL	-	0.033	0.024	0.715		
MAS	-	0.091	0.096	0.132		
Nationality		0.231	0.137	<b>0.040</b>		
Constant		1.372		0.062		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.070</b>	<b>2.430; 0.040</b>

Table 5.45 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.270	-0.184	<b>0.003</b>		
Constant		3.555		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.034</b>	<b>9.284; 0.003</b>
Model 2						
Exploratory consumer behaviour	-		-0.202	0.002		
CSI	-	0.096	0.059	0.349		
Constant		3.085		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.037	5.079; 0.349
Model 3						
Exploratory consumer behaviour	-	-0.237	-0.162	0.014		
CSI	-	0.083	0.051	0.427		
CD	+	0.034	0.019	0.763		
PDI	+	0.090	0.063	0.332		
UAI	+	0.141	0.085	0.174		
COL	-	0.090	0.065	0.293		
MAS	-	0.069	0.074	0.253		
Constant		1.685		0.024		
<b>Regression <math>R^2</math>; F; p-values</b>					0.083	2.474; 0.219
Model 4						
Exploratory consumer behaviour	-	-0.227	-0.155	<b>0.018</b>		
CSI	-	0.077	0.048	0.454		
CD	+	-0.052	-0.003	0.963		
PDI	+	0.118	0.082	0.205		
UAI	+	0.154	0.093	0.133		
COL	-	0.020	0.015	0.822		
MAS	-	0.085	0.091	0.158		
Nationality		0.261	0.157	<b>0.018</b>		
Constant		1.783		0.016		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.083</b>	<b>2.910; 0.018</b>

Table 5.46 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	-0.109	-0.078	0.203		
Constant		2.916		0.000		
Regression $R^2$ ; F; p-value					0.006	1.632; 0.203
Model 2						
Exploratory Information Search	-		-0.079	-0.079		
CSI	-	0.026	0.016	0.016		
Constant		2.825		0.000		
Regression $R^2$ ; F; p-value					0.006	0.847; 0.796
Model 3						
Exploratory Information Search	-	-0.091	-0.066	0.317		
CSI	-	0.037	0.023	0.713		
CD	+	0.114	0.064	0.330		
PDI	+	0.136	0.095	0.151		
UAI	+	0.174	0.105	0.097		
COL	-	0.102	0.073	0.245		
MAS	-	0.029	0.031	0.635		
Constant		0.971		0.191		
Regression $R^2$ ; F; p-values					0.045	1.736; 0.068
Model 4						
Exploratory Information Search	-	-0.103	-0.074	0.260		
CSI	-	0.040	0.025	0.687		
CD	+	0.0794	0.044	0.501		
PDI	+	0.153	0.107	0.105		
UAI	+	0.190	0.114	0.069		
COL	-	0.0424	0.030	0.645		
MAS	-	0.0419	0.044	0.505		
Nationality		0.233	0.138	<b>0.038</b>		
Constant		1.090		0.141		
Regression $R^2$ ; F; p-value					<b>0.061</b>	<b>2.082; 0.038</b>

Table 5.47 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.160	-0.118	0.072		
Constant		3.037		0.000		
Regression R <sup>2</sup> ; F; p-value					0.014	3.263; 0.072
Model 2						
Exploratory Risk Taking	-	-0.125	-0.093	0.196		
TAS	-	-0.020	-0.063	0.381		
Constant		3.041		0.000		
Regression R <sup>2</sup> ; F; p-value					0.017	2.015; 0.381
Model 3						
Exploratory Risk Taking	-	-0.112	-0.083	0.258		
TAS	-	-0.015	-0.048	0.504		
CD	+	-0.015	-0.009	0.903		
PDI	+	0.023	0.017	0.811		
UAI	+	0.205	0.124	0.071		
COL	-	0.086	0.060	0.376		
MAS	-	0.053	0.055	0.425		
Constant		1.822		0.013		
Regression R <sup>2</sup> ; F; p-value						1.434; 0.311
Model 4						
Exploratory Risk Taking	-	-0.099	-0.074	0.310		
TAS	-	-0.012	-0.040	0.579		
CD	+	-0.058	-0.033	0.641		
PDI	+	0.047	0.034	0.630		
UAI	+	0.226	0.137	0.046		
COL	-	0.026	0.018	0.793		
MAS	-	0.067	0.070	0.312		
Nationality		0.256	0.151	<b>0.036</b>		
Constant		1.844		0.011		
Regression R <sup>2</sup> ; F; p-value					<b>0.062</b>	<b>1.832; 0.036</b>

Table 5.48 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-values
Model 1						
Exploratory consumer behaviour	-	-0.239	-0.160	<b>0.015</b>		
Constant		3.247		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.026</b>	<b>6.041; 0.015</b>
Model 2						
Exploratory consumer behaviour	-	-0.211	-0.141	0.047		
TAS	-	-0.016	-0.051	0.474		
Constant		3.247		0.000		
Regression R <sup>2</sup> ; F; p-values					0.028	3.272; 0.474
Model 3						
Exploratory consumer behaviour	-	-0.179	-0.120	0.106		
TAS	-	-0.013	-0.042	0.560		
CD	+	-0.004	-0.003	0.970		
PDI	+	0.009	0.007	0.922		
UAI	+	0.156	0.097	0.161		
COL	-	0.106	0.075	0.270		
MAS	-	0.058	0.063	0.372		
Constant		2.073		0.005		
Regression R <sup>2</sup> ; F; p-values					0.049	1.651; 0.417
Model 4						
Exploratory consumer behaviour	-	-0.182	-0.122	0.097		
TAS	-	-0.009	-0.030	0.675		
CD	+	-0.051	-0.030	0.673		
PDI	+	0.037	0.027	0.706		
UAI	+	0.182	0.112	0.101		
COL	-	0.038	0.027	0.699		
MAS	-	0.072	0.077	0.267		
Nationality		0.286	0.172	<b>0.016</b>		
Constant		2.136		0.004		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.074</b>	<b>2.215; 0.016</b>

Table 5.49 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	-0.072	-0.052	0.431		
Constant		2.791		0.000		
Regression R <sup>2</sup> ; F; p-value					0.003	0.623; 0.431
Model 2						
Exploratory Information Search	-	-0.069	-0.050	0.445		
TAS	-	-0.036	-0.144	0.084		
Constant		2.980		0.000		
Regression R <sup>2</sup> ; F; p-value					0.016	1.821; 0.084
Model 3						
Exploratory Information Search	-	-0.050	-0.037	0.598		
TAS	-	-0.029	-0.092	0.165		
CD	+	0.057	0.033	0.642		
PDI	+	0.088	0.064	0.368		
UAI	+	0.171	0.105	0.127		
COL	-	0.114	0.080	0.240		
MAS	-	0.018	0.020	0.781		
Constant		1.429		0.045		
Regression R <sup>2</sup> ; F; p-value					0.045	1.522; 0.227
Model 4						
Exploratory Information Search	-	-0.067	-0.048	0.486		
TAS	-	-0.025	-0.079	0.230		
CD	+	0.024	0.014	0.845		
PDI	+	0.106	0.077	0.278		
UAI	+	0.194	0.119	0.084		
COL	-	0.061	0.043	0.542		
MAS	-	0.027	0.029	0.681		
Nationality		0.233	0.138	<b>0.053</b>		
Constant		1.506		0.034		
Regression R <sup>2</sup> ; F; p-value					<b>0.061</b>	<b>1.821; 0.053</b>

Table 5.50 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.153	-0.116	0.070		
Constant		3.022		0.000		
Regression R <sup>2</sup> ; F; p-value					0.014	3.306; 0.070
Model 2						
Exploratory Risk Taking	-	-0.086	-0.065	0.357		
ES	-	-0.050	-0.116	0.103		
Constant		3.073		0.000		
Regression R <sup>2</sup> ; F; p-value					0.024	3.002; 0.103
Model 3						
Exploratory Risk Taking	-	-0.073	-0.056	0.439		
ES	-	-0.039	-0.091	0.208		
CD	+	-0.021	-0.012	0.865		
PDI	+	0.028	0.019	0.780		
UAI	+	0.179	0.107	0.104		
COL	-	0.081	0.058	0.376		
MAS	-	0.083	0.087	0.203		
Constant		1.895		0.010		
Regression R <sup>2</sup> ; F; p-value					0.049	1.744; 0.294
Model 4						
Exploratory Risk Taking	-	-0.042	-0.033	0.651		
ES	-	-0.051	-0.118	0.105		
CD	+	-0.060	-0.033	0.627		
PDI	+	0.044	0.030	0.658		
UAI	+	0.186	0.112	0.089		
COL	-	0.013	0.010	0.884		
MAS	-	0.100	0.103	0.128		
Nationality		0.269	0.159	<b>0.024</b>		
Constant		2.001		0.007		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.070</b>	<b>2.199; 0.024</b>



Table 5.51 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.240	-0.167	<b>0.009</b>		
Constant		3.263		0.000		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.028</b>	<b>6.884; 0.009</b>
Model 2						
Exploratory consumer behaviour	-	-0.160	-0.111	0.128		
ES	-	-0.048	-0.114	0.118		
Constant		3.268		0.000		
Regression R <sup>2</sup> ; F; p-values					0.038	4.697; 0.118
Model 3						
Exploratory consumer behaviour	-	-0.132	-0.092	0.221		
ES	-	-0.041	-0.097	0.194		
CD	+	0.010	0.006	0.934		
PDI	+	0.036	0.025	0.719		
UAI	+	0.129	0.078	0.236		
COL	-	0.076	0.055	0.396		
MAS	-	0.083	0.087	0.200		
Constant		2.125		0.004		
Regression R <sup>2</sup> ; F; p-value					0.058	2.042; 0.430
Model 4						
Exploratory consumer behaviour	-	-0.106	-0.074	0.320		
ES	-	-0.053	-0.124	0.096		
CD	+	-0.033	-0.018	0.786		
PDI	+	0.058	0.040	0.556		
UAI	+	0.136	0.082	0.209		
COL	-	0.000	0.000	0.997		
MAS	-	0.102	0.107	0.114		
Nationality		0.294	0.176	<b>0.012</b>		
Constant		2.260		0.002		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.083</b>	<b>2.633; 0.012</b>

Table 5.52 - Multiple regression for hypotheses relating Perceived Risk for toothpaste, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	-0.121	-0.088	0.175		
Constant		2.962		0.175		
<b>Regression R<sup>2</sup>; F; p-value</b>					0.008	1.848; 0.175
Model 2						
Exploratory Information Search	-	-0.112	-0.081	0.206		
ES	-	-0.079	-0.180	<b>0.005</b>		
<b>Constant</b>		3.331		<b>0.000</b>		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.040</b>	<b>4.935; 0.005</b>
Model 3						
Exploratory Information Search	-	-0.113	-0.082	0.235		
ES	-	-0.067	-0.152	0.022		
CD	+	0.075	0.041	0.551		
PDI	+	0.069	0.047	0.501		
UAI	+	0.164	0.098	0.140		
COL	-	0.070	0.050	0.448		
MAS	-	0.016	0.016	0.815		
Constant		1.968		0.009		
<b>Regression R<sup>2</sup>; F; p-value</b>					0.060	2.106; 0.433
Model 4						
Exploratory Information Search	-	-0.127	-0.092	0.178		
ES	-	-0.073	-0.168	<b>0.011</b>		
CD	+	0.041	0.023	0.742		
PDI	+	0.080	0.055	0.429		
UAI	+	0.176	0.105	0.112		
COL	-	0.000	0.000	0.998		
MAS	-	0.031	0.032	0.645		
Nationality		0.270	0.159	<b>0.022</b>		
Constant		2.173		0.004		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.081</b>	<b>2.539; 0.022</b>

Table 5.56 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Risk Taking Exploratory	-	-0.152	-0.126	<b>0.045</b>		
Constant		3.753		0.000		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.126</b>	<b>4.053; 0.045</b>
Model 2						
Exploratory Risk Taking	-	-0.174	-0.144	0.028		
CSI	-	0.096	0.063	0.334		
Constant		3.478		0.000		
Regression R <sup>2</sup> ; F; p-values					0.139	2.495; 0.334
Model 3						
Exploratory Risk Taking	-	-0.174	-0.143	0.031		
CSI	-	0.057	0.038	0.572		
CD	+	0.029	0.018	0.786		
PDI	+	-0.203	-0.148	0.025		
UAI	+	0.179	0.118	0.064		
COL	-	-0.005	-0.004	0.945		
MAS	-	0.032	0.037	0.575		
Constant		3.155		0.000		
Regression R <sup>2</sup> ; F; p-value					0.233	2.022; 0.110
Model 4						
Exploratory Risk Taking	-	-0.142	-0.117	0.073		
CSI	-	0.037	0.024	0.708		
CD	+	-0.008	-0.005	0.939		
PDI	+	-0.171	-0.125	<b>0.055</b>		
UAI	+	0.192	0.127	<b>0.044</b>		
COL	-	-0.090	-0.069	0.292		
MAS	-	0.052	0.059	0.361		
Nationality		0.341	0.220	<b>0.001</b>		
Constant		3.216		0.000		
<b>Regression R<sup>2</sup>; F; p-value</b>					<b>0.308</b>	<b>3.224; 0.001</b>

Table 5.57 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.200	-0.146	<b>0.020</b>		
Constant		3.901		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.021</b>	<b>5.492; 0.020</b>
Model 2						
Exploratory consumer behaviour	-	-0.237	-0.173	0.008		
CSI	-	0.145	0.093	0.152		
Constant		3.495		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.029	3.788; 0.152
Model 3						
Exploratory consumer behaviour	-	-0.255	-0.187	0.005		
CSI	-	0.120	0.077	0.242		
CD	+	0.062	0.037	0.570		
PDI	+	-0.183	-0.131	0.049		
UAI	+	0.194	0.126	0.048		
COL	-	-0.022	-0.017	0.786		
MAS	-	0.005	0.007	0.919		
Constant		3.074		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.065	2.442; 0.099
Model 4						
Exploratory consumer behaviour	-	-0.240	-0.176	<b>0.008</b>		
CSI	-	0.102	0.066	0.312		
CD	+	0.024	0.015	0.821		
PDI	+	-0.149	-0.107	0.103		
UAI	+	0.204	0.133	<b>0.034</b>		
COL	-	-0.106	-0.081	0.220		
MAS	-	0.023	0.027	0.682		
Nationality		0.322	0.206	<b>0.002</b>		
Constant		3.196		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.101</b>	<b>3.427; 0.002</b>

Table 5.58 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	0.029	0.076	0.227		
Constant		2.960		0.000		
Regression $R^2$ ; F; p-value					0.006	1.467; 0.227
Model 2						
Exploratory Information Search	-	0.093	0.073	0.252		
CSI	-	0.056	0.037	0.563		
Constant		2.772		0.000		
Regression $R^2$ ; F; p-value					0.007	0.899; 0.563
Model 3						
Exploratory Information Search	-	0.069	0.055	0.420		
CSI	-	0.033	0.021	0.740		
CD	+	0.065	0.039	0.562		
PDI	+	-0.102	-0.075	0.276		
UAI	+	0.186	0.123	0.060		
COL	-	0.042	0.032	0.621		
MAS	-	0.047	0.053	0.440		
Constant		1.938		0.007		
Regression $R^2$ ; F; p-value					0.034	1.230; 0.240
Model 4						
Exploratory Information Search	-	0.057	0.045	0.501		
CSI	-	0.028	0.019	0.770		
CD	+	0.026	0.016	0.809		
PDI	+	-0.080	-0.058	0.386		
UAI	+	0.203	0.134	<b>0.037</b>		
COL	-	-0.036	-0.028	0.676		
MAS	-	0.061	0.069	0.305		
Nationality		0.319	0.205	<b>0.002</b>		
Constant		2.092		0.003		
Regression $R^2$ ; F; p-value					<b>0.070</b>	<b>2.297; 0.002</b>

Table 5.59 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.202	-0.163	<b>0.015</b>		
Constant		3.921		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.027</b>	<b>6.017; 0.015</b>
Model 2						
Exploratory Risk Taking	-	-0.164	-0.133	0.072		
TAS	-	-0.021	-0.071	0.332		
Constant		3.920		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.031	3.480; 0.332
Model 3						
Exploratory Risk Taking	-	-0.195	-0.157	0.034		
TAS	-	-0.014	-0.050	0.500		
CD	+	-0.034	-0.021	0.768		
PDI	+	-0.227	-0.166	0.018		
UAI	+	0.218	0.144	0.037		
COL	-	0.026	0.002	0.977		
MAS	-	0.011	0.013	0.852		
Constant		3.692		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.071	2.350; 0.101
Model 4						
Exploratory Risk Taking	-	-0.178	-0.021	<b>0.048</b>		
TAS	-	-0.009	-0.166	0.647		
CD	+	-0.087	0.144	0.455		
PDI	+	-0.187	0.002	0.048		
UAI	+	0.244	0.013	<b>0.017</b>		
COL	-	-0.084	-0.063	0.362		
MAS	-	0.030	0.034	0.621		
Nationality		0.385	0.244	<b>0.001</b>		
Constant		3.673		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.121</b>	<b>3.691; 0.001</b>

Table 5.60 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Consumption Behaviour, Optimum Stimulation Level; Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.240	-0.170	<b>0.011</b>		
Constant		4.031		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.029</b>	<b>6.516; 0.011</b>
Model 2						
Exploratory consumer behaviour	-	-0.204	-0.145	0.046		
TAS	-	-0.019	-0.066	0.361		
Constant		4.030		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.033	3.674; 0.361
Model 3						
Exploratory consumer behaviour	-	-0.263	-0.186	0.012		
TAS	-	-0.010	-0.036	0.621		
CD	+	-0.011	-0.007	0.922		
PDI	+	-0.232	-0.168	0.018		
UAI	+	0.227	0.150	0.031		
COL	-	0.013	0.001	0.988		
MAS	-	-0.004	-0.005	0.945		
Constant		3.793		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.077	2.532; 0.074
Model 4						
Exploratory consumer behaviour	-	-0.270	-0.191	<b>0.009</b>		
TAS	-	-0.005	-0.017	0.808		
CD	+	-0.062	-0.038	0.588		
PDI	+	-0.194	-0.141	<b>0.044</b>		
UAI	+	0.256	0.169	<b>0.013</b>		
COL	-	-0.087	-0.066	0.346		
MAS	-	0.011	0.013	0.854		
Nationality		0.385	0.244	<b>0.001</b>		
Constant		3.847		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.128</b>	<b>3.873; 0.001</b>

Table 5.61 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	0.092	0.072	0.284		
Constant		2.984		0.000		
Regression $R^2$ ; F; p-value					0.005	1.155; 0.284
Model 2						
Exploratory Information Search	-	0.096	0.075	0.263		
TAS	-	-0.036	-0.120	0.073		
Constant		3.165		0.000		
Regression $R^2$ ; F; p-value					0.020	2.201; 0.073
Model 3						
Exploratory Information Search	-	0.073	0.057	0.419		
TAS	-	-0.031	-0.105	0.123		
CD	+	0.008	0.005	0.946		
PDI	+	-0.127	-0.095	0.192		
UAI	+	0.181	0.121	0.085		
COL	-	0.056	0.042	0.543		
MAS	-	0.027	0.030	0.678		
Constant		2.501		0.000		
Regression $R^2$ ; F; p-value					0.044	1.424; 0.356
Model 4						
Exploratory Information Search	-	0.051	0.040	0.566		
TAS	-	-0.025	-0.084	0.209		
CD	+	-0.032	-0.020	0.778		
PDI	+	-0.099	-0.074	0.300		
UAI	+	0.211	0.141	<b>0.042</b>		
COL	-	-0.017	-0.013	0.853		
MAS	-	0.038	0.043	0.551		
Nationality		0.343	0.218	<b>0.002</b>		
Constant		2.571		0.000		
Regression $R^2$ ; F; p-value					<b>0.051</b>	<b>2.486; 0.002</b>



Table 5.62 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.0109	-0.090	0.168		
Constant		3.623		0.000		
Regression $R^2$ ; F; p-value					0.008	1.915; 0.168
Model 2						
Exploratory Risk Taking	-	-0.097	-0.080	0.269		
ES	-	-0.009	-0.023	0.750		
Constant		3.633		0.000		
Regression $R^2$ ; F; p-values					0.009	1.005; 0.750
Model 3						
Exploratory Risk Taking	-	-0.115	-0.095	0.192		
ES	-	-0.005	-0.015	0.842		
CD	+	0.007	0.005	0.946		
PDI	+	-0.204	-0.150	0.030		
UAI	+	0.192	0.126	0.060		
COL	-	0.021	0.017	0.797		
MAS	-	0.035	0.039	0.569		
Constant		3.154		0.000		
Regression $R^2$ ; F; p-value					0.045	1.535; 0.126
Model 4						
Exploratory Risk Taking	-	-0.075	-0.062	0.389		
ES	-	-0.021	-0.053	0.468		
CD	+	-0.037	-0.022	0.744		
PDI	+	-0.180	-0.133	<b>0.052</b>		
UAI	+	0.197	0.130	0.049		
COL	-	-0.055	-0.043	0.530		
MAS	-	0.052	0.058	0.396		
Nationality		0.324	0.208	<b>0.003</b>		
Constant		3.261		0.000		
Regression $R^2$ ; F; p-value					<b>0.080</b>	<b>2.483; 0.003</b>

Table 5.63 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.175	-0.129	<b>0.048</b>		
Constant		3.824		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.017</b>	<b>3.962; 0.048</b>
Model 2						
Exploratory consumer behaviour	-	-0.165	-0.122	0.102		
ES	-	-0.006	-0.016	0.833		
Constant		3.826		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					0.017	1.995; 0.833
Model 3						
Exploratory consumer behaviour	-	-0.207	-0.153	0.043		
ES	-	0.000	0.002	0.982		
CD	+	0.041	0.025	0.717		
PDI	+	-0.201	-0.145	0.037		
UAI	+	0.209	0.135	0.044		
COL	-	-0.001	-0.001	0.987		
MAS	-	0.010	0.011	0.869		
Constant		3.328		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.056	1.933; 0.096
Model 4						
Exploratory consumer behaviour	-	-0.178	-0.131	0.079		
ES	-	-0.012	-0.032	0.673		
CD	+	-0.001	-0.001	0.990		
PDI	+	-0.173	-0.125	0.069		
UAI	+	0.213	0.137	0.037		
COL	-	-0.077	-0.060	0.383		
MAS	-	0.027	0.030	0.658		
Nationality		0.308	0.195	<b>0.006</b>		
Constant		3.454		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.088</b>	<b>2.711; 0.006</b>

Table 5.64 - Multiple regression for hypotheses relating Perceived Risk for laptops, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	0.098	0.079	0.238		
Constant		2.953		0.000		
Regression $R^2$ ; F; p-value					0.006	1.402; 0.238
Model 2						
Exploratory Information Search	-	0.100	0.079	0.229		
ES	-	-0.027	-0.066	0.314		
Constant		3.085		0.000		
Regression $R^2$ ; F; p-value					0.010	1.211; 0.314
Model 3						
Exploratory Information Search	-	0.069	0.055	0.437		
ES	-	-0.022	-0.055	0.419		
CD	+	0.023	0.014	0.845		
PDI	+	-0.122	-0.089	0.212		
UAI	+	0.189	0.123	0.071		
COL	-	0.058	0.045	0.504		
MAS	-	0.039	0.043	0.554		
Constant		2.318		0.001		
Regression $R^2$ ; F; p-value					0.036	1.209; 0.307
Model 4						
Exploratory Information Search	-	0.053	0.042	0.545		
ES	-	-0.031	-0.076	0.257		
CD	+	-0.013	-0.008	0.911		
PDI	+	-0.104	-0.076	0.280		
UAI	+	0.200	0.130	<b>0.054</b>		
COL	-	-0.018	-0.014	0.838		
MAS	-	0.053	0.058	0.414		
Nationality		0.311	0.197	<b>0.006</b>		
Constant		2.543		0.000		
Regression $R^2$ ; F; p-value					<b>0.069</b>	<b>2.070; 0.006</b>

Table 5.68 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.135	-0.145	<b>0.029</b>		
Constant		3.417		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.021</b>	<b>4.836; 0.029</b>
Model 2						
Exploratory Risk Taking	-	-0.113	-0.121	0.102		
ES	-	-0.016	-0.053	0.473		
Constant						
<b>Regression <math>R^2</math>; F; p-values</b>					0.023	2.671; 0.473
Model 3						
Exploratory Risk Taking	-	-0.115	-0.123	0.103		
ES	-	-0.014	-0.046	0.545		
CD	+	0.131	0.101	0.155		
PDI	+	-0.036	-0.034	0.632		
UAI	+	-0.030	-0.025	0.711		
COL	-	0.017	0.018	0.790		
MAS	-	0.0169	0.024	0.731		
Constant		2.993		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.036	1.161; 0.726
Model 4						
Exploratory Risk Taking	-	-0.071	-0.076	0.302		
ES	-	-0.032	-0.103	0.169		
CD	+	0.077	0.060	0.391		
PDI	+	-0.023	-0.022	0.751		
UAI	+	-0.027	-0.023	0.727		
COL	-	-0.063	-0.064	0.354		
MAS	-	0.031	0.044	0.515		
Nationality		0.340	0.282	<b>0.000</b>		
Constant		3.172		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.101</b>	<b>3.063; 0.000</b>

Table 5.69 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
Exploratory consumer behaviour	-	3.678		<b>0.000</b>		
Constant		-0.224	-0.217	0.001		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.047</b>	<b>11.099; 0.001</b>
Model 2						
Exploratory consumer behaviour	-	-0.209	-0.203	0.008		
ES	-	-0.008	-0.029	0.702		
Constant		3.678		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.048	5.602; 0.702
Model 3						
Exploratory consumer behaviour	-	-0.232	-0.225	0.004		
ES	-	-0.005	-0.015	0.848		
CD	+	0.156	0.122	0.084		
PDI	+	-0.064	-0.059	0.399		
UAI	+	-0.024	-0.020	0.767		
COL	-	-0.012	-0.012	0.859		
MAS	-	-0.002	-0.002	0.973		
Constant		3.358		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.067	2.243; 0.479
Model 4						
Exploratory consumer behaviour	-	-0.200	-0.194	<b>0.010</b>		
ES	-	-0.020	-0.065	0.386		
CD	+	0.099	0.078	0.258		
PDI	+	-0.046	-0.042	0.532		
UAI	+	-0.024	-0.020	0.760		
COL	-	-0.095	-0.098	0.152		
MAS	-	0.015	0.022	0.739		
Nationality		0.344	0.287	<b>0.000</b>		
Constant		3.577		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.135</b>	<b>4.242; 0.001</b>

Table 5.70 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	0.072	0.074	0.270		
Constant		2.736		0.000		
Regression $R^2$ ; F; p-value					0.005	1.223; 0.270
Model 2						
Exploratory Information Search	-	0.073	0.075	0.261		
ES	-	0.041	-0.130	<b>0.051</b>		
Constant		2.943		0.000		
Regression $R^2$ ; F; p-values					<b>0.022</b>	<b>2.542; 0.051</b>
Model 3						
Exploratory Information Search	-	0.057	0.059	0.414		
ES	-	-0.038	-0.120	0.082		
CD	+	0.170	0.129	0.074		
PDI	+	0.023	0.022	0.764		
UAI	+	-0.045	-0.038	0.589		
COL	-	0.040	0.041	0.557		
MAS	-	0.0055	0.008	0.916		
Constant		2.289		0.000		
Regression $R^2$ ; F; p-values					0.042	1.338; 0.509
Model 4						
Exploratory Information Search	-	0.043	0.044	0.529		
ES	-	-0.048	-0.152	<b>0.024</b>		
CD	+	0.122	0.093	0.186		
PDI	+	0.031	0.029	0.679		
UAI	+	-0.038	-0.032	0.634		
COL	-	-0.045	-0.045	0.516		
MAS	-	0.020	0.028	0.690		
Nationality		0.348	0.284	<b>0.000</b>		
Constant		2.599		0.000		
Regression $R^2$ ; F; p-values					<b>0.110</b>	<b>3.315; 0.000</b>

Table 5.71 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Risk Taking	-	-0.196	-0.198	<b>0.004</b>		
Constant		3.604		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.039</b>	<b>8.652; 0.004</b>
Model 2						
Exploratory Risk Taking	-	-0.161	-0.162			
TAS	-	-0.021	-0.088			
Constant		3.610		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.045	5.051; 0.233
Model 3						
Exploratory Risk Taking	-	-0.165	-0.166	0.028		
TAS	-	-0.019	-0.079	0.292		
CD	+	0.138	0.103	0.157		
PDI	+	-0.078	-0.074	0.305		
UAI	+	-0.036	-0.030	0.674		
COL	-	0.001	0.001	0.991		
MAS	-	-0.001	-0.001	0.984		
Constant		3.347		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.064	2.018; 0.541
Model 4						
Exploratory Risk Taking	-	-0.152	-0.153	<b>0.038</b>		
TAS	-	-0.014	-0.057	0.435		
CD	+	0.092	0.068	0.343		
PDI	+	-0.057	-0.053	0.450		
UAI	+	-0.021	-0.017	0.807		
COL	-	-0.061	-0.058	0.414		
MAS	-	0.009	0.012	0.864		
Nationality		0.279	0.221	<b>0.002</b>		
Constant		3.394		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.105</b>	<b>3.014; 0.002</b>

Table 5.72 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.293	-0.257	<b>0.000</b>		
Constant		3.889		0.000		
<b>Regression <math>R^2</math>; F; p-value</b>					<b>0.066</b>	<b>14.906; 0.000</b>
Model 2						
Exploratory consumer behaviour	-	-0.259	-0.227	0.002		
TAS	-	-0.020	-0.083	0.246		
Constant		3.896		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.072	8.142; 0.246
Model 3						
Exploratory consumer behaviour	-	-0.299	-0.262	0.000		
TAS	-	-0.014	-0.056	0.437		
CD	+	0.173	0.131	0.068		
PDI	+	-0.118	-0.110	0.125		
UAI	+	-0.015	-0.013	0.856		
COL	-	-0.034	-0.033	0.633		
MAS	-	-0.033	-0.045	0.523		
Constant		3.762		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.109	3.576; 0.137
Model 4						
Exploratory consumer behaviour	-	-0.310	-0.272	<b>0.000</b>		
TAS	-	-0.008	-0.031	0.659		
CD	+	0.127	0.096	0.175		
PDI	+	-0.098	-0.091	0.195		
UAI	+	0.003	0.002	0.974		
COL	-	-0.099	-0.095	0.177		
MAS	-	-0.026	-0.035	0.609		
Nationality		0.284	0.224	<b>0.002</b>		
Constant		3.882		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.151</b>	<b>4.546; 0.002</b>



Table 5.73 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Information Search, Optimum Stimulation Level; Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-value
Model 1						
Exploratory Information Search	-	0.080	0.076	0.265		
Constant		2.727		0.000		
Regression $R^2$ ; F; p-values					0.006	1.251; 0.265
Model 2						
Exploratory Information Search	-	0.078	0.075	0.269		
TAS	-	-0.036	-0.145	<b>0.033</b>		
Constant		2.927		0.000		
Regression $R^2$ ; F; p-values					<b>0.027</b>	<b>2.940; 0.033</b>
Model 3						
Exploratory Information Search	-	0.054	0.052	0.468		
TAS	-	-0.034	-0.136	0.047		
CD	+	0.193	0.143	0.052		
PDI	+	-0.019	-0.018	0.804		
UAI	+	-0.044	-0.036	0.614		
COL	-	0.058	0.055	0.440		
MAS	-	0.013	0.018	0.808		
Constant		2.219		0.000		
Regression $R^2$ ; F; p-values					0.053	1.669; 0.332
Model 4						
Exploratory Information Search	-	0.042	0.040	0.574		
TAS	-	-0.028	-0.112	0.099		
CD	+	0.155	0.115	0.116		
PDI	+	-0.003	-0.003	0.964		
UAI	+	-0.026	-0.021	0.761		
COL	-	0.003	0.003	0.970		
MAS	-	0.018	0.024	0.735		
Nationality		0.256	0.199	<b>0.006</b>		
Constant		2.315		0.000		
Regression $R^2$ ; F; p-values					<b>0.087</b>	<b>2.458; 0.006</b>

Table 5.74 - Multiple regression for hypotheses relating Perceived Risk for cars,  
Exploratory Risk Taking, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
Exploratory Risk Taking	-	-0.142	-0.153	<b>0.016</b>		
Constant		3.456		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.023</b>	<b>5.842; 0.016</b>
Model 2						
Exploratory Risk Taking	-	-0.181	-0.194	<b>0.003</b>		
CSI	-	0.170	0.148	<b>0.024</b>		
Constant		2.964		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.043</b>	<b>5.538; 0.024</b>
Model 3						
Exploratory Risk Taking	-	-0.174	-0.187	0.005		
CSI	-	0.155	0.135	0.044		
CD	+	0.102	0.080	0.235		
PDI	+	-0.040	-0.039	0.564		
UAI	+	0.000	0.000	1.000		
COL	-	0.001	0.001	0.990		
MAS	-	0.025	0.036	0.580		
Constant		2.614		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					0.052	1.888; 0.811
Model 4						
Exploratory Risk Taking	-	-0.146	-0.157	<b>0.017</b>		
CSI	-	0.142	0.123	<b>0.059</b>		
CD	+	0.061	0.048	0.469		
PDI	+	-0.017	-0.017	0.799		
UAI	+	0.006	0.005	0.936		
COL	-	-0.070	-0.073	0.275		
MAS	-	0.038	0.054	0.398		
Nationality		0.291	0.245	<b>0.000</b>		
Constant		2.719		0.000		
<b>Regression <math>R^2</math>; F; p-values</b>					<b>0.103</b>	<b>3.409; 0.000</b>

Table 5.75 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Consumption Behaviour, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	R <sup>2</sup>	Regression F; Regression p-value
Model 1						
Exploratory consumer behaviour	-	-0.230	-0.221	<b>0.000</b>		
Constant		3.718		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.049</b>	<b>12.471; 0.000</b>
Model 2						
Exploratory consumer behaviour	-	-0.288	-0.277	<b>0.000</b>		
CSI	-	0.223	0.193	<b>0.003</b>		
Constant		3.092		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.083</b>	<b>10.921; 0.003</b>
Model 3						
Exploratory consumer behaviour	-	-0.296	-0.285	0.000		
CSI	-	0.214	0.185	0.005		
CD	+	0.120	0.095	0.153		
PDI	+	-0.058	-0.056	0.400		
UAI	+	0.011	0.010	0.880		
COL	-	-0.028	-0.029	0.647		
MAS	-	-0.001	-0.001	0.984		
Constant		2.840		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					0.097	3.634; 0.592
Model 4						
Exploratory consumer behaviour	-	-0.284	-0.273	<b>0.000</b>		
CSI	-	0.200	0.173	<b>0.007</b>		
CD	+	0.074	0.059	0.366		
PDI	+	-0.033	-0.032	0.623		
UAI	+	0.015	0.013	0.839		
COL	-	-0.103	-0.107	0.102		
MAS	-	0.012	0.018	0.781		
Nationality		0.299	0.253	<b>0.000</b>		
Constant		3.027		0.000		
<b>Regression R<sup>2</sup>; F; p-values</b>					<b>0.151</b>	<b>5.220; 0.000</b>

Table 5.76 - Multiple regression for hypotheses relating Perceived Risk for cars, Exploratory Information Search, Optimum Stimulation Level, Cultural values and Nationality

	H	B	$\beta$	p-value	$R^2$	Regression F; Regression p-values
Model 1						
Exploratory Information Search	-	0.057	0.058	0.370		
Constant		2.819		0.000		
Regression $R^2$ ; F; p-values					0.003	0.806; 0.370
Model 2						
Exploratory Information Search	-	0.051	0.052	0.422		
CSI	-	0.113	0.095	0.138		
Constant		2.433		0.000		
Regression $R^2$ ; F; p-values					0.012	1.511; 0.138
Model 3						
Exploratory Information Search	-	0.042	0.043	0.535		
CSI	-	0.103	0.087	0.182		
CD	+	0.160	0.123	0.077		
PDI	+	0.020	0.019	0.780		
UAI	+	0.003	0.002	0.971		
COL	-	0.043	0.044	0.505		
MAS	-	0.030	0.042	0.540		
Constant		1.614		0.004		
Regression $R^2$ ; F; p-values					0.034	1.171; 0.398
Model 4						
Exploratory Information Search	-	0.035	0.036	0.592		
CSI	-	0.100	0.085	0.183		
CD	+	0.112	0.086	0.209		
PDI	+	0.037	0.036	0.595		
UAI	+	0.012	0.010	0.874		
COL	-	-0.031	-0.032	0.637		
MAS	-	0.041	0.058	0.384		
Nationality		0.313	0.258	<b>0.000</b>		
Constant		1.823		0.001		
Regression $R^2$ ; F; p-values					<b>0.091</b>	<b>2.928; 0.000</b>

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