

CULTURE, CONSUMER BEHAVIOUR AND E-COMMERCE: CULTURE-BASED CONSUMER PREFERENCES FOR ONLINE User Interface DESIGN IN A COMMERCIAL SETTING.

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ABSTRACT

The invention of the internet has created enormous opportunities for businesses: the ease of distributing information via the internet eventually led to online trade, a concept which is now known as Electronic Commerce. Whilst Electronic-, or E-Commerce has made it easier for companies to make their products available to a wider audience, they still face the challenge of getting the right information across to the right public, especially when different cultures are targeted. As stated by Hofstede (1998) "As global competition increases, companies are faced with the challenge of offering their products or services to a wider global audience."

All aspects of the interface of a website (colours used, general layout, symbols) have an influence on a user's experience, and therefore behaviour on a website. According to Han & Shavitt (1994); Hofstede (1998); Triandis (1995) and Zandpour & Harich (1996), as cited in Ferreira (2003) "People rely on different types of information to make decisions, and culture has an influence on the type of information people depend upon."

This research makes use of cultural models, user experience techniques and a quantitative research to identify whether culture has an influence on user preferences relating to the User Interface of a commercial website and, if so whether these preferences have an effect on consumer behaviour.

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1.0 INTRODUCTION

1.1 General Introduction

The invention of the internet has created enormous opportunities for businesses: the ease of distributing information via the internet eventually led to online trade, a concept which is now known as Electronic Commerce. Whilst Electronic-, or E-Commerce has made it easier for companies to make their products available to a wider audience, they still face the challenge of getting the right information across to the right public, especially when different cultures are targeted.

Websites nowadays are not just a collection of text, they are a combination of images, multimedia and interactive features. All of these aspects have an influence on a user's experience, and therefore behaviour on a website. Consumer behaviour can, to a certain extent, be predicted by culture: cultural values and a shared history can affect communication styles (explicit statements or body language) or emotional reactions (the influence of colour.) As Han & Shavitt (1994); Hofstede (1998); Triandis (1995) and Zandpour & Harich (1996) have stated: "People rely on different types of information to make decisions, and culture has an influence on the type of information people depend upon."

Cultural models can be used to identify the differences between cultures and how culture can affect consumer behaviour. Additionally, cultural models combined with a usability analysis of a standard E-commerce website (every step a consumer faces in the process of buying a product online subdivided into several tasks) can be used to identify the effects of culture on online consumer behaviour.

Geert Hofstede and Edward T Hall are two well-respected anthropologists, both have created their own culture models. Hofstede's model (2010) focused on data about patterns of thinking, feeling and acting of employees of a multinational organisation. He defined a cultural model in which cultures were found to vary along five dimensions: Power Distance, Collectivism vs. Individualism, Femininity vs. Masculinity, Uncertainty Avoidance, and Long-Term vs. Short-Term Orientation. Edward T Hall is most well-known for his high context and low context cultural factors. His research studied behaviour in combination with a specific cultural context. A high-context communication or message is one in which most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message. On the other hand, a low-context communication is just the opposite; i.e. the mass of the information is vested in the explicit code (Hall, 1976). Hall's (1976) model is built on qualitative insights rather than quantitative data, and does not rank different countries, but generally identifies Western/Northern European cultures as low-context cultures. The cultures in the Eastern Mediterranean, Asia and Latin America are, on the other hand, identified as high-context cultures. Similarly, a high-context culture is frequent in high power- distance cultures (Würtlz, 2005). When used together these two models will provide a detailed picture of culture-related consumer behaviour, they therefore provide the basis for the analysis of websites in this study.

The main hypothesis of this article is that, as previously stated by Würtz (2005) "When customising a website to appeal to a different culture it is not enough merely to translate the text; the overall communication strategy should be appropriate to the audience as well." Meaning that Cross-Cultural web design requires dealing with culture-specific design issues.

Studies similar to the present one include Würtz (2005) and Marcus and Gould (2001). Both of which analysed commercial websites in an effort to identify relationships between cultural dimensions. Würtz used Edward T Hall's dimensions whilst Marcus and Gould applied Hofstede's approach. The present study differs from the previously mentioned studies by it's analysis based on theories from the fields of human computer interaction and user experience, providing a more technical point of view. Additionally this study includes both Hall and Hofstede.

1.2 Context of the Study

The primary focus of this study is on user behaviour in an online and commercial setting. It is therefore closely related to the field of E-commerce, or as Turban, et al. (2010) defines it: "the process of buying, selling or exchanging products, services or information via computer."

As stated by Hofstede (1998) "As global competition increases, companies are faced with the challenge of offering their products or services to a wider global audience." A recent study, conducted by the Interactive Advertising Bureau Europe, in partnership with TNS Infratest and Google (2010) to quantify the role of online in the consumer journey from research to purchase, has shown that in Europe alone an average 65% of consumers stated they've bought online, of which an average 21% states they are comfortable buying products from foreign websites. In the Pacific, Asia and the Middle East this was an average of 58% with 21% of consumers stating they are comfortable buying products from foreign websites.

And in the States 6% of total US sales were online. Furthermore, it is estimated that by 2020, E-tail is projected to overtake offline retail in the United States in year over year dollar increases.

The study also shares close ties with the fields of Marketing and Consumer behaviour. According to Turban, et al. (2010) Finding and retaining customers is a major critical success factor for most businesses, both offline and online. One of the keys to building effective customer relationships is an understanding of consumer behaviour online. The study of consumer behaviour is based on several concepts developed in other scientific disciplines, such as psychology (the study of the individual), sociology (the study of groups), social psychology (the study of how an individual operates in groups), anthropology (the influence of society on the individual), and economics. This study's main focus is on social psychology and anthropology.

In their turn, both Internet Marketing and Consumer Behaviour relate to studies within the fields of User Experience Design and Human Computer Interaction which provide a more detailed view of how users or consumers experience a specific interface. And, lastly, since all of the previously mentioned fields revolve around communication, this study is founded on the principles of intercultural and cross-cultural communication.

The research is conducted within 8 countries: China, South Korea, Turkey, India, Germany, Sweden, the United States and The United Kingdom. All previously mentioned countries appear in both Hofstede and Hall's research and therefore comply with the cultural models used in the study. To match Hall's cultural specifications the countries have also been subdivided into High and Low Context countries with China, South Korea, Turkey and India belonging to High Context whilst Germany, Sweden, the United States and The United Kingdom belong to the Low Context category. This distribution complies with Hofstede's Power Distance and Collectivism vs. Individualism parameters, two parameters which show most resemblance with Hall's work.

This study is mainly intended for the commercial Web Design and Internet Marketing Industries as both deal with the previously mentioned concepts. Additionally this study aims to contribute to discovering the potentials of the internet as a whole, as aptly stated by Würtz (2005) “By understanding how communication styles may be reflected on websites, we come a step further towards identifying, and subsequently realising the potentials of, the interactive nature of the Internet. This would be rewarding not only from the marketing perspective, but also for those organisations that are working on bringing the world closer together through dialogue.” Figure 1.1 features the theoretical concepts involved in this study by means of a tree diagram.

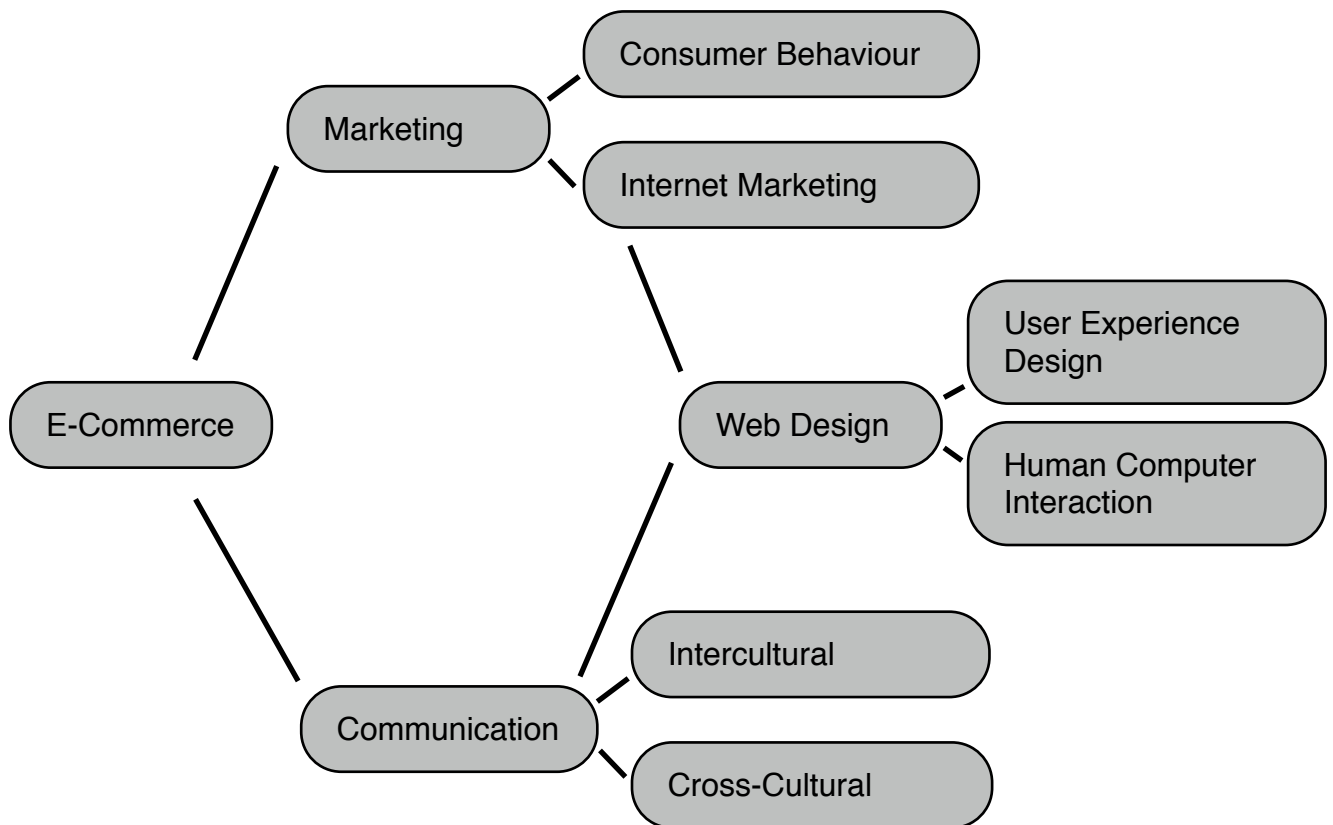


Figure 1.1: Tree diagram of theoretical concepts involved in this study

1.3 Significance of the Study

Finding and retaining customers is a major critical success factor for most businesses, both offline and online. One of the key factors to building effective customer relationships is an understanding of consumer behaviour. (Turban, et al., 2010) The study of consumer behaviour is based on several concepts developed in other scientific disciplines, such as psychology (the study of the individual), sociology (the study of groups), social psychology (the study of how an individual operates in groups), anthropology (the influence of society on the individual), and economics (Schiffman & Kanuk, 2009) This study's main focus is on social psychology and anthropology, taking the view that people rely on different types of information to make decisions, and culture has an influence on the type of information people depend upon. (Han & Shavitt, 1994; Hofstede, 1998; Triandis, 1995; Zandpour & Harich, 1996, as cited in Ferreira, 2003)

The underlying principle of this study is that User Interface Design plays a significant role in accommodating for different cultures and therefore in promoting Electronic Commerce.

The study aims to aid future researchers, User Interface designers and online marketers in realising the potentials of the internet. Additionally it aims to contribute to studies executed in the field of Intercultural Communication. As Chen and Starosta (1998, as cited in Würtz, 2005) note, Intercultural communication competence is imperative for human progress, and it is by studying communication styles and understanding how to use them that we may be able to communicate more clearly, and promote dialogue between "us" and "them."

Several studies have been done on this subject, amongst which Würtz (2005) and Marcus and Gould (2001) both of which analysed commercial websites in an effort to identify relationships between cultural dimensions. The present study differs from the previously mentioned studies by its analysis based on theories from the field of human computer interaction and user experience, providing a more technical point of view. Additionally this study includes both Hall and Hofstede's cultural models and thereby provides a more detailed view into culture.

1.4 Delimitations of the Study

1.4.1 The Individual Versus the Culture

This research deals with the influence of culture on consumer behaviour in an online, commercial setting. Although a culture sets guidelines on specific user preferences which lead to differences from one culture to another, Individuals have preferences too, though not always the same preferences as defined by their culture. Individuals can have different preferences based on, for example, their personalities and their memories. Varner and Beamer (2008) state that in intercultural communication researchers recognise this distinction between a focus on individual members of a culture and how they communicate with individuals in another culture, and a focus on how cultures behave. There is no such thing as communicating with 'the chinese.' One always communicates with specific persons. This should be taken into consideration whilst reading this research.

Geert Hofstede (2010) also acknowledged the issue of the individual versus the culture and notes that some cultural relativism is necessary: "There is no escaping bias: all people develop cultural values based on their environment and early training as children. Not everyone in a society fits the cultural pattern precisely, but there is enough statistical regularity to identify trends and tendencies."

1.4.2 Fading Cultural Borders

Technology is often seen as an agent of cultural change, new ways of communicating have brought cultures closer together and have nurtured the debate on globalisation. However, Varner & Beamer (2008) argue that technology does not change the cultural imprint of the individual member of a culture. Individuals still carry a map of their culture in their minds and hearts no matter what technological innovations they implement. Minkov and Hofstede (2010) support this statement, declaring that electronic communication enormously increases the amount of information accessible to its users but does not increase their capacity to absorb this information, nor does it change their value systems. They explain that as users we select information according to our values, we pick whatever information reinforces our preexisting ideas. Communication technologies will not by themselves reduce the need for intercultural understanding.

1.4.3 Social Science Research Paradigms

In general terms, social science research published in English and European languages, including business research, falls into two research categories: positivist and interpretivist. These are also called research paradigms. Both positivist and interpretivist paradigms have other labels: positivist is also known as functionalist, scientific, and quantitative, whilst interpretivist is also known as phenomenological, humanist, and qualitative. (Varner & Beamer, 2008). It must, however, be said that the conceptualisation of the two broad paradigms comes from a European-United States cultural perspective. Most intercultural research over the past five decades combines elements of the two paradigms, rather than strictly operating with one.

The present study makes use of a relatively positivist approach. According to Varner & Beamer (2008) Positivist researchers stand apart from what they study, observe, and measure. They describe what they have observed and measured using formal, agreed terms and their research remains independent of the specific research context. The positivist approach is derived from sciences such as biology and chemistry. and the objectivity of the researcher is deemed of great importance. Researchers might use a model or framework for classifying cultures and measure how the observed behaviour fits that framework. Results would be expressed in numerical data and could be the basis for further predictions about certain cultural behaviour. The analysis conducted in this study will be executed using cultural models as a basis for measuring and predicting consumer behaviour. The research will be conducted via questionnaires with mostly multiple choice questions, thereby generating quantitative results.

Both Hall and Hofstede measured cultural characteristics by means of questionnaires which produced solely quantitative results. Neither researcher took the interpretivist approach of observing a subject's behaviour within a certain situation or context. Continuing with a similar research paradigm would therefore yield the most accurate results for this study.

1.4.4 The Definition of Culture

Culture is a large and inclusive concept, it involves learned and shared behaviours, norms, values and material objects. It also encompasses what people create to express values, attitudes, and norms. (Varner & Beamer, 2008)

From amongst the many definitions of culture, this study uses the one stated in Varner and Beamer (2008), which defines culture as "The coherent, learned, shared view of a group of people about life's concerns, expressed in symbols and activities, that ranks what is important, furnishes attitudes about what things are appropriate and dictates behaviour.

1.4.5 Usability Analysis: A User-Centred Approach

Katz-Haas (1998) defines User-Centred Usability Design as both a philosophy and a process. It is a philosophy that places the person (as opposed to the 'thing') at the centre; it is a process that focuses on cognitive factors (such as perception, memory, learning, problem-solving, etc.) as they come into play during peoples' interactions with things. Another popular Usability Analysis paradigm is Use-centred design. First coined by John Flach and Cynthia Dominguez in 1995, this design focuses on the goals and tasks associated with the use of the artefact, rather than focusing on the end user.

Although there are various approaches for conducting a Usability Analysis. Conducting research by placing the user in the centre is essential for this kind of research, as it deals with the influence of aspects of an interface on human behaviour.

1.4.6 Can User Experience Be Designed?

In his recent article 'Why User Experience Cannot Be Designed' Helge Fredheim (2011), a front-end developer and MSc student at the University of Oslo, Norway uses Hassenzahl's model of User Experience to explain that User Interface design alone doesn't yield specific user behaviour. He explains that Hassenzahl's model assumes that each user assigns some attributes to a product or service when using it. These attributes can roughly be divided into pragmatic and hedonic attributes in which pragmatic attributes relate to the practical usage and functions of the product whilst the hedonic attributes relate to the user's psychological well-being. Fredheim states that "Users are different. Some are able to easily use a website to perform their task. Others simply are not. The stimulation that a product provides depends on the individual user's experience with similar products. Users compare websites and have different expectations. Furthermore, they have different goals, and so they use what you have made in different modes."

Similar to the fact that an individual's behaviour isn't entirely guided by culture, it also isn't entirely guided by aspects of a User Interface. It's therefore important whilst reading this research to keep in mind that an individual's behaviour can never entirely be predicted, and that this research is conducted on a more general scale.

Fredheim does however go on to say that though we can't design a specific user experience, we can design for user experience instead. "We can design the product or service, and we can have a certain kind of user experience in mind when we design it. Though there is no guarantee that our product will be appreciated the way we want it to be, it is certainly possible to have a fairly good idea of the potential ways a user will judge what we make. Movies, rhetoric and branding demonstrate as much: they predict certain experiences, and they often achieve their goals, too."

1.4.7 Choice of User Interface

This study uses the Amazon User Interface as the foundation for the research featured. Reasons for choosing Amazon are as follows: Firstly, Amazon is the world's largest online retailer and therefore has a broad intercultural target group. The company currently targets the following countries: United States, Canada, United Kingdom, Germany, France, Italy, Spain, Japan, and China. Furthermore, according to the press agency Reuters (2011) it is also expected to launch websites in the Netherlands, Sweden and India. Secondly, Amazon has a consistent interface for all of its country websites, only the language varies from website to website, it is therefore the perfect website for testing this article's hypothesis that merely translating text is not enough to accommodate for multiple cultures; the overall communication strategy should be appropriate to the audience as well. Thirdly, being the world's largest online retailer, the Amazon User Interface has had a significant influence on User Interface design. Amazon was the clear winner out of 20 e-commerce sites in a usability research conducted by Jacob Nielsen, et al. (2001): the website scored 65% higher than the average of the other 19 sites. Also, when compared to other E-commerce website layouts it shows significant similarities, like the placement of navigation, search bar and shopping basket.

It should however be duly noted that the results of the analysis in this study should, until tested against other forms of websites, be recognised as representative of only one kind of commercial site. The research conducted in this study will not be set in the context of Amazon or any other commercial website and should therefore be free of bias.

This study is aimed at commercial websites only, similar studies of non-commercial websites are needed to test the extent to which the tendencies yet to be identified persist in other genres of websites. We may assume that informational, non-commercial websites would show other sorts of tendencies.

1.4.8 Choice of target group

The research is conducted within 8 countries: China, South Korea, Turkey, India, Germany, Sweden, the United States and The United Kingdom. All previously mentioned countries appear in both Hofstede and Hall's research and therefore comply with the cultural models used in the study. To match Hall's cultural specifications the countries have also been subdivided into High and Low Context countries with China, South Korea, Turkey and India belonging to High Context whilst Germany, Sweden, the United States and The United Kingdom belong to the Low Context category. This distribution complies with Hofstede's Power Distance and Collectivism vs. Individualism parameters, two parameters which show most resemblance with Hall's work.

The countries chosen for the study were selected from their relative placement along Hall's High and Low Context dimensions and for their similarities with the Collectivism vs. Individualism and Power Distance parameters in Hofstede's research. Some countries did not feature in Hall's original research, but did appear in the work of Copeland & Griggs (1986) which have used Hall's research method as the foundation for their own, extended research (see Appendix B). In order to most clearly discern differences between cultures, countries showing the most extreme results in both studies were chosen: In Hofstede and Copeland & Grigg's work, China, South Korea and Turkey ranked highest amongst High Context countries whilst Germany, Sweden, the United States appeared amongst the top Low Context countries. India and The United Kingdom are both more central on the scale, they can still be considered as high and Low Context, however to lesser extent. India in particular has been argued to be closer to a Low Context culture with certain High Context cultural features. (Nishimura, Nevgi, Tella, 2008).

Within Hofstede's model all selected High Context countries scored below 50 on the collectivism vs. individualism scale, making them highly Collectivistic and above 50 on the power distance scale, indicating high dependence, inequalities and a hierarchical structure. The Low Context countries scored exactly the opposite, see table one.

Country	Collectivism vs Individualism	Power Distance
China	20	80
South Korea	18	60
Turkey	37	66
India	48	77
Germany	67	35
Sweden	71	31
United States	91	40
United Kingdom	89	35

Table 1.1: country scores on Hofstede's (2010) Collectivism vs. Individualism and Power Distance dimensions. (Appendix A)

Hofstede's three other dimensions: Masculinity vs. Femininity, Uncertainty Avoidance and Long vs Short Term Orientation will also be measured for a more detailed answer to whether cultural-based User Interface preferences have an influence on consumer behaviour. Table 1.2 shows the scores of the countries in question for these cultural dimensions.

Country	Masculinity vs. Femininity	Uncertainty Avoidance	Long vs. Short Term Orientation
China	66	40	118
South Korea	39	85	75
Turkey	45	85	n/a
India	56	40	61
Germany	66	65	31
Sweden	5	29	20
United States	62	46	29
United Kingdom	66	35	25

Table 1.2: country scores on Hofstede's (2010) Masculinity vs. Femininity, Uncertainty Avoidance and Long vs. Short Term Orientation dimensions.

1.5 Explanation of Definitions

1.5.1 E-Commerce

E-Commerce, as defined by Turban, et al. (2010) is “the process of buying, selling, transferring, or exchanging products, services, and/or information via computer networks, mostly the Internet and intranets.” A broader definition of E-commerce is also known as E-business, which Turban, et al. (2010) defines as including “not just the buying and selling of goods and services, but also servicing customers, collaborating with business partners, and conducting electronic transactions within an organisation.”

1.5.2 User Interface

Webopedia.com (n.d.) defines a User Interface as “the junction between a user and a computer program. An interface is a set of commands or menus through which a user communicates with a program.” The same source states that the User Interface is one of the most important parts of any program because it determines how easily you can make the program do what you want.

The Graphical User Interface, also known as GUI, has become a standard on most personal computers. First implemented by Xerox in 1973, the Graphical User Interface allows users to interact with electronic devices by means of graphical elements such as windows, menus and icons rather than text commands.

1.5.3 User Experience & Human Computer Interaction

Human Computer Interaction or HCI, a term first coined by Card, Moran, and Newell in their book "The Psychology of Human-Computer Interaction" involves the study, planning, and design of the interaction between people (users) and computers. The Association for Computing Machinery (1992, 1996) defines human-computer interaction as "a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them."

User Experience (UX) can be seen as a broader definition of Human Computer Interaction: as stated by Fredheim (2011) “Whereas HCI is concerned with task solution, final goals and achievements, User Experience takes other aspects into consideration as well, such as emotional, hedonic, aesthetic, affective and experiential variables.” ISO 9241-210 (2009) defines user experience as "a person's perceptions and responses that result from the use or anticipated use of a product, system or service". Thus, instead of focussing on the technology implemented, User Experience revolves around the end user.

1.5.4 Consumer Behaviour

The study of Consumer Behaviour is based on several concepts developed in other scientific disciplines, such as psychology (the study of the individual), sociology (the study of groups), social psychology (the study of how an individual operates in groups), anthropology (the influence of society on the individual), and economics (Schiffman & Kanuk, 2009). Schiffman & Kanuk (2009) define Consumer Behaviour as “the behaviour that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs.” They go on to explain that Consumer Behaviour focuses on how individuals make decisions to spend their available resources (time, money, effort) on consumption-related items. That includes what they buy, why, when and where they buy it, how often they buy it, how often they use it, how they evaluate it after the purchase, the impact of such evaluations on future purchases and how they dispose of it.

1.5.5 Web Design

As described by Thomas A. Powell (2002) “Web Design is a multidisciplinary pursuit pertaining to the planning and production of Web sites, including, but not limited to, technical development, information structure, visual design, and networked delivery.”

1.5.6 Intercultural & Cross Cultural Communication

According to Varner & Beamer (2008) the terms intercultural and cross-cultural are sometimes used interchangeably.

Intercultural communication can be defined as “the symbolic exchange process whereby individuals from two (or more) different cultural communities negotiate shared meanings in an interactive situation” (Ting-Toomey, 2005.)

Cross-cultural communication “is a process of exchanging, negotiating, and mediating one's cultural differences through language, non-verbal gestures, and space relationships” (Clarke and Sanchez, 2001)

According to Gudykunst (2003) “Cross-cultural involves comparisons of communication across cultures . . . Intercultural Communication involves communication between people from different cultures.” Table 1.2 shows a summary of different categories of research within cross-cultural and intercultural approaches.

Cross-Cultural	Intercultural
<i>Compares communication in different cultures</i>	<i>Examines communication interactions between people of different cultures</i>
Treats culture as a theoretical variable	Uses cultural variables/dimensions in explaining interactions
Includes cross-cultural psychological processes; e.g. perception and emotion	Includes intercultural psychological processes; e.g. identity management, framework
Compares nonverbal communication and other communication behaviours	Focuses on outcomes of communication interactions and processes (such as acculturation, conflict management, teamwork, negotiation)
Looks at verbal (language) communication differences across cultures	Studies adaptation and accommodation of groups in other cultures
Contrasts face work negotiation behaviours; compares conflict management approaches.	Examines communication networks

Table 1.3 Areas of Research in Cross Cultural and Intercultural Communication (Based on Gudykunst, 2003, cited in Varner and Beamer, 2008)

1.6 Problem Statement

Whilst Electronic-, or E-Commerce has made it easier for companies to make their products available to a wider audience, they still face the challenge of getting the right information across to the right public, especially when different cultures are targeted. This study takes the view that cross-cultural web design nowadays requires dealing with culture-specific design issues and that it is therefore relevant and beneficial for commercial websites to be adjusted for cross-cultural use.

Although several studies have already been done on this subject, including Würtz (2005) and Marcus and Gould (2001) both of which analysed commercial websites in an effort to identify relationships between cultural dimensions, these studies lack a technical point of view. The present study conducts an analysis based on the fields of Human Computer Interaction and User Experience Design, both closely related with Web- and User Interface Design. The policy problem, research question and advisory question are detailed below.

Policy Problem

Details can make or break a commercial website's buying process, also known as the conversion funnel. Often web- or User Interface designers base their conversion funnel on research in user experience, but disregard cultural characteristics. Several theoretical studies have been done on cultural differences in web-design (Würtz, 2005, Marcus and Gould, 2001) however their hypothesis are based on a quantitative analysis, not on qualitative user preferences. Additionally, previous studies conducted on this subject failed to focus on commercial websites and the conversion funnel in particular.

Main Research Question

"Does culture have an influence on consumer preferences for an online, commercial User Interface design and do these preferences affect consumer behaviour?"

Advisory Question

When targeting an international audience, should web- and User Interface designers for commercial websites take cultural factors into account?

2.0 LITERATURE REVIEW

2.1 Cultural Characteristics

2.1.1 Edward T. Hall

High Context and Low Context cultures

Edward T Hall was the first to write about the way culture affects communication. His first book, 'The Silent Language', was published in 1959. Hall was trained as an anthropologist. After World War II, he started work at the United States Foreign Service Institute (FSI) along with other anthropologists and linguists. They developed pre-departure training sessions for people going to foreign countries on government business, wrote training materials, and developed approaches to, and explanations for, understanding culture and communicating with people from other cultures (Varner & Beamer, 2008). Hall's book became a popular success, and paved the way for the discipline of intercultural communication.

Hall's is most well known for his high- and Low Context cultural factors. In order to distinguish among cultures Hall proposed a set of parameters to help situate cultures along a dimension spanning from the high-context to low-context categories (see figure 2.1). Hall observed that "meaning and context are inextricably bound up with each other" (Hall, 2000) and suggested that to understand communication one should look at meaning and context together with the code (i.e. the words themselves). Context here refers to the situation, background or environment connected to an event, situation or individual.



Figure 2.1: High/Low Context by culture
Source: Hall, E. and M. Hall (1990)
Understanding Cultural Differences

In a high-context culture there are many contextual elements that help people to understand the rules. Würtz (2005) states that "high-context cultures place greater confidence in the non verbal aspects of communication than the verbal aspects. Face to face communication in high-context cultures is therefore characterised by an extensive use of non-verbal strategies for conveying meanings. These strategies usually take the shape of behavioural language, such as gestures, body language, silence, proximity and symbolic behaviour." Apart from the non-verbal and para-verbal (how we say what we say: the tone, pacing and volume of our voices) ways of communication, high-context communication draws on physical aspects as well as the time and situation in which the communication takes place, not to mention the relationship between the interlocutors.

High-context communication is often indirect, meaning that a person from a high-context culture will set the context and the setting and let the message evolve without referring to the problem directly. Verbal language tends to be vague, relying on the listener or reader's ability to grasp the meaning from the context. In conversations, high-context cultures are characterised by indirect and cyclical approaches, often communicating without mentioning subjects directly and jumping back and forth in conversations, leaving out details as they are assumed implicit between interlocutors. (Choe, 2001 cited in Würtz, 2005).

In a low-context culture, very little is taken for granted. Whilst this means that more explanation is needed, it also means there is less chance of misunderstanding. As stated by Hall (1976) in low-context cultures "the mass of information is vested in explicit code". Face-to-face communication in low-context cultures tends to be less physically animated, with the meaning depending on content and the spoken word. According to Choe (2001) cited in Würtz (2005) "low-context cultures tend to emphasise logic and rationality, based on the belief that there is always an objective truth that can be reached through linear processes of discovery." In conversations, low-context cultures therefore follow the linear thinking pattern of shifting from information already stated to information about to be given.

Gudykunst et al. (1996) identified high-context information to be indirect, ambiguous, maintaining of harmony, reserved and understated. In contrast, low-context communication was identified as direct, precise, dramatic, open and based on feelings or true intentions. Table 2.1 illustrates some of the primary differences between high and Low Context cultures and communication.

Factor	High-context culture	Low-context culture
Overtness of messages	Many covert and implicit messages, with use of metaphor and reading between the lines	Many overt and explicit messages that are simple and clear
Locus of control and attribution for failure	Inner locus of control and personal acceptance for failure	Outer locus of control and blame others for failure
Use of nonverbal communication	Much nonverbal communication	More focus on verbal communication than body language

Factor	High-context culture	Low-context culture
Expression of reaction	Reserved, inward reactions	Visible, external, outward reaction
Cohesion and separation of groups	Strong distinction between in-group and out-group. Strong sense of family.	Flexible and open grouping patterns, changing as needed.
People bonds	Strong people bonds with affiliation to family and community	Fragile bonds between people with little sense of loyalty
Level of commitment to relationships	High commitment to long-term relationships. Relationship more important than task.	Low commitment to relationship. Task more important than relationships

Table 2.1: Differences between high and Low Context cultures and communication (changingminds.org, n.d., based on Hall, 1976)

Polychronic and Monochronic Time Perception

Hall developed another cultural dimension known as Polychronic versus Monochronic time. He noticed that the perception of time is also culture-specific and identified cultures belonging to either end of the spectrum as being either Polychronic or Monochronic, where high-context cultures are Polychronic and low-context cultures Monochronic. Monochronic cultures view time as an important, almost tangible phenomenon. It assumes careful planning and scheduling and is a familiar Western approach which appears in disciplines such as 'Time Management'. In Polychronic cultures, human interaction is valued over time and material things. People from a Polychronic culture generally take their time to get a task done.

Message Speed

A final dimension worth mentioning, as proposed by Edward Hall and Mildred Reed Hall (1990) and cited in Würtz (2005) is that of the message speed preferred by a given culture, i.e. fast versus slow messages, which are respectively tied to high- and low-context cultures. Messages that are quickly and easily decoded and acted on are categorised as fast messages (i.e. headlines, TV commercials, and prose.) Slow messages take a little more effort to act on and decode (books, TV documentaries, poetry). Hall and Hall note a connection between message speed and relationship building: fast message cultures like the U.S. are usually adept at creating quick contacts, but may also be perceived as superficial. Slow message cultures such as Arab countries may take their time to build relationships, but this generally results in these being deep-rooted and long lasting.

2.1.2 Five Cultural Dimensions

Geert Hofstede is a Dutch anthropologist most well known for his five cultural dimensions model. During 1978 up to 1983 Hofstede conducted detailed interviews with hundreds of IBM employees in 53 countries. Through statistical analysis he was able to determine patterns of similarities and differences amongst the replies. From this data analysis, he formulated his theory that world cultures vary along consistent, fundamental dimensions. According to Hofstede "the 5 dimensions represent common issues in the cultural systems of countries and are centred on five fundamental areas of human behaviour. The dimensions are as follows: Power Distance, Collectivism vs Individualism, Femininity vs Masculinity, Uncertainty Avoidance and Long- vs Short term orientation.

Power Distance

Power Distance is referred to as "the extent to which the less powerful members of society expect and accept that power is distributed unequally". The fundamental issue dealt with in this classification is how society handles inequalities amongst people.

Hofstede (2005) claims that people in societies exhibiting a large degree of Power Distance accept a hierarchical order in which everybody has a place and which needs no further justification. High Power Distance countries tend to have a centralised political power and exhibit tall hierarchies in organisations with large differences in salary and status. Subordinates may view the "boss" as a benevolent dictator and are expected to do as they're told. Parents teach obedience and expect respect. Teachers possess wisdom and are automatically esteemed. Inequalities are expected, and may even be desired.

In societies with a low Power Distance, people strive to equalise the distribution of power and demand justification for inequalities of power, according to Hofstede (2005). Low Power Distance countries tend to view subordinates and supervisors as closer together and more interchangeable, with flatter hierarchies in organisations and less difference in salary and status. Parents and children, teachers and students may view themselves more as equals (though not necessarily identical.) Equality is expected and generally desired.

Individualism vs Collectivism

According to Hofstede (2005) Individualism can be refined as a preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only. It's opposite, Collectivism represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group (families, clans or organisations) to look after them in exchange for unquestioning loyalty.

Individualistic cultures value personal time, freedom, challenge and such extrinsic motivators as material rewards at work. In family relations, they value honesty and truth, talking things out, using guilt to achieve behavioural goals, and maintaining self respect. Their societies and governments place individual social-economic interests over the group, maintain strong rights to privacy, nurture strong private opinions, restrain the power of the state in the economy, emphasise the political power of voters, maintain strong freedom of the press and profess ideologies of self-actualisation, self-realisation, self-government and freedom (Marcus and Gould, 2001)

In a professional environment, Collectivistic cultures value training, physical conditions, skills, and intrinsic rewards of mastery. In family relations harmony is more valued than honesty or truth. Collectivistic cultures use shame to achieve behavioural goals and strive to maintain face. Their societies and governments place collective social-economic interests over the individual, may invade private life and regulate opinions, favour laws and rights for groups over individuals, dominate the economy, control the press, and profess the ideologies of harmony, consensus and equality.

As stated by Hofstede (2005) "A society's position in this dimension is reflected in whether people's self-image is defined in terms of "I" or "We".

Masculinity vs Femininity

In a Feminine society, the dominant values in society are caring for others and quality of life. In Masculine societies the dominant values are achievement and success (Hofstede, 2005).

Hofstede (2005) defines the Masculinity side of the dimension as representing a preference in society for achievement, heroism, assertiveness and material reward for success. Society at large is more competitive. Its opposite, Femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus oriented.

Hofstede acknowledges that in different cultures, different professions are dominated by different genders. In Masculine cultures, however, the traditional distinctions are strongly maintained, whilst Feminine cultures tend to collapse the distinctions and overlap gender roles (both men and women can exhibit modesty, tenderness, and a concern with both quality of life and material success.)

Uncertainty Avoidance

Uncertainty Avoidance is defined by Hofstede (2005) as "The extent to which people feel threatened by uncertainty and ambiguity and try to avoid such situations." The classification deals with the issue of how a society deals with the fact that the future can never be known: should the future be controlled or should it just take its course? Cultures vary in their avoidance of uncertainty, creating different rituals and having different values regarding formality, punctuality, legal-religious-social requirements, and tolerance for ambiguity.

Cultures exhibiting strong Uncertainty Avoidance maintain rigid codes of belief and behaviour and are intolerant of eccentric behaviour and ideas. Businesses may have more formal rules, require longer career commitments, and focus on tactical operations rather than strategy. People from societies with a strong Uncertainty Avoidance tend to be more expressive: they talk with their hands, raise their voices and show emotions. People also seem active, emotional and even aggressive. They shun ambiguous situations and expect structure in organisations, institutions, and relationships to help make events clearly interpretable and predictable.

By contrast, weak Uncertainty Avoiding societies maintain a more relaxed attitude in which practice counts more than principles. Businesses may be more informal and focus more on long-range strategic matters than day-to-day operations. These cultures tend to be less expressive and less openly anxious. People belonging to a weak Uncertainty Avoiding society behave quietly without showing aggression or strong emotions. People seem easy going and relaxed.

Long-Term vs Short-Term Time Orientation

Defined as "The extent to which a society shows a pragmatic, future-oriented perspective rather than a conventional historical, or short-term point of view." The Long-Term Orientation dimension can be interpreted as dealing with society's search for virtue (Hofstede, 2005).

Short-Term oriented societies generally have a strong concern with establishing the absolute truth. They are normative in their thinking and exhibit a great respect for traditions, a relatively small propensity to save for the future and a focus on achieving quick results. Societies with a Long-Term Orientation generally believe that truth depends very much on situation, context and time. They show an ability to adapt traditions to changed conditions, a strong propensity to save and invest, thriftiness and perseverance in achieving results.

2.1.3 Measuring Cultural Characteristics

Both Hall and Hofstede have used quantitative methods in devising their cultural models. By utilising questionnaires in order to measure cultural characteristics, both researchers have conducted their studies using a positivist approach. Neither researcher took the interpretivist approach of observing a subject's behaviour within a certain situation or context.

The questionnaire structure varies per study: Hofstede's so called 'Value Survey Model' consists of 20 questions in which opinions and values are measured in 5 dimensions. Conversely, Hall devised a questionnaire consisting of 16 statements with which respondents can either agree or disagree. This questionnaire measures respondents into only two dimensions before classifying them as either a high or Low Context culture.

In order to research differences between cultures, Hofstede developed the Value Survey Model (VSM); a 26-item questionnaire meant for comparing culturally determined values between people from two or more countries or societies. He surveyed a total of 58 countries on each of the 5 dimensions. By means of a method of calculation devised by Hofstede, all country scores range from 0-100. These scores should be interpreted as indicating a general sense of the values likely to be found in a particular culture. See Appendix C for the original Value Survey Model questionnaire.

Hall's cultural research names several indicators for measuring whether a country has a high or Low Context culture. All indicators have been incorporated in a questionnaire consisting of 16 statements. Each of these statements can score either high- or Low Context depending on whether the respondent has given a positive or negative answer. The mean of the total amount of statements will determine whether a person belongs to a high- or Low Context category. See Appendix D for the full questionnaire by Hall (1986) as stated in Meijer (2007).

2.1.4 Choice of Cultural Model

In his study, Blodgett, et al. (2001) as stated in Meijer (2007) combined the works of several different authors concerning Hofstede's cultural dimensions. These authors have described both the advantages and disadvantages of using Hofstede's work. The following paragraphs will describe both the disadvantages mentioned and the reason for using Hofstede's work in this study.

An important consideration in using Hofstede's cultural dimensions is that Hofstede claims the cultural differences measured in his first research have not changed in 30 years. Other researchers however tend to disagree: in 1994, Sondergaard conducted an intensive content analysis of reviews written about Hofstede's research in which he discovered three major delimitations. First of all, all data was collected between 1966 and 1973. Hofstede correlated his data to variables such as geography, economy, demographics and political indicators. 35 years later, these correlations could yield very different results. Per contra, Hofstede conducted a similar research in 2001 through which he validated statements made in previous studies. He also states on his website that cultures do change on a global scale, but that in the last 30 years cultural differences have remained largely the same.

Secondly, Hofstede's target audience consisted of IBM employees. Back in the 1970's, these employees were mostly male, an aspect which could have had an effect on the final results. Moreover, the target audience, though originating from different countries, worked for an American company and thus would have experienced an American company culture.

The third and final delimitation Sondergaard found was that Hofstede merely researched the disposition of respondents. However, to create a truly valid study on cultural values, respondents should be aware of both these values and their own disposition.

Apart from these three major delimitations, there are two other problems concerning Hofstede's study. Firstly, Hofstede's study didn't originate as a cultural study and has therefore been repeatedly refined and changed to match changed perspectives. As a consequence, the 5 dimensions are more derivative, rather than theoretical. Secondly, Hofstede himself admits that intra-cultural differences can be of a similar size or even larger than intercultural differences.

This study will however make use of Hofstede's cultural dimensions: Firstly because his study did and still does form the basis of most other studies concerning cultures. Secondly, Hofstede has been the first researcher to study values on a collective and cultural level and thirdly, according to Hofstede's 2001 study, the results produced in his previous study are still valid now.

Hall's research, mostly published within the first 40 years of existence of the field of intercultural communication, has frequently been criticised for being outdated. As stated in Varner and Beamer (2008), "initially, the focus of the field of intercultural communication was on communication needs of the United States government-sponsored travellers going out of the country to another destination. This work implied that United States culture was normative, and other cultures were compared with it in order to be described and understood. Additionally, the earliest materials were meant for practical use by people in foreign lands. Approaches to understanding an unfamiliar culture were pragmatic and based primarily on observed behaviours. Thirdly, from the beginning the study of cultures was interdisciplinary. Anthropology, linguistics, psychology, geography, sociology and management science have all contributed to the study of intercultural communication. In summary, these three elements - A United States cultural bias, a pragmatic initial focus on business trips outside the United States and an interdisciplinary approach - characterised the field in it's first 40 years."

It must be taken into consideration however that Hall's research occasionally differs from the field of intercultural communication in it's first 40 years. In his research on High and Low Context cultures for example, he used a questionnaire and therefore a quantitative method for determining cultural characteristics. Furthermore, in his later books (*Beyond Culture*, *the Hidden Dimension*) Hall compares various cultures with each other, instead of the United States with all.

All things considered, Hall, like Hofstede, still forms the basis for a considerable amount of studies concerning intercultural communication. Moreover, as stated by Würtz (2005), "This far, there has been no convincing demonstration that relative differences with regard to the prevailing norms in cultures do not exist in practise, and on the basis of this that Hall and Hofstede's cultural parameters should be discarded completely."

The reason to utilise Hall and Hofstede's work instead of, for example, Trompenaars, Trompenaars & Hampden-Turner, Cluckhorn and Strodbeck, Deal & Kennedy or Douglas is that all previously mentioned researchers have either focused more on dealing with culture in organisations (Trompenaars, Deal & Kennedy, Cluckhorn & Strodbeck), or have a more sociological perspective (Douglas' grid-group theory). Trompenaars & Hampden-Turner's (1997) model shows most similarities with Hofstede's work. However, as this research studies consumer behaviour in an online setting, Hofstede's work was regarded as more detailed and applicable. Additionally, Hofstede's focus was not on the definition of culture as "refinement" of people, but rather on essential patterns of thinking, feeling, and acting. This makes his work especially useful when applied to site design and usability (Marcus, 2003).

2.1.5 Similarities in Cultural Models

Two of Hofstede's dimensions show similarities with Hall's high-context and low-context culture distributions:

Hofstede's Collectivism vs. Individualism dimension, which highlights the prioritisation of group welfare vs. individual goals was suggested as an alternative to the high- & Low Context dimension. High-context cultures tend to be Collectivistic, whilst low-context cultures tend to be Individualistic.

Another one of Hofstede's dimensions which correlates to Hall's model is Power Distance, or the extent to which less powerful members within a culture or society expect and accept unequal power distribution. Cultures with a high power distance are affiliated with high-context cultures, whilst equality in a culture and therefore less Power Distance is especially evident in low-context cultures.

For a detailed description of both Hall and Hofstede's cultural dimensions, see chapter 2.1.1 and 2.1.2.

2.2 Usability Analysis

2.2.1 Hierarchical Task Analysis

Originally developed for training process control tasks in the steel and petrochemical industries, Hierarchical Task Analysis (HTA) is now widely used in a variety of contexts, including interface design and error analysis in both individual and team tasks within various fields. The process of HTA is to decompose tasks into subtasks to any desired level of detail. The overall aim of the analysis is to identify actual or possible sources of performance failure and to propose suitable remedies, which may include modifying the task design and/or providing appropriate training (Annett 2003).

In its most basic form, a hierarchical task analysis provides an understanding of the tasks users need to perform to achieve certain goals. See figure 2.2 for an example of a basic, hierarchical task analysis with a goal (0) broken down into tasks (1-5). In user experience, a hierarchical task analysis is used to describe the interactions between a user and a software system.

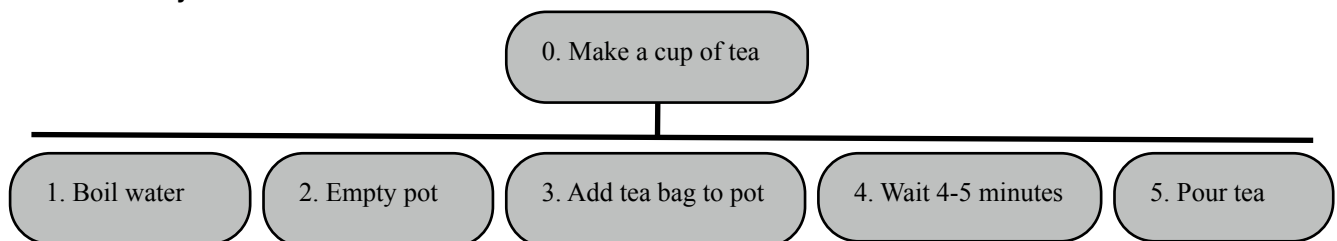


Figure 2.2: example of a basic, hierarchical task analysis.

This study utilises a hierarchical task analysis to get a more detailed picture of how cultural preferences for a certain User Interface can stimulate or, conversely, discourage the buying needs of consumers. The research is conducted by analysing the buying process (all the steps a consumer goes through before they have actually bought the product) of Amazon, a large, well-known and international online store. This buying process will be documented through a hierarchical task analysis. The overall aim of this study's hierarchical task analysis is to discover whether elements of the specific User Interface used in performing the task (for example, background colour, button size) can have an effect on cultural user preferences and thus buying behaviour.

As stated above, tasks can be decomposed into subtasks to any desired level of detail. This study will focus on only one level of subtasks, or rather one goal and its tasks, since higher levels of detail would become too specific for applying a cultural analysis.

2.2.1 Usability requirements by Bennett & Shackel

John L Bennet and Brian Shackel can be seen as pioneers in the field of usability. Bennett (1979) was the first to use the term usability to describe the effectiveness of Human performance. In the following years a more formal definition was proposed by Shackel (1981) and modified by Bennett (1984) as stated in Shackel (1991). This definition included 4 criteria for measuring usability:

- Learnability: time & effort required to learn a task
- Throughput: number of tasks accomplished, time it takes to accomplish a task, number of errors made.
- Flexibility: the extent to which the system can accommodate changes to the tasks and the environment beyond those first specified.
- Attitude: The positive attitude/vibes/feelings engendered in users by the system.

Bennett & Shackel's criteria are most relevant in comparison with web design as only these criteria take human emotions into account (attitude) and they therefore comply with this study's user-centred approach (see chapter 1.5.3 User Experience & Human Computer Interaction, p.20).

The criteria will be applied to every task in the hierarchical task analysis and compared with the cultural models by Hall and Hofstede. In the comparison this study will also use the findings of Würtz (2005) and Marcus and Gould (2001) both of which have based their studies on Hall and Hofstede's work.

The overall aim of using Bennett & Shackel's usability criteria is to provide a structured approach in researching cultural preferences in User Interface design, and their effect on consumer buying behaviour.

2.3 Culture and Web-Design

Although many studies have been done on the effects of culture on web design, two of the most well known and detailed ones are from Würtz (using Hall) and Marcus and Gould (using Hofstede). These studies have formed the basis of many others and will therefore also be used in the current study.

2.3.1 Würtz

In her article “A Cross-Cultural Analysis of Websites from High-Context Cultures and Low-Context Cultures” Elizabeth Würtz argues that “cross-cultural design nowadays requires dealing with design issues that include culture-specific colour connotations, preferences in layout, animation, sounds, and other effects that are characteristic of today’s generation of websites”. Würtz claims that in order to do this successfully, the designer must study the target group of the website. While user participation is ideal in the designing process, a study of the design elements prevalent in the culture may also provide the web designer with some useful guidelines. Values and behaviour indoctrinated through cultural influences may be reflected in design practices (Würtz, 2005). For this study, Würtz performed a cross-cultural, qualitative analysis of websites from different countries. These countries have been categorised into either high- or Low Context cultures as formulated by Hall (1990). The analysis conducted in this study mostly focused on visual communication, taking into account not only product presentation, but the entire User Interface of a website. The observations found in Würtz research are as follows:

Non-verbal communication such as body language may represent itself on high-context websites through imagery and animated effects on the website

Thought patterns are especially reflected in the navigation of the site, for instance through the subtle or obscure guidance and opening of new pages in new browser windows common on high-context websites. Navigation reflecting the linear thought patterns that prevail in low-context cultures is evident in the restricted number of new browser windows as well as apparent and specific navigational guidance.

The collectivism/individualism variable is reflected in the values that are reflected in the imagery of the website, such as images of individuals versus images of groups, products placed together with individuals, the situations in which the individuals are placed, and the extent to which emphasis is placed on community work.

The power distance dimension is apparent in the hierarchical structure of the website. High power distance is reflected in tall hierarchical website structures, either through the implementation of many pages with unstructured layout, or the opening of new browser windows for new pages, instead of in the same browser window. Low power distance is reflected in flat or shallow hierarchical structures, either through the implementation of few pages with coherent layout or the opening of pages within the same browser window.

The time perception variable, which is tightly bound with thought patterns, is apparent in the navigation of the site. It is also apparent in the transparency of the site, and whether the designer relies on the user's patience and willingness to explore the site to seek information.

The message speed dimension is apparent in the transparency/non-transparency of the site, implying the amount of effort expected from the visitor to understand navigational clues. The inclusion of a virtual, personal representative of the company, as illustrated on the Japanese McDonald's website, can perhaps also be considered a reflection of slow message speed in relation to the emphasis on relationships.

2.3.2 Marcus and Gould

In their paper "Cultural Dimensions and Global Web Design: What? So What? Now What?" Aaron Marcus and Emilie W. Gould researched the implications of culture on global web design with Hofstede's cultural dimensions as their foundation. For every one of Hofstede's dimensions, Marcus & Gould have described which aspects of the dimension in question may influence web design. Their findings were as follows:

Power Distance, from a High Power Distance perspective:

- Access to information: highly (high PD) vs. less-highly (low PD) structured.
- Hierarchies in mental models: tall vs. shallow.
- Emphasis on the social and moral order (e.g., nationalism or religion) and its symbols: significant/frequent vs. minor/infrequent use.
- Focus on expertise, authority, experts, certifications, official stamps, or logos: strong vs. weak.
- Prominence given to leaders vs. citizens, customers, or employees.
- Importance of security and restrictions or barriers to access: explicit, enforced, frequent restrictions on users vs. transparent, integrated, implicit freedom to roam.
- Social roles used to organise information (e.g., a managers' section obvious to all but sealed off from non-managers): frequent vs. infrequent

Individualism vs Collectivism from an Individualistic perspective:

- Motivation based on personal achievement: maximised (expect the extra-ordinary) for individualist cultures vs. underplayed (in favour of group achievement) for collectivist cultures
- Images of success: demonstrated through materialism and consumerism vs. achievement of social-political agendas.
- Rhetorical style: controversial/argumentative speech and tolerance or encouragement of extreme claims vs. official slogans and subdued hyperbole and controversy
- Prominence given youth and action vs. aged, experienced, wise leaders and states of being
- Importance given to individuals and products shown by themselves or individuals with products or in groups
- Underlying sense of social morality: emphasis on truth vs. relationships
- Emphasis on change: what is new and unique vs. tradition and history

Masculinity vs. Femininity:

Masculine cultures would focus on the following user-interface and design elements:

- Traditional gender/family/age distinctions
- Work tasks, roles, and mastery, with quick results for limited tasks
- Navigation oriented to exploration and control
- Attention gained through games and competitions
- Graphics, sound, and animation used for utilitarian purposes

Feminine cultures would emphasise the following:

- Blurring of gender roles
- Mutual cooperation, exchange, and relational support (rather than mastery and winning)
- Attention gained through poetry, visual aesthetics, and appeals to unifying values

Uncertainty Avoidance:

High Uncertainty Avoiding cultures would emphasise the following:

- Simplicity, with clear metaphors, limited choices, and restricted amounts of data
- Attempts to reveal or forecast the results or implications of actions before users act
- Navigation schemes intended to prevent users from becoming lost
- Mental models and help systems that focus on reducing "user errors"
- Redundant cues (colour, typography, sound, etc.) to reduce ambiguity.

Low Uncertainty Avoiding cultures would emphasise the reverse:

- Complexity with maximal content and choices
- Acceptance (even encouragement) of wandering and risk, with a stigma on "over-protection"
- Less control of navigation; for example, links might open new windows leading away from the original location.
- Mental models and help systems might focus on understanding underlying concepts rather than narrow tasks
- Coding of colour, typography, and sound to maximise information (multiple links without redundant cueing.)

Long vs. Short Term Orientation:

Cultures with a Long Term Orientation would emphasise the following aspects of user-interface design:

- Content focused on practice and practical value
- Relationships as a source of information and credibility
- Patience in achieving results and goals

Cultures with a Short Term Orientation would emphasise the contrary:

- Content focused on truth and certainty of beliefs
- Rules as a source of information and credibility
- Desire for immediate results and achievement of goals

3.0 ANALYSIS

The usability analysis will be performed on Amazon.com, the world's largest online retailer servicing a broad, intercultural target group. The company currently targets the following countries: United States, Canada, United Kingdom, Germany, France, Italy, Spain, Japan, and China. According to the press agency Reuters (2011) it is also expected to launch websites in the Netherlands, Sweden and India. Amazon has a consistent interface for all of its country websites which makes it very suitable for a usability- and cultural analysis. Moreover, the website has had a considerable influence on User Interface design in the E-commerce sector.

3.1 User Description

As previously stated, Amazon.com has a broad international and thus intercultural target group. Not only people from countries for which Amazon has launched websites use the service, in fact amazon.com services customers from all over the world, of all ages, and of all income ranges.

The target group this study will focus on will be of the ages 20 - 40 since consumers of these age categories can be assumed to be most computer and internet savvy and also more likely to buy their products online.

Persona of a possible Amazon.com consumer:

Name: Aishwarya Raju
Sex: Female
Age: 23
Country of Birth: India
Currently residing in: the Netherlands
Educational Level: University
Profession: IT student
Income/Financial Situation: 500 Euro's a month
Interests: IT, gadgets, detective novels.
Hobbies: reading, building applications, blogging.
Use of computers: 9 hours a day
Type of computer: PC
Operating system: Ubuntu
Use of other multimedia devices: iPhone

3.2 Context Description

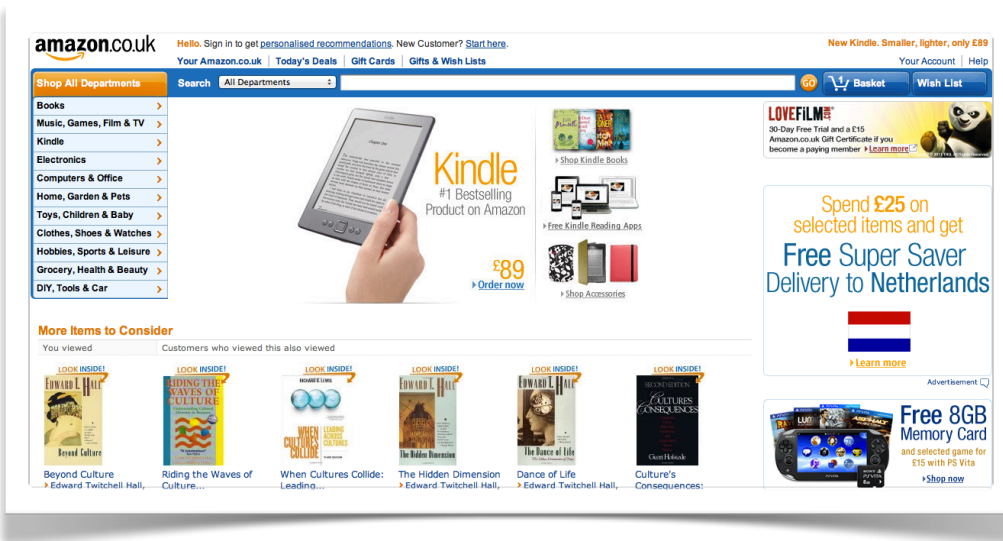


figure 3.1: Amazon.co.uk homepage, 2012



figure 3.2: Amazon.cn homepage, 2012

Amazon's main page is a classic example of grid-based web design; instead of taking a linear, top-down approach in which content is categorised from the most important at the top to the least important at the bottom, the website presents its users with various content blocks spread across the page. This kind of design approach is often seen in North-American web design, similar websites are for example cnn.com, imdb.com and nbc.com (see figure 3.3). The main colours are blue and orange, though the background of the website remains white. The colours are mainly used in the head of the website, highlighting the navigation, search bar and shopping cart, the three most important aspects of an e-commerce site like Amazon. The reading direction seems to be top-down and left to right as the most important aspects are placed here. Amazon's layout remains consistent on all country-specific websites, as can be seen in the British and Chinese Amazon homepage, featured in figures 3.1 and 3.2.



Figure 3.3: examples of a grid based homepage: cnn.com, imdb.com and nbc.com

The Amazon homepage seem to be representing a primarily western, Low Context culture, due to the following aspects. Firstly, the representation of product images by themselves, without any images of people shows high individualism, as Individualistic (and thus Low Context) societies tend to value products and consumerism, whilst Collectivistic societies place high importance on people and relations. (Marcus & Gould, 2001) Secondly, the emphasis placed on the search and navigation indicates transparency in the website. Transparency is defined as the apparentness and obviousness of the method of use of a website or User Interface. Low Context cultures place high importance on transparency in websites. (Würtz, 2005) Additionally, the emphasis placed on search, navigation and shopping basket also indicates a culture with high Uncertainty Avoidance.

The high use of images on Amazon seems rather to be a tendency of high-context websites. Würtz states in her research that there is evidence high-context websites are more likely to use images to convey information due to the indirect nature of high-context communication, the predominance of preferred slow message speed and the prominent use of symbolism in high-context cultures (Würtz, 2005). However, the use of images could also be due to the fact that Amazon is an E-commerce website, and product images sell better than product descriptions. One other aspect which might seem more common in high-context websites is the homepage layout, which seems unstructured because of the many product images and recommendations. This aspect however only occurs on the homepage, the rest of the pages have a structured and coherent layout. Additionally, the homepage links open within the same window, which suggests a shallow hierarchical structure and therefore a low power distance and Low Context culture.

The task analysis will be performed on all steps a user has to take in order to buy a book, this includes the extra steps of creating an account, as it provides a more detailed picture of the influence of culture-based preferences for User Interface design.

3.3 Hierarchical Task Analysis

3.3.1 Main Goal

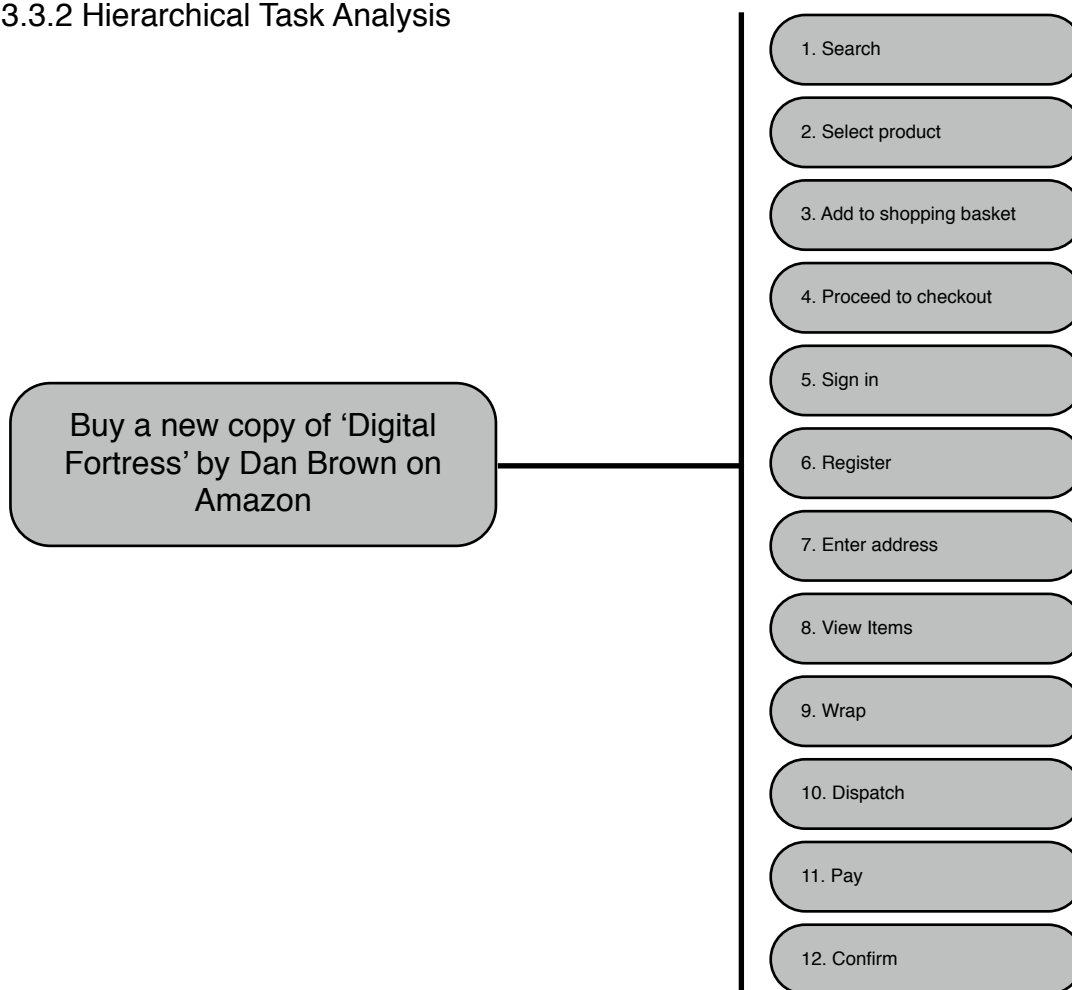
Amazon was founded in 1995 as an online bookstore. 17 years on, this product category still makes up a significant share of Amazon's total revenue with currently 30,699,214 books on offer (Amazon.com, 2012). The main goal is therefore to buy a book. To limit contingencies like an extended search time because of a vague title/description or consumer behaviour being affected by the book relating to a niche subject, a title of a popular book is provided. The main goal is as follows:

"Buy a new copy of 'Digital Fortress' by Dan Brown on Amazon"

This study assumes that when a specific title is provided, the search bar is used instead of the general Amazon menu. Therefore a Task Analysis is only performed with the search bar as starting point. A Task Analysis taking the general Amazon menu as a starting point would require further research.

Since Amazon also offers the option of buying used books, the goal specifically directs users to buy a new copy of 'Digital Fortress'. This study focuses on the selling of goods by the website itself and not by third-party sellers. If third party sellers were used it would affect the resemblance between Amazon and other E-commerce websites, whilst Amazon was especially chosen because it showed significant similarities with these websites.

3.3.2 Hierarchical Task Analysis



3.4 Detailed Task Analysis

3.4.1 Task one: Search

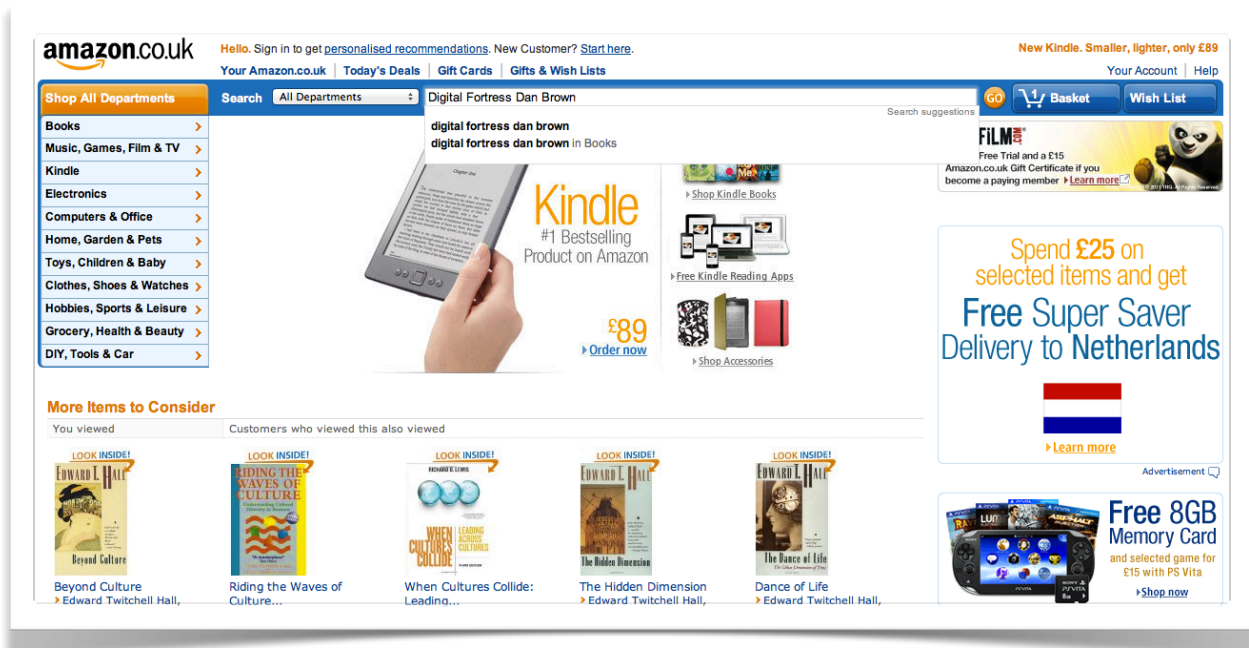


Figure 3.4: User Interface used in Task one: Search

A. Interface Description

Task one uses the Amazon homepage interface. A page with a slightly unstructured layout, high use of images and an emphasis through colour on the most important aspects of the page: the navigation, search bar and shopping basket. When used, the search box provides suggestions. There is also an option to specify a specific department or product category. Whilst the rest of the search bar is blue, the 'go' button, indicating the execution of the search query is orange, it also has a round shape which is not seen anywhere else on the website.

B. Usability Requirements & Cultural Implications

Learnability

Because of the unstructured homepage it might take the average user more time and effort to learn a task. Consumers from High Context cultures, who rely on more implicit communication and context and where the web designer generally relies on the user's patience and willingness to explore the site to seek information will not be much affected by this. Low Context cultures however, which according to Hall are monochronic in time perception and which therefore view time as important would have less patience with unstructured websites. Similarly, consumers from cultures with a high Uncertainty Avoidance according to Hofstede, placing emphasis on simplicity and clear metaphors, limited choices and restricted amounts of data, would share the same perspective. The location is however made clear by the use of colours, which indicates Low Context and preference for clear, explicit communication.

Throughput

It doesn't take much time to complete the task on hand. high Uncertainty Avoiding and Low Context cultures may appreciate the suggestions given in the search box, given that both cultures emphasise on clear, explicit messages. The notable colour and shape of the search, or "go", button will clearly reduce the number of errors made, if any, and would therefore be encouraged by high Uncertainty Avoiding cultures.

When clicked the go button directly takes you to a new page within the same browser window, an aspect which may be preferred by low Power Distance & Low Context cultures. According to Würtz (2005), cultures with a low Power Distance emphasise on shallow hierarchical structures within websites. Hofstede's low Power Distance dimension correlates with Hall's definition of Low Context cultures.

Flexibility

The Amazon homepage is very flexible and can accommodate changes to the task and environment very easily, consequently however the system leaves a lot of room for distraction, which might affect consumer behaviour of high Uncertainty Avoiding cultures which emphasise limited choices and restricted amounts of data.

Attitude

Amazon uses a high amount of images on it's homepage which reflects High Context web design, however none of the images reflect any emotion, neither does the rest of the page. The overall layout in terms of colours and symbols emphasises a more Low Context mindset, with white as the main background colour and the only symbolism being shown in the shape of a shopping basket.

The colours used within the Amazon homepage are blue, orange and white. Blue is a calming colour, which symbolises loyalty and tranquility and gives a corporate look to companies. In eastern territories, the colour represents wealth and self-cultivation. Blue will therefore attract Individualistic societies, which place an emphasis on materialism and consumerism as well as on the self. Orange is a rather flamboyant colour. Combining the energy of red and the happiness of yellow, orange represents enthusiasm and creativity, but also success, encouragement, and stimulation, making it an ideal colour for commercial use. (Evolt.org, 2005) Orange can be seen as both an Individualistic colour based on the emphasis on personal achievement and consumerism, and a high Uncertainty Avoiding colour based on its emotional value. According to Hofstede (2005), High Uncertainty Avoiding cultures tend to show emotions more than low Uncertainty Avoiding cultures, it can therefore be argued that consumers from high Uncertainty Avoiding cultures would prefer more emotional colours, like red for instance, whilst low Uncertainty avoiding cultures prefer more subdued colours like blue and grey. Additionally, Low Context and Individualistic societies may have a preference for fewer colours to improve clarity and convey symbolism whilst High Context, Collectivistic societies might prefer a more frequent use of colour since, as stated in Würtz (2005) "in High Context cultures priority is given to the aesthetic experience of the website rather than the informative function". Feminine cultures, like Collectivistic cultures also place an emphasis on visual aesthetics and can therefore also be argued to prefer a more frequent use of colour.

3.4.2 Task Two: Select product

A. Interface Description

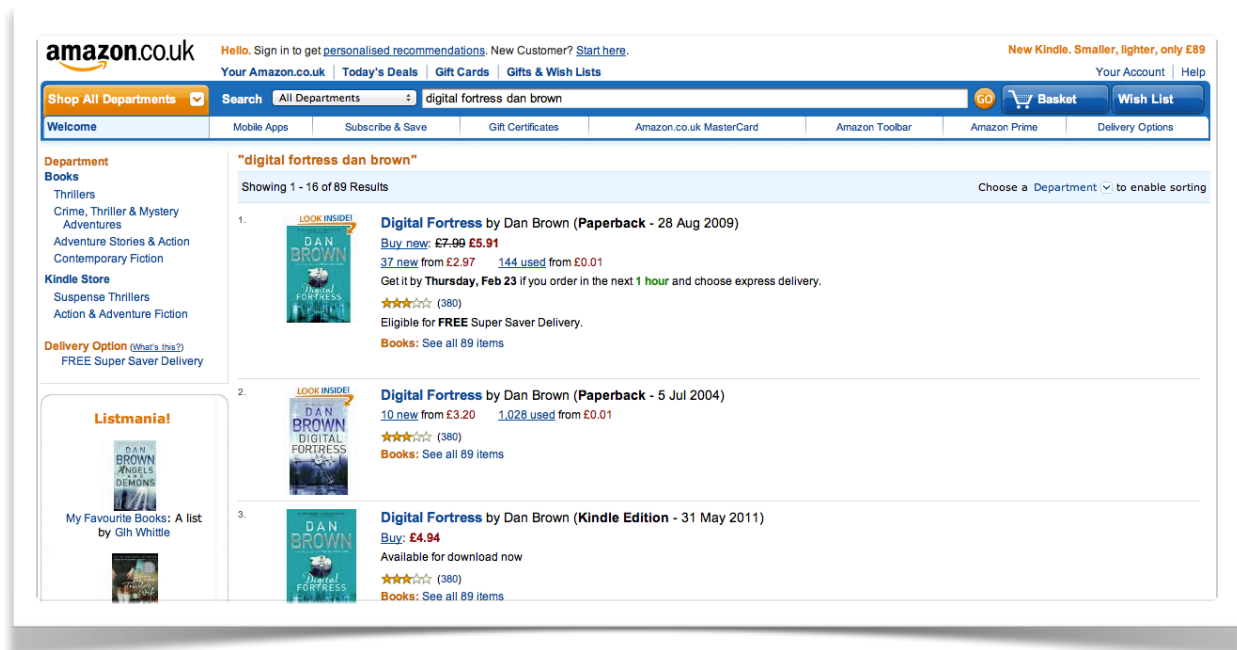


Figure 3.5: User Interface in task two: Select Product

The overall page layout, apart from the header, has changed from an unstructured grid into a structured, 2-column layout, improving clarity. Images are used to represent products, again the products are featured by themselves. More text is used in this page with some colour-coded details like the price in red, a time limit in green and links in blue. Both images and links are clickable and open within the same browser window. The current search is indicated by the search query in orange on top of the search results, the blue bar directly underneath indicates the amount of results and provides the user with a sorting option. More sorting options/categories are offered in the left column. The products also display consumer ranking by means of stars.

B. Usability Requirements & Cultural Implications

Learnability

The page layout is clear and structured, an aspect which is highly preferred by high Uncertainty Avoiding and low Power Distance cultures. The page is rather consistent in its colour schemes, though two new colours are added: red for indicating prices and green for indicating a time limit. Though these new colour will provide extra clarity, they might also give too much information which might make the information too complex for consumers from high Uncertainty Avoiding cultures. The prices could for example also be indicated in orange and the time limit could be left just black for increased simplicity.

Throughput

The sorting options, reducing complexity and speeding up the task in hand may be highly preferred by high Uncertainty Avoiding cultures. The same aspect could also be appreciated by Low Context cultures which prefer a goal-oriented instead of a process-oriented approach in website navigation.

Flexibility

The header of the Amazon User Interface still offers the option of searching for something else. An aspect which is likely preferred by consumers from a Low Context and low Power Distance culture as it offers freedom to roam and an immediate option to change the search term without having to go back a page (high transparency).

Attitude

The red colour used to indicate prices and the green colour to indicate a time limit are new aspects of the Amazon User Interface design, as previously stated the colours might add to the clarity or complexity of the design, however it can also have an emotional effect on consumers. Red being a highly emotional colour, may be preferred by high Uncertainty Avoiding cultures, but it could put low Uncertainty Avoiding cultures off.

The images used are again images of products by themselves, the website doesn't feature any banners or images that show emotion or put an emphasis on people, there is a clear emphasis on completing the goal instead of creating an emotional link to the product by means of aesthetics. On overall the User Interface would engender a positive attitude in Low Context cultures, but a negative, or disinterested attitude in High Context cultures.

The User Interface shows a consumer ranking for every product on the page, this aspect may be well appreciated by cultures with a Long Term Orientation, as according to Marcus and Gould (2001), these cultures would emphasise on relationships as a source of information and credibility.

3.4.3 Task Three: Add to Shopping Basket

A. Interface Description

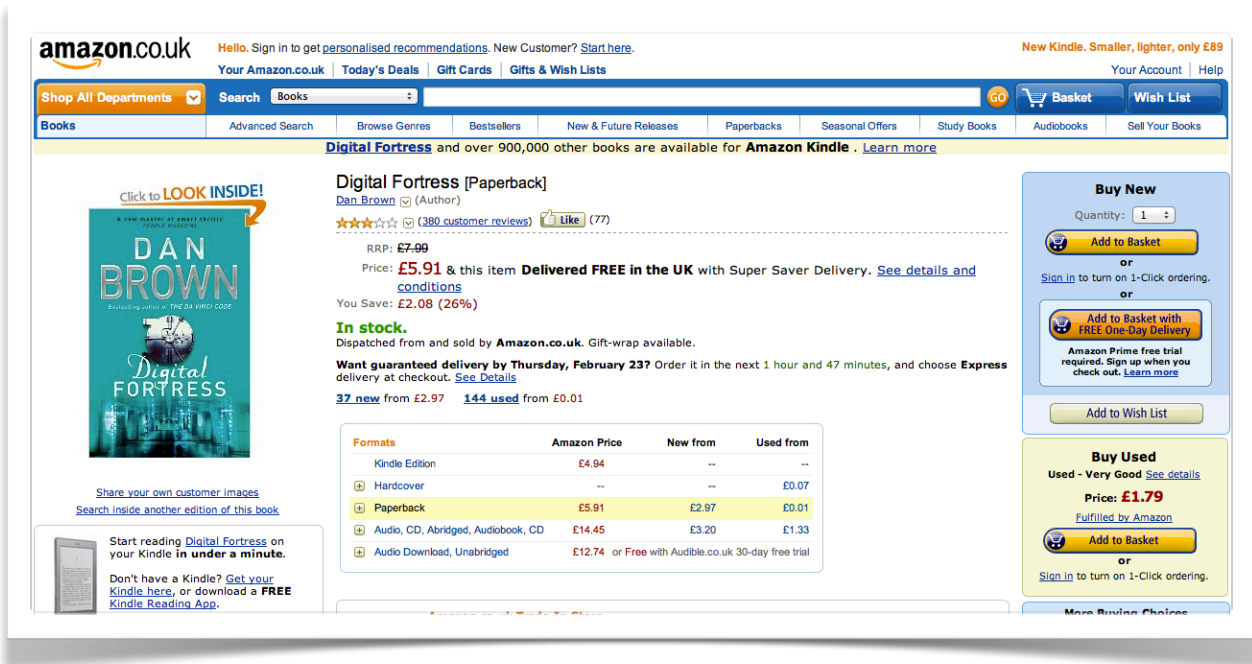


Figure 3.6: User Interface in task three: Add to Shopping Basket, complete page



Figure 3.7: User Interface in task three: Add to Shopping Basket, specific interface.

The main product page provides more textual information than symbolic information (images). Again, the same colours are used to indicate important aspects. The actual interface needed for the task (see figure 3.7) is very clearly indicated with blue and orange hues and offers a lot of buying options for consumers. It is located on the right side of the page, in accordance with the left to right reading direction. The 'Add to Basket' buttons make use of a shopping cart symbol.

B. Usability Requirements & Cultural Implications

Learnability

The 'Add to Basket' interface is easy to find on the main page through striking colour coding; not only the buttons used for adding a product to the shopping basket are coloured, but also the background of the element. An aspect which will please consumers from cultures with high Uncertainty Avoidance.

However it does require more effort and therefore more time to learn the task as so many options are offered, there is therefore also a high risk of error. This aspect might repel consumers from both monochromatic (Low Context) and Uncertainty Avoiding cultures.

Throughput

When the task is learned, it is relatively easy to perform. There are two subtasks related to the main task:

1. Choosing the quantity
2. Clicking the 'Add to Basket' button.

The 'Add to Basket' button features a symbol which will attract consumers from High Context cultures and also from high Uncertainty Avoiding cultures which emphasise clear metaphors in a User Interface (Marcus & Gould, 2001).

Flexibility

As previously stated the system offers many buying options to consumers, it is therefore rather flexible and more adjusted to low Uncertainty Avoiding cultures which prefer complexity with maximal content and choices.

Attitude

The attitude engendered by the User Interface is similar to the one in step 2. There is no emotional link created between the consumer and the product by means of aesthetics. The User Interface would engender a positive attitude in Low Context cultures, but a negative, or disinterested attitude in High Context cultures.

The interface does feature more implicit text, rather than symbols, images or metaphors as a product description. Since in Low Context cultures, according to Hall (1976), "the mass of information is vested in explicit code" the interface might seem more understandable and trustworthy. High Context cultures rely more on non verbal communication and use many covert and implicit messages, with use of metaphor and reading between the lines according to Hall (1976). Additionally, Würtz (2005) states that "high-context cultures place greater confidence in the non verbal aspects of communication than the verbal aspects. Face to face communication in high-context cultures is therefore characterised by an extensive use of non-verbal strategies for conveying meanings. These strategies usually take the shape of behavioural language, such as gestures, body language, silence, proximity and symbolic behaviour." High Context cultures may therefore prefer symbols, images or metaphors over implicit text.

3.4.4 Task Four: Proceed to Checkout

A. Interface Description



Figure 3.8: User Interface in task four: Proceed to Checkout

After clicking the 'Add to Basket' button, the consumer is directed to a page offering several choices: edit your Shopping Basket, Proceed to Checkout, or pursue one of the recommendations or advertisements. The consumer receives feedback on the recently performed action, the feedback is colour coded in green. Again, the use of images is scarce, only single product images are used.

B. Usability Requirements & Cultural Implications

Learnability

For the task in hand, the steps to take are relatively straightforward. The button which most stand's out on the page is the 'Proceed to Checkout' button, because of its colour and the colour of the element it's in. The interface design is therefore relatively transparent, an aspect which is preferred by Low Context cultures and cultures with a high uncertainty avoidance.

Throughput

Performing the current task will only actually take one click, because of the transparency of the interface there isn't much room for error, therefore once again the interface seems adjusted to the wishes of cultures with a high uncertainty avoidance. Though the low error tolerance might also have been put in place to enable consumers to make a smooth transition between adding the product to their shopping basket and proceeding to checkout. There is one extra specification users can make, which is stating whether the product will be a gift or not, as this button is small and harder to spot than the other buttons this might cause errors, however the detail is too small to indicate cultural preference.

Flexibility

The User Interface is mostly goal-oriented and less flexible, indicating a Low Context cultural preference. Options are offered in the shape of recommendations and an advertisement, though there are significantly less options offered than on the homepage. Additionally the options offered do not show any resemblance to the original goal of proceeding to checkout and therefore no cultural preferences can be mentioned.

Attitude

The recommendations will engender a positive attitude in cultures with a Long Term Orientation, as according to Marcus and Gould (2001), these cultures would emphasise on relationships as a source of information and credibility. However they might repel people from a high Uncertainty Avoiding culture as the recommendations clutter the page and thereby reduce simplicity.

The same can be said for the Barclaycard advertisement which would annoy people from high Uncertainty Avoiding cultures but which offer low Uncertainty Avoiding cultures more choice.

3.4.5 Task Five: Sign in

A. Interface Description



The screenshot shows the Amazon.co.uk sign-in page. At the top, the Amazon logo is on the left, and a progress bar on the right shows steps: WELCOME (highlighted in orange with a shopping cart icon), ADDRESS, ITEMS, WRAP, DISPATCH, PAY, and CONFIRM. Below the logo, the text 'Sign In' is in orange. A label 'Enter your e-mail address:' is followed by a text input field. Below this, there are two radio button options: 'I am a new customer. (You'll create a password later)' (selected) and 'I am a returning customer, and my password is:' (unselected). The returning customer option has a password input field below it. A yellow button with a right-pointing arrow contains the text 'Sign in using our secure server'. Below the button are two blue links: 'Forgotten your password? Click here' and 'Has your e-mail address changed since your last order?'. At the bottom, a small line of text reads 'Conditions of Use Privacy Notice © 1996-2012, Amazon.com, Inc. or its affiliates'.

Figure 3.9: User Interface in task five: Sign in

The checkout interface is very clean and simple, offering the least amount of choice or distraction. The steps the consumer needs to take are detailed in the head and the current step is highlighted in orange and accompanied by a symbol. The interface has gone back to its basic colours of orange and blue. The only button is yellow of colour, and consistent in shape with the other buttons featured on the website in previous steps. Help links are provided at the bottom of the form.

B. Usability Requirements & Cultural Implications

Learnability

With a limited amount of text and distractions, discovering how to perform the current task is made very easy. The help links at the bottom of the form focus specifically on the high Uncertainty Avoiding approach of reducing errors instead of the lower Uncertainty Avoiding approach of making consumers understand the underlying concept. There are no help links for new customers, as the interface is straightforward enough

Throughput

When entering a wrong email address, the form doesn't show any error message but immediately directs you through to the next page, which could lead to errors later on. However, the detail is too small to have a significant effect on consumers from any given culture.

Flexibility

The interface is not flexible, it does not even offer a back button on the page itself. This may have an effect on consumers from Low Context and low power distance cultures who place a high emphasis on freedom.

Attitude

Most of the User Interface is white with a few colour highlights, High Context cultures who rely more on aesthetics might however prefer more images, colours or symbols.

The sign in button displays the text 'sign in using a secure server'. This aspect of the interface will seem reassuring and pleasant for consumers from a culture which has a high Power Distance as it emphasises the importance of security (Marcus & Gould, 2001). However in this particular context it will seem reassuring for all consumers, as they are about to enter their personal and payment details.

The button colour is of a shade between yellow and orange, possibly because less emphasis can be placed on it now there are less distractions. The colour is more subdued and less marked and therefore might be preferred by low uncertainty avoiding cultures which are less likely to show emotions.

The top menu takes the goal oriented approach of detailing which and how many steps customers still need to take before they've bought the product. The goal oriented approach is likely to be preferred by Low Context cultures. The preference of Low Context cultures for a clear and detailed explanation of the navigation process can also be explained by Hall's (1976) message speed dimension: in cultures based on fast messages, information should be easily decoded and acted on. Würtz argues that the message speed dimension is apparent in the transparency of a website, implying the amount of effort expected from the visitor to understand navigational clues. In this case, the interface is very transparent, and therefore does not expect a large amount of effort from the visitor in understanding navigational clues. Masculine cultures, with an emphasis on work tasks, roles and mastery with quick results for limited tasks would also prefer a goal oriented approach in the checkout process.

3.4.6 Task Six: Register

A. Interface Description



Figure 3.10: User Interface in task six: Register

Similar to the previous task, this User Interface again uses a limited amount of distractions, basic colours and only one button, in yellow and of the same shape as the buttons seen before in the Amazon Interface.

B. Usability Requirements & Cultural Implications

Learnability

The interface offers a limited amount of text and distractions and is therefore likely to be appreciated by monochronic, Low Context and high Uncertainty Avoiding cultures.

Throughput

The form featured on the registration page does include form validation, a measure which reduces errors and may be appreciated by consumers from high Uncertainty Avoiding cultures.

Flexibility

The User Interface is very similar to that in task six. The inflexibility of the interface might have an effect on consumers from Low Context and low power distance cultures who place a high emphasis on freedom.

Attitude

Once again there is an emphasis on protection as the interface explicitly states “Protect your information with a password” The aspect will seem reassuring and pleasant for consumers from a culture with a high Power Distance.

3.4.7 Task Seven: Enter Address

A. Interface Description

amazon.co.uk

WELCOME ADDRESS ITEMS WRAP DISPATCH PAY CONFIRM

Want an alternative to home delivery?
Now you can get your package delivered to Amazon Locker and collect at your convenience. Please note that Amazon Lockers are currently only available in London.
[Search for a Pick-up Location near you](#)

Enter a new delivery address.
When finished, click the "Continue" button.

Full Name:

Address Line 1:
(or company name) House name/number and street, P.O. box, company name, c/o

Address Line 2:
(optional) Apartment, suite, unit, building, floor, etc.

Town/City:

County:

Postcode:

Country:

Phone Number:

Is this address also your invoice address?
☒ Yes
☐ No (If not we'll ask you for it in a moment.)
[Continue](#)

Search for a Pick-up Location near you

Amazon.co.uk's new service allows you to pick up orders at a time and place that suits you. It's simple, safe and convenient. No more worrying about a package sitting on your doorstep, waiting to sign for it, or travelling to a far-off location during limited opening hours. Please enter an address, postcode or landmark.
[Learn more](#)

☒ **Search by Address:**
(example: Marylebone Road)

☐ **Search by Postcode:**
(example: WC2R 0KJ)

☐ **Search by Landmark:**
(example: Madame Tussauds)

[Search](#)

Address Accuracy
Incorrectly entered addresses may delay your order, so please double-check for errors. Do not enter specific dispatch instructions in any of the address fields.

- [How to enter a US address](#)
- [How to enter a BFPO address](#)

Redeeming a gift certificate? We'll ask for your claim code when it's time to pay.
Having difficulties? We're here to help. Please [e-mail us](#) with your questions.

[Conditions of Use](#) | [Privacy Notice](#) © 1996-2012, Amazon.com, Inc. and its affiliates

Figure 3.11: User Interface in task seven: Enter Address

The User Interface for step 7 again looks very similar to the previous steps in the checkout process, although in this step there are three areas which the consumer can focus on: alternatives to a home delivery, home delivery address and pick up location. The bottom of the page also features a help section in a similar style: orange title, black font and links in blue. The actual interface used to insert the address is placed on the left, going with the general reading direction. The form used looks is of the same style as seen earlier on in the task process. The buttons are also of similar shape and colour.

B. Usability Requirements & Cultural Implications

Learnability

Again the page looks relatively straightforward. The style is similar to the previous pages, an aspect preferred by low power distance societies which often make use of a coherent layout throughout the website.

The various focus areas of the page could repel consumers from high Uncertainty Avoiding cultures, as these consumers would dislike complexity and too much choice in websites.

Throughput

The help section of the page looks similar to the other sections of the page, however, consumers from a Low Context culture might have preferred a more highlighted help section, as these cultures prefer colours for indication and emphasis. A similar structure, including more colour emphasis, might be preferred by high uncertainty avoiding cultures which emphasise error prevention.

Flexibility

Once again the page is very inflexible. There are no back buttons on the page and the previous step in the top menu is not clickable. As stated in the previous task analysis: the inflexibility of the interface might have an effect on consumers from Low Context and low power distance cultures who place a high emphasis on freedom.

Attitude

The interface, like in previous steps, will engender more positive feelings with consumers from a Low Context culture. There is no emotional attachment formed between the consumer and the interface.

3.4.8 Task Eight: Dispatch

A. Interface Description

The screenshot shows the Amazon.co.uk checkout process at the 'DISPATCH' step. The breadcrumb trail at the top includes WELCOME, ADDRESS, ITEMS, WRAP, DISPATCH, PAY, and CONFIRM. The main heading is 'Choose your delivery options'. Below this is a 'Delivery Details' section with a 'Learn more' link. Under 'Choose a delivery option:', there are two radio buttons: 'Standard (2-3 business days)' (selected) and 'One-Day Delivery to the Netherlands (1 business day)'. A box contains item details: 'Item: Need to [Change quantities or delete](#)?' and 'Dispatching to: Dolinde van Beek, Comeniusstraat 263-1, Amsterdam, 1065BR Netherlands'. Below this, a grey box lists 'Digital Fortress - Dan Brown' for £5.91, quantity 1, condition new, sold by Amazon EU S.a.r.L. At the bottom, there is a question 'Does your order contain gift items?' with a gift icon and a checkbox. A 'Continue' button is at the very bottom.

Figure 3.12: User Interface in task eight: Dispatch

When the gift wrapping option hasn't been selected, the first thing an observant consumer will notice is that Amazon skips two steps in its task process on top of the page. These two steps: items and wrap, do however feature in the dispatch page itself. The 'Delivery Details' heading functions as a divider between the head of the document and the main contents of the page. The items which are to be delivered are highlighted in light grey. There is an option to change quantities or delete items even in this late stage of the checkout process. The gift items option uses a little gift symbol.

B. Usability Requirements & Cultural Implications

Learnability

The interface has a top-down approach instead of spreading the information across the page, an aspect which makes the site more transparent and which may therefore be preferred by Low Context cultures with a monochronic time perception and according to Würtz (2005) these cultures value time and prefer User Interface's as transparent as possible so it will take less time to fulfil their purpose.

High Uncertainty Avoiding cultures might be confused by the skipping of two steps in the top menu. These cultures prefer clear metaphors and restricted amounts of data, adding the extra two steps in the menu might therefore be seen as too much information.

Throughput

The User Interface reduces the chance of error because of its use of colour to emphasise certain parts. Again, an aspect which will be preferred by high Uncertainty Avoiding cultures.

It doesn't take much time to accomplish the task, as multiple choice options are offered and the interface clearly guides consumers. Consumers from a Low Context background will appreciate this, as they place an emphasis on time.

Flexibility

The interface does offer the option to change the quantity of the chosen product or to delete the product entirely which is a benefit for Low Context and low power distance cultures who place a high emphasis on freedom.

Attitude

The overall consumer attitude when arriving on this page should remain the same as in previous steps.

3.4.9 Task Nine: Pay

A. Interface Description

The screenshot shows the Amazon.co.uk checkout page for the 'Pay' step. The top navigation bar includes the Amazon logo and a progress bar with steps: WELCOME, ADDRESS, ITEMS, WRAP, DISPATCH, PAY (highlighted), and CONFIRM. Below the progress bar, the heading 'How would you like to pay?' is followed by a text box for payment details and a 'Continue' button. The 'Other payment options' section includes 'Credit or Debit Cards' with logos for Visa, Mastercard, and American Express, and a link to 'Add a new card'. Below this is the 'Gift Cards & Promotional Codes' section with an input field and an 'Apply' button. A 'Continue' button is also present at the bottom right of the main content area. At the very bottom, there is a link to 'Need help? Check our help pages or contact us'.

Figure 3.13: User Interface in task nine: Pay

This screenshot shows the same Amazon.co.uk checkout page as Figure 3.13, but with payment details filled in. The 'Your credit cards' section now displays a table with the following information:

Your credit cards	Name on card	Expiry date
VISA Visa/Delta/Electron ending in 9917	Dolinde van Beek	10/2012

The 'Continue' button is now active. The 'Other payment options' section remains the same. At the bottom, there is a link to 'Need help? Check our help pages or contact us' and a footer with 'Conditions of Use | Privacy Notice © 1996-2012, Amazon.com, Inc. and its affiliates'.

Figure 3.14: User Interface in task nine: Pay

The payment interface shows even more colours than the previous 'Dispatch' interface. This time more emotional colours like blue are used. Again the website has a top-down structure. When the 'Add a new card' option is chosen, the consumer remains on the same page, a new form appears in the 'Other payment options' section of the page. When the details have been saved, they appear in the 'How would you like to pay' section. There are two continue buttons: one next to the credit card section, the other the bottom-right, with the blue background stretching along the entire width of the page. The interface also offers to option to redeem a gift card or promotional code.

B. Usability Requirements & Cultural Implications

Learnability

Like in the previous step, the User Interface has been relatively straightforward by the use of colour and the top-down structure. Thus, the interface may be preferred by Low Context cultures with a monochronic time perception.

The interface also makes use of symbols for credit and gift cards, an aspect preferred by high Uncertainty Avoiding cultures as these cultures emphasise clear metaphors.

Throughput

Consumers from low Power Distance societies will approve of the process of adding a credit card as consumers are not directed to a new page or a new window to add a new card. According to Würtz (2005) a low Power Distance culture is reflected in websites with a restricted number of browser windows and pages with a coherent layout.

Flexibility

The flexibility factor is only evident in the fact that the consumer can add a new credit card or redeem a gift card or promotional voucher, there is however no option to go back, whilst there are two continue buttons.

Attitude

Blue is said to symbolise trust, which may be why it is more used on the interface of the payment page. Banks or services which deal with money transfers also often use this colour in their interface (paypal.com, Rabobank.nl). High Uncertainty Avoiding cultures, which emphasise error prevention and high Power Distance cultures which emphasise the importance of security may feel positive about this page (Marcus & Gould, 2001).

3.4.10 Task Ten: Confirm

A. Interface Description

amazon.co.uk WELCOME ADDRESS ITEMS WRAP DISPATCH PAY **CONFIRM**

Review Your Order
By placing your order, you agree to Amazon.co.uk's [privacy notice](#) and [conditions of use](#).

Delivery Address:
Dolinde van Beek
Comeniusstraat 263-1
Amsterdam, 1065BR
Netherlands
Phone: 0031650590426 [Change](#)

Payment Information:
 ending in 9917 [Change](#)
Invoice Address:
Same as delivery address [Change](#)

Gift Cards & Promotional Codes:
 [Apply](#)

Estimated dispatch: 28 Feb 2012

Digital Fortress
by Dan Brown
£5.91
Quantity: 1 [Change](#)
Sold by: Amazon EU S.a.r.L.
[Add gift options](#)

Choose a delivery speed:
☒ Standard (2-3 business days)
☐ One-Day Delivery to the Netherlands (1 business day)

Place your order

Order Summary
Items: £5.91
Postage & Packing: £5.28
Order Total: £11.19
Order Totals includes VAT.
[See details.](#)

How are delivery costs calculated?
Why didn't I qualify for free Super Saver Delivery?

Need help? Check our [help pages](#) or [contact us](#)

When you click the "Place your order" button, we'll send you an e-mail message acknowledging receipt of your order. Your contract to purchase an item will not be complete until we send you an e-mail to indicate that the item has been dispatched.

Within 30 days of delivery, you may return new, unopened physical merchandise in its original condition. Exceptions and restrictions apply. See Amazon.co.uk's [Return Policy](#).

Go to the [Amazon.co.uk homepage](#) without completing your order.

Figure 3.15: User Interface in task ten: Confirm

The User Interface used in the last step of the checkout process provides an overview of the order with a clear emphasis on the 'Place your order' button. The content stretches across the full width of the page with the large summary on the left, and the order button and pricing information on the right. The help section, underneath the pricing information is also emphasised by means of a bright yellow background. The entire focus area is surrounded by a blue border.

B. Usability Requirements & Cultural Implications

Learnability

Consumers will quickly learn where to focus due to the blue border around the main content. Again, high Uncertainty Avoiding cultures might approve of the use of colour for emphasis. Furthermore, there is only one task to be done in this User Interface which is to click the 'Place your order' button, the only button which stands out in the page.

Throughput

As stated above, the only task is to click the 'Place your order' button, which is relatively quickly accomplished. Consumers might get distracted by the information being both on the left and right on the page but because of the clear emphasis on certain aspects, there is not much room for error. The page therefore seems well adjusted to the needs of Low Context and high Uncertainty Avoidance societies, but there is nothing which might put off High Context or low Uncertainty Avoiding cultures.

Flexibility

In the bottom of the page, there is one line, with a small link which states 'Go to the Amazon.co.uk homepage without completing your order.' Therefore there is some kind of flexibility, however it is not very clearly stated and probably only seen by observant consumers.

Attitude

The attitude engendered is much the same as in previous steps, though there is more blue, which is likely to attract consumers from high Uncertainty Avoiding and high Power Distance cultures, most of the page is still white and therefore has less emotional ties with consumers.

3.3 Hypothesis & research questions

3.3.1 Summary of Observations

The observations discussed in the previous chapter are summarised in table 3.1.

Parameter	High Context cultures	Low Context cultures
Learnability	Preference for grid-based layouts	Preference for clean, functional layout
	Preference for choice in the way a consumer can add a product to their shopping basket is appreciated	Preference for a limited amount of choice in the way a consumer can add a product to their shopping basket
	Steps to take in the checkout process don't have to be supplied.	Preference for being informed of the steps to take in the checkout process when it's initiated
Flexibility	Acceptance of tall website hierarchies and less control on navigation.	Flexibility in navigation without having to go through tall website hierarchies preferred
Throughput	Preference for menu items opening in new browser windows	Preference for menu items opening in the same browser window
	Browsing preferred	Categorisation/sorting preferred
Attitude	frequent use of colour preferred	Preference for products by themselves. Colours only used as emphasis, whitespace preferred.
	Images of people and products	Images of products or people by themselves.
	Preference of symbols and images as product description	preference of explicit text as product description
	Preference for more subdued colours in website elements	Preference for more emotional, bright colours in website elements.

Table 3.1: Culture-based preferences of high and Low Context cultures for the User Interface design of commercial websites

Parameter	High Uncertainty Avoidance	Low Uncertainty Avoidance
Learnability	Preference for clean, functional layout	Preference for grid-based layouts
	Colour preferably only used as emphasis, whitespace preferred.	Frequent use of colour preferred
	Preference for a limited amount of choice in the way a consumer can add a product to their shopping basket	Preference for choice in the way a consumer can add a product to their shopping basket is appreciated
Throughput	Preference for help systems which focus on reducing error	Preference for help systems which explain underlying principles
	Categorisation/sorting preferred	Browsing preferred

Table 3.2: Culture-based preferences of high & low Uncertainty Avoidance for the User Interface design of commercial websites

Parameter	High Power Distance	Low Power Distance
Flexibility	Acceptance of tall website hierarchies and less control on navigation.	Flexibility in navigation without having to go through tall website hierarchies preferred
Throughput	Preference for menu items opening in new browser windows	Preference for menu items opening in the same browser window

Table 3.3: Culture-based preferences of high & low Power Distance for the User Interface design of commercial websites

Parameter	Long Term Orientation	Short Term Orientation
Attitude	Preference for consumer-based information like reviews, recommendations and ratings	Preference for implicit product specifications

Table 3.4: Culture-based preferences of Long- & Short Term Orientation for the User Interface design of commercial websites

Parameter	Masculinity	Femininity
Learnability	Preference for being informed of the steps to take in the checkout process when it's initiated.	Steps to take in the checkout process don't have to be supplied.
Attitude	Preference for products by themselves. Colours only used as emphasis, whitespace preferred.	frequent use of colour preferred

Table 3.5: Culture-based preferences of Masculine and Feminine cultures for the User Interface design of commercial websites

From these findings, several hypothesis can be formulated on the culture-based preferences for web design. These hypothesis will form the basis of the subsequent research conducted in this study.

3.3.2 Hypothesis

1. According to Hall (1976) Low Context cultures are monochronic in time perception therefore view time as important. Consumers from a Low Context culture may therefore prefer structured and clean layouts as these kinds of layouts will require less time and effort from an average user to accomplish or learn a task. Similarly, consumers from cultures with a high Uncertainty Avoidance according to Hofstede, placing emphasis on simplicity and clear metaphors, limited choices and restricted amounts of data, would share the same perspective. Consumers from High Context cultures, who rely on more implicit communication and context and where the web designer generally relies on the user's patience and willingness to explore the site to seek information will not be much affected by this.
2. Low Context and Individualistic societies may have a preference for fewer colours to improve clarity and convey symbolism whilst High Context, Collectivistic societies might prefer a more frequent use of colour since, as stated in Würtz (2005) "In High Context cultures priority is given to the aesthetic experience of the website rather than the informative function". Feminine cultures, like Collectivistic cultures also place an emphasis on visual aesthetics and can therefore also be argued to prefer a more frequent use of colour (Marcus & Gould, 2001).
3. High Uncertainty Avoiding cultures tend to show emotions more than low Uncertainty Avoiding cultures (Hofstede, 2005), it can therefore be argued that consumers from high Uncertainty Avoiding cultures would prefer more emotional colours, like red for instance, whilst low Uncertainty avoiding cultures prefer more subdued colours like blue and grey.
4. According to Würtz (2005), cultures with a low Power Distance emphasise on shallow hierarchical structures within websites. Consumers from cultures with a low Power Distance may therefore be put off by websites which open their internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs. Hofstede's low Power Distance dimension correlates with Hall's definition of Low Context cultures.

5. Low Context and high Uncertainty Avoiding cultures may prefer a limited amount of choice in the way a consumer can add a product to their shopping basket. Uncertainty Avoiding cultures emphasise limited choices and restricted amounts of data (Marcus & Gould, 2001) whilst Low Context cultures, being monochronic in time perception, view time as an important factor (Hall, 1976). Another reason for a Low Context cultural preference is that this culture emphasises a goal-oriented, rather than a process-oriented, approach in website navigation. (Würtz, 2005). High Context cultures, being more process oriented and low Uncertainty Avoiding cultures, being used to a maximal content and choices according to Marcus & Gould (2001) may prefer more choice.
6. Consumers from Low Context cultures may show a preference for being informed of the steps to take in the checkout process when it's initiated, as Low Context cultures place an emphasis on time and therefore the time it takes to accomplish a task as well as a goal oriented approach in executing a goal or task (Würtz, 2005). The preference of Low Context cultures for a clear and detailed explanation of the navigation process can also be explained by Hall's (1976) message speed dimension: in cultures based on fast messages, information should be easily decoded and acted on. Würtz (2005) argues that the message speed dimension is apparent in the transparency of a website, implying the amount of effort expected from the visitor to understand navigational clues. Masculine cultures, with an emphasis on work tasks, roles and mastery with quick results for limited tasks (Marcus & Gould, 2001) would also prefer a goal oriented approach in the checkout process.
7. Categorisation and sorting options may be preferred by high Uncertainty Avoiding cultures as these cultures place an emphasis on simplicity, limited choices and restricted amounts of data (Marcus & Gould, 2001). The same aspect may also be appreciated by Low Context cultures which prefer a goal-oriented instead of a process-oriented approach in website navigation (Würtz, 2005).
8. Low Context, Individualistic cultures may have a preference for product images shown by themselves. High Context, Collectivistic cultures may favour images of people together with products. Individualistic (and thus Low Context) societies tend to value products and consumerism, whilst Collectivistic societies place high importance on people and relations. (Marcus & Gould, 2001) Additionally, according to Würtz, Low Context cultures favour transparency in a website which is accomplished better by a simple product image than by images of people with products.
9. High Context cultures may show a preference for symbols, images or metaphors as a product description whilst Low Context cultures may prefer explicit text. According to Hall (1976), "the mass of information in Low Context cultures is vested in explicit code" therefore a product description featuring explicit text might seem more understandable and trustworthy. High Context cultures rely more on non verbal communication and use many covert and implicit messages, with use of metaphor and reading between the lines according to Hall (1976). Additionally, Würtz (2005) states that "high-context cultures place greater confidence in the non verbal aspects of communication than the verbal aspects. Face to face communication in high-context cultures is therefore characterised by an extensive use of non-verbal strategies for conveying meanings. These strategies usually take the shape of behavioural language, such as gestures, body language, silence, proximity and symbolic behaviour."

10. High Uncertainty Avoiding cultures may prefer help systems which solely focus on reducing error (how) whilst low Uncertainty Avoiding cultures might prefer help systems which explain underlying principles and the workings of the website (why). According to Marcus & Gould (2001) high Uncertainty Avoiding cultures emphasise restricted amounts of data to maintain simplicity. The same authors have stated that low Uncertainty Avoiding cultures seem to value more complexity with maximal content and choices and mental models and help systems which focus on understanding underlying concepts rather than narrow tasks.
11. Flexibility in navigation without having to go through tall website hierarchies (having to go through many pages before the objective is reached) is likely preferred by consumers from a Low Context and low Power Distance culture. Low Context Cultures emphasise transparency in a website as it offers a time-saving quality (Würtz, 2005) whilst Low Power Distance cultures give prominence to transparency and implicit freedom to roam (Marcus & Gould, 2001).
12. Long Term Oriented cultures may show a preference for consumer-based information like reviews, recommendations and ratings as according to Marcus and Gould (2001) these cultures would emphasise on relationships as a source of information and credibility. Short Term Oriented cultures however prefer content focused on truth and certainty of beliefs and view rules as a source of information and credibility (Marcus & Gould, 2001). These cultures may therefore prefer explicit information on the product, like product specifications.

3.3.3 Research questions

From the previously stated hypothesis we can derive the following research questions:

1. Do consumers from Low Context and high Uncertainty Avoiding cultures prefer structured and clean layouts over busier grid-based layouts?
2. Do Low Context and Individualistic societies show a preference for fewer colours whilst High Context and Feminine cultures show a preference for a more frequent use of colour?
3. Do consumers from high Uncertainty Avoiding cultures prefer more emotional colours whilst consumers from low Uncertainty Avoiding cultures prefer more subdued colours?
4. Are consumers from low Power Distance and Low Context cultures put off by websites which open their internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs?
5. Do Low Context and high Uncertainty Avoiding cultures prefer a limited amount of choice in the way a consumer can add a product to their shopping basket whilst High Context and low Uncertainty Avoiding cultures prefer more choice?
6. Do Low Context and Masculine cultures show a preference for being informed of the steps to take in the checkout process when it's initiated?
7. Do high Uncertainty Avoiding cultures and Low Context cultures prefer Categorisation and sorting options on a commercial website?
8. Do Low Context, Individualistic cultures have a preference for product images shown by themselves whilst High Context, Collectivistic cultures favour images of people together with products?
9. Do High Context cultures show a preference for symbols, images or metaphors as a product description whilst Low Context cultures prefer explicit text?
10. Do High Uncertainty Avoiding cultures prefer help systems which solely focus on reducing error (how) whilst low Uncertainty Avoiding cultures prefer help systems which explain underlying principles and the workings of the website (why)?
11. Is Flexibility in navigation without having to go through tall website hierarchies (having to go through many pages before the objective is reached) preferred by consumers from a Low Context and low Power Distance culture?
12. Do Long Term Oriented cultures show a preference for consumer-based information like reviews, recommendations and ratings whilst Short Term Oriented cultures prefer content focused on truth and certainty of beliefs?

4.0 Research Methodology

4.1 Research Objectives

Cultural differences are known to exist. Additionally, we also know culture can influence consumer behaviour (Schiffman & Kanuk (2009) dedicated a whole chapter about the topic in their book 'Consumer Behavior') However it is still rather uncertain whether cultural-based preferences for a certain User Interface design exist, and if so; whether these preferences will affect consumer behaviour.

Several theoretical studies have been done on this subject, amongst which those of Würtz (2005) and Marcus and Gould (2001) however, Würtz' study solely indicates the differences in websites between high and low context cultures, and is not concerned with user experience in particular. Similarly, Marcus and Gould have only conducted an analysis on how Hofstede's cultural dimensions might translate into User Interface design preferences. The research conducted by Meijer (2007) in her thesis seems closest to the objective of this study, however Meijer's research only focused on complete website layouts (mostly front pages) and not particular interface aspects. Additionally Meijer's target group only consisted of students of the University of Twente. The current research is therefore broader and more detailed.

The main objective of this study is to answer the research question:

"Does culture have an influence on consumer preferences for an online, commercial User Interface design and do these preferences affect consumer behaviour?"

Sub-objectives are as follows:

1. To identify aspects in a user interface which might have an influence on culture-based consumer preferences and thereby on consumer behaviour.
2. To verify whether consumers from various cultures (High and Low Context cultures, high and low Uncertainty Avoidance and Power Distance cultures, Short and Long Term Oriented cultures and Masculine and Feminine cultures) are in actual fact affected, and affected differently, by the identified aspects.
3. To provide the web-design sector with suitable advice/recommendations.

4.2 Research Methodology

As explained earlier on in this study, a positivist approach is used whilst conducting the research. The positivist research paradigm is also known as functionalist, scientific and quantitative meaning that the research remains independent of the specific research context. According to Varner & Beamer (2008) Positivist researchers stand apart from what they study, observe, and measure. They describe what they have observed and measured using formal, agreed terms. Researchers might use a model or framework for classifying cultures and measure how the observed behaviour fits that framework. Results would be expressed in numerical data and could be the basis for further predictions about certain cultural behaviour.

The research in this study will be conducted via questionnaires with mostly multiple choice questions, thereby generating quantitative results.

Both Hall and Hofstede measured cultural characteristics by means of questionnaires which produced solely quantitative results. Neither researcher took the interpretivist approach of observing a subject's behaviour within a certain situation or context. Continuing with a similar research paradigm would therefore yield the most accurate results for this study.

4.3 Research Design

Going by the positivist research paradigm, this study will use a multiple choice questionnaire, primarily consisting out of statements, for it's main research. Both Hall and Hofstede, the main providers of the theoretical framework for this study used questionnaires in their research, providing quantitative results. Whilst Hofstede used a Likert scale, Hall used statements which could only be answered with 'yes' or 'no'. This approach will therefore generate the most accurate results for this study.

One of the main disadvantages of this approach is that it limits the answer to the research question, as participants might find other aspects in a user interface which affect their user experience, which do not feature in the questions. However, the use of quantitative methods like interviews would broaden the spectrum of the research considerably, as one cannot predict the answers given by participants. It would make a comparison between several cultures more difficult than it would be with a more structured approach, like a multiple choice questionnaire. Additionally, a more theoretical approach like a case study would defeat the overall purpose of this study, as it focuses on user experience, which can only be tested via a research involving people.

4.4 Population

The research is conducted within 8 countries: China, South Korea, Turkey, India, Germany, Sweden, the United States and The United Kingdom. All previously mentioned countries appear in both Hofstede and Hall's research and therefore comply with the cultural models used in the study. Countries chosen for the study were selected from their relative placement along Hall's High and Low Context dimensions and for their similarities with the Collectivism vs. Individualism and Power Distance parameters in Hofstede's research.

The research will feature 10 participants from all countries involved, adding up to 80 respondents in total. Respondents can be of any income range, educational Level or sex as these aspects do not affect the research. This study aims to target people of the age groups 20 - 40 since consumers of these age categories can be assumed to be most computer and internet savvy and also more likely to buy their products online. Figure 4.1 describes the online buying behaviour of consumers from all targeted countries per age category. The third column for every country, detailing consumers over 50, shows considerably lower percentages for every country but the United States. However, any deviation from this age category should not affect the research, since age will not affect a person's cultural values. Age groups will therefore also not feature in results.

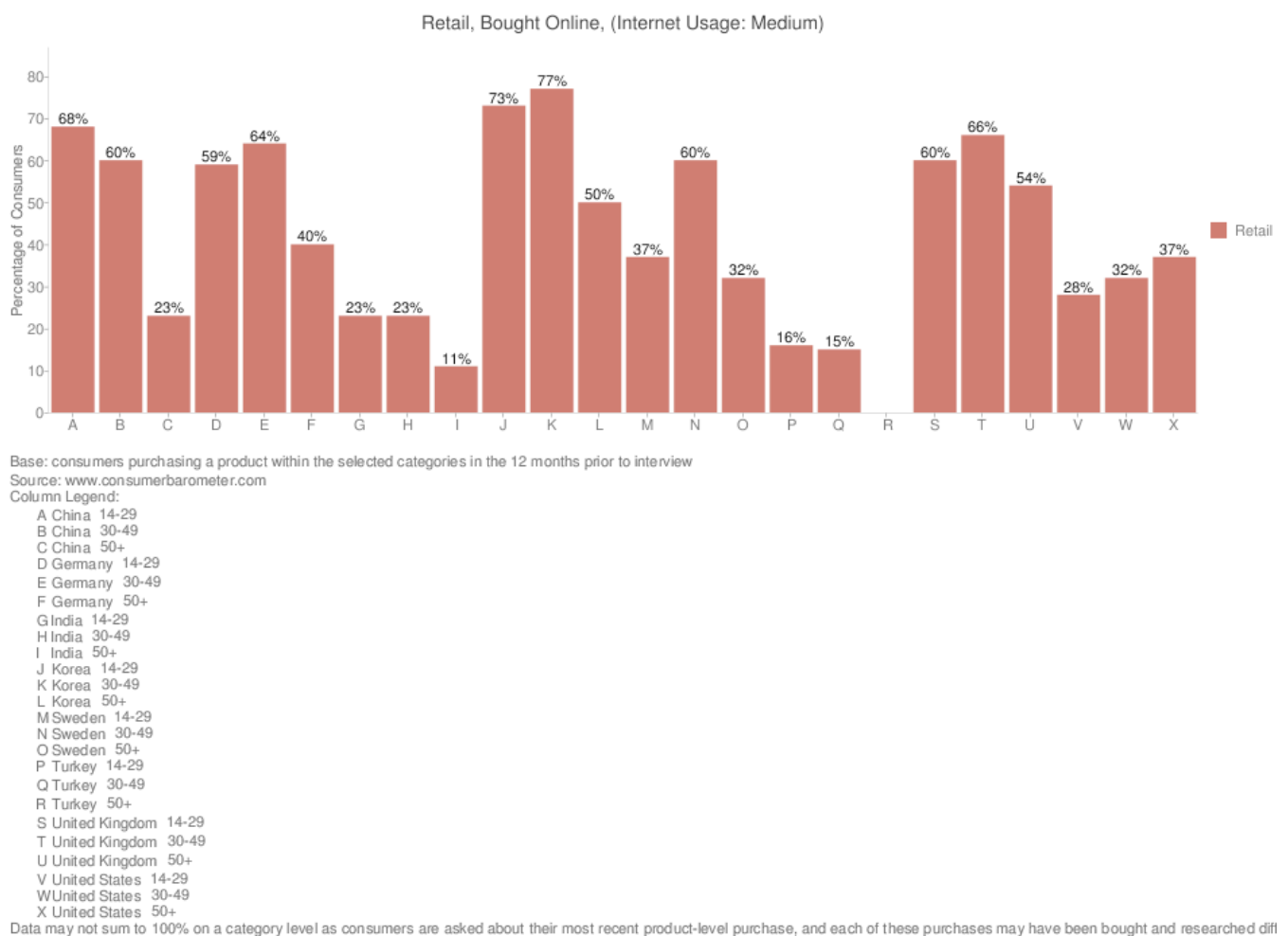


Figure 4.1: Online consumer behaviour for all targeted countries per age group. Source: Interactive Advertising Bureau Europe (2010) Consumer Commerce Barometer

4.5 Research Instrument

The research instrument will consist of a questionnaire based on all 12 research questions. Máire Messenger Davies and Nick Mosdell describe a questionnaire as ‘the main research instrument used in quantitative research methods’ being ‘one of the simplest and quickest ways of getting information from large numbers of people’ (Messenger Davies & Mosdell, 2006).

The questionnaire consists of 14 multiple choice questions, also known as ‘close-ended questions’ and according to Messenger Davies and Mosdell (2006) ‘the most common form of questions in a questionnaire, used mainly for ease of coding’. The questions feature mostly statements on what a user interface should look like, and can be answered by either choosing a statement (A/B) or by a Likert scale ranging from 1 meaning ‘strongly agree’ to 5 meaning ‘strongly disagree’. The A/B approach was used for contradicting statements whilst the Likert scale was used in combination with a single statement which required more detailed answers than either yes or no.

The approach was based on both Hall and Hofstede’s studies; as stated previously Hofstede used a Likert scale for his research whilst Hall used statements which could only be answered with ‘yes’ or ‘no’. Combining both approaches will provide detailed results whilst still maintaining the ease of comparing countries with one another.

Although the A/B approach would limit respondent’s answers considerably, it does provide the most straightforward results which are easiest to compare between cultures. Especially for a sample of only 10 respondents per country. The A/B approach was only used with contradicting statements, presenting the least amount of choice to respondents. The Likert scale makes comparisons slightly more difficult as there are more options to be chosen from and only a small sample of respondents, though it will provide more detailed and therefore possibly more accurate results.

See appendix E for the questionnaire and cover letter used in this study.

4.6 Data Collection

All data will be collected via the internet. The questionnaire is created online via a Google form (standard in Google Docs), an application which allows for immediate sharing, content aggregation into a spreadsheet and the creation of graphs.

The questionnaire is spread via several contacts in all targeted countries, who, in their turn, will distribute the questionnaire amongst 10 people of the requested target group in their country.

4.7 Data Analysis and Interpretation

Every question in the questionnaire correlates with a sub-question of this study, and thus with a hypothesis. Both the hypothesis and the sub-questions have been formed by the task analysis performed earlier on in this study. Results will therefore be discussed per sub-question.

The discussion of results will mainly feature descriptive statistics due to the quantitative results yielded by the questionnaire. For every question, answers given by every culture will be compared in a bar diagram in order to get a clear picture of the most popular answer per country. Consequently, the discussion will include a comparison of the cultural dimensions featured in the sub-question, and the answers of the countries correlating to these cultural dimensions. Finally, a conclusion and answer to the sub question will be supplied.

4.8 Validity and Reliability

4.8.1 External Validity

External validity has been defined by Wimmer and Dominick (1994) as stated in Messenger Davies and Mosdell (2006) as 'how well the results of a study can be generalized across populations, settings and time'. When a study is externally valid, it's findings can be applied to other similar people, similar texts and similar situations which didn't take part in the study.

It should be duly noted that although a culture sets guidelines on specific user preferences which lead to differences from one culture to another, Individuals can deviate in their preferences based on, for example, their personalities and memories.

Geert Hofstede (2010) acknowledged this issue in his research and notes that some cultural relativism is necessary: "There is no escaping bias: all people develop cultural values based on their environment and early training as children. Not everyone in a society fits the cultural pattern precisely, but there is enough statistical regularity to identify trends and tendencies."

Additionally, the research conducted in this study is targeted at a random sample of respondents. The population sample can therefore be seen as fairly representative of the entire population in question. For absolute certainty however, further research is necessary.

One of the three major delimitations Sondergaard (1994) found in his content analysis of reviews written about Hofstede's research was that all data was collected between 1966 and 1973. Hofstede correlated his data to variables such as geography, economy, demographics and political indicators. 35 years later, these correlations could yield very different results. Similar accusations were made about Hall's cultural dimensions, the majority of which were described in 1976. However, Hofstede conducted a similar research to his previous study in 2001 through which he validated statements made in previous studies. He also states on his website that cultures do change on a global scale, but that in the last 30 years cultural differences have remained largely the same. Moreover, as stated by Würtz (2005), "This far, there has been no convincing demonstration that relative differences with regard to the prevailing norms in cultures do not exist in practise, and on the basis of this that Hall and Hofstede's cultural parameters should be discarded completely."

4.8.2 Internal Validity

Internal validity, according to Messenger Davies and Mosdell (2006) means 'making sure of the reliability of findings by eliminating all possible sources of error in the design of the study'.

Due to multiple choice questions used in the questionnaire ambiguity in answers has reduced considerably. Findings can therefore be considered fairly closely related to measurement objectives.

Messenger Davies and Mosdell (2006) do mention 'demand characteristics' in their description of internal validity. The term demand characteristics is explained as the researcher's bias or unconscious desire to point respondents towards particular answers or particular responses. This could have been unconsciously done within A/B questions featured in the questionnaire, as they consist out of only two statements. However a great deal of care has been taken in declaring contradicting statements. Researcher's bias can therefore theoretically be ruled out.

4.8.3 Reliability

According to Experiment-Resources.com, the idea behind reliability is that any significant results must be more than a one-off finding and be inherently repeatable.

As previously stated, whilst individuals change, culture has proven to remain relatively stable over a considerable period. Additionally, though individuals occasionally deviate from cultural patterns, all people develop cultural values based on their environment and early training as children, and there is enough statistical regularity to identify trends and tendencies. (Hofstede, 2010). The study should therefore theoretically yield roughly similar results if repeated. It should however be duly noted that the results of this study should, until repeated, be recognised as representative of only a certain population sample and a specific time period.

5.0 Presentation of Results

5.1 Demographical Data

The demographical profile targeted in this study has remained largely similar to the one defined in the research methodology. All but two respondents match the 20-40 age category, one respondent stated to be under 20 whilst another stated to be in the 40-60 age category. However, as mentioned before, the age category was only chosen because respondents between the ages of 20-40 can be assumed to be most computer and internet savvy and also more likely to buy their products online, any deviation from this age category should not affect the research, as age does not affect a person's cultural values.

Respondent's countries and therefore cultures do not vary from those determined in the research methodology.

5.2 Discussion of Results Hypothesis & Sub-Questions

5.2.1 Results pertaining to Hypothesis & Sub-Question One

Hypothesis One:

“According to Hall (1976) Low Context cultures are monochronic in time perception therefore view time as important. Consumers from a Low Context culture may therefore prefer structured and clean layouts as these kinds of layouts will require less time and effort from an average user to accomplish or learn a task. Similarly, consumers from cultures with a high Uncertainty Avoidance according to Hofstede, placing emphasis on simplicity and clear metaphors, limited choices and restricted amounts of data, would share the same perspective. Consumers from High Context cultures, who rely on more implicit communication and context and where the web designer generally relies on the user’s patience and willingness to explore the site to seek information will not be much affected by this.”

Sub-Question One:

“Do consumers from Low Context and high Uncertainty Avoiding cultures prefer structured and clean layouts over busier grid-based layouts?”

Description of factors involved

Low Context countries used in this study are Germany, Sweden, the United States and the United Kingdom all of which appeared on the lower end of Hall’s (1990) dimension spanning from the high-context to low-context categories (see table 2.1, p. 24).

High Uncertainty Avoiding countries used in this study are Germany, South Korea and Turkey, all scoring above 50 in Hofstede’s (2005) 5 cultural dimensions model (see table 5.1). Furthermore China, India and the United states can be seen as medium Uncertainty Avoiding countries, since all scored within the range of 40 on Hofstede’s scale. Sweden and The United Kingdom, both scoring below 40 can be seen as low Uncertainty Avoiding countries.

Country	Uncertainty Avoidance
Sweden	29
The United Kingdom	35
China	40
India	40
United States	46
Germany	65
South Korea	85
Turkey	85

Table 5.1: Uncertainty Avoiding countries on a scale from low- to high Uncertainty Avoidance.

Both question one and two of the questionnaire pertain to hypothesis and research question one:

Q1: I'd rather buy something from a website with a more lively, grid based layout.
Q2: I prefer commercial websites which are clear and functional and don't provide too many distractions.

Figure 5.1 Demonstrates the answers in percentages to question one. Figure 5.2 demonstrates the answers in percentages to question two.

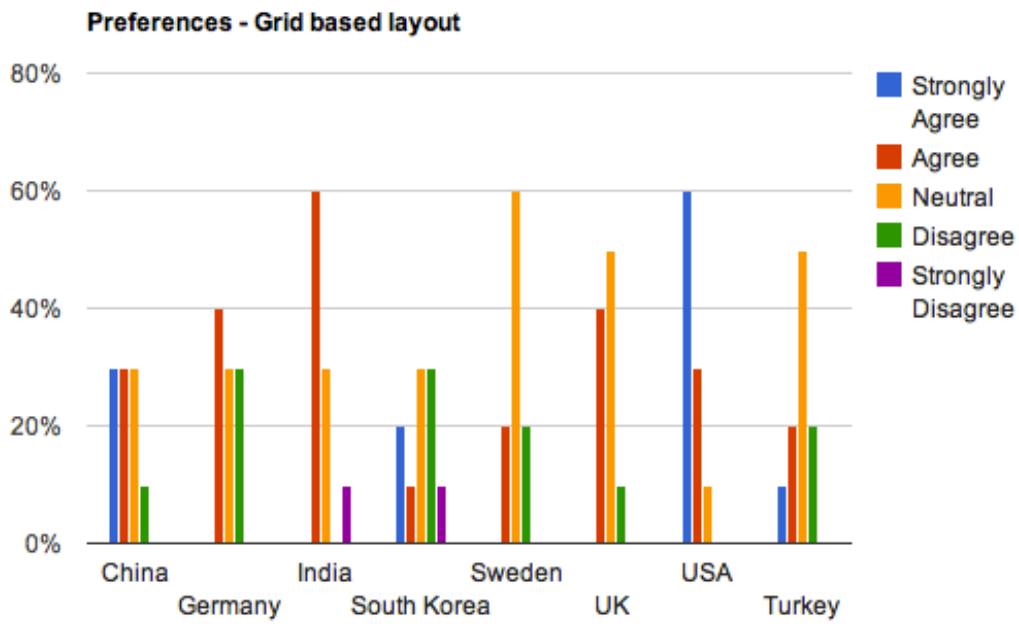


Figure 5.1: Preferences in percentages for a grid based layout per country.

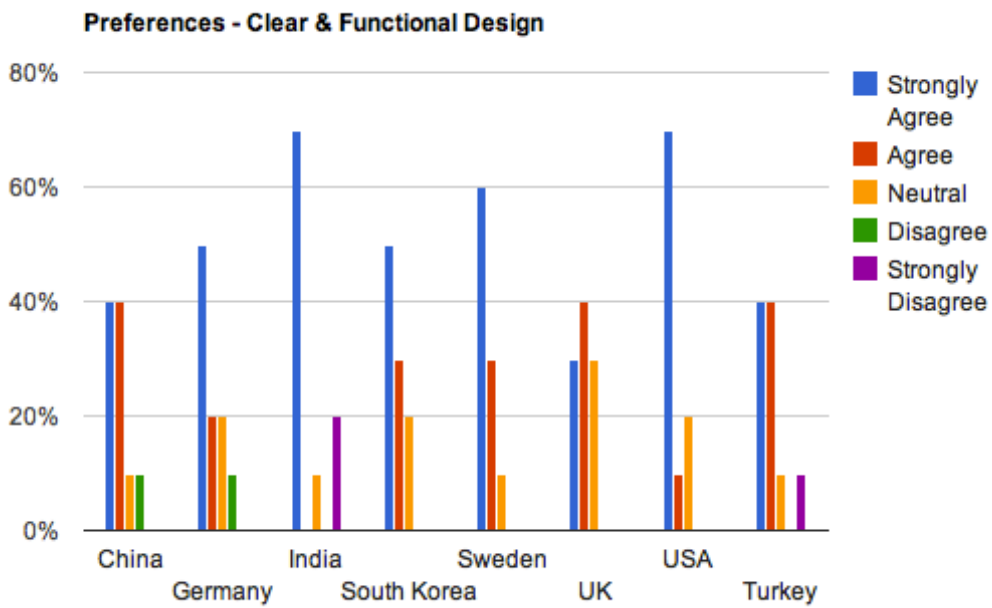


Figure 5.2: Preferences in percentages for a clear and functional design per country.

Discussion

Results yielded by both questions appear very varied. Although Sweden, Germany and the United Kingdom seem more neutral on the topic of grid-based layouts (nobody strongly disagrees and agree remains below 40%) The United States surprisingly has the highest percentage relating to 'Strongly Agree' on the Likert Scale. The North-American preference for the grid-based layout might however be explained by the fact that the layout, as stated before, has been used for numerous other well-known american websites. Additionally, Amazon.com, one of the most well-known websites in the United States, was used as an example. Figure 5.2 clearly shows most countries prefer a clear and functional design. India and Turkey, both high-context countries, are the only countries showing a percentage of 'Strongly disagree' however, and again together with the United States, India also belongs to the group of most positive countries with 70% of respondents choosing 'strongly agree'. Results detailed in figure 5.1 are too mixed for a clear conclusion on the correlation between culture and layout preference. Results shown in figure 5.2 indicate that there is no correlation between culture and a preference for clear and functional design.

From these mixed results therefore, we can derive that layout preference is not culturally determined. Additionally, it can also be derived that there is a high chance a grid-based layout and a clear and functional layout are viewed as similar.

High Uncertainty Avoiding countries were thought to have a preference for clear and functional layouts emphasis on simplicity and clear metaphors, limited choices and restricted amounts of data. High Uncertainty Avoiding countries involved in this study are Germany, South Korea and Turkey. Although these countries do show a preference for clear and functional layouts, their sentiments are not as clearly expressed as in countries like the United States, Sweden or India. Turkey even has 10% which strongly disagrees with a preference for clear and functional design in figure 5.2 whilst 10% of Germans disagrees. South Korea shows very varied results in the table 5.1, relating to a preference for grid layouts, though most people tend to be neutral or disagree. Germany has slightly similar results, though a higher percentage of respondents chose to agree with a preference for grid-based layouts. Turkey has a high percentage of neutral answers. Similar to the Low Context country comparison, the results deviate significantly. Although answers appear to be similar to high Uncertainty Avoiding country expectations, answers to both questions are still too varied for a clear conclusion.

5.2.2 Results pertaining to Hypothesis & Sub-Question Two

Hypothesis Two:

“Low Context and Individualistic societies may have a preference for fewer colours to improve clarity and convey symbolism whilst High Context, Collectivistic societies might prefer a more frequent use of colour since, as stated in Würtz (2005) “In High Context cultures priority is given to the aesthetic experience of the website rather than the informative function”. Feminine cultures, like Collectivistic cultures also place an emphasis on visual aesthetics and can therefore also be argued to prefer a more frequent use of colour (Marcus & Gould, 2001).”

Sub-Question Two:

“Do Low Context and Individualistic societies show a preference for fewer colours whilst High Context and Feminine cultures show a preference for a more frequent use of colour?”

Description of factors involved

Low Context countries participating in this study are Germany, Sweden, the United Kingdom and the United States. Participating High Context countries are China, India, South Korea and Turkey. Feminine cultures, as determined by Hofstede (2005) are: Sweden, South Korea and Turkey all of which have scored below 50 in Hofstede’s 5 dimensional model. Participating country scores on Hofstede’s Masculinity vs. Femininity dimension can be viewed in table 5.2.

Country	Masculinity vs. Femininity
Sweden	5
South Korea	39
Turkey	45
India	56
United States	62
Germany	66
China	66
The United Kingdom	66

Table 5.2: Masculine vs. Feminine countries on a scale from low (Feminine) to high (Masculine.)

Hypothesis and Sub-Question two correlate with question 9 in the questionnaire:

Q9: Pick the statement which suits you best:

- A. I prefer buying from websites which don't use too many colours (more whitespace) in order to maintain clarity.
- B. I prefer buying from websites which use a lot of colour in order to express emotion.

Figure 5.3 details the preferences in percentages for websites using more whitespace versus websites using more colour.

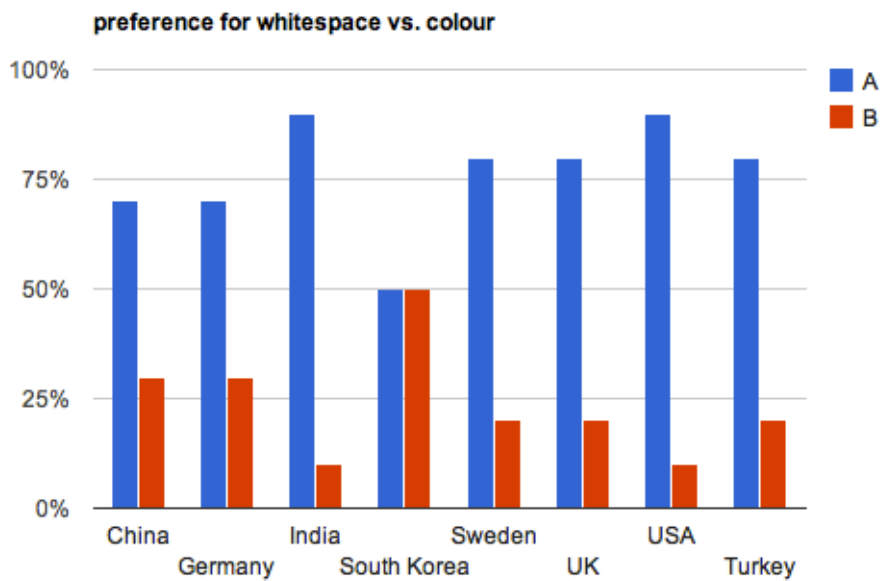


Figure 5.3: preferences in percentages for websites using more whitespace versus websites using more colour.

Discussion

Surprisingly, respondents from all countries show a greater preference for more whitespace in a website. The only country which is still undivided about the question is South Korea. Since South Korea is a more feminine culture, the deviation of results could be due to a cultural emphasis on visual aesthetics. However, results from Swedish respondents disprove this theory, as 80% of Swedes prefer a less frequent use of colour, and only 20% prefer a more frequent use of colour whilst Sweden is the most feminine culture used in this study. Explanations as to the popularity of whitespace and minimal use of colour can vary greatly. Additional research should be carried out in order to determine its cause.

However the results in figure 5.3 of this study show that preference of whitespace or colour is not a culturally determined factor. Additionally, based on the results yielded in this research it may be argued that the aesthetic appearance of a website, preferred by Feminine and Collectivistic cultures according to Marcus & Gould may not be dependent on colour alone.

5.2.3 Results pertaining to Hypothesis & Sub-Question Three

Hypothesis Three:

“High Uncertainty Avoiding cultures tend to show emotions more than low Uncertainty Avoiding cultures (Hofstede, 2005), it can therefore be argued that consumers from high Uncertainty Avoiding cultures would prefer more emotional colours, like red for instance, whilst low Uncertainty avoiding cultures prefer more subdued colours like blue and grey.”

Sub-Question Three:

“Do consumers from high Uncertainty Avoiding cultures prefer more emotional colours whilst consumers from low Uncertainty Avoiding cultures prefer more subdued colours?”

Description of factors involved

As previously discussed high Uncertainty Avoiding countries used in this study are Germany, South Korea and Turkey, all scoring above 50 in Hofstede’s (2005) 5 cultural dimensions model (see table 5.1). China, India and the United states can be seen as medium Uncertainty Avoiding countries, since all scored within the range of 40 on Hofstede’s scale. Sweden and the United Kingdom, both scoring below 40 can be seen as low Uncertainty Avoiding countries.

Question 12 correlates with Hypothesis and Sub-Question three:

Q12: Pick the statement which suits you best

- A. I’d rather click on buttons, links and menu’s featuring bright, primary and secondary colours which show more emotion.
- B. I’d rather click on buttons, links and menu’s featuring slightly more subdued colours like darker or greyish hues and pastels.

Figure 5.4 describes respondent preferences in percentages for websites using bright colours for user interface aspects like buttons, links and menus versus websites using subdued colours.

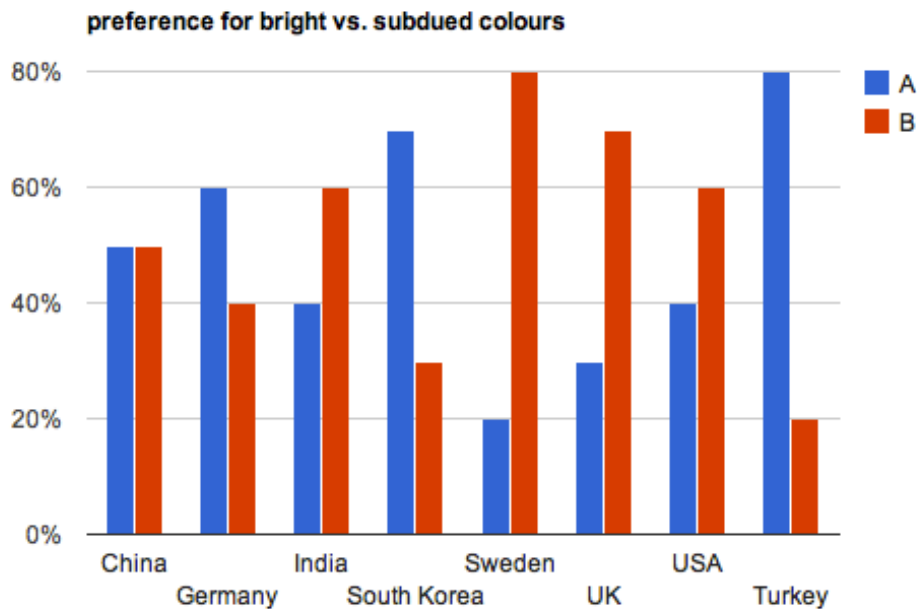


Figure 5.4: preferences in percentages for websites using bright vs. subdued colours.

Discussion

All three of the high Uncertainty Avoiding countries used in this research show top preference for buttons, links and menu's featuring bright, primary and secondary colours and therefore correlate with the hypothesis. Additionally, China, India and the United states, all countries which are more in between high and low Uncertainty Avoiding cultures, also show a correlation between results and culture. Sweden and the United Kingdom, both low Uncertainty Avoiding cultures, show the highest preference for more subdued colours. All cultures therefore pertain to the hypothesis in question. Based on these findings, it can be concluded that there is a correlation between culture (in terms of Hofstede's Uncertainty Avoidance dimension) and the preference for bright or subdued colours.

5.2.4 Results pertaining to Hypothesis & Sub-Question Four

Hypothesis Four:

“According to Würtz (2005), cultures with a low Power Distance emphasise on shallow hierarchical structures within websites. Consumers from cultures with a low Power Distance may therefore be put off by websites which open their internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs. Hofstede’s low Power Distance dimension correlates with Hall’s definition of Low Context cultures.”

Sub-Question Four:

“Are consumers from low Power Distance and Low Context cultures put off by websites which open their internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs?”

Description of factors involved

Low Context and low Power Distance countries participating in this study are Germany, Sweden, the United Kingdom and the United States. Participating High Context and high Power Distance countries are China, India, South Korea and Turkey (for individual country scores on Hofstede’s Power Distance dimension, see table 1.1).

Question 7 pertains to the current hypothesis and sub-question:

Q7: I would spend less time on a website which opens it’s internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs.

Figure 5.5 describes results in percentages yielded by question 7 per country.

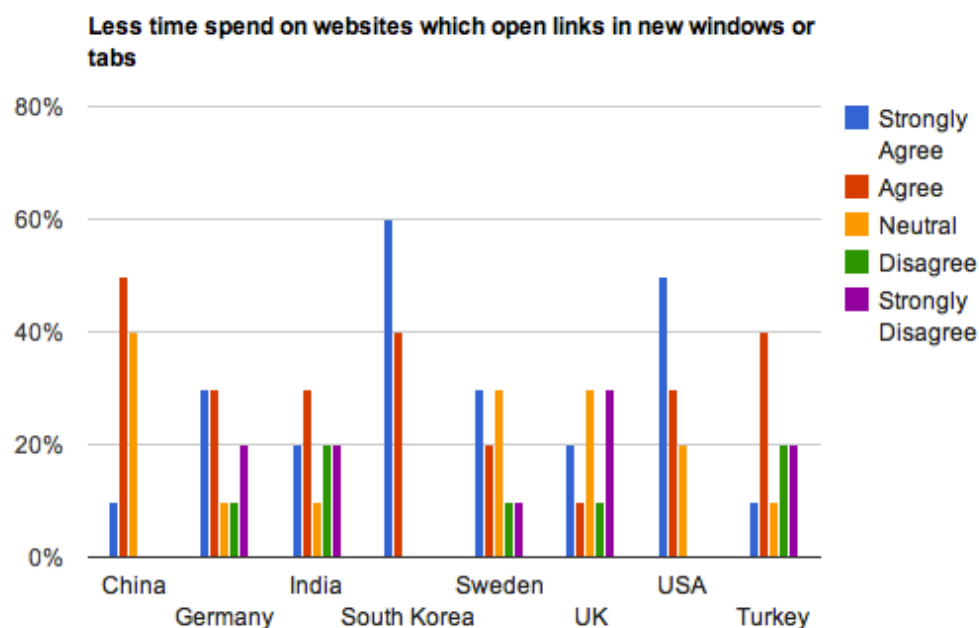


Figure 5.5: Results in percentages correlating with links opening up in new browser windows or task, per country.

Discussion

Results relating to question 7 of the questionnaire are again very divided. High Power Distance cultures like South Korea and China which, according to Marcus and Gould (2001) maintain tall hierarchical structures in their websites, seem conversely to be most averse to links opening in new windows or tabs. Preferences of Low Context and therefore low Power Distance countries are hard to determine, as there's a significant amount of deviation in answers. Results yielded by question 7 of the questionnaire used in this study can therefore be viewed as insufficient in reaching a valuable conclusion to the current sub-question and hypothesis.

5.2.5 Results pertaining to Hypothesis & Sub-Question Five

Hypothesis Five:

“Low Context and high Uncertainty Avoiding cultures may prefer a limited amount of choice in the way a consumer can add a product to their shopping basket. Uncertainty Avoiding cultures emphasise limited choices and restricted amounts of data (Marcus & Gould, 2001) whilst Low Context cultures, being monochronic in time perception, view time as an important factor (Hall, 1976). Another reason for a Low Context cultural preference is that this culture emphasises a goal-oriented, rather than a process-oriented, approach in website navigation. (Würtz, 2005). High Context cultures, being more process oriented and low Uncertainty Avoiding cultures, being used to a maximal content and choices according to Marcus & Gould (2001) may prefer more choice.”

Sub-Question Five:

“Do Low Context and high Uncertainty Avoiding cultures prefer a limited amount of choice in the way a consumer can add a product to their shopping basket whilst High Context and low Uncertainty Avoiding cultures prefer more choice?”

Description of factors involved

Germany, Sweden, the United States and the United Kingdom have been chosen as Low Context countries for this study, all of which appeared on the lower end of Hall’s (1990) dimension spanning from the high-context to low-context categories (see table 2.1, p. 24). High Context cultures used in this study are China, South Korea, India and Turkey.

High Uncertainty Avoiding countries used in this study are Germany, South Korea and Turkey, all of which scored above 50 in Hofstede’s (2005) 5 cultural dimensions model (see table 5.1). China, India and the United states can be seen as medium Uncertainty Avoiding countries, since all scored within the range of 40 on Hofstede’s scale. Sweden and the United Kingdom, both scoring below 40 can be seen as low Uncertainty Avoiding countries.

Question 3 pertains to hypothesis and sub-question five:

Q3: Pick the statement which suits you best:

- A. I’d like ‘adding a product to the shopping cart’ to be a simple and straight process, without too many options (in example: no special offers or sign up button, just a button which says ‘add to shopping cart’)
- B. I prefer being offered a little more choice in how I can buy a product, like being able to sign up first or buy the product with a special offer.

Figure 5.6 describes the preference in percentages for choice in adding a product to the shopping cart, per country.

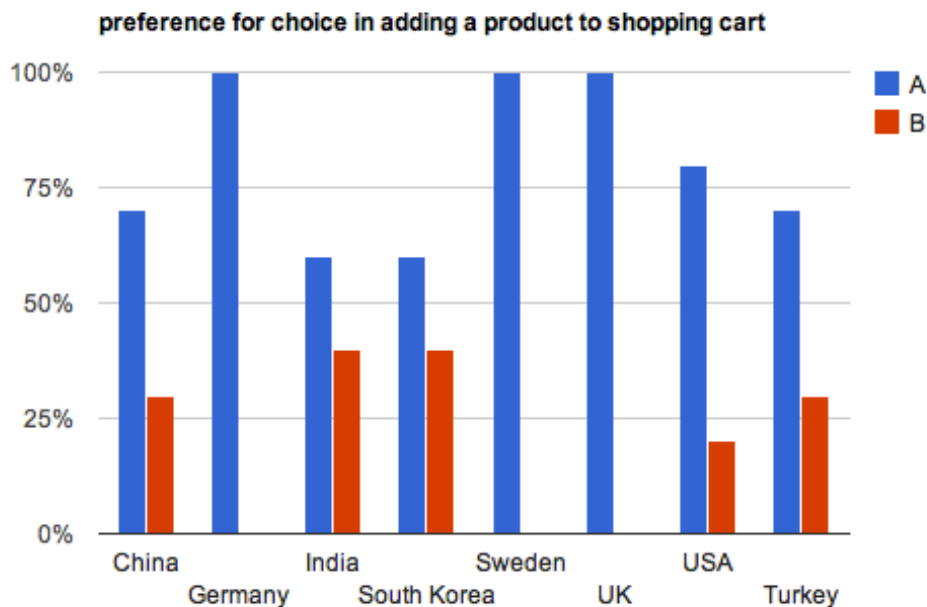


Figure 5.6 Preference in percentages for choice in adding a product to the shopping cart, per country.

Discussion

In accordance with the hypothesis, Low Context cultures prefer a limited amount of choice in adding products to a shopping cart. Germany, Sweden, the United Kingdom and the United States all scored above 80% on answer A, stating that respondents would like 'adding a product to the shopping cart' to be a simple and straight process, without too many options. In fact, the United States is the only country which shows a percentage choosing for option B. All High Context countries, though also preferring option A, all have a percentage of at least 20% opting for option B.

From the results shown in figure 5.6, it can be concluded that there is a correlation between Low Context culture, and a preference for a simple and straight process of adding a product to the shopping basket without being offered too many options. However, it should also be duly noted that results shown in figure 6.5 do not show a distinct correlation between High Context culture and a preference for more choice in the process of adding a product to the shopping basket.

Findings do however vary significantly if compared with Uncertainty Avoiding cultures, therefore it can be concluded there is no correlation between high or low Uncertainty Avoiding cultures and a preference for choice in adding a product to the shopping basket.

5.2.6 Results pertaining to Hypothesis & Sub-Question Six

Hypothesis Six:

“Consumers from Low Context cultures may show a preference for being informed of the steps to take in the checkout process when it’s initiated, as Low Context cultures place an emphasis on time and therefore the time it takes to accomplish a task as well as a goal oriented approach in executing a goal or task (Würtz, 2005). The preference of Low Context cultures for a clear and detailed explanation of the navigation process can also be explained by Hall’s (1976) message speed dimension: in cultures based on fast messages, information should be easily decoded and acted on. Würtz (2005) argues that the message speed dimension is apparent in the transparency of a website, implying the amount of effort expected from the visitor to understand navigational clues. Masculine cultures, with an emphasis on work tasks, roles and mastery with quick results for limited tasks (Marcus & Gould, 2001) would also prefer a goal oriented approach in the checkout process.”

Sub-Question Six:

“Do Low Context and Masculine cultures show a preference for being informed of the steps to take in the checkout process when it’s initiated?”

Description of factors involved

As previously described, Low Context cultures utilised in this study are Germany, Sweden, the United Kingdom and the United States. Masculine cultures, as defined by Hofstede (2005) are India, the United States, Germany, China and the United Kingdom, all of which scored above 50 in Hofstede’s (2005) Masculinity vs. Femininity dimension. For an overview of participating country scores on Hofstede’s Masculinity vs. Femininity dimension see table 5.2.

Question 4 of the questionnaire used for this study correlates to hypothesis and sub-question six:

Q4: I want to be informed of the steps I have to take to complete the checkout process before I initiate it.

Figure 5.7 details the preference in percentages for being informed of the steps required to complete the checkout process before it’s initiated.

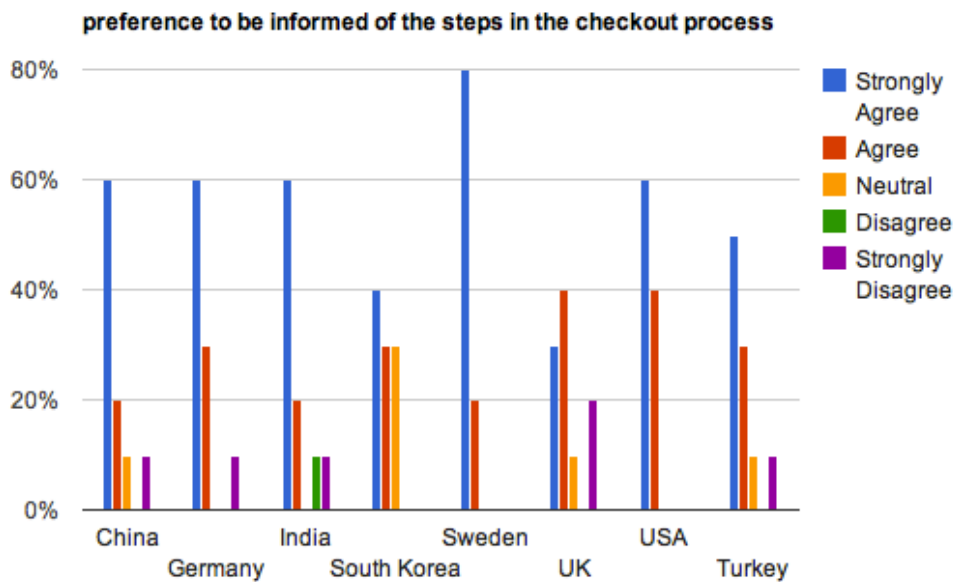


Figure 5.7: Preferences in percentages of being informed of the steps required to complete the checkout process before it's initiated.

Discussion

The High Context versus Low Context cultural comparison with this question yields too varied an answer range for any conclusion. As shown in figure 5.7, Low Context countries appear to generate a similar variety in answers as High Context countries. Sweden and the United States for example have no negative answers, however neither does South Korea. Results by masculine countries China, Germany, India and the United States do look more alike in percentages and all have the second highest percentage of respondents stating 'strongly agree', after Sweden. However China, Germany and India also show negative answers. Results shown in table 5.7 can therefore not contribute to a reliable conclusion.

5.2.7 Results pertaining to Hypothesis & Sub-Question Seven

Hypothesis Seven:

“Categorisation and sorting options may be preferred by high Uncertainty Avoiding cultures as these cultures place an emphasis on simplicity, limited choices and restricted amounts of data (Marcus & Gould, 2001). The same aspect may also be appreciated by Low Context cultures which prefer a goal-oriented instead of a process-oriented approach in website navigation (Würtz, 2005).”

Sub-Question Seven:

“Do high Uncertainty Avoiding cultures and Low Context cultures prefer Categorisation and sorting options on a commercial website?”

Description of factors involved

Low Context countries used in this study are Germany, Sweden, the United States and the United Kingdom (see table 2.1, p. 24). High Uncertainty Avoiding countries used in this study are Germany, South Korea and Turkey (see table 5.1).

Question 8 of the questionnaire used in this study pertains to hypothesis and sub-question seven:

Q8: I like it if commercial websites make frequent use of categorisation of content or offer sorting options.

Figure 5.8 describes preferences in percentages for categorisation or sorting of content.

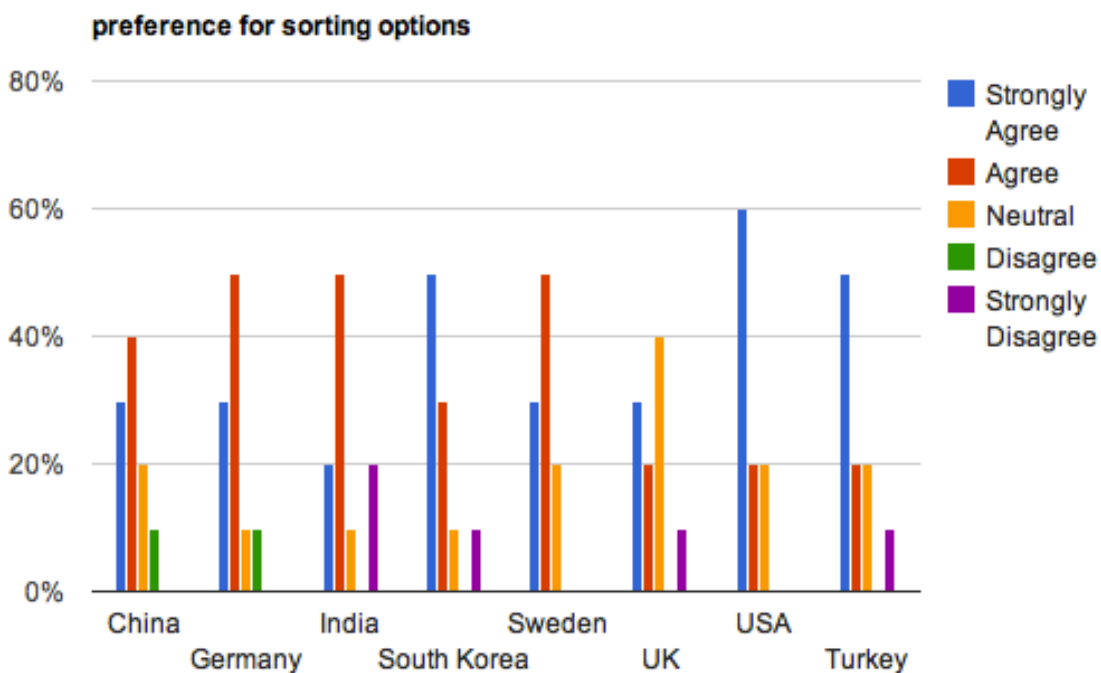


Figure 5.8: preferences in percentages for categorisation or sorting of content, per country.

Discussion

Categorisation or sorting options seem to be valued by every country involved in the research. South Korea, the United States and Turkey show significantly higher levels of 'strongly agree' however these countries cannot be grouped into any of Hall (1976) or Hofstede's (2005) cultural dimensions. Based on the results shown in figure 5.8, no correlations can be found between Low Context and high Uncertainty Avoiding cultures, and preferences for the categorisation of content.

5.2.8 Results pertaining to Hypothesis & Sub-Question Eight

Hypothesis Eight:

“Low Context, Individualistic cultures may have a preference for product images shown by themselves. High Context, Collectivistic cultures may favour images of people together with products. Individualistic (and thus Low Context) societies tend to value products and consumerism, whilst Collectivistic societies place high importance on people and relations. (Marcus & Gould, 2001) Additionally, according to Würtz, Low Context cultures favour transparency in a website which is accomplished better by a simple product image than by images of people with products.”

Sub-Question Eight:

“Do Low Context, Individualistic cultures have a preference for product images shown by themselves whilst High Context, Collectivistic cultures favour images of people together with products?”

Description of factors involved

Germany, Sweden, the United Kingdom and the United States are low context countries participating in this study. Turkey, China, South Korea and India are high context countries participating in this study (table 2.1, p. 24).

Question 10 of the questionnaire used in this study pertains to hypothesis and sub-question eight:

Q10: Pick the statement which suits you best:

- A. I prefer buying from websites which use pictures of people with the product because it gives the product a more emotional value.
- B. I prefer buying from websites which use images of products alone, and which therefore give a clear overview of the product.

Figure 5.9 details the preference in percentages for the use of use of images detailing people with the product or images detailing solely the product, per country.

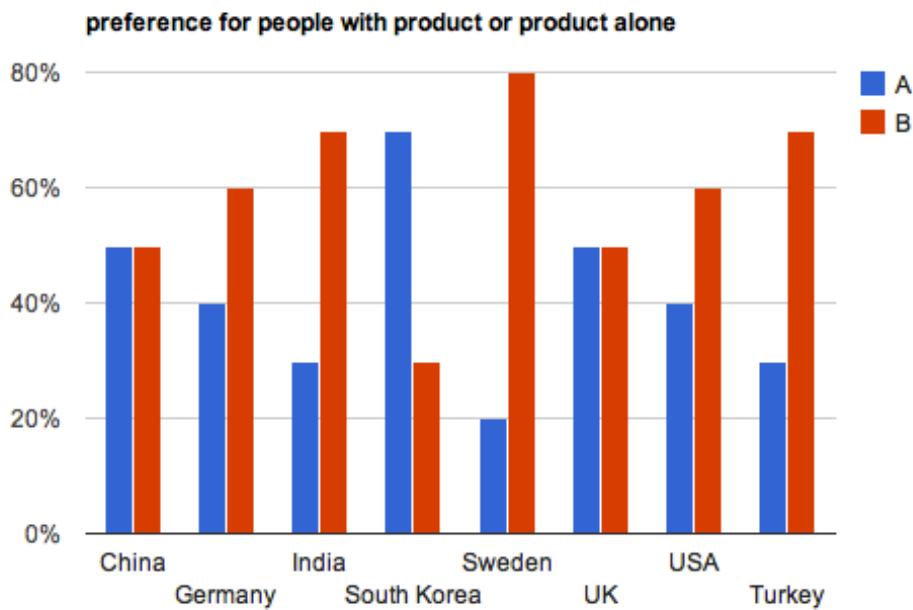


Figure 5.9: Preference in percentages for the use of images detailing people with the product or images detailing solely the product, per country.

Discussion

In general figure 5.9 details a preference for product images alone. Surprisingly, the United Kingdom, a Low Context country, scored equally on both answers. South Korea, a High Context country is the only country of which the majority prefers buying from websites which use pictures of people in combination with the product. Results yielded in this research however are not sufficient to conclude a correlation does or does not exist between High or Low Context culture and a preference for the use of images detailing people with a product or the product alone.

5.2.9 Results pertaining to Hypothesis & Sub-Question Nine

Hypothesis Nine:

“High Context cultures may show a preference for symbols, images or metaphors as a product description whilst Low Context cultures may prefer explicit text. According to Hall (1976), “the mass of information in Low Context cultures is vested in explicit code” therefore a product description featuring explicit text might seem more understandable and trustworthy. High Context cultures rely more on non verbal communication and use many covert and implicit messages, with use of metaphor and reading between the lines according to Hall (1976). Additionally, Würtz (2005) states that “high-context cultures place greater confidence in the non verbal aspects of communication than the verbal aspects. Face to face communication in high-context cultures is therefore characterised by an extensive use of non-verbal strategies for conveying meanings. These strategies usually take the shape of behavioural language, such as gestures, body language, silence, proximity and symbolic behaviour.”

Sub-Question Nine:

“Do High Context cultures show a preference for symbols, images or metaphors as a product description whilst Low Context cultures prefer explicit text?”

Description of factors involved

High Context countries used in this study are China, South Korea, India and Turkey. Low Context countries used in this study are Germany, Sweden, the United Kingdom and the United States (table 2.1, p. 24).

Question 11 of the questionnaire pertains to the current hypothesis and sub-question:

Q11: I like symbols and images for describing a product better than explicit text descriptions.

Figure 5.10 details the preference in percentages of for symbols and images in a product description versus explicit text.

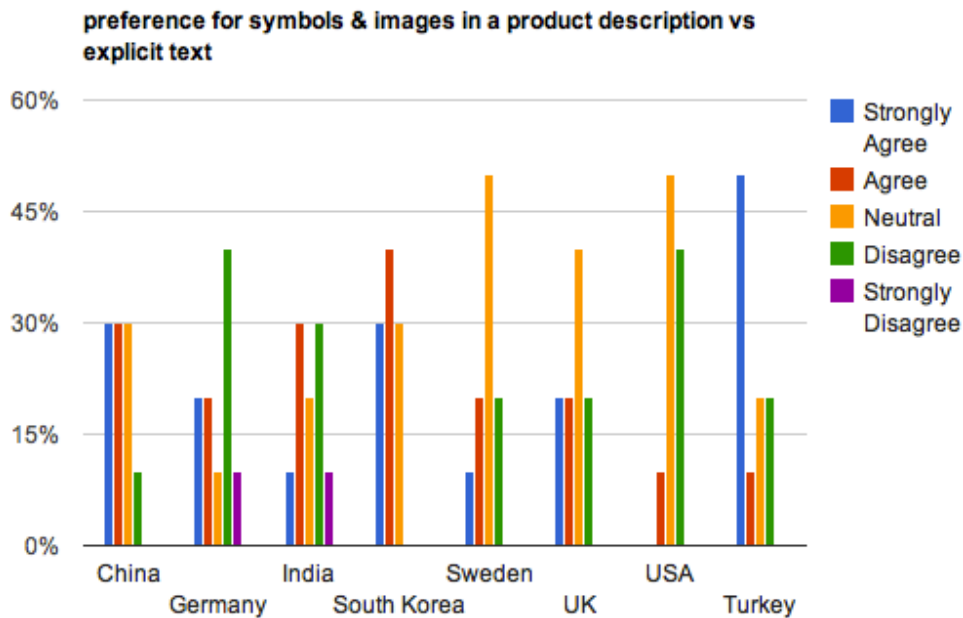


Figure 5.10: Preference in percentages for symbols and images in a product description versus explicit text

Discussion

Figure 5.10 shows some correlation with the hypothesis: Low context countries China, South Korea and Turkey show a higher preference for the use of symbols and images in comparison with other countries present in the graph. India also shows a high percentage opting for 'Agree' however, the same percentage opted for 'disagree'. A reason for India's results may be that India, like the United Kingdom, is more central on Hall's High to Low context scale. Both countries can still be considered as High and Low Context, however to lesser extent. India in particular has been argued to be closer to a Low Context culture with certain High Context cultural features. (Nishimura, Nevgi, Tella, 2008).

All Low Context countries show in figure 5.10 show a higher tendency for neutrality or disagreement. These results therefore also show similarities to the hypothesis that High Context cultures show a preference for symbols, images or metaphors as a product description whilst Low Context cultures prefer explicit text.

Based on the results pertaining to this question, it can be determined that there is a correlation between High Context Cultures and a preference for symbols and images. However it can not be stated that Low Context cultures show a preference for explicit text, since three out of four low context cultures opted for 'neutral'.

5.2.10 Results pertaining to Hypothesis & Sub-Question Ten

Hypothesis Ten:

“High Uncertainty Avoiding cultures may prefer help systems which solely focus on reducing error (how) whilst low Uncertainty Avoiding cultures might prefer help systems which explain underlying principles and the workings of the website (why). According to Marcus & Gould (2001) high Uncertainty Avoiding cultures emphasise restricted amounts of data to maintain simplicity. The same authors have stated that low Uncertainty Avoiding cultures seem to value more complexity with maximal content and choices and mental models and help systems which focus on understanding underlying concepts rather than narrow tasks.”

Sub-Question Ten:

“Do High Uncertainty Avoiding cultures prefer help systems which solely focus on reducing error (how) whilst low Uncertainty Avoiding cultures prefer help systems which explain underlying principles and the workings of the website (why)?”

Description of factors involved

High Context countries used in this study are China, South Korea, India and Turkey. Low Context countries used in this study are Germany, Sweden, the United Kingdom and the United States. (see table 2.1, p. 24). High Uncertainty Avoiding countries used in this study are Germany, South Korea and Turkey. China, India and the United states can be seen as medium Uncertainty Avoiding countries, since all scored within the range of 40 on Hofstede’s scale. Sweden and the United Kingdom, both scoring below 40 can be seen as low Uncertainty Avoiding countries (see table 5.1).

Question 6 correlates with hypothesis and sub-question 10:

Q6: Pick the statement which suits you best:

- 1 I prefer help systems which aid me directly with my problem via a clear and concise message.
- 2 I prefer help systems which, besides helping me with my problem, explain how things work on the website (the underlying principles).

Figure 5.11 details help system preference in percentages per country.

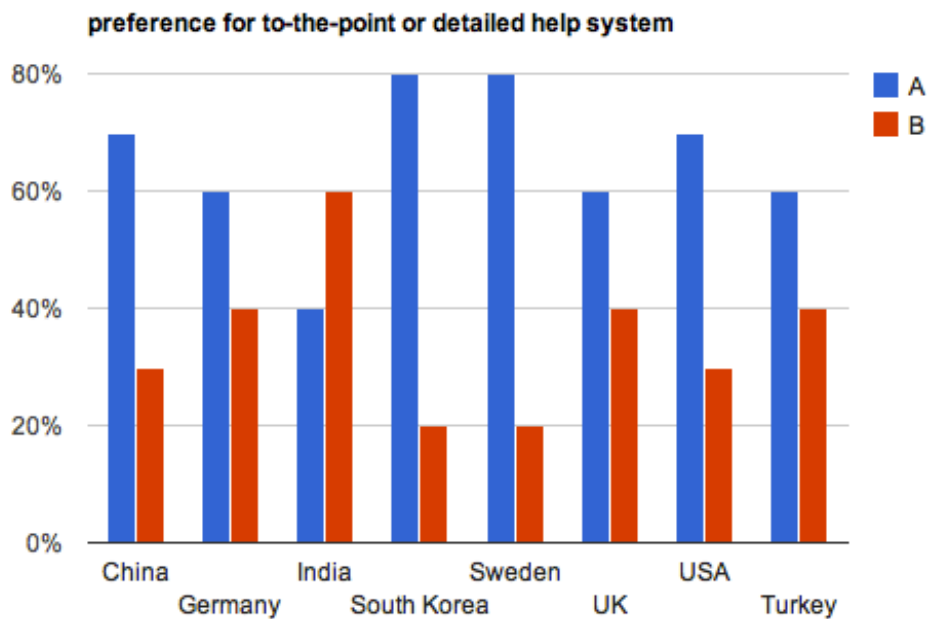


Figure 5.11: help system preference in percentages per country.

Discussion

Surprisingly, most countries show a higher preference for a concise and to-the-point help system. India is the only country showing a greater preference for a detailed help system, explaining the underlying principles. A comparison between High and Low Context countries yields no correlation between culture and help system preference and, unfortunately neither does a comparison between high and low Uncertainty Avoiding countries. Based on results shown in figure 5.11 it can therefore be concluded that there is no correlation between high and low Uncertainty Avoiding cultures and preference for a concise or detailed help system.

5.2.11 Results pertaining to Hypothesis & Sub-Question Eleven

Hypothesis Eleven:

“Flexibility in navigation without having to go through tall website hierarchies (having to go through many pages before the objective is reached) is likely preferred by consumers from a Low Context and low Power Distance culture. Low Context Cultures emphasise transparency in a website as it offers a time-saving quality (Würtz, 2005) whilst Low Power Distance cultures give prominence to transparency and implicit freedom to roam (Marcus & Gould, 2001).”

Sub-Question Eleven:

“Is Flexibility in navigation without having to go through tall website hierarchies (having to go through many pages before the objective is reached) preferred by consumers from a Low Context and low Power Distance culture?”

Description of factors involved

Hall’s (1976) definition of Low Context Culture correlates with Hofstede’s dimension of Low Power Distance. Countries on the lower end of Hall’s scale and scoring lower than 50 in Hofstede’s model are Sweden, Germany, the United Kingdom and the United States (for individual country scores on Hofstede’s Power Distance dimension, see table 1.1).

Question 5 in the questionnaire pertains to the current hypothesis and sub-question:

Q5: I need the checkout process at a commercial website to be flexible, with a menu, search or navigation buttons always close at hand, instead of for example just a next button.

Figure 5.12 describes the preference in percentages for flexibility in the checkout process

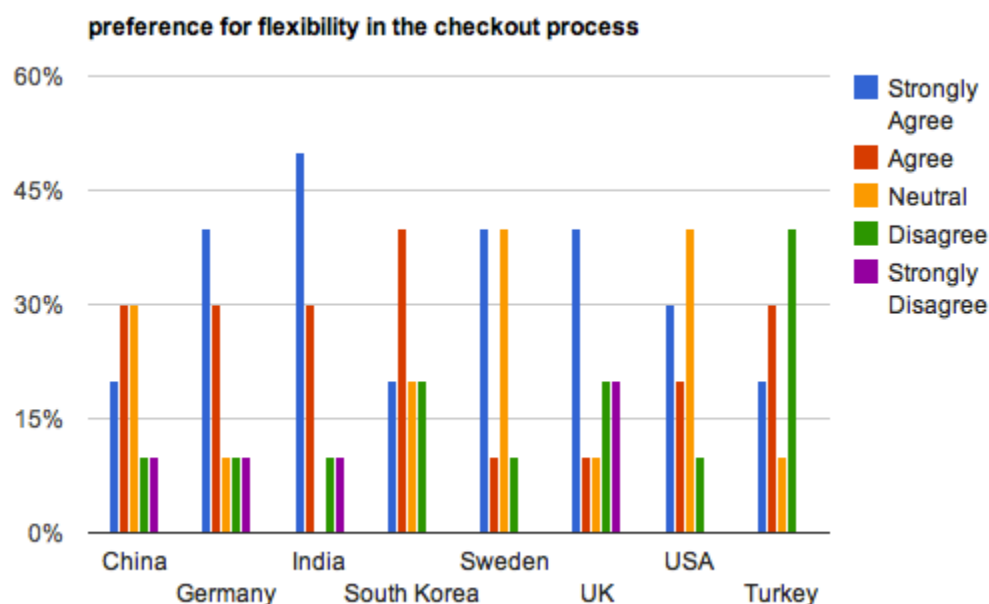


Figure 5.12: preference in percentages for flexibility in the checkout process, per country

Discussion

A comparison between High and Low Context and Power Distance countries and the preference for flexibility in the checkout process yields mixed results. Figure 5.12 shows most countries to have a preference for flexibility in the checkout process with Turkey as the only exception. Turkey's high preference for less flexibility and fewer interface elements within the checkout process could have been explained had the country shown a high preference for clear and functional design in earlier questions, however, it has not. The reason for Turkey's contrasting results require therefore additional research. India's high preference for flexibility in the checkout process is also surprising taking into account that India is the country with the second highest Power Distance in this research with a score of 77 on Hofstede's (2005) Power Distance dimension (table 1.1). Based on results yielded by the questionnaire regarding this hypothesis and sub-question, we can determine that there is no correlation between Low Context and low Power Distance cultures and a preference for flexibility in the checkout process.

5.2.12 Results pertaining to Hypothesis & Sub-Question Twelve

Hypothesis Twelve:

“Long Term Oriented cultures may show a preference for consumer-based information like reviews, recommendations and ratings as according to Marcus and Gould (2001) these cultures would emphasise on relationships as a source of information and credibility. Short Term Oriented cultures however prefer content focused on truth and certainty of beliefs and view rules as a source of information and credibility (Marcus & Gould, 2001). These cultures may therefore prefer explicit information on the product, like product specifications.”

Sub-Question Twelve:

“Do Long Term Oriented cultures show a preference for consumer-based information like reviews, recommendations and ratings whilst Short Term Oriented cultures prefer content focused on truth and certainty of beliefs?”

Description of factors involved

Long-Term Oriented countries, as defined by Hofstede (2005) are India, South Korea and China. Short Term Oriented countries are Sweden, the United Kingdom, the United States and Germany. Turkey was not defined in this dimension. Table 5.3 describes Long versus Short-Term Oriented countries on a scale from low (Short-Term Orientation) to high (Long-Term Orientation)

Country	Long vs. Short Term Orientation
Turkey	n/a
Sweden	20
the United Kingdom	25
the United States	29
Germany	31
India	61
South Korea	75
China	118

Table 5.3: Long vs. Short Term Oriented countries on a scale from low (Short-Term Orientation) to high (Long Term Orientation)

Both question 13 and 14 in the questionnaire relate to the hypothesis and sub-question discussed in this chapter:

Q13: I emphasise consumer-based information like reviews, ratings and recommendations when choosing a product.

Q14: I emphasise facts like product specifications when choosing a product
Do you have any comments regarding this questionnaire?

Figure 5.12 describes an emphasis on consumer-based information when choosing a product, in percentages, per country whilst figure 5.13 describes an emphasis on facts when choosing a product in percentages, per country.

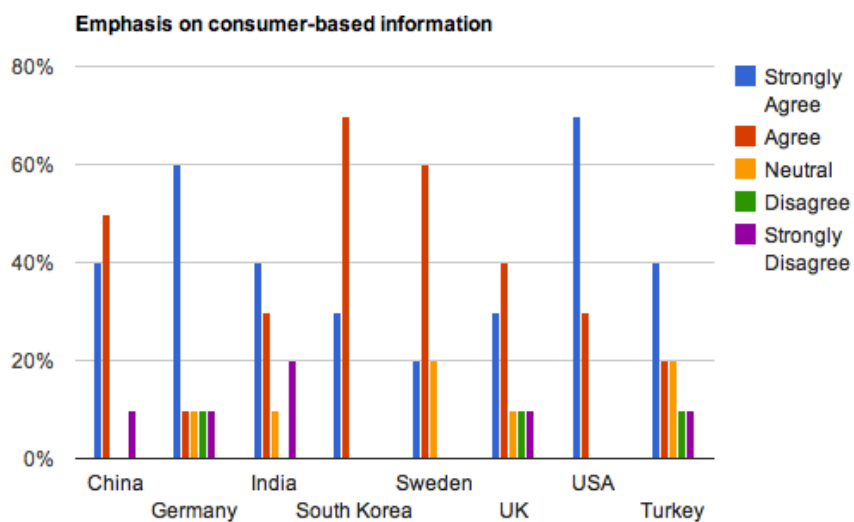


Figure 5.13: Emphasis on consumer-based information when choosing a product

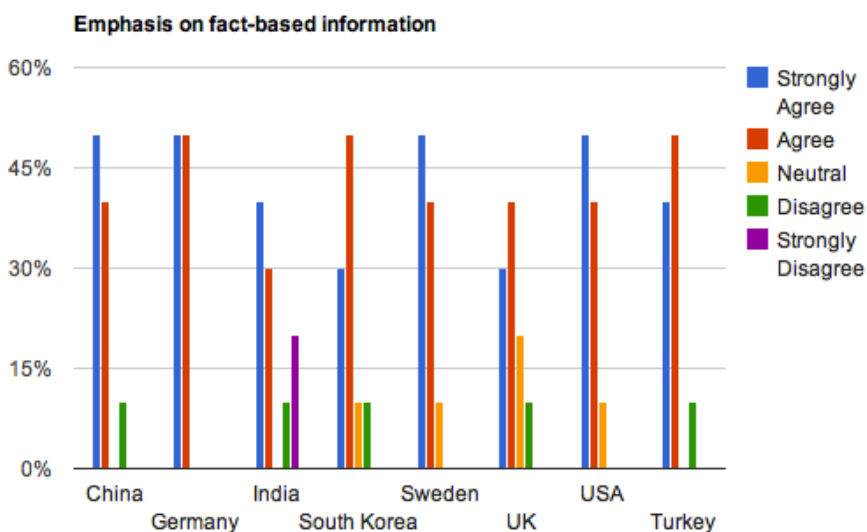


Figure 5.14: Emphasis on factual information when choosing a product

Discussion

Both figure 5.13 and Figure 5.14 show diverging results. However, figure 5.14 does detail more similarity in positive answers. The same figure also demonstrates a percentage of 'disagree' for Long Term Oriented India, South Korea and China, however a similar percentage is shared by the United Kingdom and Turkey, both Short Term Oriented countries.

On overall both figure 5.13 and figure 5.14 show a higher frequency of positive answers for every country, meaning that all cultures base their choice of product both on factual information and consumer-based information. Whether there is a clear preference per country for one or the other can not be derived from results.

5.3 Discussion of Results Research Question

From the analysis executed in chapter 5.3 we can derive the following correlations:

1. High and low Uncertainty Avoiding cultures and colour preference: consumers from high Uncertainty Avoiding cultures prefer more emotional colours whilst consumers from low Uncertainty Avoiding cultures prefer more subdued colours.
2. Low Context culture, and a preference for a simple and straight process of adding a product to the shopping basket without being offered too many options.
3. High Context Cultures and a preference for symbols and images.

No correlations have been found between the following factors:

1. Low Context and high Uncertainty Avoiding cultures a preference for clear and functional design.
2. High and Low Context culture and a preference for frequent use of whitespace or colour.
3. Low Context and high Uncertainty Avoiding cultures, and preferences for the categorisation of content.
4. High and low Uncertainty Avoiding cultures and preference for a concise or detailed help system.
5. Low Context and low Power Distance cultures and a preference for flexibility in the checkout process.

Results yielded for the following sub-questions were insufficient in reaching a conclusion:

1. Sub-question 4: Are consumers from low Power Distance and Low Context cultures put off by websites which open their internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs?
2. Sub-question 6: Do Low Context and Masculine cultures show a preference for being informed of the steps to take in the checkout process when it's initiated?
3. Sub-question 8: Do Low Context, Individualistic cultures have a preference for product images shown by themselves whilst High Context, Collectivistic cultures favour images of people together with products?

Although results show that cultural-based preferences can guide individual preferences in some circumstances, too many correlations, detailing several different aspects of the conversion funnel, have been disproved to conclude culture-based preferences will have an influence on consumer behaviour. The answer to the main research question:

“Does culture have an influence on consumer preferences for an online, commercial User Interface design and do these preferences affect consumer behaviour?”

is therefore twofold: yes, culture does have an influence on consumer preferences for an online commercial User Interface design. However, according to the results yielded in this study, most preferences relating to the User Interface design of the conversion funnel of a commercial website are guided by other factors than culture. Culture will therefore not have a significant effect on consumer behaviour.

6.0 Conclusion

6.1 Conclusion of the study

Based on the results yielded in this study, we can conclude that culture does have an influence on user preferences relating to the User Interface design of the conversion funnel of a commercial website. Results found in this study, however, detail a higher influence of other factors than culture on consumer preferences. Culture-based consumer preferences therefore do not have a considerable effect on consumer behaviour. As to the source of other factors affecting consumer preferences and behaviour, various studies have been done on this subject in the fields of marketing and consumer behaviour.

Although the study has shown culture has but a limited effect on consumer behaviour, it must be duly noted that the study also dealt with a limited population sample and only several User Interface aspects relating to the entire User Interface of a website. Additional research is required to prove or disprove the full effect of culture on consumer behaviour in an online, commercial setting.

6.2 Recommendations

This chapter will answer the Advisory Question asked at the start of this research:

When targeting an international audience, should web- and User Interface designers for commercial websites take cultural factors into account?

Results found in this study suggest cultural preferences do not have a significant effect on consumer behaviour and therefore User Interface aspects don't have to be adjusted to cultural preference. However, as stated by Hofstede (2010) "cultural trends and tendencies should not be treated as defective or used to create negative stereotypes but recognised as different patterns of values and thought. In a multi-cultural world, it is necessary to cooperate to achieve practical goals without requiring everyone to think, act, and believe identically". It is therefore always important for web- and User Interface designers to know their target group, and keep their cultural preferences in mind, even if not acting on them.

6.3 Suggestions for Improvement

Unfortunately the answers yielded by the research in this study were insufficient for reaching a valid conclusion to several hypothesis and research questions. A repetition of this study could be carried out using a larger sample of the population and a Likert Scale approach to multiple choice questions for more accurate and more general results. Additionally, the study could be repeated using a similar population sample but solely an A/B approach to multiple choice questions; an approach which would generate the most accurate results for a limited population sample.

6.4 Suggestions for Further Research

As this study only focused on the conversion funnel of a commercial website, supplementary research could focus on further exploration of communication strategies present on websites. Research could also be focused on communication strategies of non commercial websites in combination with culture.

To determine the validity of results found in this study either a more qualitative study could be carried out (using, for example, interviews) or this study could be repeated, either with the same analysis, an analysis of Amazon websites over time or with a different commercial website.

Finally, further research could focus on broadening or changing the target group and population sample used in this study.

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APPENDICES

Appendix A: Country Scores on Hofstede's (1994) Cultural Dimensions

ctr	country	pdi	idv	mas	uai	ltowvs	ivr
AFE	Africa East	64	27	41	52	32	40
AFW	Africa West	77	20	46	54	9	78
ALB	Albania					61	15
ALG	Algeria					26	32
AND	Andorra						65
ARA	Arab countries	80	38	53	68	23	34
ARG	Argentina	49	46	56	86	20	62
ARM	Armenia					61	
AUL	Australia	36	90	61	51	21	71
AUT	Austria	11	55	79	70	60	63
AZE	Azerbaijan					61	22
BAN	Bangladesh	80	20	55	60	47	20
BLR	Belarus					81	15
BEL	Belgium	65	75	54	94	82	57
BEF	Belgium French	67	72	60	93		
BEN	Belgium Netherl	61	78	43	97		
BOS	Bosnia					70	44
BRA	Brazil	69	38	49	76	44	59
BUL	Bulgaria	70	30	40	85	69	16
BUF	Burkina Faso					27	18
CAN	Canada	39	80	52	48	36	68
CAF	Canada French	54	73	45	60		
CHL	Chile	63	23	28	86	31	68
CHI	China	80	20	66	30	87	24
COL	Colombia	67	13	64	80	13	83
COS	Costa Rica	35	15	21	86		
CRO	Croatia	73	33	40	80	58	33
CYP	Cyprus						70
CZE	Czech Rep	57	58	57	74	70	29
DEN	Denmark	18	74	16	23	35	70
DOM	Dominican Rep					13	54
ECA	Ecuador	78	8	63	67		
EGY	Egypt					7	4
SAL	El Salvador	66	19	40	94	20	89
EST	Estonia	40	60	30	60	82	16
FIN	Finland	33	63	26	59	38	57
FRA	France	68	71	43	86	63	48
GEO	Georgia					38	32
GER	Germany	35	67	66	65	83	40
GEE	Germany East					78	34
GHA	Ghana					4	72
GBR	Great Britain	35	89	66	35	51	69
GRE	Greece	60	35	57	112	45	50
GUA	Guatemala	95	6	37	101		
HOK	Hong Kong	68	25	57	29	61	17
HUN	Hungary	46	80	88	82	58	31
ICE	Iceland					28	67
IND	India	77	48	56	40	51	26
IDO	Indonesia	78	14	46	48	62	38
IRA	Iran	58	41	43	59	14	40

IRQ	Iraq					25	17
IRE	Ireland	28	70	68	35	24	65
ISR	Israel	13	54	47	81	38	
ITA	Italy	50	76	70	75	61	30
JAM	Jamaica	45	39	68	13		
JPN	Japan	54	46	95	92	88	42
JOR	Jordan					16	43
KOR	Korea South	60	18	39	85	100	29
KYR	Kyrgyz Rep					66	39
LAT	Latvia	44	70	9	63	69	13
LIT	Lithuania	42	60	19	65	82	16
LUX	Luxembourg	40	60	50	70	64	56
MAC	Macedonia Rep					62	35
MAL	Malaysia	104	26	50	36	41	57
MLI	Mali					20	43
MLT	Malta	56	59	47	96	47	66
MEX	Mexico	81	30	69	82	24	97
MOL	Moldova					71	19
MNG	Montenegro					75	20
MOR	Morocco	70	46	53	68	14	25
NET	Netherlands	38	80	14	53	67	68
NZL	New Zealand	22	79	58	49	33	75
NIG	Nigeria					13	84
NOR	Norway	31	69	8	50	35	55
PAK	Pakistan	55	14	50	70	50	0
PAN	Panama	95	11	44	86		
PER	Peru	64	16	42	87	25	46
PHI	Philippines	94	32	64	44	27	42
POL	Poland	68	60	64	93	38	29
POR	Portugal	63	27	31	104	28	33
PUE	Puerto Rico					0	90
ROM	Romania	90	30	42	90	52	20
RUS	Russia	93	39	36	95	81	20
RWA	Rwanda					18	37
SAU	Saudi Arabia					36	52
SER	Serbia	86	25	43	92	52	28
SIN	Singapore	74	20	48	8	72	46
SLK	Slovak Rep	104	52	110	51	77	28
SLV	Slovenia	71	27	19	88	49	48
SAF	South Africa					34	63
SAW	South Africa white	49	65	83	49		
SPA	Spain	57	51	42	86	48	44
SUR	Suriname	85	47	37	92		
SWE	Sweden	31	71	5	29	53	78
SWI	Switzerland	34	68	70	58	74	66
SWF	Switzerland French	70	64	58	70		
SWG	Switzerland German	26	69	72	56		
TAI	Taiwan	58	17	45	69	93	49
TAN	Tanzania					34	38
THA	Thailand	64	20	34	64	32	45
TRI	Trinidad and Tobago	47	16	58	55	13	80
TUR	Turkey	66	37	45	85	46	49
USA	U.S.A.	40	91	62	46	26	68
UGA	Uganda					24	52
UKR	Ukraine					86	14
URU	Uruguay	61	36	38	100	26	53
VEN	Venezuela	81	12	73	76	16	100

VIE	Vietnam	70	20	40	30	57	35
ZAM	Zambia					30	42
ZIM	Zimbabwe					15	28

Source: Hofstede (1994)

Appendix B: Distribution High & Low Context cultures by Copeland & Griggs (1986)

Higher context Culture	Lower Context Culture
African	American (Northern states)
Arab Countries	Australian
Brazilian	English Canadian
Chinese	English
Filipinos	German
Finnish	Irish
French Canadian	New Zealand
French	Scandinavia
Greek	
Hungarian	
Indian	
Italian	
Japanese	
Korean	
Latin Americans	
Persian	
Portuguese	
Russian	
Spanish	
Thai	
Turkish	

INTERNATIONAL QUESTIONNAIRE (VSM 94)

Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please circle one answer in each line across):

1 = of utmost importance
2 = very important
3 = of moderate importance
4 = of little importance
5 = of very little or no importance

- | | | | | | |
|---|---|---|---|---|---|
| 1. have sufficient time for your personal or family life | 1 | 2 | 3 | 4 | 5 |
| 2. have good physical working conditions (good ventilation and lighting, adequate work space, etc.) | 1 | 2 | 3 | 4 | 5 |
| 3. have a good working relationship with your direct superior | 1 | 2 | 3 | 4 | 5 |
| 4. have security of employment | 1 | 2 | 3 | 4 | 5 |
| 5. work with people who cooperate well with one another | 1 | 2 | 3 | 4 | 5 |
| 6. be consulted by your direct superior in his/her decisions | 1 | 2 | 3 | 4 | 5 |
| 7. have an opportunity for advancement to higher level jobs | 1 | 2 | 3 | 4 | 5 |
| 8. have an element of variety and adventure in the job | 1 | 2 | 3 | 4 | 5 |

In your private life, how important is each of the following to you? (please circle one answer in each line across):

- | | | | | | |
|--------------------------------------|---|---|---|---|---|
| 9. Personal steadiness and stability | 1 | 2 | 3 | 4 | 5 |
| 10. Thrift | 1 | 2 | 3 | 4 | 5 |
| 11. Persistence (perseverance) | 1 | 2 | 3 | 4 | 5 |
| 12. Respect for tradition | 1 | 2 | 3 | 4 | 5 |

INTERNATIONAL QUESTIONNAIRE (VSM 94)

13. How often do you feel nervous or tense at work?

1. never
2. seldom
3. sometimes
4. usually
5. always

14. How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?

1. very seldom
2. seldom
3. sometimes
4. frequently
5. very frequently

To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):

- 1 = strongly agree
2 = agree
3 = undecided
4 = disagree
5 = strongly disagree

15. Most people can be trusted 1 2 3 4 5

16. One can be a good manager without having precise answers to most questions that subordinates may raise about their work

17. An organization structure in which certain subordinates have two bosses should be avoided at all costs

18. Competition between employees usually does more harm than good

19. A company's or organization's rules should not be broken - not even when the employee thinks it is in the company's best interest	1	2	3	4	5
---	---	---	---	---	---

20. When people have failed in life
it is often their own fault

INTERNATIONAL QUESTIONNAIRE (VSM 94)

Some information about yourself (for statistical purposes):

21. Are you:

1. male
2. female

22. How old are you?

1. Under 20
2. 20-24
3. 25-29
4. 30-34
5. 35-39
6. 40-49
7. 50-59
8. 60 or over

23. How many years of formal school education (or their equivalent) did you complete (starting with primary school)?

1. 10 years or less
2. 11 years
3. 12 years
4. 13 years
5. 14 years
6. 15 years
7. 16 years
8. 17 years
9. 18 years or over

24. If you have or have had a paid job, what kind of job is it / was it?

1. No paid job (includes full-time students)
2. Unskilled or semi-skilled manual worker
3. Generally trained office worker or secretary
4. Vocationally trained craftsperson, technician, informatician, nurse, artist or equivalent
5. Academically trained professional or equivalent (but not a manager of people)
6. Manager of one or more subordinates (non-managers)
7. Manager of one or more managers

25. What is your nationality?

26. What was your nationality at birth (if different)?

Thank you very much for your cooperation!

Appendix D: High and Low Context Questionnaire, Hall (1986) as stated in Meijer (2007).

1. Insults to our honour are not always important to bother about.
2. It is all right for people to raise questions about even the most sacred matters.
3. Learning new ways to think does not excite me very much.
4. I have difficulty thinking in new and unfamiliar situations.
5. I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something.
6. In general, it is more important to understand my inner self than to be famous, powerful, or wealthy.
7. It is very important to me to feel I am part of a group.
8. I often feel left out of things going on around me.
9. Everything is changing too fast today.
10. My social status is an important part of my life.
11. A person's word is his bond and you need not spell out the details to make him behave as promised.
12. A person cannot think unless he/she can put it into words.
13. It is not wise to sacrifice one's interests for the benefit of the organisation he / she belongs to.
14. Being able to work in harmony with others should at times come before doing the job well.
15. The primary responsibility for a mistake in an organisation is on the supervisor rather than on the subordinate who actually made it.
16. I conform to social norms even when they conflict with my personal desires.

Appendix E: Questionnaire and cover letter used in this study.

Please note: this questionnaire has been copied from an online version made in google forms, which included form verification, all questions excepting the very last were marked as required and therefore had to be answered by respondents.

Questionnaire: The Influence of culture-based user interface preferences on E-Commerce

Hello!

First of all thank you for filling out this questionnaire!

There are 13 questions in total. The total questionnaire will take about 5 minutes to complete.

The questionnaire will ask questions about what you think an e-commerce website (like amazon.com) should look like. The questions are asked in the form of statements with either a scale or multiple choice answers.

Questions which have a scale of one to five are as follows:

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

Please choose only one answer, and please answer all questions.

Comments on the questionnaire can be added in the comments box at the bottom of the form.

Part A: Demographics

1. What country are you originally from?

- ☐ China
- ☐ Germany
- ☐ India
- ☐ Sweden
- ☐ South Korea
- ☐ Turkey
- ☐ The United States
- ☐ The United Kingdom

2. What age are you?

- ☐ < 20
- ☐ 20 - 40
- ☐ 40 - 60
- ☐ 60 >

Part B: Attitude

1. I'd rather buy something from a website with a more lively, grid based layout.

For an example of a grid-based layout, see Amazon.com

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

2. I prefer commercial websites which are clear and functional and don't provide too many distractions.

For an example of a clear and functional layout, see <http://www.toast.co.uk/category/house+and+home/househome.htm>

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

3. Pick the statement which suits you best:

A. I'd like 'adding a product to the shopping cart' to be a simple and straight process, without too many options (in example: no special offers or sign up button, just a button which says 'add to shopping cart')

B. I prefer being offered a little more choice in how I can buy a product, like being able to sign up first or buy the product with a special offer.

- ☐ A
☐ B

4. I want to be informed of the steps I have to take to complete the checkout process before I initiate it.

ex. amazon.com shows you how far you are in the checkout process by stating steps like 'adress', 'wrap' and 'payment details' and highlighting where you are.

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

5. I need the checkout process at a commercial website to be flexible, with a menu, search or navigation buttons always close at hand, instead of for example just a next button.

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

6. Pick the statement which suits you best:

A. I prefer help systems which aid me directly with my problem via a clear and concise message.

B. I prefer help systems which, besides helping me with my problem, explain how things work on the website (the underlying principles).

- ☐ A
☐ B

7. I would spend less time on a website which opens it's internal links (menu links, previous and next buttons or links to extra information) in new browser windows or tabs.

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

8. I like it if commercial websites make frequent use of categorization of content or offer sorting options.

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

9. Pick the statement which suits you best:

A. I prefer buying from websites which don't use too many colours (more whitespace) in order to maintain clarity.

B. I prefer buying from websites which use a lot of colour in order to express emotion.

- ☐ A
☐ B

10. Pick the statement which suits you best:

A. I prefer buying from websites which use pictures of people with the product because it gives the product a more emotional value.

B. I prefer buying from websites which use images of products alone, and which therefore give a clear overview of the product.

- ☐ A
☐ B

11. I like symbols and images for describing a product better than explicit text descriptions.

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

12. Pick the statement which suits you best:

A. I'd rather click on buttons, links and menu's featuring bright, primary and secondary colours which show more emotion.

B. I'd rather click on buttons, links and menu's featuring slightly more subdued colours like darker or greyish hues and pastels.

- ☐ A
☐ B

13. I emphasise consumer-based information like reviews, ratings and recommendations when choosing a product.

1 2 3 4 5
Strongly Agree ☐ ☐ ☐ ☐ ☐ Strongly Disagree

14. I emphasise facts like product specifications when choosing a product.

Strongly Agree 1 2 3 4 5 Strongly Disagree
 ☐ ☐ ☐ ☐ ☐

Part C: Suggestions for Improvement

1. Do you have any comments regarding this questionnaire?

Thank you for your participation!

Appendix G: Ephorus confirmation



Beste Dolinde van Beek,

Het document is ingeleverd bij Ephorus en je docent Peter de Groot (peter.degroot@hu.nl) is hiervan op de hoogte gesteld.

Het unieke nummer dat aan het document is toegekend is:
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