

# **The Impact of Cultural Context on Corporate Web Sites: A New Zealand and South Korean Comparison**

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### Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial degree has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

A handwritten signature in cursive script, appearing to read 'Choi', is positioned above a dashed horizontal line.

Mun Ga Choi



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## Ethics Approval

I went through the Massey self assessment process and this research was judged to be low risk and approved under delegated authority from the Massey University Human Ethics Committee (please refer to the letter below).



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## **Abstract**

This study examines the impact of national culture on the content of corporate Web sites, and Web users' attitudes and intentions toward culturally congruent or incongruent Web sites. In this work, culturally bipolar clusters based on Hofstede's (1991) and Hall's (1976) cultural dimensions are conceptualised. New Zealand and Korea are chosen as representatives of the respective bipolar clusters.

This research utilises both content analysis and experimental research to provide deep insight into an area which has not yet been explored. Two studies are undertaken, Study One, focusing on the content analysis, examines how the use of visual communication and Web features differs between the two countries and between industry types. Study Two assesses Web users' predispositions to respond favourably or unfavourably to the Web site. Web users' perceptions, measured by experimental research with four culturally manipulated Web sites, are assumed to be the most suitable concept for studying the effectiveness of Web sites. Three ethnic groups are involved: Korean university students, New Zealand university students, and English-Korean bilingual university students.

The findings reveal differences in the content of corporate Web sites from the two countries. However, these results do not support the findings of extant research. The results show that the corporate Web sites studied can be distinguished not only by the two national cultures, but also by other significant factors such as a company's characteristics, its online presence strategy, national broadband infrastructure, and unique Internet culture. Additionally, the segment of young adults shows a convergence of cultural value systems which can be attributed to the fact that young adults in both countries have similar perceptions toward corporate Web sites regardless of their nationalities. Language structure and local terminology on the Web sites, however, are still important.

This study contributes to knowledge by providing critical insights into the effectiveness and cultural congruence of Web sites. The results will benefit both academics and practitioners.

*Keywords:* cultural adaptation, attitude, future intention, industry effects, Web site effectiveness.

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## Chapter 1: Introduction

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### 1.1 Background to the research

The Internet is a revolutionary invention. Enormous changes have taken place over the past two decades in the way information is exchanged and business is conducted. Sophisticated computer networks such as the Internet have created new environments and many organisations are interested in an entry to the Internet or have already spent a considerable amount of resources on a Web site's development. According to Nielsen (2001, cited in Teo et al., 2003), about 90% of current commercial Web sites have low effectiveness. Such Web sites will lead to unsatisfied users and will not become successful in the long term. It is critically significant for Web site developers and managers to recognise whether their Web sites communicate effectively with users and succeed in the digital environment.

Most of the literature has focused primarily on technical and applied issues, from the lists of dos and don'ts for general Web site design to more specific explanations of site security and usability. However, with respect to the global reach of Internet technology, the cultural aspects of Web site design are considered more controversial than technical or economical aspects. Many have speculated that its ubiquitous nature has a homogenising effect, contributing to cultural convergence or globalisation. This argument suggests cultures will become more similar since they must pass through a relatively fixed pattern of technology development (Zahir, Dobing, & Hunter, 2002). A culturally neutral environment can be used in businesses, corporations, or government settings. By contrast, computer networks cannot or do not provide a completely common and neutral environment for global international communication between all cultures. In many cases, a culture which imports a new technology from another does

not adopt the technology unchanged, along with the technology's inherent ideologies and value systems embedded in it, but instead adapts by fitting it into its own cultural values and ways of thinking and behaving (Sugimoto & Levin, 2000).

Therefore, the Internet or its usability in a business environment could not avoid the continuous debate of globalisation versus localisation. This debate has been studied primarily by marketing and advertising scholars. They have emphasised that people live with their traditional core cultures and that these cultures affect the expression of marketing communication messages and people's perceptions toward those messages. Technically speaking, given the Internet's capability, the target audience of a Web site can be scattered around the world. However, the cultural acceptability of a Web site often reduces its target audience to a much smaller group in terms of its way of life, customs and religious beliefs (Lu & Yeung, 1998). Web sites are not free from human values and activities, but need to reflect cultural sensibility and understanding of targeted audiences to be effective in communicating their messages. In spite of the extent of the Internet's potential in the marketing and advertising area and the importance of cultural aspects of the Internet, little research has been conducted in this area.

## **1.2 Research objective**

From among the various types of marketing messages on the Internet, this study focuses on corporate Web sites. Web sites have functions similar to advertisements, those basic functions of informing and persuading, so they should make users aware of not only the sites themselves but also their products or services. Main visuals on homepages and Web features of corporate Web sites will be different in accordance with their cultural contexts.

Another significant element in making Web sites effective is to realise the importance of understanding their users. When it comes to e-commerce or electronic transactions, a Web user who is successfully persuaded by a Web site might be related to a company's financial success. Web sites are required to make their users assume potential intentions and behaviours toward them. Therefore, they should be created to match the desired Web user preference and response with effective Web site design. The deeper the understanding of Web users, the more effective is the design of the site and the resulting communication.

In this study, the Republic of Korea (South Korea) and New Zealand were selected as the different cultural contexts. The two countries have similarities in national factors, including economic and technology factors. The economic factors are related to the wealth of a nation as measured by variables like GDP per capita: US\$24,084 (2006) for South Korea and US\$25,874 (2006) for New Zealand (Wikipedia, 2007). The national technology factors capture the technology infrastructure of the country which might be measured by Internet penetration rate: 66.5% for South Korea and 74.9% for New Zealand (Internet-World-Stats, 2007).

However, New Zealand and the Republic of Korea (South Korea) were representatives of Hofstede's bipolar Anglo Cluster and Asian Cluster respectively (Hofstede, 2001). According to Porter and Samovar's (1982, cited in Cho & Cheon, 2005) scale of socio-cultural differences, Western (e.g. New Zealand) and Eastern (e.g. South Korea) cultures reveal the maximum difference. Therefore, the cultural comparison of the two countries provided the solid theoretical and practical foundations of this research. South Korean university students, New Zealand university students, and South Korean international students in New Zealand (bilinguals) were asked to participate in this study.

Thus, the objectives of this research are fourfold: (1) to apply the theories of culture (e.g., Hofstede's and Hall's cultural typologies) to understanding cultural adaptation on Web sites; (b) to examine cultural differences and similarities between the content of existing corporate Web sites from the two countries; (c) to study differences and similarities of Web users' perceptions toward culturally congruent or incongruent Web sites by measuring their attitudes and future intentions; and (d) to assess whether Web users' attitudes and their future intentions are different among the three cultural groups. In this study, the definition of cultural congruity is derived from Luna, Peracchio and de Juan (2002, 2003) and means the relationship between the cultural values expressed in the Web site and those of its visitor.

### 1.3 Methodology

Most previous studies which are rather descriptive and propositional in nature, point to the general conclusion that Web site design needs to be adapted to the different cultures of its targeted Web users. There were methodological limitations and weak validity of findings in previous research since little of this has focused on industry effects on the contents of Web sites and their users' perceptions toward culturally congruent or incongruent Web sites. Therefore, this research adopts both descriptive and evaluative methods: content analysis and experimental research with an online questionnaire. The experimental research allows an opportunity for respondents to express their feelings and has been developed as a solution to the weakness of content analysis. These combined methods could provide deep insight into an area which has been unexplored in previous studies.

Two studies are performed. Study One examines cultural influence on the content of existing corporate Web sites from the two culturally different countries of New Zealand

and South Korea. This examines how the use of visual communication and Web features differs between the two countries. For analysis of the content of corporate Web sites, content analysis is adopted as an appropriate method. The first or the main graphics on homepages of corporate Web sites are chosen as the unit of analysis for visual communication while entire Web sites are viewed for analysis of Web features. The corporate Web sites studied are classified by industry type.

Study Two assesses whether and how Web users' perceptions of Web sites differ in the three ethnic groups and in four culturally manipulated Web sites. For the latter, four versions of a fictitious company's Web sites are created, based on the cultural categories defined in previous research, in which the contents of the text and graphics are all varied, but under the same structure. In Study Two, an online questionnaire is used since this is well suited for measuring the attitudes and future intentions of Web users who live in different geographic regions. The participants are connected to the online questionnaire via a hypertext link after viewing one of the manipulated corporate Web sites on the Internet. The questionnaire includes three main parts: participants' attitudes toward the Web sites, participants' values, and their demographic information.

#### **1.4 Outline of the report**

The structure of the thesis is as follows. Chapter Two explores cultural typologies, cultural studies in marketing communication, and cultural studies in Web site design giving clear verification of how the research questions have been developed and why they are significant. In discussing cultural typologies, famous typologies from the etic perspective (refer to full explanation on section 2.1.1), such as those of Hofstede and Hall, are explored. The following section investigates accumulated knowledge on cultural issues in traditional marketing and advertising research. In promoting people, or



organisations and their products, services, or ideas, communication via the Web is generally equivalent to marketing communication media such as broadcasting and printing. In the final section, literature about the cultural issues raised on Web site design is reviewed, from second language effects to cultural categories and indicators that previous scholars have used for analysing the content of Web sites.

Chapters Three and Four present hypotheses, procedures for conducting the investigation, and the empirical results in detail, for Study One and Study Two. For Study One, a chi-square test is utilised to examine group differences in the frequency of particular visuals and Web features used on the homepages of corporate Web sites, comparing the results between the two nations (New Zealand and South Korea) and the industry types. In Study Two, One-Way ANOVA (Analysis of variance) and Two-Way ANOVA are used to perform an analysis of the group differences in the means of independent variables, four levels of Web sites and three levels of ethnic groups in this study. If a statistical difference is found, a post-hoc test is applied to determine where the group differences occur.

Chapter Five includes a discussion based on the results shown in Chapters Three and Four and highlights new and important findings of this research. Also, by investigating the cultural effects on this new medium, the Web site, it is considered whether the findings of Web sites yield results consistent or inconsistent with findings in traditional marketing media.

Chapter Six, the final chapter, draws conclusions from the discussion and ends with the limitations and implications of this research.

### 1.5 Key assumptions

Cross-cultural research has developed with complexity. It is crucial to establish a definition of *culture* and how it is understood and used in this study. This research is based on the functionalist paradigm view in which culture is considered as a variable, explaining stable and orderly characteristics (Martin & Nakayama, 1999). Hofstede's and Hall's cultural studies are good examples of the functionalist paradigm and research into it has often proven to be very useful in studying cross-cultural differences in international marketing and advertising.

There are three solid reasons why Hofstede's and Hall's cultural models are adopted in this research. First, in spite of the shortcomings of Hofstede's model, cultural dimensions are the ones that have been most widely applied and validated by repetitive studies in a variety of cultural contexts. Secondly, Hofstede's and Hall's studies have been found to offer a valid basis for differences between national cultures or geographical regions. Thirdly, their models have been used by many Human-Computer Interaction (HCI) researchers to explain similarities and differences in the adaptation of the Internet and design of Web sites in different cultures (Callahan, 2005a; Gould, Zakaria, & Yusof, 2000; Marcus & Gould, 2000; Robbins & Stylianou, 2001-2002; Singh & Baack, 2004; Singh & Matsuo, 2004; Singh, Zhao, & Hu, 2003, 2005)

### 1.6 Contributions

Most related previous studies have analysed the content of local Web sites of U.S. multinational companies with cultural categories and indicators derived from Hofstede's and Hall's typologies. However, effective Web sites should match the values of the Web user with those of the Web site content (cultural congruity). Previous studies provided evidence of cultural differences in Web site content, but they did not quantitatively

measure the effectiveness of culturally adapted Web sites. The question remains whether people in different cultures interpret and respond to culturally adapted Web sites differently. Therefore, this study not only takes a ‘researcher-driven approach’, but also a ‘respondent-driven approach’ by measuring Web users’ perceptions toward Web sites. Moreover, only a small percentage of cross-cultural articles in major marketing and business journals from 1995 to 2006 have explored South Korea and New Zealand; six per cent for South Korea and six per cent for Australia and New Zealand (Okazaki & Mueller, 2007).

In addition, only a few studies have researched Web sites of U.S. companies categorised according to product category such as non-durable, durable, and services, but most were not concerned with industry-specific effects in culturally adapted Web sites. This study believes that industry type and its relevance to consumer (B2C) or business (B2B) interests influences the degree of cultural adaptation for Web site design. The different industry types to which the companies belong tend to be important in moderating cultural differences across cultures and are considered as a control variable in this research.

Unlike previous research which has used existing Web sites, those created for this study provided the researcher with optimal conditions for measuring and controlling their cultural characteristics. This prevents the possibility of ‘vendor familiarity’ built by the previous experience of a vendor and its products influencing participant perception.

Instead of assuming the participants’ values from Hofstede’s original cultural scores, this research measures these values by using Hofstede’s Value Survey Module. Previous researchers barely measured where the respondents of their study were placed on the cultural dimensions (Taylor, 2005), while this empirical study collects participants’

scores. Prior data cannot be relied on since many people believe that at least some level of cultural convergence is taking place and samples in this study, in particular young university students, are different from those of Hofstede's original study. This empirical process helps the researcher gain a good understanding of the cultural context of the participants before carrying out analysis of their perceptions toward the Web sites.

## **1.7 Conclusion**

This study derives from studies of culture typologies, information technology, and international marketing to construct a theoretical foundation. Despite the growing interest in Web sites, little is understood about whether cultural differences exist in the content of corporate Web sites from different cultures and whether the cultural adaptation of a corporate Web site is different by industry category. Even less is known about how users from different cultures perceive culturally different sites. Cultural preferences of Web users in text, graphics, and language, as studied in this research, are an almost unexplored area. No longer can the issues of Web user culture, and its impact on Web site design, remain separate from each other.

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## Chapter 2: Literature Review

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### 2.1 Introduction

The main focus of this thesis is the effect of culture on the design of corporate Web sites. This chapter is divided into three areas. First of all, cultural typologies, which have often and widely been used to understand cultural effect on international business and marketing contexts, are introduced. To date, the majority of cross-cultural business and marketing research has relied heavily on Hofstede's cultural dimensions (Okazaki & Mueller, 2007). To a lesser extent, Hall's cultural model has also been employed in the investigation of cultural research. The way to understand culture in these typologies is different from that of anthropologists and social field scholars. This review is rooted in the functionalist paradigm or the etic tradition of culture research.

The second section covers the literature exploring cultural issues in traditional marketing and advertising research. The Web site became another significant tool of marketing communication between companies and customers by sending messages to multiple people via the Internet. It is generally equivalent to marketing communication media such as newspapers, magazine, television or radio broadcasting. Therefore, arguments around cultural issues in a Web site have been developed with accumulated knowledge from these traditional international marketing channels. This knowledge provides us a solid base from which to analyse the cultural effect on how Web sites communicate with Web users.

The final section explores previous research studying cross-cultural differences in Web site design or content. It is summarised briefly into four large categories: those who emphasised the importance of local language on Web sites; those who studied Web sites

with the concept of distinctive cultural features and styles; those who compared cultural differences in the content of Web sites across different countries by adopting a traditional advertising content analysis method, often using a framework based on the cultural dimensions of Hall's and Hofstede's; and those, very few, who studied the effectiveness of Web sites from a Web user's or a customer's point of view. Stemming from the literature review, the research questions for the thesis are stated at the end of this chapter.

### **2.1.1 The functionalist paradigm of culture**

Culture is a very difficult term to define and has different meanings in different senses. The famous scholar Raymond Williams described culture as "one of the two or three most complicated words in the English language" (Williams, 1983, p.87). When we discuss culture in a group, we question that there exist variations between individuals and that the culture is changing. However, there must be a tendency to exhibit similar behaviours and similar ways of thinking within the group. Researchers have been studying how culture influences the way of doing international business and marketing, since culture may be one of the most powerful means of explaining, predicting, and understanding behaviours.

This research is based on the functionalist paradigm view in which culture is considered as a variable and explains stable and orderly characteristics (Martin & Nakayama, 1999). Culture is collectively shared by people in social groups and different groups have different sets of values (Hermeking, 2005). Therefore, a human behaviour can be described and predicted according to the cultural pattern in the cultural group from an etic perspective. An etic perspective is different from an emic perspective that is culture specific and necessary to seek out the idiosyncrasies of individual cultures (Fletcher,

2006). Hofstede's and Hall's works describe and explain a very complex matter like culture in a rather simplified and operational way. Their works are good examples of the functionalist paradigm based on the model of Florence Kluckhohn published in the 1950s (Hermeking, 2005).

The terms *emic* versus *etic* were borrowed from anthropology by cross-cultural psychologists, while *idiographic* and *nomothetic* are better known among sociologists (Hofstede, 1998). Throughout the history of comparative cross-cultural research, there has been a long dispute between those who stress the unique and those who stress the comparable aspects (Hofstede, 1998). Researchers labelled the choice as a Malinovskian dilemma (Hofstede, 1980, p.41). A Malinovskian dilemma is the choice between two different styles of scientific inquiry that sociology distinguishes, *idiographic* and *nomothetic* or between *phonemic* and *phonetic* classification in linguistics. The *idiographic* and the *phonemic* style focus on the unique and the specific while the *nomothetic* and the *phonetic* on the comparable and the general. Therefore, the suffixes *-emic* and *-etic* have been promoted to independent terms for distinguishing between the study of unique and specific wholes from the application of general classification schemes (Hofstede, 1998).

Within the functionalist paradigm, scholars like Hofstede studied national cultures through collected data from survey questionnaires and analysed those data by statistical technique (Williamson, 2002). Although there exist criticisms of this functionalist or *etic* approach and neither Hofstede nor Hall focused on marketing matters explicitly, research in the functionalist paradigm has often proven to be very useful in studying cross-cultural differences (Martin & Nakayama, 1999) and to make a valuable contribution to international business and marketing fields (Baack & Singh, 2007).

### 2.1.2 Hofstede's dimensions of national culture

In the past 20 years, Hofstede's (Hofstede, 1980, 1996, 2001) theory of the specific patterns in the values and beliefs that constitute national culture has gained prominence. Before his study, the notion of culture was referred to as an additional explanation, rather than as a main focal point of a cause and effect relation (Johnston & Johal, 1999). The Social Science Citation Index (SSCI) proved the popularity of Hofstede's two books, *Culture's Consequence* and *Cultures and Organisations* in that they have been cited over 3,500 times since their publication (Callahan, 2005b). Hofstede's typology of culture is regarded as one of the more important and popular theories of culture types.

Hofstede (1980) defines culture as a set of shared assumptions that results in a common frame of reference by members of a society. His definition of culture, "collective programming of the mind which distinguishes the members of one category of people from another," has been cited in prominent works for last two decades (Hofstede, 2001). He attempted to determine the main criteria empirically by which the national cultures of 40 independent nations differed, and initially identified four bipolar dimensions of cultural variation: power distance (from small [or low] to large [or big]), collectivism versus individualism, masculinity versus femininity, and uncertainty avoidance (from weak [or low] to strong [or big]); (Hofstede, 1980, 1996, 2001). Hofstede assigned each country a score on these dimensions, the scores being calculated by the formula developed by him, and varying between 0 and 100 to represent the relative position of a country from his sample.

Power distance refers to the 'acceptance of authority' differences between people (Hofstede, 1980, 1996, 2001). It is concerned with how workers view their superiors and the extent to which they accept that power is distributed unequally (Johnston &



Johal, 1999). Large power distance cultures are status conscious and respectful of age and seniority (Donald, Hendon, & Herbig, 1998). The employees rely on their superiors to make decisions and they prefer a dictatorial and autocratic style of management (Zahedi, Van Pelt, & Song, 2001). Conversely, there is an attempt to minimise inequality and positions of status in small power distance cultures. A small power distance society demands quite a different style of management from that required for a large power distance society. Small power distance prefers the decision making process to be one of consultation and tends to place more emphasis on personal competence (Hofstede, 1980, 1996, 2001). In a country with a large power distance, it is expected that written communications will contain references to the status and authority of readers, professional expertise, and highly respected figures in the scientific and educational communities. Furthermore, readers used to a large power distance would expect communications to be one-way, detailed, exact, and followed literally.

Hofstede's collectivism versus individualism dimension describes the degree to which a society emphasises either individual, or group welfare (Heydenfeldt, 2000). This dimension is characterised by important differences in members' social perceptions and social behaviour. Individualism emphasises individual rights and independence, while collectivism emphasises group harmony, interdependence (Triandis, 1995; Tse & Francis, 1994), and community-based social order (Hofstede, 1991). People of collectivistic cultures perceive that the building of lasting relationships, and engendering a sense of loyalty, are important (Triandis, 1995).

Individualism versus collectivism is perhaps the most basic dimension of cultural variability identified in cross-cultural research (Han & Shavitt, 1994). In general, the East is linked to the notion of collectivism and the West to individualism. Hofstede

(2001) observes a strong correlation between individualism versus collectivism against power distance that the two dimensions tend to be negatively correlated (Hofstede, 2001; Zahedi et al., 2001). Many countries that indicate large power distance cultures score low on the individualism index. In other words, since most extended families have patriarchal structures with the head of the family exercising strong authority, people who are dependent on ingroups are usually also dependent on power figures.

Uncertainty avoidance represents how uncomfortable a person feels in risky or ambiguous situations. In strong uncertainty avoidance societies, its members are inclined to anticipate the future, to refuse to tolerate deviant ideas or behaviour, to adhere to rules and regulation, and to resist innovation and invention (Hofstede, 2001). Thus, people in such cultures value advice and help from experts or organisations. On the other hand, members of weak uncertainty avoidance are encouraged to take risks and take each day as it comes (Johnston & Johal, 1999). In Great Britain, which has relatively weak uncertainty avoidance, students tend to dislike structure and prefer open-ended learning situations with vague objectives and no timetable (Zahedi et al., 2001). This propensity is different from German society. With relatively strong uncertainty avoidance, German society maintains a high respect for punctuality and strict timetables. In summary, the features of strong uncertainty avoidance include language and references that emphasise precise and detailed information and strong adherence to established business processes and practices.

The last dimension of Hofstede's (1980) cultural variations is related to genders and gender roles. Masculinity and femininity constitute cultural differences, rather than an individual's biological distinction, recognising some behaviours as more suitable for females or less suitable for males (Hofstede, 2001; Zahedi et al., 2001). However, which

behaviours belong to which gender differs from one society to another (Hofstede, 1980). Masculinity belongs to societies in which social gender roles are clearly well defined and femininity pertains to societies in which social gender roles overlap (Hofstede, 1980). Masculine cultures typically value assertiveness, independence, task orientation, and self-achievement while values such as caring, nurturing, concern for people, quality of life and emotional factors are linked to femininity (Donald et al., 1998). For example, Sweden and Norway, at the feminine extreme of the masculinity index, show that there is no difference between the scores of men and women, and both express equally tender and nurturing values (Hofstede, 1996). For better understanding, the ten values emphasised in Hofstede's cultural dimension are summarised in Table 1.

Table 1: The ten values emphasised in Hofstede's cultural dimensions <sup>a</sup>

Dimension	Ten values
High power distance	inequality, status, power, wealth, paternalism, autocracy, dominance, professionalism, expertise, dependence, vertical interpersonal relationship
Low power distance	egalitarian relationship, participation, consultation, interdependence, horizontal interpersonal relationship, decentralisation, flat hierarchical pyramids, majority vote, narrow salary range, pluralist government
Individualism	I, nuclear family, personal time, personal accomplishments, individual self-interest, personal preferences, freedom, challenge, independence, low context, guilt cultures
Collectivism	we, group cohesion, extended family, harmony, filial piety, lifelong loyalty, dependence relationship, high context, shame cultures (loss of face), social network
High uncertainty avoidance	theoricism, nationalism, conservatism, concern with security, absolute truth, expertise, historical events, consensus, less risk-taking, pessimism

Low uncertainty avoidance	empiricism, relativism, few rules, common sense, practical thinking, more risk taking, optimism, more acceptance of dissent, risky decision, deviance
Masculinity	competitiveness, material success, winning, strength, assertiveness, advancement, challenge, recognition, toughness, decisiveness
Femininity	nurturance, quality of life, shared belief, harmony, cooperation, support, modesty, caring, tenderness, consultation

<sup>a</sup> adapted from Hofstede (1980)

In addition, Hofstede (1980) classified countries into six clusters based on cultural commonalities and similar histories. The Anglo cluster includes countries like New Zealand which descended from the British Empire and speak English. On the other hand, the Asian cluster, which shares the influence of the Chinese majority, includes South Korea (Robbins & Stylianou, 2001-2002). Hofstede's (1980) analysis of four value dimensions indicated that South Korea and New Zealand showed marked differences from each other in their cultural values. Table 2 depicts the scores of New Zealand and South Korea on Hofstede's index values. South Korea belongs to groups of large power distance, collectivist, feminine, and strong uncertainty avoidance cultures. Conversely, New Zealand is associated with small power distance, individualism, masculinity, and weak uncertainty avoidance and belongs to the Anglo cluster in this study.

Table 2: Hofstede's index values for Korea (KOR) and New Zealand (NZL)

	Power distance	Individualism	Masculinity	Uncertainty Avoidance
KOR	60	18	39	85
NZL	22	79	58	49

### 2.1.3 Critiques of Hofstede's model

Although Hofstede's model of national cultures has been used extensively in empirical research and explanations of interaction between national culture and management,

mention of Hofstede's work has typically been accompanied by a critique. The rigorous debate concerning the methodological and theoretical foundations for Hofstede's work has resulted in careful reviewing (Baskerville-Morley, 2005). Salient methodological concerns include the generalisability of findings and the methods of data collection. On theoretical grounds, Hofstede's model is mainly challenged on his conceptualisation of national culture.

McSweeney (2002a) identified five important assumptions underpinning Hofstede's methodology which invalidated the model. In particular, Hofstede assumed that the micro-local data from one part (services and marketing departments) of IBM employees were representative of a uniform national culture. IBM subsidiaries not only had atypical characteristics by themselves, such as the technologically advanced and unusual characteristics of their products, but also their employees were likely to diverge from the general population, more so in some nations than in others. For example, working for a non family owned firm or high technology business would have been much more unusual in some countries than Britain, USA or West Germany during the time the survey was undertaken (McSweeney, 2002a, p.101).

The second problem with which McSweeney was concerned was that what Hofstede identified was not national culture, but an averaging of situationally specific opinions of a single multinational company (IBM) to a narrow set of cultural dimensions (McSweeney, 2002a). Even Hofstede himself (1980, p.313) acknowledged that there might be other dimensions related to equally fundamental problems of mankind which were not found. The wide range of dimensions found by Trompenaars and Hampden-Turner (1998) were quite different from those of Hofstede and indicated that Hofstede's five dimensions were not comprehensive. In short, McSweeney (2002a) pointed out that

Hofstede's national culture was situationally specific to a workplace. Therefore, the venue where Hofstede's respondents were asked to complete his survey might have affected his results. For example, an employee showing high power distance in the workplace might demonstrate more or less power distance in the family.

The next criticism by McSweeney was derived from doubts about the notion of national-cultural-causation (McSweeney, 2002a, p.109). He believed that there were other cultural and non-cultural influences which caused social actions within a nation. Sometimes changed social actions might have simple physical explanations and the influence of other historical specificities might lead to these changed social actions. National dimensions precluded consideration of interplay between macroscopic and microscopic cultural levels and underscored non-cultural factors like certain universal human needs, predispositions, and preferences which bound the human race together (Jacob, 2005; McSweeney, 2002a, 2002b). Also, McSweeney (2002a) urged that the implication of national break-up or integration should be taken into account. Nations may fissure, combine, and expand voluntarily or forcibly. It could be a myth that when nations split, the cultural characteristics of the former nation must also be those of each of the several new nations.

Furthermore, in his reviewing of Hofstede's theoretical foundations, Baskervill (2003) argued why the validity of Hofstede's dimensions of culture had not been widely used in sociology and anthropology. In line with McSweeney, the major contention over Hofstede's work is that *culture* does not equate with *nations*. Baskervill (2003) warned that Hofstede was minimising diversity within a nation by incorporating and equalising culture with nations in the units of analysis. This extreme universalist approach, in which only a few barriers exist to make meaningful comparisons between a wide range

of countries (Rokkan, 1996, p.18 cited in Baskerville, 2003), is plausible only if human societies are isolated from each other. However, people live in societies with constantly expanding networks of exchange and communication. The invalidity of the universalist approach is also supported by Jacob (2005) who maintained the view that cultural diversity could exist internationally or within a single country, since cultural boundaries were construed as permeable, rather than as walls which differentiate and segregate.

On the other hand, Williamson (2002) refuted McSweeney's critique at Hofstede's model. He claimed that since McSweeney (2002a) and Hofstede (2002) viewed national culture from different paradigms, they therefore started from different premises and evaluated research methods by different criteria. Hofstede's findings lay in the foundation that culture was a construct and there was not a direct measure for culture. Therefore, scores for Hofstede's dimensions are not absolute measures, but relative positions by which nation can be compared. If Hofstede's dimensions are seen as approximations for constructs of cultural values, the issue is not whether IBM samples are representative of national populations, but whether differences between their responses are representative of differences in cultural values (Williamson, 2002).

Williamson (2002) also argued that McSweeney's view on uniform national cultures was inconsistent with Hofstede's findings, because Hofstede's model admitted differences between populations and was based on the "average response" or "shared central tendency" for each national group of respondents (Williamson, 2002, p.1378). Regarding the validity of using IBM employees as representative of a nation, Williamson (2002) explained that Hofstede's findings depended on national culture affecting IBM employees in one country to the same extent that it affected IBM staff in other countries. Hofstede (2002) made it clear that any set of functionally equivalent

samples from national populations could supply information about national difference. Although Asian IBM subsidiaries had more unrepresentative cultures than that of IBM's home country of the USA, they selected local employees atypically attuned to US norms and therefore, showed national differences.

To conclude, there is always the general dilemma of choosing between a simplistic model that approximately describes or predicts phenomena across a wide range of situations and a more precise, emic description that is needed for facilitating inquiry into more complex dynamic interrelationships. Hofstede's model has the beauty of parsimony (Williamson, 2002, p.1387). A parsimonious theory is relatively easy to explain, communicate, and apply when academics and practitioners conduct research and experimentation in intercultural cooperation. However, they need to remember that Hofstede's critics raise useful warnings and that Hofstede's model does not provide a direct measure of national culture, but rather a rough approximation of cultural variety. This model still provides academics and practitioners with a comprehensive and robust benchmark. Much business research uses Hofstede's dimensions to study culture's role in a variety of business settings from behaviour styles (e.g. different negotiation styles and consumer behaviours) to identification of different advertising appeals across cultures. Williamson (2002) concluded that Hofstede's model or a similar functionalist model of national culture (e.g. Trompenaars) opened up "a black box of cultural factors" (p.1394); it is not recommended to just reject the model and throw away valuable insight, without development of more satisfactory models.

#### **2.1.4 Hall's cultural categories**

Similar to Hofstede's cultural variations, Hall's model has often been mentioned in academic works to understand cultural variety across cultures. Hall's model of cultural



categories focused on the interdependence of culture and communication. Since communication is central to all marketing activities, Hall's model is considered very useful for marketing matters (Hermeking, 2005). Hall (1976) expressed two important theories about the way cultures processed time and information in his book, *Beyond culture*. Our interaction is influenced by internal views of time, monochronic and polychronic time at either end of a continuum of time orientation. Monochronics believe that tasks can be performed during each segment and usually think in a linear fashion. However, polychronics think about a number of things simultaneously (Dodd, 1995). American, British, and Canadian cultures are monochronic while Latin American and Asian cultures are polychronic (Dodd, 1995).

Also, Hall proposes the concept of high versus low context as a way of understanding different cultural orientations. Like monochronic and polychronic time orientation, high and low context are on either extreme of a continuum (Kim, Pan, & Park, 1998). Context is referred to as the situation, background, or environment connected to an event, a situation, or an individual (Wurtz, 2005). A high-context communication is implicit, indirect, and deeply embedded in the context. The closer the relationship between communicators, the more a high-context communication style tends to be used. Japanese people consider a nondirective, polite communication style may be the best way to engage in communication accommodation (Dodd, 1995). In contrast, a low-context communication is more direct and more informative and the mass of the information is expressed in the explicit code (Hall, 1976). In conversation, people with a low-context communication style develop the conversation from information already stated to information about to be given, while those with a high-context communication style jump backward and forward and often leave out detail (Wurtz, 2005). This is also

related to linear versus circular thinking by monochronic versus polychronic cultures.

However, since the low vs. high-context concept was drawn from personal observations and interpretations, there is no clear clarification defining and measuring where a country stands in the continuum (Kim et al., 1998). For this reason, Hall’s model is less operational and less favoured by marketing researchers compared to Hofstede’s (Hermeking, 2005). Generally speaking, China, Korea and Japan are at the high end of the continuum and Switzerland, Germany, and Scandinavian countries like Norway and Sweden are at the low end of the continuum (Wurtz, 2005). Table 3 describes the ten values emphasised in Hall’s high- and low-context communication styles.

Table 3 : The ten values in Hall's high- and low-context communication style <sup>a</sup>

Dimension	Ten values
High uncertainty avoidance	rule orientation, employment stability, detailed information, regulations, structured environment, public discipline, social control, high anxiety, punctuality, precision
Low uncertainty avoidance	novelty, personal interpretation, ambiguity, low anxiety, innovation, deviant ideas, low stress, lenient rules, open-ended learning situation, laziness

<sup>a</sup> adapted from Hall (1976)

2.2 Culture and marketing communication

2.2.1 Cultural differences in marketing communication

Culture acts as a fundamental filter when people interpret the meanings of messages. It impacts considerably on the encoding and decoding of messages and the cultural differences are reflected in the content of marketing communication. In many cases, previous research has focused on the comparison of Western cultures such as the USA and Eastern cultures such as Japan, Korea, and China (Miracle, Chang, & Taylor, 1992; Wang & Chan, 2001). One example that Miracle et al. (1992) indicated in their

empirical study is that differences in marketing communication between South Korea and the USA were found in accordance to their cultural orientation like high- or low-context, direct/confrontational or indirect/harmony-seeking behaviours, and individualistic or group-oriented behaviours. In general, indirect advertising messages creating emotions through pictures and entertainment are more favoured in high-context cultures, whereas direct and rational advertising messages with product information play a more important role in low-context cultures (Hermeking, 2005).

More systematically, Van Raaij (1997) explained that cultural differences embedded in communication might be depicted at four different levels: mission, proposition, concept, and execution (1997). In his article, the mission was defined as the comprehensive objective and vision of a communicator and the proposition was the more specific theme or objective which drew the desired changes from the target groups of receivers of the message. The proposition was translated by the creative concept into the language and culture of the target group to help the understanding and attractiveness of the message. In some cases, metaphors and rhetorical expressions could be used for effective communication. The concept was executed with style, typography, and visual presentation. Table 4 below helps understanding of the communication of different strategies at different levels (van Raaij, 1997).

Table 4 : Global, adaptation, differentiation and local strategies for communication <sup>a</sup>

	Global	Adaptation	Differentiation	Local
Mission	Identical	Identical	Identical	Identical/different
Proposition	Identical	Identical	Identical	Different
Concept	Identical	Identical	Different	Different
Execution	Identical	Different	Different	Different

<sup>a</sup> adapted from van Raaij, 1997

In a similar vein, Cho et al. (1999) demonstrated differences in values between themes and their execution in advertising. There might exist some opportunities to standardise the strategic levels (the upper levels), of international advertising to build on a uniform brand image. It is known that multinationals have standardised broad-level marketing communication strategy such as their vision of a product's positioning and the specific theme of main selling point. However, considerable adaptation of executional elements in international advertising is inevitable. It is now clear that many advertisers standardise general strategy while modifying executions and languages as needed (Taylor, 2005). Therefore, the current literature advances this topic by looking more closely at the advertising elements, to what extent words (e.g. headlines) and visuals (e.g. models, illustrations) are tailored for target culture, used at the execution level (Nelson & Paek, 2007).

Furthermore, culture influences not only the way people interpret the meanings of messages but also the media channel they use for spreading the messages. There are also enormous and persistent differences in world-wide consumption of traditional media such as newspapers and TV across different countries. The trend might be interpreted as a result of culture-specific communication preferences like high-context versus low-context communication preferences. Since TV is based mainly on pictures and consumed by a collective group, it is more popular in high-context cultures. On the

contrary, as print media like newspapers are more or less based on written text and consumed by an individual at a time, it might be well used as a tool of marketing communication in low-context cultures (Hermeking, 2005).

### **2.2.2 Cross-cultural content analysis of advertisements**

Among diverse marketing communications, advertising is a reflection of cultural values expressed through cultural symbols, heroes, and rituals (Hofstede, 1980). There have been many studies pointing out the diverse advertising styles of different countries (Albers-Miller & Gelb, 1996; Baack & Singh, 2007; Cho et al., 1999; Koudelova & Whitelock, 2001; Lin, 2001; Mueller, 1992; Nelson & Paek, 2005; Taylor, Miracle, & Wilson, 1997; Tse, Belk, & Zhou, 1989; Wang & Chan, 2001; Zhou & Belk, 2004; Zhou, Zhou, & Xue, 2005). These studies have provided strong evidence of cultural effect on advertising. Most prior research focused on print or television advertising, and content analysis is the most common methodological approach in international marketing research (Taylor, 2005).

Some research has provided a list of creative themes or common advertising appeals. In developing a systematic framework, Albers-Miller and Gelb (1996) modified Pollay's '42 cultural list' to encompass 30 different cultural values. However, this kind of framework lost some appeal due to its lack of parsimony (Cho et al., 1999). Thus, most made a more limited set of cultural dimensions with a large variety within these dimensions. For example, the use of information level, emotional appeal, sexuality, hedonism, and belonging have been compared in a cross-cultural context (Lin, 2001; Nelson & Paek, 2005; Taylor et al., 1997; Tse et al., 1989). Also, portrayal of women, the use of comparative advertising, and the provision of pricing information are widely included in cross-cultural research (Karande, Almurshidee, & Al-Olayan, 2006). As

such, most cross-cultural studies on advertising, whether they used a list of appeals or a limited set of their own dimensions, have described the findings by comparative analysis of the content of the advertising (Albers-Miller & Gelb, 1996; Koudelova & Whitelock, 2001; Lin, 2001; Moon & Chan, 2005; Nelson & Paek, 2005; Taylor et al., 1997; Tse et al., 1989; Wang & Chan, 2001).

In the literature, Hofstede's cultural dimensions (1980) and Hall's (1976) high- and low-context communication typology have often provided a rationale for cross-cultural differences in advertisements. Sometimes, only one dimension of Hofstede's, such as individualism vs. collectivism, or femininity vs. masculinity, was used for exploring cultural differences in advertising content (An & Kim, 2007; Han & Shavitt, 1994; Wang & Chan, 2001). Also, marketing often deals with segmented clusters of many individuals; each cluster is to be treated as a homogeneous target group and such clusters are differentiated or positioned with respect to their typical market-related characteristics. This way of creating cultural clusters is well matched with Hofstede's and Hall's models (Hermeking, 2005).

The notion was supported that, in collectivistic cultures such as China and Korea, appeals focusing on in-group benefits, concern for others, and family integrity were more effective; whereas in an individualistic culture like the United States, appeals focusing on individual benefits, personal success, and independence were more effective (de Mooij, 2005; Miracle et al., 1992). Similar findings were demonstrated in a study of Chinese and American television advertising. Chinese advertising employed more emotional appeals, veneration for the elderly, and group consensus appeals than US advertising (Lin, 2001).

Furthermore, Choi et al (2005) revealed that there was a strong relationship between

celebrity endorsement in television advertising and Hofstede's cultural dimensions. Comparing US and Korean advertisements on television, they concluded that Korean advertising had a higher frequency of celebrity appearances than its US counterpart. They considered the result as anticipated, since in high-context and collectivistic culture celebrities showing the shared values of the society were considered more credible and influential. Furthermore, Korean celebrity advertising contained less information (high-context) and showed more collectivistic values than its US counterpart.

In the case of high-/low-context communication styles, advertising in high-context culture is characterised as emotional, symbolic, indirect, soft-selling and less informational while advertising in low-context culture focuses on detailed data-based arguments, explicit expression, and direct and hard-sell messages (An, 2007). Of note, Moriarty studied a relationship between advertising visuals and communication styles (1987). Literal visuals are more prevalent in advertising for low-context cultures and symbolic visuals are expected to appear more often in advertising for high-context cultures (An, 2007).

The literal category provides direct experience of a product like factual information and its role. It can be subcategorised into (a) identification (brand, logo, package), (b) description (what it looks like, attributes, parts, schematics), (c) comparison (between two competitors, before and after), and (d) demonstration (how to do, use, apply, make). By contrast, the symbolic category presents more abstract meanings using the process of (a) association (lifestyle, typical person, situation), (b) association using a character or celebrity, (c) metaphor (allegorical use, unexpected substitution based on similarity of some feature), (d) storytelling (narrative, drama, playlet), and (e) aesthetics (details become art, pattern, abstraction); (Moriarty, 1987).

In a similar vein, differences between the use of photographs and illustrations were under academic study (An, 2007), comparing a hard-sell vs. soft-sell strategy and a low-context vs. high-context communication style. The hard-sell approach emphasises the direct delivery of factual information about the products or services, and photographs are therefore more effective than illustrations. Cutler et al. (1992) found a significant cross-cultural difference in the use of photographs and illustrations among US, UK, French, and Korean magazine advertising; photographs were an ideal visual type for ads in low-context nations like the U.S. and the UK whereas Korea and France used illustrations more to deliver artistically decorated information.

However, Moon and Chan (2005) compared Hong Kong and Korean television commercials with respect to Hofstede's two cultural dimensions, uncertainty avoidance and masculinity/femininity, and had contrary findings to what had been discovered. They supported masculinity/femininity variables for explaining differences in advertising between Hong Kong (masculine society) and Korea (feminine society). In contrast to the masculinity/femininity dimension, both Hong Kong and Korean advertising showed no difference in values of uncertainty avoidance. Values of low uncertainty avoidance were even more reflected in Korean television commercials. Similarly, Paek and his colleagues (2004) revealed that both Korean and US advertising conveyed more individualistic indicators than collectivistic indicators. It was also supported by Cho et al. (1999) that Korean advertising did not include more collectivistic values than US advertising and both countries reflected strong present-time orientations.

### **2.2.3 Value paradoxes in advertising**

The reasons for these inconsistent findings in previous research could be explained by



Moon and Chan (2005). They attributed empirical evidence that was contrary to Hofstede's framework to the impact of value paradoxes in advertising. Before Moon and Chan (2005), de Mooij (2005) pointed out in her book that people who thought that the world was becoming one global culture with similar values were just deluded by value paradoxes. Advertising appeals or claims may represent two opposing statements about values, which are the "desirable" and the "desired" (de Mooij, 2005, p.164). The desirable represents the general norms of a society and the desired is linked to what people consider important for themselves. For example, an individualist society has individualism as its norm (the desirable), but people in that society may still desire and portray collectivist values because they think that too much individualism creates loneliness and social problems. Interestingly, value paradoxes were often found in those countries that have undergone remarkable economic development (Shao, Raymond, & Taylor, 1999; Taylor, 2005).

Osland and Bird (2000) explored cultural paradoxes further and identified six possible explanations in their study: the tendency for observers to confuse individual with group values, unresolved cultural issues, bipolar patterns, role differences, real versus espoused values, and value trampling where in a specific context certain sets of values take precedence over others (Osland & Bird, 2000, p.69). It is also supported by Rapaille's recent claim (2006) about the culture code that the only effective way to understand what people truly mean is to ignore what they say because they do not know why they do the things they do. If people are asked direct questions, they give answers that sound logical and are even what the questionnaire expected. These paradoxical values are often represented in advertising and make cultures appear to be similar or to be moving in a similar direction. In addition, research describing similar appeals in advertising derives from those characteristics of the advertising industry showing more

popular Western culture emphasising product merit and youth/modernity. These characteristics were found even in a region like Taiwan where traditional values mandate behaviours (Shao et al., 1999).

Another explanation of similar appeals in advertising across cultures was found in the same product category. Lin (2001) illustrated that, in the automobile category, a similar advertising appeal like status was employed for both Chinese and US advertising, although automobiles were considered a necessity in the U.S. but a luxury in China. Conversely, Nelson and Paek (2007) described automobiles as a general product, like food, which was more culture specific and might reflect indigenous cultural rules and practice. As such, product categories appear to be potentially important in moderating cultural differences across cultures. According to Han and Shavitt (1994), products could be divided into shared versus personal product categories. It is likely that personal products, which primarily provide personal benefits and are used individually, should be promoted emphasising individual benefits even in cultures where group benefits are highly valued. From the perspective of a standardised/localised advertising strategy, standardisation may be effective for products in which the audience shares universal demands and behaviours. Examples are high-touch products such as fashion, perfume, and jewellery and high-tech products such as computers and mobile phones (de Mooij, 2005; Nelson & Paek, 2007).

#### **2.2.4 Consumers' perceptions toward cultural appeals in advertisements**

Much international advertising research is descriptive in nature. In reviewing the literature, this kind of research has focused on explaining the differences in relation to the cultural values of the society in which the advertising has appeared (Fam & Grohs, 2007). Although advertising plays a role of meaning transfer (Wang & Chan, 2001),

these cross-cultural content analysis studies are somewhat limited in that they describe existing phenomena and what advertisers say rather than testing what is effective with consumers (Taylor, 2005). The underlying assumption in these content-analytic studies is that what an advertisement says or what its creator intends to convey through the advertisement is what consumers prefer (Zhou & Belk, 2004). The consumer may interpret the advertisement in a way that is unintended by the author (Hung, Li, & Belk, 2007). Therefore, it is dangerous to think that advertiser preference of images and appeals is taken to mean that consumers in a particular culture also like those images and appeals, and that their values are changing accordingly. Effective advertising should match the values of the receiver with the value in the message. Although content analysis can be viewed as a useful basis, Moriarty and Duncan (1991) emphasised the need for more research regarding the effectiveness of advertising and how this effectiveness should be evaluated. Also, Fam and Grohs (2007) insisted on taking a “respondent-driven approach” instead of a “researcher-driven approach”.

Prior empirical and theoretical research supported the proposition that different advertisements generated differences in consumer emotional response patterns in different countries. Investigating consumer emotional response patterns in central European countries, Orth et al. (2007) found that even within a small geographical area, national culture has a significant effect on different emotional response patterns. Similarly, in a controlled experiment, Han and Shavitt (1994) found that advertisements emphasising individual benefits were more persuasive, and those emphasising family or ingroups were less persuasive in the U.S than they were in Korea. They used purchase intentions, attitude toward the advertisement, and overall impression of the brand as dependent variables. As such, there is a link between culture and attitudinal processes. However, Fam and Grohs (Fam & Grohs, 2007) found that there was not a specific

likeable executional technique that influenced a purchase in four of the five countries and concluded that people rather shared the same values in the same cohort than countries they live in.

Taylor (2002) claimed that to overcome the limitation of content analysis, what we need is experimental research in which the impact of specific executional variables is isolated. For example, Taylor, Miracle, and Wilson (1997), examining information level in advertising, performed an experiment in which the information level was manipulated while other variables were held constant. They found that US participants responded less favourably to commercials with low level of information than did Korean. As such, the methodology that allows an opportunity for respondents to express their thoughts and feelings and measures how the respondents stand on the cultural dimensions investigated has been developed as a solution to the weakness of content analysis, in small number of studies.

## **2.3 Culture and Web sites**

### **2.3.1 Cultural adaptation**

The Internet is regarded as a global medium so that any company that produces a Web site on the Internet automatically becomes a multinational company (Ko, Roberts, & Cho, 2006). Web sites are globally accessible and tend to be strongly standardised. Regardless of the preferred cultural styles in the related countries, many of the Web sites tend to be dominated by a low-context communication style. In the old economy, Web sites of companies involved with industrial goods and addressing business users (B2B) were standardised. In the new digital economy, globalisation in Web site design has become more prominent since e-commerce, primarily based on Web sites like amazon.com, obtains popularity everywhere. Those e-commerce Web sites are mainly

influenced by rational content appeals like text-heavy layout, low multimedia presentation, large Web site volume, high interactivity, and content with intensive navigation support (Hermeking, 2005).

Along with e-commerce Web sites, Web portals are a good example of more globally standardised Web sites. Web portals are Internet sites intended to be the starting point and designed to appeal to a wide audience within a country or culture, typically offering a search engine, directories of links on a set of selected topics, news items, advertisements and shopping, and other services such as free e-mail service and Web pages (Zahir et al., 2002). Many portal sites are very much like the Yahoo format. Furthermore, global brands of computer-related, digital high-tech, or high-interest goods are generally characterised by standardisation in their design (Hermeking, 2005). These products have uniform frames or functional features. Web sites for these products or using these products provide a similar external appearance.

However, a well designed Web site is defined as one communicating the right information at the right place with the right layout in the right manner and in the right time in accordance with the culture of target Web users (Hermeking, 2005). Given the Internet's communication capability, the target audience of a Web site could technically be scattered around the world. The cultural acceptability of a Web site might reduce its target audience to a much smaller group in terms of its way of life, habits and religious belief (Lu & Yeung, 1998). At first, cultural adaptation of early Web sites which were simple and text-based was simple, in that they were merely translated. However, the development of various technologies like flash, video and sound have brought new challenges to Web developers in their attempts to design effective Web sites for other cultures.

Day (1997) advocated that the purpose of Web application should be very clear and its content should be based on an understanding of the target audience and how they think and behave. A culturally congruous Web site clearly conveys the marketer's respect for the Web user's culture. Del Galdo and Nielsen (1996) emphasised that Web sites needed to be created in a way that their content accommodated the user's cultural characteristics and mindset. In other words, a Web design has to incorporate the way people communicate and the way business is conducted in the target society. A Web site should illustrate a distinct consciousness regarding the cultural backgrounds of the target audience (Yli-Jokipii, 2000). The goal of localising the interfaces of Web sites is to provide a technically, linguistically and culturally congruous interface which incorporates local content and functionality to fit the target users at different locals (Cyr & Trevor-Smith, 2004). Because of complexities and difficulties in designing culturally congruent Web sites, Web designers must study the target groups of the Web site and design elements prevalent in those groups, and include them in the design process (Wurtz, 2005).

Zahir et al. (2002), after studying the contents of 26 different national portals, concluded that there was evidence of divergence, where national portals were customised to fit at least some cultural characteristics although the national portals offered remarkably similar directory headings and other links. Major portal providers like Yahoo often provide a split-run portal for major countries and groups. There are also indigenous national portals which are popular because they reflect the socio-cultural, technological and economic characteristics of their cultures and countries both in their appearance and in the list of services they provide. For example, an Australian portal did not include items such as women's issues, religion, and personal issues that, in general, represented ways of bringing people together. It could be explained that Australians, according to

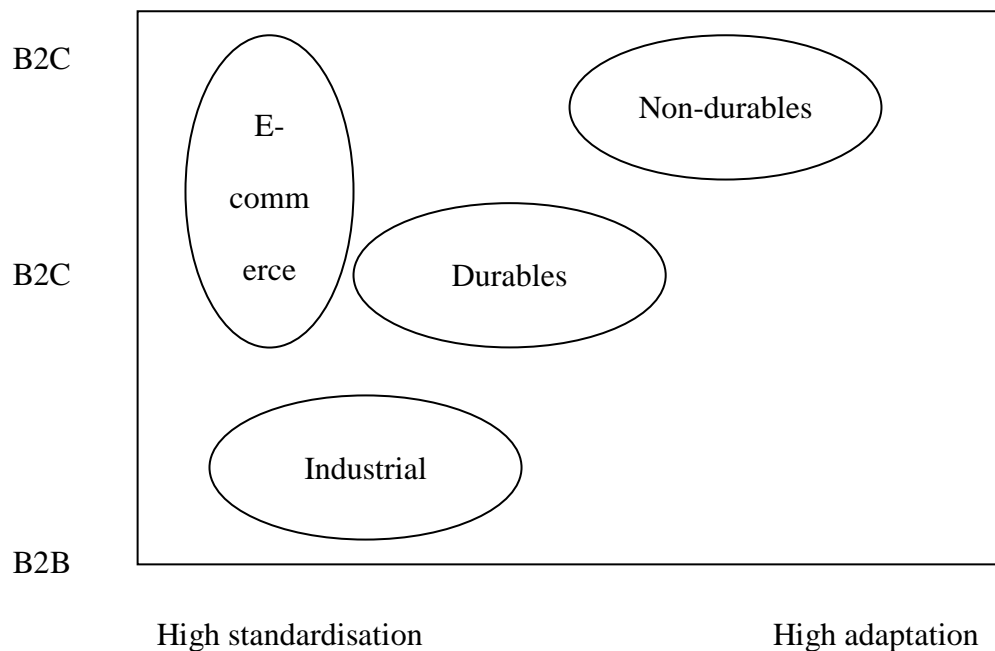
Hofstede's individualism-collectivism dimension, do not feel the necessity of providing these group-oriented services on their national portal. Therefore, as Robbins and Stylianou (2001-2002) proposed, there must be a clear definition that Web site content should be treated separately from design. The majority of Web site content features are found to be significantly different across various cultural groups.

There is an interesting argument that Web sites representing global brands of non-durable, low-interest products show an even higher degree of cultural adaptation. This is confirmed by Okazaki (2005) that non-durable product Web sites well demonstrate this cultural adaptation. Also, Wurtz (2005) analysed the contents of McDonald's Web sites in different high-context and low-context cultures and found that the Web sites for non-durable products revealed considerable differences in aesthetics such as animation and moving visuals, and in navigation. Furthermore, although local Web sites of global consumer brands often showed more standardised contents, they utilised the typical communication styles of their brands' country of origin (Hermeking, 2005). For example, worldwide Web sites for a global French food brand tended to be more dominated by French high-context style, whereas those for a global German car brand tended to represent more German low-context style (Hermeking, 2005). The 'country-of-origin' effect is a complex matter in Web site design. It is not clear whether including country of origin feelings can create an appropriate attitude or whether culture-specific adaptations are more suitable in diminishing 'not-invented-here' feelings.

Figure 1 below shows the degree of Web site adaptation derived from Hermeking (2005). Web sites for industrial goods and e-commerce show the strongest standardisation tendencies with a similar technology or usability pattern. These tendencies are very similar to a low-context communication style since the boundaries

of industrial goods and e-commerce are not limited to one ethnic group. On the contrary, non-durable consumer products are purchased by consumers with low involvement in buying decision; therefore, less explicit, detailed, and rational information might be needed. Also, non-durable products like food are generally considered to be consumed in traditional and idiosyncratic ways (Nelson & Paek, 2007).

Figure 1: Degree of Web site adaptation <sup>a</sup>



<sup>a</sup> adapted from Hermeking, 2005

### 2.3.2 The effect of language

Language is the first issue to be considered in the localisation process of Web sites. The use of a Web visitor's native language can symbolise respect for the visitor's culture. The interface and information of Web sites should be understandable and usable in the users' native language, to create a bond between the Web site and visitors, regardless of its content (Luna et al., 2002). Therefore, designers must consider the possibility that second-language sites could result in increased challenge and difficulty for global



visitors.

Since the Internet's origin was in the USA and some of its earliest adopters were English speaking, English language ability is related specifically to Internet adoption (Maitland & Bauer, 2001). In 1996, 80% of Web users' first language was English. By 2004, less than one third of Web users worldwide spoke English as their first language (Luna et al., 2003). However, according to Warden, Lai, and Wu (2002), Fortune 100 Web sites found that only nine percent offered Chinese, Japanese, or Korean language as options in 2002. In reality, approximately 75% of Web users in China and Korea prefer Web sites in their local language and choose local Web sites to make purchase (Singh & Baack, 2004).

In a pragmatic, wide sense, culture could be considered to equate with the idea of speaking the same language (Rey, 2001). Under this assumption, companies might be caught in a trap: to solve cultural conflicts that occurred in one language just by offering a language option (Luna et al., 2003) so that the rest of the web site would be consistent with the values emphasised by that culture. However, even in English, there are often problems of interpretation between one variety of English and another, such as American as opposed to New Zealand English.

Simple translation from other languages is not sufficient considering that patterns of communication behaviour are deeply rooted in language culture complexities (Ulijin & Campbell, 2001). Different languages have different patterns of discourse (Fletcher, 2006). For example, in one language, the main point of the communication may be at the beginning of the sentence and the qualifiers follow. In other languages like Korean, the main point comes at the end of the sentence. In China, the parallel construction of sentences is one of the most typical rhetorical devices adapted in written Chinese (Lee,

So, & Wong, 2006). This parallel construction gives viewers an impression of formality and respect; therefore, it is extensively employed on Web sites targeting views of the Chinese mainland (Lee et al., 2006). Therefore, in comparison with the Web sites written in Chinese, corporate Web sites written in English often adopt a less formal tone and give more detailed information about corporate citizenship (Lee et al., 2006). Another interesting cultural distinction in written documents is that Japanese readers prefer text that is organised inductively, unlike the deductively organised text more common in the West (Fukuoka & Spyridakis, 2000). If the translation does not include underlying concepts, then the meaning can easily become distorted and the emphasis of the message is diminished.

Although a large number of Web users at the international level have a working knowledge of English, most are obviously more fluent in their native language, so navigating through English is likely to be somewhat challenging (Luna et al., 2003). This is especially significant for Asian Web users since more people would be willing to use a Web site if it were designed for their language and culture (Barber & Badre, 1998). The importance of display and processing of Web user's native language can never be over-emphasised (Del Galdo & Nielsen, 1996).

### **2.3.3 Cultural manifestations**

Different cultures look differently at the images the world offers, often preferring images of the culturally familiar. Nowadays a Web site is not just a collection of text, but one of images, multimedia, interactive features, animated graphics, and sounds. For creating more efficient Web sites for other cultures, a company should consider not just language and modification of time- and date-formats, but also design issues including specific colour connotations, preferences in layout, animation, sounds, and other effects

(Dragona & Handa, 2000; Wurtz, 2005).

According to Marcus and Gould (2000), the use of colour could be related to Hofstede's uncertainty avoidance dimension. Colour could either provide redundant cues (to reduce ambiguity for high uncertainty avoidance cultures) or be used to maximise information without redundancy (for low uncertainty avoidance cultures). Also, colours have different images in different ethnic groups. For example, grey is considered 'inexpensive' in countries like China, South Korea, and Japan, but 'expensive and high quality' in the U.S. (Fletcher, 2006). Colours used in a Web site for a different ethnic group should not detract from the effectiveness of the version of the Web site.

"Cultural marker" was defined by Barber and Badre (1998, p.2) as the interface design elements and features that are prevalent, and possibly preferred, within particular cultural groups. The cultural markers typically comprise colour, colour combinations, use of metaphor, language cues, currency formats, and navigation controls that match the cultural expectations of the users for that particular domain. A problem comes from the ignorance that often a company's Web site tends to be ethnocentric in nature, exclusively expressing the cultural manifestations of the company's country of origin. In many English-speaking countries, the number 13 is related to negative feelings, while the number 4 is negative in Mandarin (Fletcher, 2006). The use of inauspicious numbers in pricing in Web sites should be avoided.

In addition, cultural differences are described in their specific manifestations: value, heroes, rituals, and symbols (Hofstede, 1980; Luna et al., 2002). Values rest at the heart of most definitions of culture and have a central role among the other manifestations of culture; however, it is considered that symbols, heroes, and rituals are manifestations that directly express and represent a particular culture (Luna et al., 2002). First of all,

symbols are words, gestures, pictures, or objects that carry a particular meaning which is only recognised by those who share the culture (Hofstede, 1991, p.7). Thus, a particular society's symbols may not exist in different cultures, or their meaning may be different. Language is a good example of symbols. Secondly, heroes are those who have characteristics that are highly recognised in a culture and thus serve as models for behaviour (Hofstede, 1980). Heroes may influence Web users through their association with patriotism. Next, rituals are collective activities, for example, ways of greeting and paying respect to others, social and religious ceremonies (Hofstede, 1980). Culture-specific rituals are constantly being performed by all members of a society, important for marketing because rituals involve the consumption of goods and services (Luna et al., 2002). Therefore, the understanding of culture-specific symbols, heroes, and rituals is essential.

Furthermore, Barber and Badre (1998) and Sheppard and Scholtz (1999) not only stressed the importance of using cultural markers and the relationship between culture and usability in Web site design, but they also noted the interplay between culture and genre. They hoped that cultural markers weighed by region, country, genre, and language can be guidelines offering Web developers specific information about the region and country.

#### **2.3.4 Hall's high- and low-context communication styles**

The differences in high-context and low-context communication styles across cultures might challenge the ways in which Web sites communicate their messages most optimally (Wurtz, 2005). The nature of Web sites is overall more similar to print media, which is based on written texts and more appropriate to low-context cultures, than to TV. TV is the more appropriate medium for the transformational or entertaining

communication preferred in high-context cultures (Hermeking, 2005). According to information richness theory, communication channels have different capacities for processing information (Ross, 2001). Impersonal written documents and numeric documents have the least information richness since they are presented without the sources of understanding, intentions, and feelings. Therefore, it is especially important to study how high-context cultures communicate their messages through the Internet which was originally developed in low-context cultures and is similar to written documents. High-context cultures generally exhibit a higher degree of cultural adaptation (Hermeking, 2005).

A Web site from a low-context culture provides a detailed overview with the use of headings and subheadings, which enable users to find what they are interested in immediately. However, most Web sites from high-context cultures depend on links and information described by a limited amount of text, forcing users to chase the information through exploration of the site (Wurtz, 2005). This is in line with Hall's monochronic or polychronic time orientation. In monochronic cultures, time is linear and passing and can be divided in an orderly fashion. Therefore, Web sites should be structured in an orderly way and their text-heavy content should be sequentially organised to reduce download or searching time (Hermeking, 2005). The tendency was supported by a study of Yli-Jopikii (2000) showing that the Finnish and English Web sites of a Finnish company displayed different cultural strategies. The Finnish site contained detailed and itemised information and portrayed a rather nonsensical strategy. The author attributed the result to Finnish culture which was characterised by a high-context culture, where the role of shared knowledge and the information contained in the context were quite significant. For the English-speaking audience, the company used

a more persuasive strategy, with information on equity matters and company holdings.

Similarly, Okazaki and his colleague studied Japanese and American multinational companies' (MNCs) Web site strategies across differing cultures (Okazaki, 2005; Okazaki & Alonso, 2003; Okazaki & Riva, 2002). They used the traditional advertising content technique and revealed significant differences in Japanese and American MNCs' Web sites across countries. For example, soft sell appeals prevailed in the Japanese Web sites whereas hard sell appeals prevailed in the American. In line with this, Wurtz (2005) found that Web sites from countries like Japan, China, and Korea, as representatives of high-context cultures, were likely to use more imagery and less text than sites from countries like Germany, Denmark, Sweden, Norway, Finland, and the USA, as representative of low-context cultures.

Furthermore, animated illustrations on Web sites tend to be more prominent and elaborate in high-context than in low-context cultures where the concern is more on photographs of products, text, and subtle effects like companies' logos (Wurtz, 2005). This is because realistic impressions and identification of products are more important in low-context cultures. High-context cultures rely more on artistically decorated features like animations and illustrations (An, 2007). The implementation of music and sound effects is often utilised in Web sites in high-context cultures. Also, Web sites in high-context cultures provide more occasional options for downloads of video or radio interviews. This is in line with an empirical research that Asians, which are high-context cultures, strongly liked sound effects while only a small number of the Australian group did so (Evers, 2001 cited in Wurtz, 2005). Table 5 summarises cultural categories for the high-context and low-context dimension on Web sites derived from previous literature.

Table 5: Cultural categories for Hall's high- and low-context communication styles

Cultural Dimension	Categories or Indicators	Supporting References
High context/ Low context	-Politeness (high) -Soft sell approach (high) -Aesthetic (high) -Animations or illustrations (high) -music and sound effects (high) -Hard sell approach (low) -Ranks or prestige of the company (low) -Explicit comparisons (low) -Use of superlatives (low) -Terms and conditions of use (low)	(An, 2007; Okazaki & Alonso, 2003; Singh & Baack, 2004; Singh & Matsuo, 2004; Singh et al., 2003; Singh, Zhao et al., 2005; Wurtz, 2005)

### 2.3.5 Hofstede's cultural dimensions

The popularity of Hofstede's model in intercultural communication research has led a number of researchers to use it to examine differences in Web sites designed in various cultures (Callahan, 2005b). Zahedi et al. (2001) introduced a large theoretical study of user satisfaction and effectiveness of various Web site designs based on cultural and individual factors. They identified six cultural factors developed by Hofstede's (2001) five dimensions of culture and Hall's (1976) high-context versus low-context cultural dimensions. Unlike a theoretical study by Zahedi et al., Singh and his teams have proved cultural adaptation on Web sites with empirical evidence in continued studies (Singh & Baack, 2004; Singh, Furrer, & Ostinelli, 2004; Singh & Matsuo, 2004; Singh et al., 2003; Singh, Zhao et al., 2005). From a thorough review process, they proposed Hofstede's four cultural dimensions and Hall's two different communication styles as most appropriate for the analysis of Web site design. They developed cultural coding categories, which were commonly present on Web sites and analysed the contents of Web sites from different countries or American MNCs' domestic and international Web sites. In most of their studies, they emphasised the importance of a culturally unique

Web style, rather than a transnational one. They also warned that even within a geographic region (Asia), there is considerable variation in the depiction of cultural values (Singh, Zhao et al., 2005).

### ***Power distance***

The power distance dimension is apparent in the hierarchical structure of the Web site. High power distance is reflected in tall hierarchical Web site structures which have many Web pages in an unstructured layout or the opening of new windows for new Web pages. In contrast, low power distance is reflected in flat or shallow hierarchical structures which have only a few pages in a coherent or linear layout (Wurtz, 2005). Web sites from high power distance included organisational charts, biographical sketches of top leaders, and a corporate message from the CEO whereas Web sites from low power distance reflected the content of powerful people trying to look less powerful (Robbins & Stylianou, 2001-2002). For example, Malaysian Web sites showed prominent organisational charts that emphasised levels of the hierarchy so that people could better understand about the basic structure and chain of command of the company (Gould et al., 2000). Table 6 summarises cultural categories for the power distance dimension on Web site derived from the literature.



Table 6 : Cultural categories for the power distance dimension

Cultural Dimension	Categories or Indicators	Supporting References
Power distance (PD)	<ul style="list-style-type: none"> <li>-Prominent organisational charts (high-PD)</li> <li>-Special title (e.g., Mr. or Dr.) (high-PD)</li> <li>-The structure of the organisation and the structure of information are related and should be similar (high-PD)</li> <li>-Focus on users and their needs, not on the organisation (low-PD)</li> <li>-Emphasise value rather than rely on reputation and prestige (low-PD)</li> </ul>	(Gould et al., 2000; Wurtz, 2005)
	<ul style="list-style-type: none"> <li>-Access to information: highly (high-PD) vs. less-highly (low-PD) structured</li> <li>-Hierarchies in mental models: tall vs. shallow</li> <li>-Emphasis on the social and moral order (e.g., nationalism or religion) and its symbols: significant/frequent vs. minor/infrequent use</li> <li>-Focus on expertise, authority, experts, certification, official stamps, or logos: strong vs. weak</li> <li>-Prominence given to leaders vs. citizens, customers, or employees</li> <li>-Importance of security and restrictions to access: explicit, enforced, frequent restrictions on users vs. transparent, integrated, implicit freedom to roam</li> <li>-Social roles used to organise information (e.g., a managers' section obvious to all but sealed off from non-managers): frequent vs. infrequent</li> </ul>	(Marcus & Gould, 2000)
	<ul style="list-style-type: none"> <li>-Organisational chart (high-PD)</li> <li>-Bio-sketches of Top-Leaders (high-PD)</li> <li>-Message from CEO (high-PD)</li> </ul>	(Robbins & Stylianou, 2001-2002)

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-Company hierarchy information (high-PD)	(Singh & Baack,
-Picture of CEOs (high-PD)	2004; Singh &
-Quality information and awards (high-PD)	Matsuo, 2004;
-Vision statement (high-PD)	Singh et al., 2003;
-Pride of ownership appeal (high-PD)	Singh, Zhao et al.,
-Proper titles (high-PD)	2005)

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### ***Individualism/Collectivism***

Among Web site features, the collectivism dimension is operationalised in terms of the depiction of group relations, family themes, pictures of national identity and loyalty programs (Singh, Kumar, & Baack, 2005). In collectivist cultures, there is strong emotional attachment between individuals and organisations and society. Therefore, people expect to find places in Web sites where they can share their concerns, views, and emotions (Singh & Baack, 2004). In countries with high levels of individualism, everyone is believed to have a right to privacy and individual freedom while collectivism reflects little privacy since the groups and organisation which people belong to interfere with private life. Therefore, the capability for individual acknowledgement and protection of personal information are significant in individualist countries (Robbins & Stylianou, 2001-2002). Table 7 summarises cultural categories for the individualism/collectivism dimension on Web site derived from the literature.

Table 7 : Cultural categories for the individualism/collectivism dimension

Cultural Dimension	Categories or Indicators	Supporting References
Individualism vs. Collectivism	<ul style="list-style-type: none"> <li>-Focus on organisations and not on tasks (low-IDV)</li> <li>-Many links to other organisations to demonstrate the strength of the group's network (low-IDV)</li> <li>-Emphasise social as well as organisational goals (low-IDV)</li> <li>-Be written in an indirect, impersonal style but provide extensive support for claims (low-IDV)</li> <li>-Provide a wide range of choices and not presume to select defaults (high-IDV)</li> <li>-Use 'you-attitude' to personalise text (high-IDV)</li> <li>-People commonly inflate their own accomplishments and will not understand understatement (high-IDV)</li> </ul>	(Gould et al., 2000)
	<ul style="list-style-type: none"> <li>-Motivation based on personal achievement: maximised (expect the extra-ordinary) for individualist cultures vs. underplayed (in favour of group achievement) for collectivist cultures</li> <li>-Images of success: demonstrated through materialism and consumerism vs. achievement of social-political agendas</li> <li>-Rhetorical style: controversial/argumentative speech and tolerance or encouragement of extreme claims vs. official slogans and subdued hyperbole and controversy.</li> <li>-Prominence given youth and action vs. aged experience, wise leaders and states of being</li> <li>-Importance given individuals vs. products shown by themselves or with groups</li> <li>-Underlying sense of social morality: emphasis on truth vs. relationships</li> <li>-Emphasis on change: what is new and unique vs. tradition and history</li> <li>-Willingness to provide personal information vs. protection of personal data differentiating the individual from the group.</li> </ul>	(Marcus & Gould, 2000)

-Use of cookies (an invasion of privacy) (low-IDV)	(Robbins &
-Site registration requirements (low-IDV)	Stylianou, 2001-
-Site security provisions (high-IDV)	2002)
-Privacy policy statement (high-IDV)	
-Community relations (low-IDV)	(N. Singh &
-Clubs or chat rooms (low-IDV)	Baack, 2004; N.
-Newsletter (low-IDV)	Singh &
-Family theme (low-IDV)	Matsuo, 2004;
-Country specific news (low-IDV)	N. Singh et al.,
-Symbols and pictures of national identity (low-IDV)	2003; N. Singh,
-Loyalty programs (low-IDV)	Zhao et al.,
-Links to local websites (low-IDV)	2005)

### ***Masculinity/Femininity***

Singh et al. (2003) concluded in their findings that Fortune 500 global companies' Chinese Web sites depicted much lower masculine values than US domestic Web sites. The masculine values of realism, product effectiveness, and clear gender roles were found to differ significantly. Furthermore, high masculinity cultures focus on elements like traditional gender/family/age distinctions, attention, work task, and mastery while Web sites in high femininity cultures include visual aesthetics, mutual cooperation and support rather than mastery and winning for interface design (Marcus & Gould, 2000). In a masculine society, money and assets are considered important so that corporate Web sites include annual reports and financial highlights (Robbins & Stylianou, 2001-2002). Table 8 summarises cultural categories for the masculinity/femininity dimension on Web site derived from the literature.

Table 8 : Cultural categories for the masculinity/femininity dimension

Cultural Dimension	Categories or Indicators	Supporting References
Masculinity/ Femininity	-Traditional gender/family/age distinctions (high-MAS)	(Marcus & Gould, 2000)
	-Work tasks, roles, and mastery, with quick results for limited tasks (high-MAS)	
	-Navigation oriented to exploration and control (high-MAS)	
	-Attention gained through games and competitions (high- MAS)	
	-Graphics, sound, and animation used for utilitarian purposes (high-MAS)	
	-Blurring of gender roles (low-MAS)	
	-Mutual cooperation, exchange, and support (rather than mastery and winning) (low-MAS)	
	-Attention gained through poetry, visual aesthetics, and appeals to unifying values (low-MAS)	
	-Annual report (high-MAS)	(Robbins & Stylianou, 2001-2002)
	-Financial highlights (high-MAS)	
	-Hit/Visitor counter (high-MAS)	
	-Indication of social responsibility (low-MAS)	
	-Indication of cultural sensitivity (low-MAS)	
	-Quizzes and games (high-MAS)	(Singh & Baack, 2004; Singh & Matsuo, 2004; Singh et al., 2003; Singh, Zhao et al., 2005)
	-Realism theme (high-MAS)	
	-Product effectiveness (high-MAS)	
	-Clear gender roles (high-MAS)	

### *Uncertainty Avoidance*

Countries having high uncertainty avoidance characteristics exhibit nationalism and xenophobic attitudes (Robbins & Stylianou, 2001-2002). This was reflected in the British Airway's Web site from the United Kingdom (a relatively low uncertainty avoidance country) showing a higher complexity of content and choices with popup

windows (Marcus & Gould, 2000). Furthermore, Mexican Web sites of American brands displayed traditional themes such as history, respect, and veneration of the elderly (Singh & Baack, 2004). However, on the uncertainty avoidance dimension, no significant differences were found between Web sites from different countries (Singh, Kumar et al., 2005; Singh & Matsuo, 2004; Singh, Zhao et al., 2005). Table 9 summarises the cultural categories for the uncertainty avoidance dimension on Web sites derived from Hofstede's cultural dimensions.

Table 9: Cultural categories for the uncertainty avoidance dimension

Cultural dimension	Categories or indicator	Supporting references
Uncertainty Avoidance	-Listing of job openings (low-UA)	(Robbins & Stylianou, 2001-2002)
	-Description of career/jobs (low-UA)	
	-Job openings international in scope (low-UA)	
	-Cookie disclosure (low-UA)	
	-Organisational chart (low-UA)	
	-Customer service (high-UA)	(Singh & Baack, 2004; Singh & Matsuo, 2004; Singh et al., 2003; Singh, Zhao et al., 2005)
	-Secure payment (high-UA)	
	-Guided navigation (high-UA)	
	-Traditional theme (high-UA)	
	-Local stores (high-UA)	
	-Local terminology (high-UA)	
	-Free trials or downloads (high-UA)	
	-Customer testimonials (high-UA)	
	-Toll-free numbers (high-UA)	

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-Simplicity, with clear metaphors, limited choices, and restricted amounts of data (high-UA)	(Marcus & Gould, 2000)
-Attempts to reveal or forecast the results or implications of actions before users act (high-UA)	
-Navigation schemes intended to prevent users from becoming lost (high-UA)	
-Mental models and help systems that focus on reducing 'user errors' (high-UA)	
-Redundant cues (colour, typography, sound, etc.) to reduce ambiguity (high-UA)	
-Complexity with maximal content and choices (low-UA)	
-Acceptance (even encouragement) of wandering and risk, with a stigma on 'over-protection' (low-UA)	
-Less control of navigation: for example, links might open new windows leading away from the original location (low-UA)	
-Mental models and help systems might focus on understanding underlying concepts rather than narrow tasks (low-UA)	
-Coding of colour, typography, and sound to maximise information (multiple links without redundant cueing) (low-UA)	

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### 2.3.6 Web user's perception toward a Web site

Although there has been a steady increase, both social and business, in seeking a better understanding of user preferences in Web site design, little research has systematically examined this (Cyr & Trevor-Smith, 2004). Personality might be a highly relevant factor in determining individual preferences on Web site design. For example, individuals with a strong need for closure prefer less interactive Web sites containing fewer hyperlinks, while those with a lower need prefer a more interactive Web site with more hyperlinks (Yates & Noyes, 2007).

Fang and Rau (2003) researched the effects of cultural differences of the Chinese and

US people on their perceived usability and search performance of Internet portal sites. The results of the study indicated that the Chinese users felt somewhat less satisfied since the portal site, used in the experiment, was initially developed for the US audience. It is clear that the site better fits the cognitive style and thought processes of US people than those of the Chinese. Therefore, it is assumed that a Web site represents cultural differences and its users are likely to react positively and favourably to a culturally congruent content of text.

In a similar vein, Singh et al. (2004) have studied whether global consumers preferred to browse and buy from standardised global Web sites or from those adapted to their local cultures. They tested the effects of cultural adaptation level - local, adapted, and standardised Web sites - with Italian, Indian, Dutch, Spanish, and Swiss consumers on five different effectiveness variables (navigation ease, presentation of information, attitude toward the site, purchase intention, and cultural adaptation). Some countries like Spain and India showed a high propensity to rank local sites as more effective than adapted and standardised Web sites. However, the results were contradicted in other countries like Italy, the Netherlands, and Switzerland, these countries showing higher mean values for some effectiveness variables for standardised and adapted Web sites compared to local Web sites. Singh et al. concluded that the reasons why Spain and India preferred local sites were because Spain scored high on Hofstede's uncertainty avoidance and India scored high on Hofstede's power distance dimensions.

Furthermore, the importance of the congruity of a Web site with a visitor's culture and the manifestations of that culture are significantly highlighted by Luna, Peracchio and de Juan (2002, 2003). They found that attitudinal measures were influenced by the interaction of Web site language with two types of congruity: graphic and cultural. In



their context, graphic congruity meant the relationship between the graphics and the text in a Web site. Cultural congruity referred to the relationship between the cultural values expressed and those of the visitor.

In short, there was a very limited number of studies that measured how the degree of cultural adaptation on the Web site affected user perception of its effectiveness. Only research conducted by Luna et al. (2002), Luna et al. (2003), and Singh et al. (2004) are noteworthy in this area. In addition, a work by Morel and Snelders (2006) has been developed along the same lines, but used credibility scales for measuring cross-country differences in Web site design. As discussed earlier, the literature emphasises evaluation of a Web site's informative and technological quality, not its cultural content characteristics, which this study pursues.

## 2.4 Research Questions

Based on previous research, two primary questions were developed, followed by ancillary assumptions.

(1) Are there cultural differences and similarities in the content of corporate Web sites from two culturally different countries?

- Main visuals and Web site features in Korean company Web sites will be different from those in New Zealand company Web sites.

(2) Are there differences and similarities in the perceptions of Web users from two countries toward culturally congruent or incongruent Web sites?

- Web users will have more favourable attitudes and future intentions toward a culturally congruent Web site than a culturally incongruent Web

site.

The following chapters will explain the research design and findings of Study One for the first research question (Chapter 3) and Study Two for the second research question (Chapter 4) respectively.

## 2.5 Conclusion

The term *culture* is developed in this research from the functionalist paradigm. Hofstede's and Hall's typologies have been widely used to explain cultural phenomena in marketing communication in spite of some critiques. The accumulated knowledge developed in marketing communication using Hofstede's and Hall's models provides a beneficial level of analytical flexibility for studying the cultural aspects of Web sites.

The Internet is still relatively new as a medium and cultural effects on Web sites are also at a nascent stage. Previous studies provided a general description of phenomena in the field, but only few studied industry-specific effects on culturally adapted Web sites. Most of the studies focused on US companies in a specific industry without researching industry effects. Furthermore, little research has quantitatively measured the effectiveness of culturally adapted Web sites. The question remains whether people of different cultures interpret and respond to culturally adapted Web sites differently. Cultural effects on Web site design have been studied and published by only a limited number of researchers. Therefore, this research should be developed on a more programmatic process to fill the gap.

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## Chapter 3: Study One

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### 3.1 Introduction

Study One tested whether there were cultural differences and similarities in the content of corporate Web sites targeting different national groups. In particular, it was expected that main visuals and Web features on Web sites would differ between the two countries, New Zealand and South Korea, on the opposite continuum of high-context and low-context communication styles and Hofstede's four cultural dimensions. Study One employed quantitative content analysis, an appropriate method for examining advertising messages to provide the frequency of visual and feature presentation (Kassarjian, 1977, cited in An, 2007). The chi-square test was utilised to examine group differences in the frequency of particular visuals and Web features on corporate Web sites and to compare the results between two nations. Later, the effects of different industry types were also studied.

### 3.2 Hypotheses

#### 3.2.1 Product portrayal

Among advertising components, the study of visual components captured greater attention (Cutler et al., 1992) since visual components in advertising were more quickly processed and more effective in drawing attention and stimulating curiosity than verbal components (An, 2007). Also, visuals can add meaning, eliciting a positive response to something that is basically neutral like products in advertising (An, 2007). Visuals help to demonstrate product features and benefits, introduce a personality for a product, relate the product to specific lifestyles, and engrave the product brand identity in the memories of the audience (Moriarty, 1987).

Advertising visuals are well associated with high-/low-context communication styles; literal visuals are more prevalent in advertising for low-context cultures and symbolic visuals are expected to appear more often for high-context cultures (An, 2007). Also, there is a positive relationship between a hard-sell vs. a soft-sell approach and product portrayals in advertising. In the hard-sell approach, advertisement visuals are more likely to portray the actual products whereas direct presentation of products tends to be avoided in the soft-sell approach (de Mooij, 2005). As discussed in the previous chapter (see session 2.2.2), literal visuals, preferred in low-context cultures, can be expressed by identification (brand, logo, package), description (what it looks like, attributes, parts, schematics), comparison (between two competitors, before and after), and demonstration of products (how to do, use, apply make); (Moriarty, 1987). This research derived two most relevant elements to direct product portrayals from Moriarty's four literal visuals of representing products: description and demonstration. Therefore, a difference in the frequency of product portrayals on the homepages of corporate Web sites is predicted between New Zealand and South Korea.

H1: New Zealand companies' home pages are more likely to use visuals of description of products (what it looks like, attributes, parts, schematics) than those of South Korea.

H2: New Zealand companies' home pages are more likely to use visuals of demonstration of products (how to do, use, apply make) in main visuals than those of South Korea.

### **3.2.2 People portrayal**

The individualism vs. collectivism dimension is perhaps the broadest and most widely used dimension of cultural variability in cross-cultural advertising research (Han &

Shavitt, 1994). This is in line with the connectedness-separateness self-schema theory (Wang & Chan, 2001). An individual with a separated self-schema tends to perceive himself or herself as distinct from others whereas one with a connected self-schema keeps close and harmonious relationships with others. In a collectivistic culture, a greater percentage of advertisements feature celebrity models to draw consumer attention (An, 2007). Celebrities show the shared values of a society and are considered more credible and influential (Choi et al., 2005). This is supported by a reflection of the symbolic visuals uppermost in high-context cultures (Moriarty, 1987). Symbolic visuals can be expressed with meanings by association using a character or celebrity (Moriarty, 1987). Based on this discussion, a cultural difference in the utilising of collectivism vs. individualism appeals on the homepages of corporate Web sites is expected between New Zealand and South Korea.

H3: South Korean companies' home pages are more likely to use visuals of individuals associated with others (family or group themes) than those of New Zealand.

H4: South Korean companies' home pages are more likely to use visuals of celebrity models than those of New Zealand.

### 3.2.3 Multimedia

There appears to be a preference for illustrations in relation to a more soft-sell and indirect approach in high-context cultures. By contrast, low-context cultures like the U.S. use realistic photographic visuals for the direct delivery of factual information about the products or services advertised in relation to a hard-sell approach (An, 2007; Cutler et al., 1992). As such, symbolic visuals emphasising strong aesthetic aspects are expected to appear more frequently on corporate Web sites for high-context cultures.

The following hypotheses address differences in the uses of animated illustrations and moving visuals on the homepages of corporate Web sites between New Zealand and South Korea.

H5: South Korean companies' home pages are more likely to use visuals of animated illustrations than those of New Zealand.

H6: South Korean companies' homepages are more likely to use moving visuals (e.g. flashy graphics or texts and movies) than those of New Zealand.

H7: South Korean companies' homepages are more likely to use music or sound effects than those of New Zealand.

#### **3.2.4 Web site features**

Based on the cultural categories in the cross-cultural literature of Web sites, a more comprehensive set of web features was proposed for this research to study cultural differences. Although it is believed that prior studies have provided a good foundation in this field, there are some cultural categories or features, such as quizzes, games and traditional themes, which are not normally included on corporate Web sites. Instead of just adopting these studies, those in which the most important and commonly used features of corporate Web sites were explored and supplemented. According to Liu et al. (1997), the main features of the homepages of Fortune companies included: product and service, company overview, feedback, what's new, financial facts, customer service and assistance, search, employment opportunities, guest book (sign-in), index/directory, online business, links to other sites, CEO messages, and frequently asked questions (FAQ). These features were also supported by other scholars as essential, common features (Cheung & Huang, 2002; Heinze & Hu, 2006; Huang, Le, Li, & Gandha, 2006;

Robbins & Stylianou, 2003).

For this thesis, after extensive review of relevant research, a set of 23 cultural Web site features, which were related to Hofstede's cultural dimensions but considered as significant features in designing corporate Web sites, were identified. Regardless of cultural characteristics of Web site features, online sales available were further investigated for understanding the recent traits of corporate Web sites from the two countries. Table 10 presents cultural Web site features. The justification for including certain Web site features under each cultural dimension was elaborated in the section 2.1.2 and 2.3.5.

Table 10: Cultural Web site features

Dimension	Features	Detailed information
Power distance	-Hierarchy information	Ranks of company personnel; organisational chart
	-Messages of leaders	Pictures of CEO; leaders' information; bio-sketches of leaders
	-Vision statement	
Collectivism	-Community relations	Community policy; social responsibility
	-Newsletter	Newsletters; what's new; Web magazines
	-Links to local Web sites	Links to other local Web sites
	-Loyalty program	Policies and procedures based on loyalty
	-National identity	Symbols and pictures of national identity
	-Sharing experience	Discussion groups; testimonials; case studies; message boards
Individualism	-Search engine	Access to information (less highly structured)
	-Personalisation	My page; individual acknowledgements; log-on
	-Good privacy statement	Privacy policy: confidentiality
	-Product uniqueness	Product differentiation features; patents

	-Employment opportunities	Available opportunities for certain positions and their descriptions
Uncertainty avoidance	-Customer service	FAQ's; customer contact; customer service option
	-Index/directory	Company addresses and phone numbers; location distribution; local offices
	-History of a company	
	-Terms and conditions	General disclaimer: Intellectual property
Masculinity	-Awards	Certifications; awards
	-Financial information	Annual report; information for investors
	-Product advertisement	Online advertisement; sales promotions
	-Clear gender role	
	-Rank and prestige and use of superlatives	No.1 company; the third largest; leading company; world class company

Therefore, a difference in the adoption of Web site features on corporate Web sites is predicted between New Zealand and South Korea.

H8: South Korean corporate Web sites are more likely to show a higher frequency of high power distance Web site features than those of New Zealand.

H9: South Korean corporate Web sites are more likely to show a higher frequency of collectivist Web site features than those of New Zealand.

H10: New Zealand corporate Web sites are more likely to show a higher frequency of individualist Web site features than those of South Korea.

H11: South Korean corporate Web sites are more likely to show a higher frequency of uncertainty avoidance Web site features than those of New Zealand.

H12: New Zealand corporate Web sites are more likely to show a higher frequency of masculine Web site features than those of South Korea.



### 3.3 Method

For the analysis of visual communication and Web features, content analysis was adopted as an appropriate method. Content analysis is a well-established method (Anderson, Dewhirst, & Ling, 2006) and has been widely used by researchers to investigate the content of the media such as commercials or advertisements in television or the print media. It is defined as a method of studying and analysing communication in a systematic, objective, and quantitative manner for the purpose of measuring variables (Kerlinger, 2000, cited in Wimmer & Dominick, 2006). In order to enhance its unique characteristics of objectivity and systematisation, the content to be analysed and the definition of relevant categories are selected systematically and objectively. There must be uniformity in analysis and evaluation procedures. Additionally, the quantitative characteristic of content analysis allows researchers to summarise results in a more precise and succinct way. With statistical aids, the results can be interpreted and analysed to find objective answers to research questions. Qualitative data like the content of a large number of advertisements can be understood in some simplified patterns and trends (Anderson et al., 2006).

Therefore, the procedure is briefly described as follows: (1) selecting an appropriate sample from the population, (2) defining a unit of analysis, (3) developing categories of content to be analysed, (4) coding the content according to the categories, (5) statistically analysing the coded data, and (6) drawing conclusions.

### 3.4 Unit of analysis

The first part of Study One focused on visual communication. The first or the main graphics on the homepages of corporate Web sites were chosen as the analysis unit. The homepage of a Web site is the most important part of the Web site since it is the front

door and essential portal to the rest of the site (Weinberg, 2000). Therefore, analysis of the first or the main graphics on homepages is essential for ensuring visual communication.

However, the unit of analysis for Web features was an entire Web site. These seem to have significant functions or features beyond those of traditional advertising or marketing. Corporate Web sites have unique characteristics which provide new contexts to companies. Through the gateway of a homepage, Web users are able to interact with Web sites and navigate through whole pages on a Web site. Unlike a main visual on a homepage which has the strongest impact, diverse Web features are spread through an entire site; therefore, an entire Web site should be analysed.

In this research, a corporate Web site is defined as one of a 'bricks and mortar' company that sells goods and services to consumers. Corporate Web sites were chosen for this study over other types since companies possessed financial resources that drove the technological development of the Web and about 88% of all registered domain names on the Web were commercial (Ha & James, 1998). Visuals and features on corporate Web sites were analysed to count the occurrence or non-occurrence of each of the categories.

### **3.5 Sample**

Sampling of content involved some consideration. There should be as little bias as possible in the selection of content to be compared. Corporate Web sites were classified by industry types from each country. The same number of companies from the same industry were selected and compared across the industry between the two countries. A systematic sampling procedure was followed to take a sample of corporate Web sites for

each country.

Most companies were selected from the companies listed in the New Zealand Exchange (NZX) and the Korea Exchange (KRX). The companies listed on the Exchange were cornerstone and the best-known companies in each country. The industry types were derived from the sectors of NZX since this had a much simpler category and a relatively smaller number of companies. About 250 companies were listed in the New Zealand Stock Market (NZSX), New Zealand Debt Market (NZDX), and New Zealand Alternative Market (NZAX) as of March, 2008, compared to about 1,800 companies listed in the Korean Stock Exchange (KSE) and KOSDAQ.

Additionally, this study referred to South Korea's top 1000 companies from Naver (2007), one of the biggest Korean Internet portal sites, for the Korean sample. In the same fashion, this study referred to New Zealand's top 100 companies for 2002 (WebRank, 2007) and the New Zealand Business Who's Who Online (NZBWW, 2008) for the New Zealand sample. For example, as only three companies were listed under the building materials and construction sector in the NZX, the remainder were derived from the other two sources. Conversely, since 47 companies were listed under the general construction sector in the KRX, those which were in higher ranks and sorted by Capital Stocks were selected. If a Web site did not exist or was under construction at the time of the visit, the next available site was included. A total of 120 company Web sites was viewed from each country. The company categories included agriculture & fishing (10), apparel and jewellery (10), building materials and construction (10), business assistance service (10), durables (10), energy (10), finance and insurance (10), food and beverages (10), retail sales (10), science and technology (10), telecommunication (10), and transport (10). Numbers in parentheses indicate the number of Web sites viewed for

each industry. The company lists, Table 34 and 35 are provided in Appendix 1. In the analysis of Web sites, the time frame is emphasised because of possible changes in their content necessitating rapid collection of data. The homepages of 120 companies from each country were viewed from the 17<sup>th</sup> of March to the 31<sup>st</sup> of March, 2008 for about two weeks.

### 3.6 Results

A chi-square test was utilised to examine a statistical test of the significance of differences between frequencies. Table 11 shows the frequency of the occurrence of visuals on corporate homepages from South Korea and New Zealand. The cells in the table indicate the frequency of each row and column combination. Percentages in parentheses indicate the proportion of the total main visuals on homepages for each country (n=120) using a particular visual function. For example, 76% of main visuals on 120 South Korean homepages (frequency=70) contained product visuals. If the chi-square test was statistically significant at 95 percent, the hypotheses were supported, otherwise they were rejected.

Table 11 : Visuals on the corporate homepages from New Zealand and South Korea

	Nations		Chi-Square	Results
	South Korea (n=120)	New Zealand (n=120)	Values	
H1: description of a product	70 (58.3)	76 (63.3)	$\chi^2 = .630$	Rejected
H2: demonstration of a product	59 (49.2)	46 (38.3)	$\chi^2 = 2.861$	Rejected
H3: people associated with others	33 (27.5)	20 (16.7)	$\chi^2 = 4.092^a$	Supported
H4: celebrity models	16 (13.3)	1 (0.8)	$\chi^2 = 14.244^b$	Supported
H5: animated illustrations	42 (35)	5 (4.2)	$\chi^2 = 36.221^b$	Supported
H6: moving visuals	113 (94.2)	41 (34.2)	$\chi^2 = 93.941^b$	Supported
H7: music or sound effects	16 (13.3)	0	$\chi^2 = 17.143^b$	Supported

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Percentages are in parentheses.

<sup>a</sup> South Korea and New Zealand differed significantly at  $p < .05$

<sup>b</sup> South Korea and New Zealand differed significantly at  $p \leq .001$

### 3.6.1 Product portrayal

The first hypothesis was to examine the difference in the frequency of description of a product in the main visuals on the homepages of corporate Web sites between New Zealand and South Korea. As shown in Table 11, 70 (58.3%) South Korean corporate homepages reflected their products in main visuals, compared to those of 76 (63.3%) New Zealand. There was only a small difference between South Korea and New Zealand although New Zealand did reflect a higher frequency. The group difference between New Zealand and South Korea was not statistically significant ( $\chi^2 = .630$ ). Therefore, *H1 was rejected*.

The second hypothesis predicted a difference in the use of demonstration of a product (how to do, use, apply or make) in the main visuals on the homepages between the two national groups. The number of visuals featuring demonstration of products was compared with the total number of visuals sampled for each group. As Table 11 illustrates, 59 visuals out of 120 (49%) from South Korea featured demonstration of products in visuals while 46 out of 120 (38.3%) from New Zealand did so. The difference between New Zealand and South Korea was not statistically significant ( $\chi^2 = 2.861$ ). Therefore, *H2 was rejected*.

For use of visuals on corporate homepages by industry sectors, Table 36 (see Appendix 2) indicates the frequency of use of visuals; only two visuals, description of a product and demonstration of a product, had a statistically significant industry difference in use ( $\chi^2 = 54.911$ ,  $df = 11$ ,  $p < .001$  for visual of description of a product;  $\chi^2 = 55.314$ ,  $df = 11$ ,  $p < .001$  for visual of demonstration of a product). Industry sectors like agriculture and

fishing (80%), apparel and jewellery (85%), building materials and construction (80%), food and beverages (85%), and retail sales (80%) included visuals of description of product on the majority of their homepages. However, service sectors like business assistance service (35%), energy (20%), and finance and insurance (20%) reflected visuals of description of products with far less frequency. It makes sense that service is intangible and does not have form or shape. Similarly, many apparel and jewellery (75%) and building materials and construction (90%) companies used visuals of demonstration of products on their homepages whereas energy (15%) and finance and insurance (10%) rarely featured visuals of product usages on their homepages.

### 3.6.2 People portrayal

The third hypothesis predicted a national difference in the use of visuals of individuals associated with others (family or group theme) between New Zealand and South Korea. As presented in Table 11, 33 visuals on Korean corporate homepages included family or group themes (27.5%) whereas 20 visuals on New Zealand homepages used family or group themes (16.7%). Chi-square statistics showed that the group difference between New Zealand and South Korea was statistically significant ( $\chi^2 = 4.092$ ,  $df = 1$ ,  $p < .05$ ). Therefore, ***H3 was supported.***

The fourth hypothesis was to examine a group difference in the frequency of visuals of celebrity models between New Zealand and South Korea. As Table 11 shows, 16 out of 120 (13.3%) Korean corporate homepages used celebrity models for their main visuals whereas only one New Zealand corporate homepage used a celebrity model. Although overall frequency of celebrity models was low, the group difference was statistically very significant ( $\chi^2 = 4.092$ ,  $df = 1$ ,  $p < .001$ ). Therefore, ***H4 was strongly supported.***

### 3.6.3 Multimedia

The fifth hypothesis predicted that Korean companies' home pages would show higher level of visuals of animated illustrations than those of New Zealand. As depicted in Table 11, 35% of main visuals on South Korean corporate homepages (frequency = 42) used animated illustrations, compared with only 4.2% of main visuals of New Zealand corporate homepages (frequency = 5). Photographs were the main type of visuals used on New Zealand corporate homepages. Consequently, animated illustrations were used far more frequently by the corporate homepages from South Korea. The group difference was statistically very significant ( $\chi^2 = 36.221$ ,  $df = 1$ ,  $p < .001$ ), therefore, ***H5 was strongly supported.***

The last comparison between South Korean and New Zealand corporate homepages concerned moving visuals (e.g. flashy graphics or texts and movies) and music or sound effects. Almost all the South Korean corporate homepages examined used moving visuals (94.2%, frequency = 113) whereas only 34.2% of those of New Zealand included moving visuals (frequency = 41). This was a large and statistically significant group difference ( $\chi^2 = 93.941$ ,  $df = 1$ ,  $p < .001$ ). In contrast, only a small portion of South Korean corporate homepages used music or sound effects. However, compared to New Zealand corporate homepages which featured none (0%), the group difference was statistically very significant ( $\chi^2 = 17.143$ ,  $df = 1$ ,  $p < .001$ ). ***Both H6 and H7 were strongly supported.***

### 3.6.4 Web site features

Table 12 shows the frequency of Web site features involving cultural dimensions on corporate sites from New Zealand and South Korea, and the chi-square test results.

Table 12 : Frequency of Web site features

Cultural dimensions	Web site features	Nations		Chi-Square
		South Korea (n=120)	New Zealand (n=120)	Values
Power distance	Hierarchy information	57 (47.5)	67 (55.8)	$\chi^2=1.669$
	Messages of leaders	107 (89.2)	83 (69.2)	$\chi^2=14.552^b$
	Vision statement	120 (100)	110 (91.7)	$\chi^2=10.435^b$
Collectivism	Community relations	69 (57.5)	55 (45.8)	$\chi^2=3.270$
	Newsletter	118 (98.3)	101 (84.2)	$\chi^2=15.082^b$
	Links to local Web sites	87 (72.5)	58 (48.3)	$\chi^2=14.653^b$
	Loyalty program	34 (28.3)	19 (15.8)	$\chi^2=5.448^a$
	National identity	5 (4.2)	8 (6.7)	$\chi^2=0.732$
	Sharing experience	45 (37.5)	21 (17.5)	$\chi^2=12.038^b$
Individualism	Search engine	46 (38.3)	61 (50.8)	$\chi^2=3.795$
	Personalisation	83 (69.2)	47 (39.2)	$\chi^2=21.751^b$
	Good privacy statement	90 (75.0)	55 (45.8)	$\chi^2=21.343^b$
	Product uniqueness	116 (96.7)	78 (65.0)	$\chi^2=38.835^b$
	Employment opportunities	106 (88.3)	77 (64.2)	$\chi^2=19.350^b$
Uncertainty avoidance	Customer service	112 (93.3)	91 (75.8)	$\chi^2=14.091^b$
	Index/directory	118 (98.3)	118 (98.3)	na <sup>c</sup>
	History of a company	119 (99.2)	65 (54.2)	$\chi^2=67.919^b$
	Terms and conditions	60 (50)	69 (57.5)	$\chi^2=1.358$
Masculinity	Awards	103 (85.8)	22 (18.3)	$\chi^2=109.540^b$
	Financial information	103 (85.8)	84 (70)	$\chi^2=8.742^a$
	Product advertisement	97 (80.8)	42 (35)	$\chi^2=51.713^b$
	Clear gender role	1 (0.8)	0 (0)	na <sup>c</sup>
	Rank and prestige			
	and use of superlatives	116 (96.7)	115 (95.8)	na <sup>c</sup>



Online business	62 (51.7)	27 (22.5)	$\chi^2=21.877^b$
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Percentages are in parentheses.

<sup>a</sup> South Korea and New Zealand differed significantly at  $p < .05$

<sup>b</sup> South Korea and New Zealand differed significantly at  $p \leq .001$

<sup>c</sup> Statistically invalid, in 2x2 tables, any of the expected frequencies is less than 5.

In order to test hypotheses 8 to 12, the overall score for each of the five cultural dimensions (power distance, collectivism, individualism, uncertainty avoidance, and masculinity) was needed. This research followed a previous study for a way of generating an aggregate variable for each dimension (Singh et al., 2003). The researcher calculated the average presence of each of the sub-categories within each dimension, and recorded it as an aggregated score for that cultural dimension. For example, the aggregated score for the cultural dimension, power distance, was calculated by counting the presence of all three sub-categories of power distance on a Web site; hierarchy information, message of leaders, and vision statement, and then divided that number by three.

Table 13: ANOVA Results for cultural dimensions by country

Hypothesis: Dimension		Nations		F-Value	Results
		South Korea	New Zealand		
		Mean values (%)			
H8:	Power distance	79	72	3.745	Rejected
H9:	Collectivism	50	37	32.883 <sup>a</sup>	Supported
H10:	Individualism	74	53	36.987 <sup>a</sup>	Rejected
H11:	Uncertainty avoidance	85	71	30.510 <sup>a</sup>	Supported
H12:	masculinity	70	44	164.502 <sup>a</sup>	Rejected

<sup>a</sup> F-value is significant at  $p \leq .001$  level

The percentage of occurrence of aggregated power distance score on Korean corporate

Web sites (79%) was comparatively more than on New Zealand Web sites (72%), but the result was not statistically significant; thus hypothesis 8 was rejected. Hypotheses 9 and 11 were supported since the results showed that the overall frequency of the occurrences of collectivism and uncertainty avoidance was relatively higher on Korean Web sites than on New Zealand Web sites. Conversely, hypotheses 10 12 were rejected since the results were opposite to what we proposed.

For further understanding, as shown in Table 37 (see Appendix 2), an industrial difference was studied and 11 out 26 features indicated an industrial difference. Features like personalisation, privacy policy, terms and conditions and online business in energy, finance & insurance, and retail sales made the Web sites distinguishable from those of other industrial sectors. These four features are related since online business needs a log-on system which requires strong online safety issues like privacy policy, and terms and conditions, to use the Web sites. The service sector was found to be advanced in its use of online business.

In addition, the industry sectors, segmented into 12 sectors, were aggregated into three larger sectors and analysed for each country: non-durable, durable, and service sectors. The non-durable sector (40 companies) was composed of agriculture and fishing, apparel and jewellery, food and beverages and retail sales. The durable sector (40 companies) included durables, building materials and construction, science and technology, and business assistance service. Finally, the service sector (40 companies) included energy, finance and insurance, telecommunication, and transport.

As shown in Table 14, Ten Web features had statistically significant differences between industry sectors. The most distinguishable difference was found in loyalty program and

financial information features.

Table 14: Web features on corporate homepages by industry sectors in South Korea

Cultural dimensions	Web site features	Industry			Chi-Square
		Non-durable (n=40)	Durable (n=40)	Service (n=40)	
		Frequency (%)			
Power distance	Hierarchy information	27.5	60	55	$\chi^2 = 9.825^b$
	Messages of leaders	77.5	95	95	na
	Vision statement	100	100	100	na
Collectivism	Community relations	45	52.5	75	$\chi^2 = 7.980^b$
	Newsletter	97.5	100	97.5	na
	Links to local Web sites	65	65	87.5	$\chi^2 = 6.771^b$
	Loyalty program	52.55	5	27.5	$\chi^2 = 22.244^a$
	National identity	5	2.5	5	na
	Sharing experience	52.5	15	45	$\chi^2 = 13.440^a$
Individualism	Search engine	45	22.5	47.5	$\chi^2 = 6.416^b$
	Personalisation	92.5	47.5	67.5	$\chi^2 = 19.069^a$
	Good privacy statement	87.5	55	82.5	$\chi^2 = 13.067^a$
	Product uniqueness	100	100	90	na
	Employment opportunities	82.5	95	87.5	na
Uncertainty avoidance	Customer service	95	87.5	97.5	na
	Index/directory	97.5	97.5	100	na
	History of a company	100	100	97.5	na
	Terms and conditions	60	37.5	52.5	ns
Masculinity	Awards	85	82.5	90	ns
	Financial information	65	95	97.5	$\chi^2 = 21.519^a$
	Product advertisement	92.5	72.5	77.5	ns
	Clear gender role	2.5	0	0	na
	Rank and prestige and use of superlatives	95	100	95	na

Online business	52.5	30	72.5	$\chi^2 = 14.483^a$
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<sup>a</sup> industry sectors differed significantly at  $p \leq .001$

<sup>b</sup> industry sectors differed significantly at  $p < .05$

*ns*: not significant at  $p < .05$ . *na*: not statistically valid

New Zealand, as shown in Table 15, had industry differences in six Web features with messages of leaders and online business features the most noticeable features.

Table 15: Web features on corporate homepages by industry sectors in New Zealand

Cultural dimensions	Web site features	Industry			Chi-Square
		Non-durable (n=40)	Durable (n=40)	Service (n=40)	
		Frequency (%)			
Power distance	Hierarchy information	52.5	50	65	<i>ns</i>
	Messages of leaders	50	75	82.5	$\chi^2 = 10.863^b$
	Vision statement	80	95	100	<i>na</i>
Collectivism	Community relations	47.5	32.5	57.5	<i>ns</i>
	Newsletter	82.5	87.5	82.5	<i>ns</i>
	Links to local Web sites	47.5	55	42.5	<i>ns</i>
	Loyalty program	27.5	5	15	$\chi^2 = 7.629^b$
	National identity	7.5	7.5	5	<i>na</i>
	Sharing experience	7.5	25	20	<i>ns</i>
Individualism	Search engine	45	45	62.5	<i>ns</i>
	Personalisation	42.5	22.5	52.5	$\chi^2 = 7.834^b$
	Good privacy statement	52.5	35	50	<i>ns</i>
	Product uniqueness	57.5	72.5	65	<i>ns</i>
	Employment opportunities	75	60	57.5	<i>ns</i>
Uncertainty avoidance	Customer service	67.5	77.5	82.5	<i>ns</i>
	Index/directory	97.5	97.5	100	<i>na</i>
	History of a company	60	57.5	45	<i>ns</i>
	Terms and conditions	67.5	42.5	62.5	<i>ns</i>

Masculinity	Awards	20	32.5	2.5	$\chi^2 = 12.134^b$
	Financial information	75	62.5	72.5	ns
	Product advertisement	52.5	25	27.5	$\chi^2 = 8.132^b$
	Clear gender role	0	0	0	na
	Rank and prestige and use of superlatives	90	97.5	100	ns
Online business		32.5	5	30	$\chi^2 = 10.609^b$

<sup>a</sup> industry sectors differed significantly at  $p \leq .001$

<sup>b</sup> industry sectors differed significantly at  $p < .05$

ns: not significant at  $p < .05$ . na: not statistically valid

The overall scores for each of the five cultural dimensions by the three industry groups are presented in Table 16 for South Korea. To obtain the location of group difference, a post hoc comparison using Turkey's test was performed.

Table 16: ANOVA Results for cultural dimensions in South Korea

Hypothesis: Dimension	Industry			F-Value	Post-hoc results
	Non-durable (ND)	Durable (D)	Service (S)		
	Frequency (%)				
Power distance	68	85	83	8.917 <sup>a</sup>	D>S;ND
Collectivism	53	40	56	10.816 <sup>a</sup>	S;ND>D
Individualism	82	64	75	6.158 <sup>b</sup>	ND;S>S;D
Uncertainty avoidance	88	81	87	2.817	
Masculinity	68	70	72	0.639	

<sup>a</sup> F-value is significant at  $p < .001$  level

<sup>b</sup> F-value is significant at  $p < .05$  level

Compared to South Korean corporate Web sites, New Zealand sites did not display group differences in cultural dimensions, except in the power distance dimension, as shown in Table 17.

Table 17: ANOVA Results for cultural dimensions in New Zealand

Hypothesis: Dimension	Industry			F-Value	Post-hoc results
	Non-durable (ND)	Durable (D)	Service (S)		
	Frequency (%)				
Power distance	61	73	83	5.076 <sup>b</sup>	S;D>D;ND
Collectivism	37	35	37	0.089	
Individualism	55	47	58	1.453	
Uncertainty avoidance	73	69	73	0.437	
Masculinity	48	44	41	2.001	

<sup>b</sup> F-value is significant at  $p < .05$  level

### 3.7 Conclusion

Study One used content analysis and descriptive study for discovering whether there were cultural differences in the use of main visuals and Web features of corporate sites between New Zealand and South Korea. A total of 120 company Web sites were viewed for each country. Multimedia usage like animated illustration and moving visuals on corporate homepages had the most noticeable difference between the two countries in the findings. Moreover, the most prominent difference of Web features between the two was found in individualism and masculinity dimensions which were typically considered as cultural characteristics of Web sites from Western countries. However, high individualist and high masculine Web features were more portrayed by South Korean corporate Web sites, along with high collectivist and high uncertainty avoidance features. For further understanding, industrial difference was explored. Compared to New Zealand, South Korean corporate Web sites displayed clear industrial differences in Web features in that the sites for service and non-durable sectors included more features of low power distance, high individualism, and high collectivism dimensions.

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## Chapter 4: Study Two

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### 4.1 Introduction

Study Two was to examine whether there were differences and similarities in Web users' perceptions on culturally different Web sites and to testify whether these perceptions were different between three cultural groups. The perceptions, considered as predictors of effectiveness of a Web site, were measured through user attitudes and future intentions toward them. Culturally congruent or incongruent sites were designed in accordance with cultural categories and indicators derived from the literature. Study Two employed an online questionnaire to ask three cultural groups - New Zealand university students, South Korean university students, and Korean bilingual university students - about their cultural values and their perceptions towards Web sites.

One-Way ANOVA (Analysis of variance) and Two-Way ANOVA were used to perform an analysis of group differences in the means of independent variables, for example, four levels of Web sites and the three levels of ethnic groups in this study. If a statistical difference was found, a post-hoc test was applied to find where the group differences occurred. However, the researcher did not look at the post-hoc tests if no significant main effect of an independent variable on a dependent variable was found.

### 4.2 Hypotheses

Advertisers have spent a considerable amount of money to persuade consumers to perceive their products and companies more favourably and to convert consumers into "ideal customers" through advertising (Singh & Dalal, 1999). An ideal customer is defined as one who not only holds a favourable attitude toward a company and its products but also buys those products on a regular basis and spreads positive word-of-

mouth advertising. If Web sites are considered as another channel of advertising, it is obvious to extend this concept of advertising to the context of Web sites. The fundamental objective of a corporate Web presence is to establish a positive corporate identity in cyberspace and to conduct business with customers and business partners over the Internet. The objective depends, among other things, on whether the Web sites create a positive impression with users after their initial interaction. When ideal Web users hold positive, favourable beliefs and attitude toward a company's Web site, they will frequently visit it and buy its products.

Luna et al. (2002) applied the evaluation scale proposed by Chen and Wells (1999) in their study. According to Chen and Wells (1999), "attitude toward the Web site" parallels "attitude toward the advertisement (AD)" in evaluating effectiveness. Previous research on attitude toward the AD - a predisposition to respond in a favourable or unfavourable manner to a particular advertising stimulus during a particular exposure situation - were well sponsored and viewed as the best single predictor of effectiveness (Aaker & Stayman, 1990). Therefore, in this study, attitude toward the Web site, users' predispositions to responding favourably or unfavourably to it, is considered to be the most suitable concept to use in studying the effectiveness of Web sites with different cultural content characteristics, irrespective of their informative and technological effectiveness. Therefore, we hypothesise as follows;

H13: Web users are likely to have more favourable attitudes toward a culturally congruent (+) Web site than a culturally incongruent (-) Web site.

As with advertisements, attitude toward a Web site depends predominantly on a user's first impression of it, especially when the same technical functionality of a Web site, advertising, is provided. Generally speaking, graphics draw more attention from Web



users than verbals or text. A graphic is worth a thousand words, especially since the average visit duration of a company's Web site is very short at 6.8 seconds (Conger & Mason, 1998). Theoretically, under the circumstances of this research, participants are considered as Web surfers since they are requested to just visit a Web site. Unlike Web searchers who are goal oriented, looking for specific information, Web surfers are likely to visit a Web site, linger for a brief period, and leave. Since their involvement is low, the emotional tone of the message, the use of graphics and colours, and the setting of a Home page are more related to their perceptions of a Web site (Singh & Dalal, 1999). Therefore, we hypothesise as follows;

H14: Web users are likely to have more favourable attitudes toward a Web site with culturally congruent (+) graphics and culturally incongruent (-) text than one with culturally incongruent (-) graphics and culturally congruent (-) text.

Regardless of a Web site's content, a strong bond can be created between users and the site if the Web sites are designed in the users' native language (Luna et al., 2002).

Therefore:

H15: Web users are likely to have a more favourable attitude toward a Web site designed in their first language.

Furthermore, although some Web sites have the objective of information dissemination or relationship-building with partners, more and more companies exploit their Web sites commercially. In a Web environment, satisfaction is related to "stickiness" which refers to "the sum of all the Web site qualities that induce visitors to remain at the Web site rather than move to another site" (Holland & Baker, 2001). The characteristics of Web sites are crucial for users to come back to the sites in the future and to shop at these Web

sites. When it comes to e-commerce or electronic transactions, a Web user's attitude is especially important since purchase intentions resulting from on-line visits are found to improve as attitude toward the Web site improves (Stevenson, Bruner, & Kumar, 2000). A Web user's favourable attitude toward a Web site might not be directly linked to overt purchasing behaviour. In this study, Web users' future intentions are measured as the immediate determinant of a particular behaviour. The intentions are powerful predictors of actual purchase (Hsiao, Sun, & Morwitz, 2002). The model in this study applies to international companies who want to enhance Web users' associations and future intentions to visit the sites again and make transactions.

Therefore:

H16: Web users are likely to have more favourable future intentions toward a culturally congruent (+) Web site than a culturally incongruent (-) Web site.

### **4.3 Creating four culturally manipulated Web sites**

For the independent variable of cultural characteristics of Web sites, 2 (high or low culturally congruent text) X 2 (high or low culturally congruent graphics) Web sites were designed in English; thus four versions of virtual Web sites (Web sites of a fictitious electronic appliance company) were prepared for different groups or conditions of the Web sites. The text and graphics accounted for either Cluster A-specific or Cluster B-specific. The Cluster A-specific contents of the Web site included the values of high power distance, collectivism, femininity, and high uncertainty avoidance. The Cluster B-specific contents of the Web site contained the values of low power distance, individualism, masculinity, and low uncertainty avoidance.

In detail, the main graphic of the Cluster A-specific Web site included a family theme; a

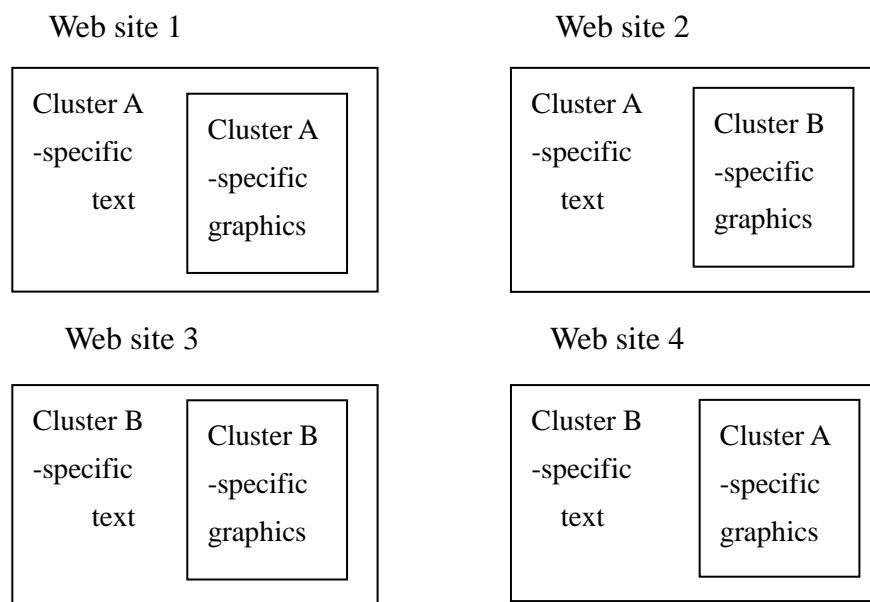
family was having a good time outside. No direct product portrayal and information were included in the graphic. The main tagline was simple, “The products save you time and energy for your family.” Conversely, the main graphic of the Cluster B-specific Web site reflected an individual; one man was cooking with joy (actually using a product). The main tagline emphasised an individual’s joy and excitement and the company’s competitiveness using the superlative, “The fastest growing home appliance company in the world” and “The company’s competitiveness offers you the products that generate joy and excitement.”

There has not been clear verification or agreement between researchers on which Web site indicators and categories are clearly associated with which Hofstede’s dimension. Therefore, the divisions of Cluster A and Cluster B were considered significant since all the cultural dimensions for Cluster A or for Cluster B were statistically associated with each other in accordance with Hofstede’s study. For instance, Hofstede (2001) observed a strong correlation between individualism versus collectivism against power distance. Many countries that indicated large power distance cultures scored low on the individualism index. The two dimensions tended to be negatively correlated ( $r=-.70$ ) (Hofstede, 2001; Zahedi et al., 2001). Also, Hofstede’s dimensions were strongly related to those of Hall. High individualism was very often connected to low-context communication, whereas low individualism was very often connected to high-context communication (Hermeking, 2005).

Although four versions of the virtual Web sites were designed by applying different combinations of text and graphics, the structures and outlines of the Web sites were exactly the same. The study was tested in three different cultural contexts; four Web sites were tested by Korean university students in South Korea, New Zealand university

students in New Zealand, bilingual South Korean university students who were studying at a New Zealand university. Figure 2 shows different Web sites with different contents of text and graphics. (+) means high congruity to the culture (either the national culture of Cluster A or B) and (-) means low congruity to the culture.

Figure 2: Four different Web sites



The Web sites consisted of about 35 Web pages and at least 10 culturally congruent or incongruent pictures, and had several sections which were (a) Home (a main graphic and some product graphics), (b) About us (pages describing the company's information and philosophy), (c) Products, (d) Experience (pages containing the company's social responsibility, sponsorship, and promotions), (e) Careers (a page for future employees) and (f) Support (pages including contact information and service details). Table 18 depicts the detailed contents of each menu in Web sites.

Table 18: The contents of the Web sites

Cluster A specific texts		Cluster B specific texts	
Home		Home	
About Us	<ul style="list-style-type: none"> <li>-Overview</li> <li>-Message from CEO</li> <li>-Company structure</li> <li>-Company value &amp; logo</li> <li>-Code of ethics</li> <li>-Partnership               <ul style="list-style-type: none"> <li>: mutual cooperation</li> </ul> </li> </ul>	About Us	<ul style="list-style-type: none"> <li>-Overview</li> <li>-Management team</li> <li>-Business excellence</li> <li>-Investment in R&amp;D</li> <li>-Compensation report</li> <li>-Awards               <ul style="list-style-type: none"> <li>: product innovation and entrepreneurial spirit</li> </ul> </li> </ul>
Products	-Simple information	Products	-Detailed information
Experience	-Social commitment	Experience	-Social commitment
MGE	<ul style="list-style-type: none"> <li>● Community services</li> <li>● Clean environment</li> </ul>	MGE	<ul style="list-style-type: none"> <li>● Top achiever prize</li> <li>● Energy conservation (product effectiveness)</li> </ul>
	-Sport sponsorship		Sport sponsorship
	-Promotions <ul style="list-style-type: none"> <li>● Filial piety promotion</li> <li>● Purchasing the products in a package</li> </ul>		-Promotions <ul style="list-style-type: none"> <li>● \$100 Trade-In promotion</li> <li>● Bonus cookbook</li> </ul>
Careers	<ul style="list-style-type: none"> <li>-What MGE looks for               <ul style="list-style-type: none"> <li>● A harmonious, ethical person</li> </ul> </li> <li>-Why MGE?               <ul style="list-style-type: none"> <li>● Education for leaders</li> <li>● A reward for a long-term employed person</li> <li>● Healthcare</li> </ul> </li> <li>-Strict working hours and promotion policy</li> </ul>	Careers	<ul style="list-style-type: none"> <li>-What MGE looks for               <ul style="list-style-type: none"> <li>● A dynamic, individualistic person</li> </ul> </li> <li>-Why the company?               <ul style="list-style-type: none"> <li>● Equal opportunities</li> <li>● Performance-related compensation</li> <li>● Annual staff dialogue</li> </ul> </li> <li>-Flexible management of work-life balance</li> </ul>
Contact Us		Contact Us	

#### 4.4 Consideration of creating the Web sites

The Web sites were modelled on typical electronic appliance companies' Web sites. There were three main reasons why Web sites of a fictitious electronic appliance company were created for this study. First, according to the research by Han and Shavitt (1994), cross-cultural differences in advertising emerging for shared products like washer, dryer, and home furnishings, were greater than for personal products like cosmetics and fashion apparel. Shared products were more likely to be promoted differently in different countries while personal products offer predominantly personal or individually experienced benefits. Secondly, Web sites for a fictitious company prevented users from having positive or negative previous feelings for existing companies or products. Cyr et al. (2005) identified that "vendor familiarity", built by experience of purchasing from a vendor, the popularity of that vendor's name, and the vendor's reputation, was an important factor influencing their participants' trust in online purchasing. These feelings of a vendor or its product could have significant effects on attitudes toward the company's Web site. It is also acknowledged by Winter et al. (2003) that they selected target Web sites of companies that were not well known since they wanted to measure participants' impressions based just on their immediate observation of the Web sites, not on their previous experience.

Thirdly, the segment of B2C retail Web sites was growing by 100 % per year in certain areas (N. Singh, Kumar et al., 2005). B2Cs are more suitable for measuring users' perceptions since their Web sites usually have direct relationships with end consumers. Unlike B2B Web sites that are more globalised, B2C sites are relatively unaffected by globalisation due to the heterogeneity of consumers and different national regulatory systems (Kraemer, Gibbs, & Dedrick, 2005).

Another consideration for creating Web sites for this research was that many recently made Web sites were abandoned due to slow loading by the latest multimedia tools like animation and video. Research has estimated that more than US\$4 billion in revenue had been lost due to slow downloads in US e-commerce (Weinberg, 2000). Protracted loading time of a homepage makes Web users switch attention to competitors' sites and leave if the waiting time becomes intolerable. Therefore, the Web sites for this study were designed to be as simple as possible even for participants who connect the Internet via modem (the maximum theoretical speed for a 33.6 Kbps modem is just 56 Kbps). According to Statistics New Zealand, the number of broadband subscribers in New Zealand was fast growing but still below 15% in the year ended September, 2006 (Welch, 2007). The optimum load time for one Web page is recommended to be only one second, but Web users might tolerate load times of 15 seconds for one Web page at maximum (Swanson, 2007). In order to load within 15 seconds over a typical modem connection, one Web page's total size should be less than 30KB. Therefore, the size of one Web page of the Web sites designed for this study was kept strictly below 20KB.

The four Web sites were uploaded to the server of a Web site hosting company that provided some spaces in its server and URL addresses. The addresses the hosting company provided helped to hide the origin of a company as the addresses of the Web sites did not include a national tag like kr (South Korea) and nz (New Zealand) at the end of the URL addresses. The URL address for Web site 1 was <http://www.mge1.zc.bz> (Korean-specific text and graphics); Web site 2 was <http://www.mge2.zc.bz> (Korean specific-text and New Zealand specific-graphics); Web site 3 was <http://www.mge3.zc.bz> (New Zealand specific-text and New Zealand specific-graphics); and Web site 4 was <http://www.mge4.zc.bz> (New Zealand specific-text and Korean-specific graphics). The four Web sites were viewed on the Internet from 10<sup>th</sup> January to

25<sup>th</sup> of April, 2007.

#### 4.5 Participants

South Korean university students, New Zealand university students, and South Korean international students in New Zealand (bilinguals) were asked to participate in this study. They received no remuneration. For Korean-English bilinguals, South Korean international students who had been in New Zealand for more than two years were asked to participate for the survey. This group was included as a reflection of acculturation or the idea of multiculturalism. The South Korean students spoke fluent English since New Zealand universities require a minimum overall band of 6.0 for the International English Language Testing System (IELTS) from international students who speak English as their second language. The IELTS describes people with an overall band of 6.0 as being able to use and understand fairly complex English (IELTS, 2004). For this reason, a measurement of English proficiency of the bilinguals in this study was not necessarily required.

This research followed the strategy of matched samples (Hofstede, 1991). This means that rather than trying to draw representative samples from the populations of the countries studied, this research decided to study well-defined and homogeneous samples which differ in nationality but are alike in as many respects as possible (Fam & Grohs, 2007; Orth et al., 2007). This is supported by extant cross-cultural research. Cultural groups to be compared should be made as similar as possible in their demographic characteristics, otherwise it may difficult to conclude whether differences in the results are due to cultural or other differences. Also, the use of a homogenous population of subjects may be more effective in examining relationships between variables than the use of a more heterogeneous group in experimental research (Muehling, 1987, cited in



Ko et al., 2006). Therefore, business students from different cultures are often used in cross-cultural studies. For this study, there was one more reason to use students as participants. The primary objective of this study is to understand how individuals identify cultural aspects in the Websites and the results do not need to be grounded in high level job-related knowledge.

#### 4.6 Method

Experimental research is the best way to learn the opinions or attitudes of the mass of people. However, it is conducted in realistic settings rather than in a laboratory or screening room under artificial conditions and is not constrained by geographic boundaries (Wimmer & Dominick, 2006). Therefore, it was well suited to Study Two in this research that needed to measure the attitudes and future intentions of Web users from three different ethnic groups in a realistic setting. The online questionnaire was composed of 32 questions - 28 closed-ended and 4 open-ended questions. They were written very simply to draw the highest response rate. The questionnaire consisted of three main parts: participants' attitudes and future intentions toward the Web sites; participants' values (Hofstede's Value Survey Module), and demographic information.

In detail, the first part of the questionnaire included eight closed-ended items and two open-ended items for measuring participants' attitudes toward the Web sites and their future intentions. The questions were derived from previous studies of Chen and Wells (1999) and Chen, Clifford, and Wells (2002). The original instrument was proven for a high reliability coefficient, over 0.92 in previous research (Chen & Wells, 1999). The first work by Chen and Wells has been cited 46 times in social science journals and their second 11 times since 2002. Among Chen and Wells' original six evaluative items, one item - 'compared with other Web sites, I would rate this one as (one of the worst-one of

the best)’ - was removed. The Web sites made by simple and plain tools only to meet the purpose of this study cannot be compared with complex Web sites with various sound and moving visual effects, made by professional Web developers.

Furthermore, two items measuring feeling were added to the original instrument of Chen and Wells (1999) in order to reinforce affective components since these are a crucial element of attitude (Teo, Oh, Liu, & Wei, 2003). The attitude toward a Web site depends predominantly on a Web user’s first impression of it, and overall feeling toward the Web site. Therefore, two questions, ‘my first impression of this Web site is good’ and ‘It is hard to put into words, but this Web site leaves me with a good feeling’ were added. In addition, one more item for measuring future intention of purchasing products from the Web site - ‘If I needed one of these products and this Web site provided online shopping service, I would consider buying it from this Web site’ - was added for reinforcing a future intention construct; thus, two items were prepared to measure Web users’ future intentions.

Each item used a 5-point Likert-type format anchored by ‘strongly disagree (1)’ and ‘strongly agree (5)’. Two open-ended items asking what particular aspects of the Web site the participants found most or least appealing were included for capturing further valuable information. Open-ended questions offer respondents freedom in answering questions and an opportunity to provide in-depth responses (Wimmer & Dominick, 2006). The two open-ended questions enabled the researcher to gather information about the respondents’ feelings and the motives behind their answers to the closed-ended questions. Also, the responses might suggest possible relationships with other responses or variables.

In the second part of the survey, in order to measure participants’ value, they were

provided with Hofstede's Value Survey Module for Young People 1997 (VSMY 97) questionnaire which is a revised version of the Value Survey Module 94 (VSM 94) for young people, like students. Unlike prior studies in which researchers scarcely measured where the actual respondents of their study fell on the cultural dimensions (Taylor, 2005), this empirical study actually collected the scores of participants on the cultural dimensions. Although Hofstede's cultural dimensions have been proved to have validity in replicative studies, it is not useful to rely on prior data since many people believe that at least some level of cultural convergence is taking place and samples in this study, in particular, young university students, are different from those of the original Hofstede study, IBM employees who were considered to be a unique cultural segment. This process helped the researcher gain a good understanding of the context of the participants before carrying out an analysis of their perceptions toward the Web sites.

The researcher obtained VSM 94 and VSMY 97 questionnaires by contacting Dr. Hofstede directly via e-mail correspondences. In the process of confirming whether the VSM 94 could be used with young students, VSMY 97 was recommended by Dr. Hofstede. VSM 94 contains 20 questions for Hofstede's five cultural dimensions, plus 6 demographic questions covering gender, age, years of formal education, type of occupation, nationality, and nationality at birth (Hofstede, 2001). Each Hofstede dimension has four questions. However, this study included only Hofstede's four cultural dimensions so that four questions for long-term orientation were excluded. Finally, only 16 questions of the original VSMY 97 were used for measuring participants' value in this study. Each item used the same format of a 5-point Likert-type as the original module. The mean scores on four questions for each dimension were calculated in accordance with Hofstede's index formulas, seen below (Hofstede, 2001,

p.494).

Table 19: Hofstede's index formulas

Cultural dimensions	Formulas
Power distance	$PDI = -35m(03) + 35m(06) + 25m(14) - 20m(17) - 20$
Uncertainty avoidance	$UAI = 25m(13) + 20m(16) - 50m(18) - 15m(19) + 120$
Individualism	$IDV = -50m(01) + 30m(02) + 20m(04) - 25m(08) + 130$
Masculinity	$MAS = 60m(05) - 20m(07) + 20m(15) - 70m(20) + 100$

In these formulas,  $m(\text{question number})$  is the mean score for the question. For example,  $m(03)$  is the mean score for question 3. The index normally has a value between 0 and 100, but values below 0 and above 100 are technically possible (Hofstede, 2001). One assumption to be required to use Hofstede's questionnaire is that the minimum number of respondents per country or region in comparison is 20, otherwise the influence of single individuals becomes too strong (Hofstede, 2005).

The last part of the questionnaire, 'About yourself', had five questions. Participants were instructed to answer questions in regard to their demographic backgrounds such as age, gender and the ethnic group to which they belonged. Additional two questions captured participants' Internet experience like their average time spent online per day and their skills using the Web.

The two language versions of questionnaires were prepared for New Zealand participants (English version), South Korean university students in South Korea (Korean version), and South Korean university students in New Zealand (English version). The Korean version of Hofstede's Value Survey Module 97 (VSMY 97) questionnaire was obtained from Hofstede, and had been translated by a team from Seoul National University. Except for Hofstede's Value Survey Module, translation

procedures followed the standard of cross-cultural and international research. First, a native speaker of Korean translated the invitation letter and the questionnaire into Korean and the translation was then back-translated into English by another translator. Finally, the translated letter and questionnaire and the English version were reviewed by the researcher and other scholars who spoke both Korean and English to affirm the consistency between both versions. The two sets of questionnaires (English and Korean version) are provided in Appendix 4 and Appendix 5.

#### **4.7 Data collection**

Three groups of participants (New Zealand students, South Korean students, and bilingual South Korean students) were organised for different samples from different cultures in this survey. Each group has four sub-groups and each sub-group was directed to view one of the four different Web sites. Every participant was exposed to only one Web site because there was possibly “multiple-treatment interference” or “accumulated learner advantage” (Faiola & Matei, 2005, Methods section, para. 6). The multiple-treatment interference can be explained that if participants were exposed to several similar sites, their performance could be affected by the experience gained from their exposure to the first site. There have been some studies where participants were assigned to view Web sites and fill in the questionnaire for every Web site they had seen. In those cases, Web sites represented different companies, sometimes from different countries. However, the four Web sites made for this study depicted one fictitious company with different contents, but the same structures and outlines.

For this research, a one-page invitation letter including brief instruction and one of the four Web sites’ addresses was handed around to participants who were asked to type the address (URL) into a browser, spend some time on browsing the Web site, and click the

survey button located on the left corner on every page on the Web site. They then were forwarded to the online questionnaire via a hypertext link. At the head of the questionnaire, participants were able to see the introduction including the confidentiality of their participation and their rights as participants. Upon completion, the participants were asked to click the submit button at the end of the questionnaire. A Web page displaying ‘thank you for your participation’ followed as a confirmation. The data of participants’ responses were transferred and stored in a remote server for analysis.

This method was subject to the willingness of participants to visit the Web sites and fill in the questionnaire, in order to avoid the disadvantages caused by laboratory experiments in which there are possible unnatural behaviours of respondents and possible influences by peers. As in real life, the participants could browse the Web sites as long as they wished.

#### **4.8 Pilot test**

Although the questionnaire was based on previous studies, a small-scaled pilot test was required since the theoretical and conceptual framework of the study was elaborated by the researcher and the questionnaire was used with different cultural groups in prior studies. The critical purpose of the pilot test was to ensure that no ambiguities resided within the questions and to check technical issues before a large-scaled real data collection. In the process of completing an online questionnaire, the data of participants’ answers should be transferred and stored in a remote server without problems. The feedback from the pilot test was used for modifications and improvement of the method.

For the pilot test, seven Chinese and five New Zealand business students at Massey University participated. The requesting process of the pilot test was conducted exactly the same as that for actual data collection except for Web sites 1 and 3, the sites with the

most opposite conditions, which were required to be viewed by the students. After the pilot test, no changes were made to the wording of the questions, but the 5-point Likert-type format was considered to be a lack of variance since participants chose the two highest positive values; therefore, it was changed to a 7-point Likert-type for detecting more sensitive change.

As a prerequisite for the validity of a test, the reliability of a measuring instrument should be determined. In this study, Cronbach's Alpha was used to examine the internal consistency of the test. Cronbach's Alpha of measuring attitude toward the Web site was 0.763, which indicated high overall internal consistency among the six items representing attitude toward a Web site, following Nunally's criteria of 0.7. Also, Cronbach's Alpha of measuring future intention was 0.741 which indicated high internal consistency among the two items. Furthermore, one participant gave a feedback throughout the comment section in which "the website was clear, easy to read and navigate and there was not an overload of information on each page. Overall, it was a pleasant experience." Neither technical problems nor manipulation failures occurred during the pilot study.

Table 20 shows the results of the pilot test showing the participants' scores of Hofstede's cultural dimensions and the average scores of participants' attitudes and future intentions toward Web site 1 and Web site 3. Chinese students, compared to New Zealand students, have less power distance and more collectivist, feminine, and uncertainty avoidance values. However, the results did not have methodological validity since Hofstede suggested that the minimum number of respondents per country to be included should be 20 to avoid the influence of single individuals. In this pilot test, the main purpose is to pre-test general correctness in the questionnaire and to prevent

possible technical problems in advance of the real online survey. Therefore, the analysis of the results from the pilot test should not be taken too seriously.

Table 20: Results of the pilot test

	PDI	IDV	MAS	UAI	Attitude Toward		Future	
					Web site		Intentions	
					Web site 1	Web site 3	Web site 1	Web site 3
					M	M	M	M
Chinese (7)	-1.43	76.43	15.71	50	3.67	3.94	3.38	3.17
New Zealand (5)	13	130	30	-3	4.25	3.50	4.25	3.50

## 4.9 Results

For Study Two, one-way between-groups ANOVA was utilised for each ethnic group. *One-way* means that it can have one independent variable, and *between-subjects* indicates that independent samples of participants are tested under different conditions (Pallant, 2005, p.229). This statistical technique was used for New Zealand students, South Korean students, and bilingual South Korean students for comparison and validation across cultures. Later, in order to investigate the joint effect or interaction of independent variables (e.g. Web site and ethnicity), General Linear Model (GLM) Multivariate Analysis (also known as Two-way ANOVA) was used. The main advantage of using a two-way design is to test the main effect for each independent variable and to explore the possibility of an interaction effect: the effect of one independent variable on the dependant variable depends on the level of a second independent variable.

### 4.9.1 Hofstede's Values Survey Module for Young People 1997 (VSMY 97)

Before measuring the participants' attitudes and future intentions toward the Web sites, index scores of Hofstede's cultural dimensions were calculated with their responses to the VSMY 97 questionnaire. Scores calculated using old and new formulas are not



necessarily the same; however, the old and new formulas should produce approximately the same score difference between countries (Hofstede, 2005). Table 21 below shows Hofstede's original index scores calculated by the old formula that South Korea and New Zealand belonged to relatively opposite cultural groups based on four cultural dimensions and the last column indicates the score difference between two countries. The score difference on the individualism dimension is relatively large, 61, followed by the difference of the power distance dimension of -38.

Table 21 : Hofstede's original index scores<sup>b</sup> for NZ and KOR

Dimension <sup>a</sup>	New Zealand	South Korea	Score difference
Power distance (PDI)	22	60	-38
Individualism (IDV)	79	18	61
Masculinity (MAS)	58	39	19
Uncertainty avoidance (UAI)	49	85	-36

<sup>a</sup> The higher the index value the more they reflect this dimension trait.

<sup>b</sup> The index normally has a value between 0 and 100, but values below 0 and above 100 are technically possible.

However, the index scores calculated by the responses of the participants to VSMY97 for this research showed different, unexpected results. The index scores, shown in Table 22, were calculated using the new formula, shown in Table 19 (see section 4.6). New Zealand students were higher individualistic (99) and feminine (1) than both Korean university students in Korea and in New Zealand while they showed higher power distance and uncertainty avoidance values than Korean university students in South Korea. On power distance and uncertainty avoidance dimensions, the scores of Korean university students studying in New Zealand were closer to those of New Zealand university students than Korean university students in South Korea. Overall, the results indicated that Korean university students, whether they lived in South Korea or were studying in New Zealand, were not as collectivist as the original scores showed,

although the scores were lower than those of New Zealand university students on individualism dimension. The difference was a matter of degree rather than bipolar and dichotomous as predicted. Korean university students in South Korea showed almost opposite values to the original scores measured by Hofstede about 30 years ago.

Table 22 : Results of index scores<sup>b</sup> gained from the participants in this research

Dimension <sup>a</sup>	New Zealand university students	Korean university students in Korea	Korean university students in New Zealand
Power distance	0	-11	26
Individualism	99	77	85
Masculinity	1	21	19
Uncertainty Avoidance	18	6	41

<sup>a</sup> The higher the index value the more they reflect this dimension trait.

<sup>b</sup> The index normally has a value between 0 and 100, but values below 0 and above 100 are technically possible.

#### 4.9.2 Demographic information of three ethnic groups

For ethnic group 1, 67 Korean university students at Gyeongsang National University in South Korea participated in Study Two. After viewing one of the four Web sites designed in English, they were asked to complete the Korean version of the online questionnaire. Among 67 Korean undergraduate university students who completed the questionnaires, 58 useful questionnaires were transferred and stored in a remote server. As shown in Table 38 (see Appendix 3), the majority of Korean university students in South Korea spent one to three hours on the Internet per day (46.6%) and 24.1% spent more than four hours. Korean students considered themselves moderately skilled at using the Internet ( $M=3.62$ ).

The sample for the second ethnic group was composed of 63 New Zealand university

students (male = 38.1%, female = 61.9%) enrolled at Massey University, Palmerston North. Like the first group, invitation letters were spread around the campus. The online questionnaire was the English version and all the responses were stored in the server. Table 39 (see Appendix 3) depicts the demographic statistics of ethnic group 2. Compared to the Korean university students in South Korea, a higher proportion of New Zealand university students spent one to three hours on the Internet per day (68.3%) whereas far fewer students spent more than four hours (4.8%). New Zealand students considered themselves moderately skilled at using the Internet ( $M=3.70$ ) which was very similar to Korean participants in South Korea ( $M=3.62$ ).

Ethnic group 3 represented Korean university students who were studying in New Zealand. The 53 Korean university students (17 male and 36 female), studying at Massey University, completed the online survey. They viewed the English version of the online questionnaire. The majority of this group spent one to three hours (62.3%) and more than four hours (18.9%) respectively on the Internet a day. The participants considered themselves moderately skilled at using the Internet ( $M=3.30$ ), but the average was lower than Korean university students in South Korea ( $M=3.62$ ) and New Zealand university students ( $M=3.70$ ).

Comparing the demographic statistics of the three ethnic groups, the first group of Korean university students in South Korea indicated a higher mean age ( $M=4.09$ ), compared to the second group ( $M=2.90$ ) and the third group ( $M=3.51$ ). The large variance is explained by the different way that Koreans count people's ages from the Western system. Babies are already one year old when they are born, not zero. Also, everyone becomes one year older on the first day of a new year at the same time. With those differences, Westerners usually age one or two year more when counted in the

Korean way.

Another difference was that a lower proportion of Korean university students in South Korea spent one to three hours on the Internet per day (46.6%) than New Zealand students (68.3%) and Korean students studying in New Zealand (62.3%). However, there was a big difference between Korean students in Korea and New Zealand students who spent more than four hours on the Internet a day, 24.1% and 4.8% respectively. Korean students studying in New Zealand (18.9%) fell between the other two groups. This indicated that Korean students were the heaviest Internet users. The participants displayed similar mean scores for the question asking how skilful they considered themselves at using the Internet: 3.62 for Korean university students in South Korea, 3.70 for New Zealand university students, and 3.30 for Korean students in New Zealand. The heavier the Internet users might be, the less skilful they felt about themselves.

### 4.9.3 Ethnic group 1 – Korean university students

#### *One-Way ANOVA results*

The items measuring attitude toward a Web site (Cronbach Alpha was 0.90, 0.87, 0.79, 0.89 for Web site 1, Web site 2, Web site 3, Web site 4 respectively) and future intention (Cronbach Alpha was 0.93, 0.94, 0.94, 0.80 for Web site 1, 2, 3, 4 respectively) were very reliable. In order to investigate hypotheses H13, H14 and H16, ANOVA was conducted to explore the impact of a Web site's cultural aspects on levels of favourability, measured by users' attitudes toward Web sites and their future intentions. Table 23 summarises the results of ANOVA. There was a statistically significant difference at the  $p < .05$  level in attitude toward Web site ( $F(3,54) = 3.71, p < .05$ ) and future intention ( $F(3,54) = 2.96, p < .05$ ). In spite of statistical significance, the actual

difference in mean scores between the Web sites was quite small.

Table 23 : ANOVA results for Korean university students in South Korea

	Web site 1 <sup>a</sup>		Web site 2 <sup>b</sup>		Web site 3 <sup>c</sup>		Web site 4 <sup>d</sup>		F <sup>e</sup>	Group comparisons <sup>f</sup>
	n=13		n=17		n=13		n=15			
	M	SD	M	SD	M	SD	M	SD		
Attitude toward Web site	3.88	1.01	4.64	0.73	4.79	0.56	4.11	0.96	3.71*	Web site 3 >Web site 2 > Web site 4> Web site 1
Future intention	4.08	1.26	4.77	1.13	4.93	1.1	3.94	0.98	2.96*	Web site 3 >Web site 2 > Web site 1> Web site 4

<sup>a</sup> Web site 1= Cluster A (Korean) specific graphics & texts

<sup>b</sup> Web site 2=Cluster B (New Zealand) specific graphics & Cluster A (Korea) specific texts

<sup>c</sup> Web site 3=Cluster B (New Zealand) specific graphics & texts

<sup>d</sup> Web site 4=Cluster A (Korean) specific graphics & Cluster B (New Zealand) specific texts

<sup>e</sup>  $F(3, 54) = 3.71^*$  and  $2.96^*$  are significant at  $p < .05$  level

<sup>f</sup> Group comparisons based on the means

### ***Post-hoc tests***

Although the highly significant F-ratio ( $p < .05$ ) indicated that the means of four independent variable levels (Web site1, 2, 3, and 4) differed significantly, we wanted to know where the difference occurred. To investigate the location of this difference, we needed to conduct post tests. SPSS provided these post-hoc tests as part of the ANOVA output. Post-hoc comparisons using the Turkey HSD were used for this study. As shown in Table 24, the mean score of attitude toward Web site 1 was significantly different from the mean score of attitude toward Web site 3 at the 0.05 level of significance. Attitudes toward Web site 2 and Web site 4 did not differ significantly from Web site 1 and Web site 3. Any means that were underscored by the same column were not significantly different from each other. However, although the results of ANOVA showed that there was an overall difference in future intention toward a Web site, the

Turkey post-hoc test indicated that there was no specific difference of future intention toward a Web site between the four different Web sites.

Table 24 : Mean difference of attitude toward Web site

Web site No.	N	Subset	
		1	2
1	13	3.88	
4	17	4.11	4.11
2	13	4.64	4.64
3	15		4.79

Turkey's HSD test at  $\alpha = 0.05$  was used

As such, ANOVA results above *did not support hypotheses H13, H14, and H16* based on the assumption that Korean university students indicated values belonging to the Asian Cluster. However, Korean university students in South Korea showed more favourable attitudes and future intentions toward a culturally incongruent Web site, Web site 3, which was designed with New Zealand-specific graphics and texts. Also, they liked Web site 2 which depicted New Zealand-specific graphics and Korean-specific texts more than Web site 1 and 4 which both had Korean-specific graphics.

However, the results could be interpreted conversely, based on the findings of the index scores of Hofstede's cultural dimensions in this research. Korean university students unexpectedly manifested westernised cultural values similar to the New Zealand context. Therefore, *H13 was supported* since the participants considered the most culturally congruent Web site, Web site 3 (New Zealand-specific graphics and text), most favourable and the least culturally congruent Web site, Web site 1 (Korean-specific graphics and text), least favourable. Also, *H14 was supported* based on the cultural index scores that Korean university students were affected more by graphics of Web sites than by texts, as they perceived Web site 2 (New Zealand-specific graphics and

Korean-specific text) the second most favourable after Web site 1, and preferred Web site 2 (New Zealand-specific graphics and Korean-specific text) to Web site 4 (Korean specific-graphics and New Zealand-specific text) and Web site 1 (Korean-specific graphics and texts). Also, ***H16 was supported*** as the results indicated a similar pattern with the first variable of attitude toward a Web site except the order of favourability ( $F(3,54) = 2.96, p < .05$ ). The participants showed the strongest future intentions toward Web site 3 (New Zealand-specific graphics and texts) and stronger future intentions toward Web site 1 (Korean-specific graphics and texts) than Web site 4 (Korean-specific graphics and New Zealand-specific graphics). However, the post-hoc test did not support a specific difference of future intention toward a Web site between the four different Web sites.

#### **4.9.4 Ethnic group 2 – New Zealand university students**

##### ***One-Way ANOVA results***

First of all, to determine the internal consistency of a measuring instrument, reliability was measured using Cronbach's Alpha. Cronbach's Alpha of measuring attitude toward a Web site was 0.79, 0.82, 0.80, and 0.85 for Web site 1, Web site 2, Web site 3, Web site 4 respectively. Cronbach's Alpha of measuring future intention was 0.55, 0.70, 0.66, and 0.79 for Web sites 1, 2, 3, 4 respectively. The coefficients for the dependent variable of attitude toward a Web site were acceptable when they were above 0.7, following Nunnally's criteria. It meant that the dependent variable for the four groups was internally consistent. However, the coefficients for future intention were not consistent. The relatively lower reliability of a future intention construct might undermine the significance of the findings and its generalisability. However, Peter (1979, cited in Park & Jun, 2003) argued that lower levels of reliability may be acceptable in marketing

research studies since Nunnally's guidelines are primarily concerned with the development of finely tuned measures of individual traits to be used for decisions about individual persons.

As illustrated in Table 25, the results of ANOVA showed that there was not a statistically significant difference at the  $p < .05$  level in attitude toward a Web site ( $F(3,59) = 0.841, p > .05$ ) and future intention ( $F(3,59) = 0.856, p > .05$ ). There were no statistical differences in the dependent variables so that post hoc comparisons between the four Web sites were not necessary. Compared to the first ethnic group, the overall mean scores of the dependant variables, attitude toward a Web site and future intention were higher.

Table 25 : ANOVA results for New Zealand university students in New Zealand

	Web site 1 <sup>a</sup>		Web site 2 <sup>b</sup>		Web site 3 <sup>c</sup>		Web site 4 <sup>d</sup>		F	Group comparisons <sup>e</sup>
	n=16		n=15		n=17		n=15			
	M	SD	M	SD	M	SD	M	SD		
Attitude toward Web site	4.68	0.89	4.76	1.01	5.13	0.77	4.99	0.97	0.841	Web site 3 >Web site 4 > Web site 2> Web site 1
Future intention	4.03	1.18	4.60	1.39	4.68	1.04	4.53	1.45	0.856	Web site 3 >Web site 2 > Web site 4> Web site 1

<sup>a</sup> Web site 1= Cluster A (Korean) specific graphics & texts

<sup>b</sup> Web site 2=Cluster B (New Zealand) specific graphics & Cluster A (Korean) specific texts

<sup>c</sup> Web site 3=Cluster B (New Zealand) specific graphics & texts

<sup>d</sup> Web site 4=Cluster A (Korean) specific graphics & Cluster B (New Zealand) specific texts

<sup>e</sup> Group comparisons based on the means

As Table 25 indicates, ANOVA results *did not support H13, H14 and H16* in the second ethnic group and the mean differences of attitudes and future intentions between the four Web sites were not worth discussing due to the lack of statistical support.



However, the mean score of attitude toward Web site 3 (New Zealand-specific graphics and texts) was the highest and the mean score of attitude toward Web site 1 (Korean-specific graphics and texts) was the lowest. Interestingly, the New Zealand university group was affected more by the texts of the Web site than the graphics as they perceived Web site 4 (Korean-specific graphics and New Zealand-specific texts) the second most favourable after Web site 3, which was opposite to our prediction. By contrast, the mean scores of future intentions showed different results in ranking; the New Zealand participants preferring Web site 2 (New Zealand-specific graphics and Korean-specific texts) to Web site 4 (Korean-specific graphics and New Zealand-specific texts) after Web site 3. However, the mean scores between Web site 2 and Web site 4 were too small to compare.

#### **4.9.5 Ethnic group 3 – Korean university students studying in New Zealand**

##### ***One-Way ANOVA results***

The items measuring attitude toward a Web site (Cronbach Alpha was 0.94, 0.87, 0.87, and 0.93 for Web site 1, Web site 2, Web site 3, Web site 4 respectively) and future intention (Cronbach Alpha was 0.61, 0.93, 0.70, and 0.81 for Web site 1, 2, 3, 4 respectively) were very reliable. The statistical analysis of the results using ANOVA indicated, as shown in Table 26, that the averages were significantly different in Web users' attitudes toward Web sites ( $F(3,49) = 2.79, p=.05$ ) but not statistically different in their future intentions ( $F(3,49) = 2.64, p>.05$ ).

Table 26: AVONA results for South Korean university students in New Zealand

	Web site 1 <sup>a</sup>		Web site 2 <sup>b</sup>		Web site 3 <sup>c</sup>		Web site 4 <sup>d</sup>		F <sup>e</sup>	Group comparisons <sup>f</sup>
	n=12		n=15		n=13		n=13			
	M	SD	M	SD	M	SD	M	SD		
Attitude toward Web site	3.86	1.42	4.82	0.96	5.05	0.89	4.38	1.12	2.79*	Web site 3 >Web site 2 > Web site 4> Web site 1
Future intention	3.67	1.57	4.61	1.37	4.77	1.01	3.60	1.50	2.64	Web site 3 >Web site 2 > Web site 1> Web site 4

<sup>a</sup> Web site 1= Cluster A (Korean) specific graphics & texts

<sup>b</sup> Web site 2=Cluster B (New Zealand) specific graphics & Cluster A (Korea) specific texts

<sup>c</sup> Web site 3=Cluster B (New Zealand) specific graphics & texts

<sup>d</sup> Web site 4=Cluster A (Korean) specific graphics & Cluster B (New Zealand) specific texts

<sup>e</sup>  $F(3, 49) = 2.79^*$  are significant at  $p = .05$  level

<sup>f</sup> Group comparisons based on the means

### ***Post-hoc tests***

To know where the differences in the means of the groups occur, post-hoc comparisons using the Turkey HSD were performed. As indicated in Table 27, the mean score of attitude toward Web site 1 was significantly different from the mean score of attitude toward Web site 3 at the 0.05 level of significance. Attitudes toward Web site 2 and Web site 4 did not differ significantly from Web site 1 and Web site 3.

Table 27 : Mean difference of attitude toward Web sites

Web site No.	N	Subset	
		1	2
1	12	3.86	
4	15	4.38	4.38
2	13	4.82	4.82
3	13		5.05

Turkey's HSD test at  $\alpha = 0.05$  was used

The ANOVA results should be interpreted in the same way as the first ethnic group. Based on Hofstede's original index scores, ***H13 and H14 were not supported***. Similarly to the first ethnic group, Korean university students studying in New Zealand indicated westernised cultural values, except for the uncertainty avoidance dimension which was still not as high as the original score. Under these findings of participants' cultural values, ***H13 and H14 were supported***. Ethnic group 3 considered Web site 3 (New Zealand-specific graphics and text) the most favourable and Web site 1 (Korean-specific graphics and text) the least favourable. Also, the participants were affected more by graphics of Web sites than by text, since they perceived Web site 2 (New Zealand-specific graphics and Korean-specific text) the second most favourable after Web site 1, and preferred Web site 2 (New Zealand-specific graphics & Korean-specific text) to Web site 4 (Korean-specific graphics & New Zealand-specific text). However, ***H16 was not supported*** in this ethnic group. Although Web users showed more favourable future intentions toward a culturally congruent Web site than a culturally incongruent Web site, the results were not supported in a statistical term ( $F(3,49) = 2.64, p > .05$ ).

#### 4.9.6 First language

To confirm H15, whether Web users had a more favourable attitude toward a Web site designed in their first language, the means of attitude toward Web sites were compared. The means indicated that the participants from New Zealand assigned the highest means of attitude toward Web sites, followed by Korean students studying in New Zealand, as shown in Table 28. For the open-ended question asking about the least appealing aspects of Web sites, five Korean students from ethnic group 1 actually pointed out that Web sites designed in English were not appealing to them. Therefore, ***H 15 was supported***.

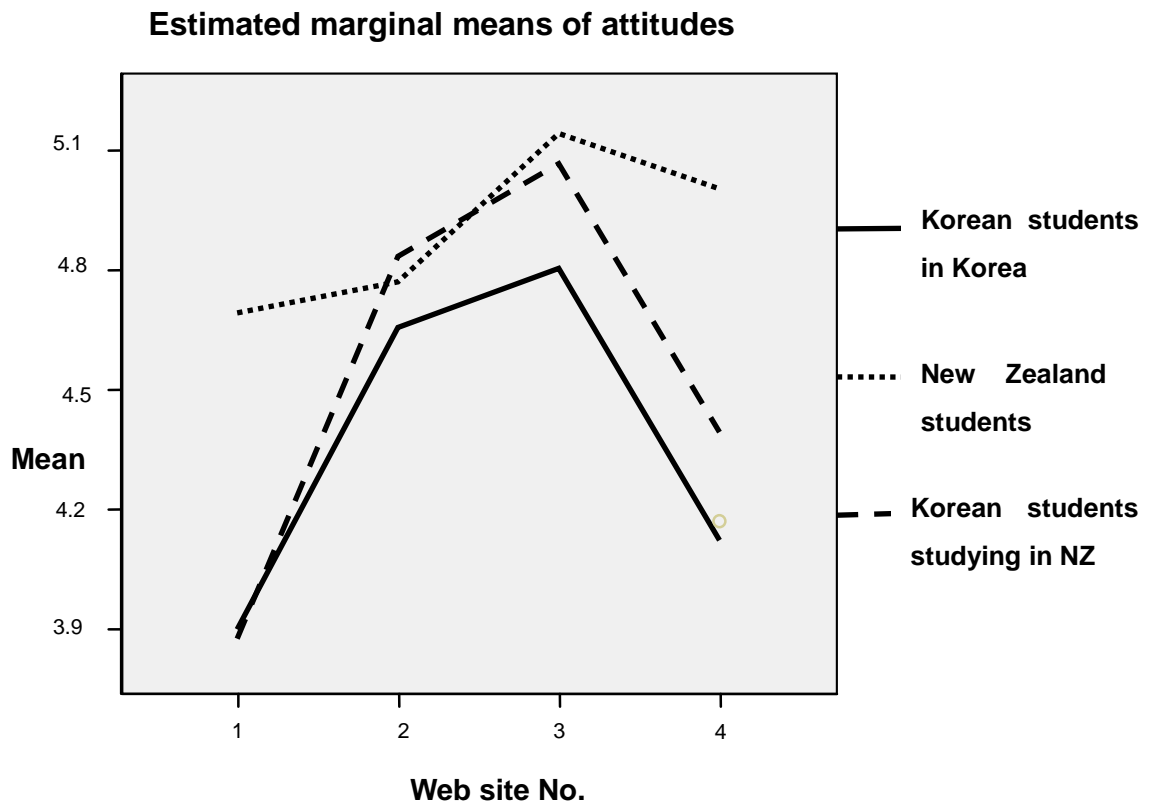
Table 28 : Means of attitude toward Web site in three ethnic groups

	Attitude toward Web site			
	Web site 1	Web site 2	Web site 3	Web site4
Ethnic group 1 (KR students in South Korea)	3.88	4.64	4.79	4.11
Ethnic group 2 (NZ students)	4.68	4.79	5.13	4.99
Ethnic group 3 (KR students in NZ)	3.86	4.82	5.05	4.38

#### 4.9.7 Two-Way ANOVA

To illustrate the effect of interaction of ethnic group\*Web site type, a Two-Way ANOVA was performed. The lines shown in Figure 3 show the means for attitudes toward Web sites by ethnic group and Web site type which are fairly similar shapes, so ethnic group \* Web site interaction was not significant,  $F(6,162) = 0.880$ ,  $p > .05$ . It means that the participants from three different ethnic groups assigned similar attitudes and future intentions toward Web sites.

Figure 3 : Graph of Two-Way Interactions



If there was no significant interaction, we can meaningfully test the main effects of ethnic group and Web site type (Elliott & Woodward, 2007). Therefore, we tested main effects. For attitude toward Web site, the main effect of the ethnic group was significant,  $F(2,162) = 4.88, p < .05$ . From the estimated marginal means, the differences in attitudes toward Web sites were significantly different. Multiple comparisons using Turkey's test, shown in Table 29, indicated that New Zealand university students displayed higher attitudes toward Web sites than Korean university students in Korea and in New Zealand. It is assumed that New Zealand students did not have difficulties in browsing Web sites designed in English, and Korean university students had higher expectations from corporate Web sites since they were heavier Web users than the other two ethnic groups, and Study One revealed the trend of complexities with various features and

visual aids on the existing Korean corporate Web sites.

Table 29 : Mean difference of attitude toward Web site by ethnic group

Ethnic groups	N	Subset	
		1	2
Korean university students in South Korea	58	4.35	
Korean university students studying New Zealand	53	4.53	4.53
New Zealand university students	63		4.89

Turkey's HSD test at  $\alpha = 0.05$  was used

Furthermore, the main effect of Web site type was significant,  $F(3,162) = 5.53, p < .05$  indicating that there was a statistically significant difference in attitude toward a Web site by Web site type. A post-hoc analysis showed that Web site 1 (New Zealand-specific texts and graphics) was perceived more favourably than the other three Web sites, as shown in Table 30.

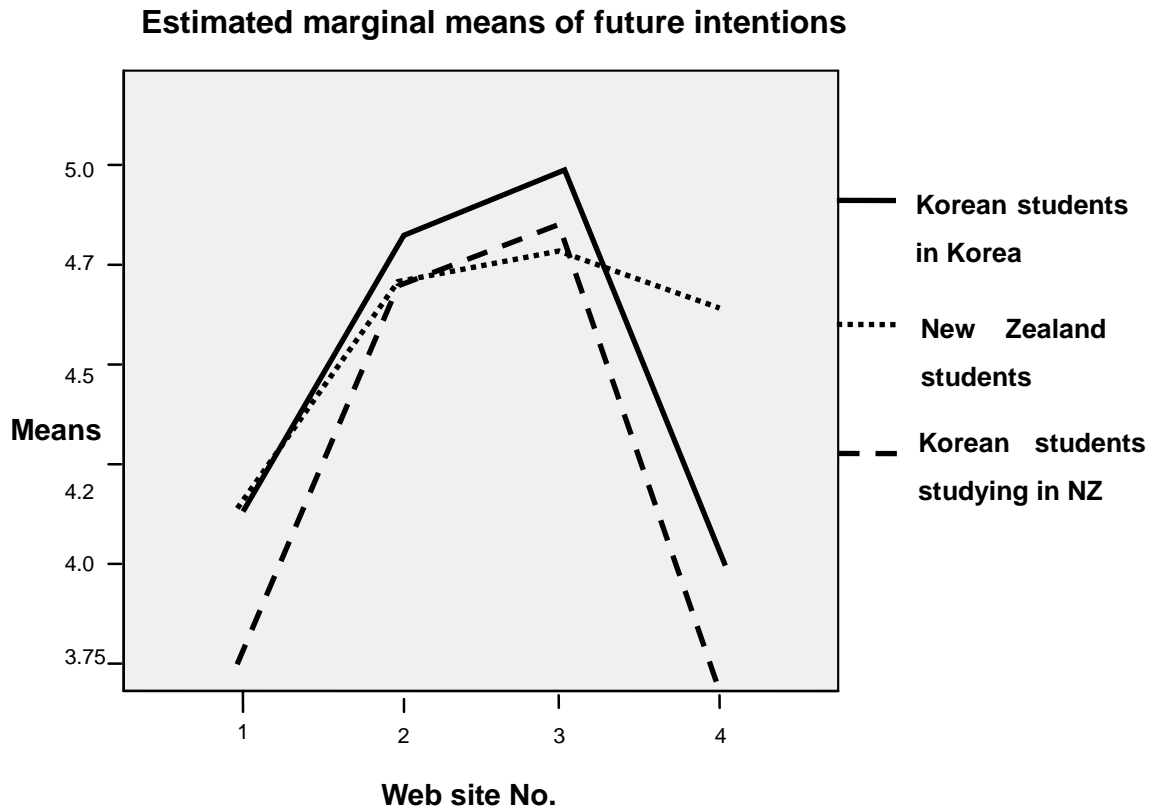
Table 30 : Mean difference of attitude toward Web site by Web site type

Web site Type	N	Subset	
		1	2
1	41	4.19	
4	47	4.47	4.47
2	41		4.74
3	45		4.99

Turkey's HSD test at  $\alpha = 0.05$  was used

In a similar vein, for future intentions toward Web sites, ethnic group \* Web site type interaction was not significant,  $F(6,162) = 0.880, p > .05$ . As shown in Figure 4, the lines show all similar patterns.

Figure 4 : Graph of Two-Way Interactions



However, the main effect of Web site type was significant,  $F(3,162) = 5.286, p < .05$ . Table 31 indicates the post-hoc results. The participants ranked Web site 2 (Korean-specific texts and New Zealand-specific graphics) and Web site 3 (New Zealand-specific texts and graphics) higher than Web site 1 (Korean-specific texts and graphics) and Web site 4 (New Zealand-specific texts and Korean-specific graphics) on future intention.

Table 31: Mean difference of future intention toward Web site by Web site type

Web site Type	N	Subset		
		1	2	3
1	41	3.94		
4	47	4.02	4.02	
2	41		4.66	4.66
3	45			4.79

Turkey's HSD test at  $\alpha = 0.05$  was used

On the other hand, the main effect of ethnic groups was not significant,  $F(2,162) = 0.941$ ,  $p > .05$ . Korean university students in Korea displayed the highest overall averages in future intentions toward Web sites whereas Korean university students studying in New Zealand showed the lowest overall averages. Future intention might be related to uncertainty avoidance values. Korean university students in Korea showed the lowest score on uncertainty avoidance whereas Korean university students studying in New Zealand showed the highest scores among the three ethnic groups.

#### 4.9.8 Open-ended questions

The responses to open-ended questions were similar between the participants who viewed Web site 1, 2, 3, and 4 and between the different ethnic groups. Many of the respondents considered the overall design (tidy, comfortable, and polished) as the most appealing aspect of the Web sites they viewed. Other appealing aspects noted were sufficient, well organised information, easy to navigate, diverse products, and no advertising banners. On the contrary, respondents pointed out that lack of information, lack of diversity of products, and lack of eye-catching things were the least appealing aspects.

Other interesting comments of ethnic group 1 were as follows: five Korean respondents commented that they could not browse competently since the Web sites were designed in English; two Korean respondents thought the font size of text rather small; two Korean respondents mentioned that the company lacked aggressiveness and emphasis to inform or advertise the company itself and its products; one Korean respondent wanted to know the prices of the products; and one Korean respondent wanted to know what the interiors of the refrigerators and dishwashers looked like. These comments were consistent with Hofstede's index scores that Korean university students reflected



westernised values. They expected to see a hard-sell approach and detailed information on the corporate Web sites.

When asked about the most or the least appealing aspects of the Web site they viewed, New Zealand university students mentioned similar points to the first group of Korean university students in South Korea. There were also no noticeable differences in the responses between the four different Web sites except several respondents who viewed Web site 4 (Korean-specific graphics and New Zealand-specific texts) and complimented the main graphic on the homepage: “I liked the picture on the homepage of the family jumping over the railway tracks, I wasn’t sure at first what it had to do with the company’s products, but I thought it was energetic and lively – image of innovation and family.”

Ethnic group 3 (bilingual group) mentioned clean layout, pictures, and simplicity of design as the most appealing aspects of the Web sites they viewed. However, the simple, plain design received contradictory opinions in that some participants found these aspects least appealing. Small font size, no service of price presentation, and no strong brand image were also mentioned as the least appealing aspects of the Web sites. The big difference between this group and the first was that nobody commented that English was a barrier to browsing the Web sites.

#### **4.10 Conclusions**

Study Two was based on an evaluative method for measuring the attitudes and future intentions of Web users with different cultural backgrounds toward culturally different Web sites, with online questionnaires as being the way to capture Web users’ perceptions as naturally and spontaneously as possible. Before asking Web users’ perceptions toward the Web sites, it measured Hofstede’s value among the participants.

They expressed similar westernised values regardless of their nationalities. Furthermore, the favourability of Web sites in the three ethnic groups lay in a similar pattern in that those with westernised values were liked more by the participants, although the students from New Zealand indicated the highest means of perception toward the Web sites. There was a clear difference in attitudes toward Web sites and future intentions between the four Web site types. In short, this research came up with surprising results which were not in line with previous research. These findings are interpreted in detail with theoretical and empirical support in the following Discussion chapter.

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## Chapter 5: Discussion

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### 5.1 Introduction

The purpose of this research is to investigate cultural effects on the use of main visuals and Web features on corporate Web sites from the two nations, and to explore whether Web users from different ethnic groups perceive culturally congruent or incongruent Web sites differently. We found both differences and similarities in the content of existing corporate Web sites and in Web users' perceptions toward Web sites between the two countries. The empirical results found in the Results chapter not only answered the research questions, but also highlighted new findings.

This chapter consists of four main sections. Firstly, the differences in aesthetic visuals and diverse features of corporate Web sites between the two countries are elaborated with key explanations. Secondly, the similarities found on corporate Web sites of a similar industry sector are examined. Thirdly, underlying explanations of the Web users' similar perceptions toward culturally different Web sites are explored. Next, this chapter examines why Web sites designed in Web users' first languages are significant. Finally, a framework of Web site transformation developed in this study is introduced.

### 5.2 The differences in corporate Web sites

Multimedia had the most noticeable difference in visuals between the corporate homepages of New Zealand and South Korea in the findings. The main difference lay in the use of animated illustration and moving visuals. From 120 Korean corporate homepages (94.2%) in Study One, 113 included moving visuals like flashes. This is consistent with our prediction based on the literature that Web sites from a high-context culture would emphasise the more aesthetic aspects of Web sites (Wurtz, 2005) and

would require many non-verbal cues for electronic communications media. This trend might be interpreted, as Hermeking (2005) explained, that television is better liked by high-context cultures, while print media like newspapers are preferred by low-context cultures. Also, this might be one of the reasons why Korean university students in Study Two displayed the lowest overall averages toward the Web sites. Attitude might be measured by the emotional effects of Web sites' entertainment which is strongly related to the aesthetic enjoyment of multimedia. The Web sites created for this research might be perceived as rather static and simple by the young Koreans who might have very high expectations of quality Web sites with rich multimedia and Web features.

Moreover, the most prominent difference of Web features in cultural dimensions was found in individualism and masculinity dimensions which were typically considered as cultural characteristics of westernised Web sites. High individualist and high masculine Web features were more portrayed by Korean corporate Web sites, in contrast to our prediction based on previous research. At the same time, Korean Web sites were inclusive of high collectivist and high uncertainty avoidance features as expected. Overall, Korean companies facilitated their Web sites more for a direct marketing tool by advertising the companies' reputations and products' uniqueness through 'awards', 'history of a company', and 'product advertisement' features. Korean corporate Web sites had more diverse Web features and a larger number of Web pages than New Zealand Web sites while the general characteristics of New Zealand corporate Web sites were static and simple.

Additionally, there were industry differences found in the use of main visuals and Web features. Use of visuals on homepages was similar among industry sectors except the service sector which displayed far fewer visuals of products and their demonstration. It

would be inappropriate to employ the graphics of products by service sectors on corporate homepages since services generally do not have tangible shapes. For example, one Korean gas company (Seoul City Gas) which supplies natural gas to customers, had a main graphic of illustrated buildings and roads and tried to indicate how and where its product was used. Furthermore, the noticeable difference in ranking between uses of visual of products and their demonstration was food and beverages, and agriculture and fishing. It is understood that products in the agriculture and fishing sector have many and varied uses so that companies might be reluctant to reflect certain usages, or consider it more important to show the actual products before their original shape or appearance are distorted by usage.

Web features encompassing high power distance, high collectivist, and high individualist values were found to be clearly different among three industry groups in Korean Web sites while features of high uncertainty avoidance were included in all three groups to a similar extent. On the other hand, New Zealand Web sites showed very similar cultural characteristics among industry sectors except the features for high power distance dimension.

The findings in Korean corporate Web sites were inconsistent with Figure 1 in section 2.3.1. that non-durable, low interest product Web sites tended to demonstrate higher degrees of cultural adaptation on Web sites (Hermeking, 2005; Okazaki, 2005). The differences might be that previous studies which asserted this propensity did not study Web features on Web sites systematically and empirically as did this study. Also, there might be a possibility that non-durable consumer products which were generally consumed in their own cultural way might give researchers the impression that the Web sites were culturally adapted. However, this research found that the non-durable sector,

along with the service sector, contained more Web features indicating low power distance and high individualism dimensions which were not cultural characteristics of Korea in Hofstede's original study. Furthermore, the non-durable and service sector section displayed Web features of high collectivist dimension at the same time. Overall, Korean corporate Web sites in the durable sector were similar to those of New Zealand reflecting more features of high power distance and low individualist, low collectivist, low uncertainty avoidance and low masculine dimensions.

The possible explanations as to why there were differences in corporate Web sites from the two countries in which some were opposite to the prediction, might be that South Korea and New Zealand are two countries divided not only by culture, but also by the level of company adoption of online business, national broadband infrastructure, and corporate characteristics (e.g. company size). Therefore, differences in corporate Web sites found in our research might be based on these differences, not just on a cultural difference. These factors have been overlooked in previous cross-cultural research, but must be considered and explored.

### **5.2.1 Different purposes for online presence**

The first explanation is that companies from two countries might have different purposes for their online presence. Most of the New Zealand companies were likely to have business purposes of general publicity by containing company background and history, while Korean companies were more likely to adopt online business on their Web sites (22.5% vs. 51.7%). Cheung and Huang (2002) identified the four major business purposes for companies' online presence; general publicity, customer support, online information exchange, and www sales. Different business purposes result in different contents of Web sites. For example, a company which has a business purpose

of online information exchange for its corporate Web site includes a function of sharing information and experience like a guest book or interactive inquiries. Furthermore, Liu et al. (1997) showed that a Web site could be used to support the three different activities: pre-sales, sales, and after-sales. Depending on the activity that a Web site pursues, the functions or features on Web sites are different shown in Table 32 below.

Table 32: Business activities and different functions <sup>a</sup>

Business activities		
Pre-sales	Sales	After-sales
<ul style="list-style-type: none"> <li>▪ Global connection</li> <li>▪ Products/services</li> <li>▪ Company overview</li> <li>▪ Guest book</li> </ul>	<ul style="list-style-type: none"> <li>▪ Online business</li> <li>▪ What's new</li> <li>▪ Interactive feedback</li> <li>▪ Customer service</li> </ul>	<ul style="list-style-type: none"> <li>▪ FAQ</li> <li>▪ Index/directory</li> <li>▪ Search</li> <li>▪ Financial, messages, etc.</li> </ul>

<sup>a</sup> adapted from Liu et al, 1997.

Many of the New Zealand corporate Web sites were at the initial stages of Internet usage while Korean corporate Web sites reflected the movement toward fully developed online business. These different business purposes and activities identified in Table 32 support the findings in this research that Korean corporate Web sites had more features of low power distance and high collectivist, high individualist, high uncertainty avoidance, and high masculine dimensions. Also, these different purposes might force Korean Web sites to include features of both high collectivist and high individualist dimensions simultaneously. The functions of sales and after-sales activities overlap with the features of high collectivist and high uncertainty avoidance dimensions adopted in this research.

This corroborates the findings of differences in industry sectors. Compared to the durable sector, Korean non-durable and service sector Web sites utilised more online business and displayed more features of low power distance and high collectivist, high

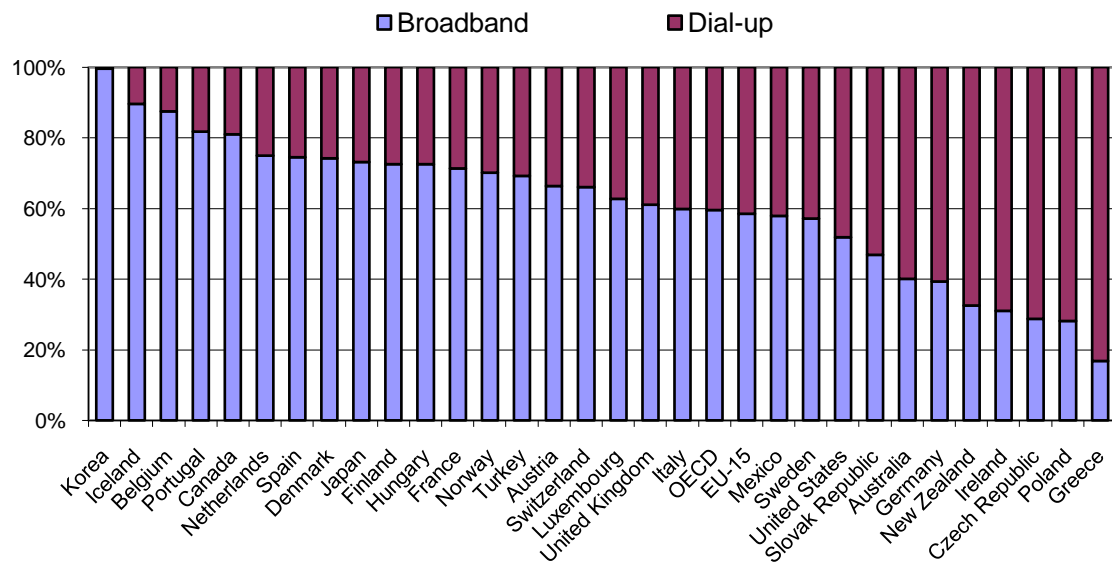
individualist, and high uncertainty avoidance dimensions. Web sites for e-commerce developed in a similar technology or usability pattern might show the strongest standardisation tendencies. For necessary conditions of e-commerce, the standardised usability pattern is inclusive of Web features of a low-context and westernised communication style and Web features of high collectivist and high uncertainty avoidance dimensions.

### **5.2.2 Different level of Internet broadband infrastructure**

Another possible explanation for the differences in corporate Web sites from the two countries might be due to different levels of Internet broadband infrastructure. The high penetration of broadband is likely to account for Korea's high audio and video usage (H. Lee, O'Keefe, & Yun, 2003) and online business. Although the two countries have similar Internet penetration rates, as shown in Figure 5 below, at the end of 2005, dial-up subscribers accounted for a very small share of fixed Internet subscriptions in Korea, compared to New Zealand with a relatively high share of dial-up access (OECD, 2007). South Korea was ranked first among the 30 member countries of the Organization for Economic Cooperation and Development (OECD) in terms of broadband access (Hwang, Jung, & Salvendy, 2006).



Figure 5: Dial-up and broadband shares of total fixed Internet subscribers, December 2005 <sup>a</sup>



<sup>a</sup> adapted from OECE, 2007.

South Korea had unique social environment factors driving the development of the high-speed (broadband) Internet infrastructure. Since the 1997 Asian financial crisis, the South Korean government has vigorously implemented economic reforms. The information technology industry has been considered as an industry of growth which would promote recovery of the overall economy (Choudrie & Lee, 2004). The South Korean government invested US\$5 billion in ICT infrastructure development between 1996 and 2001 for major strategic projects. For example, 144 major cities were connected through high-speed computer networks and free training in Internet use was provided to more than 13 million people (29% of the population) throughout the country – students, teachers, housewives, the handicapped, military personnel, and so forth (Lee, 2003). Due to this governmental effort, the information technology industry in Korea grew from 8.6% of GDP in 1997 to 13% in 2000, the highest proportion among OECD countries (Choudrie & Lee, 2004; Lee et al., 2003).

The Korean market even migrated to a new faster service – Very High Bit Rate Digital Subscriber Line (VDSL). VDSL is 5-10 times faster than ADSL (Choudrie & Lee, 2004). Pricing is also lower than that in many countries. For example, broadband Internet connections were available at the flat rate of about US\$25 per month for a 24 hours per day connection without a monthly usage limit (Lee et al., 2003). Therefore, Koreans perceive broadband as a necessity since it is ubiquitous and very much a part of their daily lives (BBC News, 2002, October 11). These unique environment factors such as relatively low-cost and high-speed Internet connection allow Koreans to engage in audio and video usage over three times more than US Americans (Lee et al., 2003). In short, the usages of animation, video, or illustration on Web sites might be more dependent on this technical issue than on the Web user's particular culture.

### **5.2.3 Company size**

The difference of multimedia strategy and Web features between New Zealand and South Korea could be explained by size and resource of companies as well as size of markets. The number of potential customers of a company is far higher in South Korea than in New Zealand due to population size. Organisational size or revenues and multiple audiences are two influential factors in Web site design (Liao, To, & Shih, 2006; Lin, 2002). Larger companies have a larger scope of business, produce more diverse products, engage in more activities, and manage more issues. The dynamic nature of larger companies is an important internal organisational variable for Web development and also leads to an increase in the number of Web pages and functional features of Web sites.

In the findings, Korean Web sites contained a higher number of Web features such as links to local Web sites, community relation, sharing experience, and product

advertisement. The Korean companies studied in this research were relatively large and some companies were even affiliated companies of Chaebol, a South Korean form of business conglomerate. They included links to their affiliated companies, TV advertisements, or community relations in their press rooms and promoted diverse events in which Web users could participate online or offline. Korean companies were more active seeking to enhance public relations and to collect user responses. In the case of New Zealand, for example, the largest company, Fonterra, used a similar number of Web features and Web pages and included diverse information about community relations and product advertisements.

### **5.3 The similarities in corporate Web sites**

Along with the differences, this research found some similarities in corporate Web sites from the two nations. Many previous advertising studies claimed that indirect advertising messages creating emotions through pictures were more favoured in high-context cultures while direct, rational, and hard-sell advertising messages with product information played a more significant role in low-context cultures (An & Kim, 2007; de Mooij, 2005; Hermeking, 2005; Miracle et al., 1992). Also, collectivistic societies placed high importance on people and relations, whereas individualistic societies tended to value products and consumerism. This research offered inconsistent results, but there were also similarities. From the results of Study One, the group difference between New Zealand and South Korea was not statistically significant in the direct portrayal of products on the corporate homepages. There was no significant difference in the use of visual demonstration of products (how to do, use, apply or make) on the homepages between the two national groups. This finding is also strongly related to the findings of Study Two. The participants, regardless of their nationalities, perceived Web site 3 (New Zealand-specific graphics and New Zealand-specific texts) most favourably. The main

graphic of Web site 3 displayed ‘an individual using the products (e.g. oven)’.

Moreover, the findings are in contrast to An’s (2007) study that 10 out of 34 Korean front pages of global brands’ Web sites presented the direct portrayal of products and Korean front pages were significantly different from their low-context counterparts. The reason for this inconsistency might be that An (2007) studied Korean Web sites of the global brands only three of which global brands were originally from South Korea. Therefore, it is understood that global brands did not actually employ what was really happening in the design of Korean corporate Web sites. It might be considered as a failure of the global brands’ adaptation of corporate Web sites and as a stereotype of global companies toward Korean society.

It was found that advertising appeals focusing on in-group benefits, concern for others, and family integrity were more effective in Korea (de Mooij, 2005; Miracle et al., 1992). The finding of H3 was consistent with the literature in that 27.5% of Korean corporate homepages reflected a family or group theme while only 16.7% of the main visuals on New Zealand homepages used this theme. In spite of the statistical significance between the two countries, we could not say that the theme was popular among the Korean Web sites and was not popular among the New Zealand Web sites. The family or group theme was not as prevalent on Korean corporate homepages as advertisements on television and in print studied in previous research. Also, according to the responses of open questions in Study Two, several New Zealand respondents who viewed Web site 4 (Korean-specific graphics and New Zealand-specific texts) complimented the first graphic on the homepage (a family having a good time). New Zealand students might be familiar with those themes due to the Maori culture which is centred on the family.

Furthermore, extant research like Choi et al. (2005) and An (2007) reported that Korean

commercials on television employed more celebrities due to the shared values of the society. Only a small proportion, 13.3% of Korean corporate homepages used celebrity models whereas only one New Zealand corporate homepage used a celebrity model. Like the family or group theme, employing celebrity models on corporate Web sites was not a strong trend in either country. This is in line with what An (2007) found in his research that only a small percentage of the front pages featured celebrity models although there was a statistically significant difference between low-context nations and high-context nations. He claimed his results were considerably lower than those found in earlier studies on television and magazine advertising.

Features for high power distance were included in both Korean and New Zealand corporate Web sites to a similar extent. This may be explained by different purposes for corporate online presence. Many New Zealand companies used their Web sites for general publicity and they allocated most of their Web pages to company information and company products. The three features for high power distance in this research were strongly related to company overview information. However, the way of expressing information on CEOs was found to be different in this research. The usual way of including such messages on the Korean Web sites was with pictures of CEOs with their direct messages to Web users, Netizen; the usual way on the New Zealand Web sites was pictures of CEOs or management with their bio-sketches. In addition, in line with music or sound effects, Web features such as local requirements of national identity and clear gender role were found as rather obsolete. The companies were reluctant to indicate the country of origin feelings.

Possible explanations for the similarities in corporate Web sites found in the results from the two countries might be that there were genre-specific elements and the Internet

culture, regardless of the national culture in which they are created. It seems that high-context cultures might have grown accustomed to the way in which Web sites are designed in Western societies and have adopted many of the same functional menu structures before exploring how communication on the Web can be reconfigured to conform to high-context communication patterns. In particular, Korean Web sites are more likely to be affected by the Internet culture due to higher Internet penetration rates and broadband access.

### 5.3.1 Genre of Web site

As Barber and Badre (1998) and Sheppard and Scholtz (1999) explained, Web sites that belonged to similar genres or domains were organised in a similar fashion, regardless of the country/culture (Callahan, 2005b; Tarafdar & Zhang, 2006). All characteristics are not equally important for all domains of Web sites. Industry types are considered a critical external environmental variable as companies in a same industry face similar competitiveness and threats (Liao et al., 2006). Hwang et al. (2006) found that there was no difference in the effective design of a shopping cart among Korea, Turkey and the U.S. and concluded that Web site usability issues in e-commerce were universal and not a good candidate for localisation. There were industry similarities found in the uses of main visuals on homepages and Web features in this research. Most of the companies from the two countries primarily displayed visuals of products and how to do, apply and make them on their corporate homepages. In particular, the corporate homepages of the non-durable sector from both countries indicated the highest frequencies in the use of visuals of products in main graphics. The companies producing tangible non-durable and durable products were more likely to adopt the hard-sell approach with direct presentation of products in their Web sites while the companies providing services were unlikely to include visuals of products or product usages due to their intangible

characteristics.

Compared to the companies in the durable sector, non-durable and service sectors engaged in more online business. This agrees with a 2007 report by National Internet Development Agency in Korea that the most wanted items from online shopping in Korea were non-durable products like clothing, footwear, and sporting goods (66.8%), followed by music products (55.5%), books or magazines (41.6%); (NIDA, 2008). The Web sites including online business provided electronic commerce features and showed similar cultural characteristics in the findings. Features like loyalty programs, personalisation (e.g. log-on), privacy statements, search engines, terms and conditions, and product advertisements were found more often in non-durable and service sectors. Online business resulted in the inclusion of features of high collectivist and high uncertainty avoidance dimensions. Conversely, the degree of including Web features of power distance decreases if a company's Web site includes online business.

The number of e-commerce Web sites has skyrocketed and continues to climb each year. For e-commerce to work, Web site customisation and personalisation are needed. Both companies and the Internet consumers must be willing to disclose information about themselves. Personal information such as the customer's name, address, and credit card number are necessary for almost all online commercial transactions. For trust issues, company information such as directory and history and customer service such as answers to FAQs and complaints increase online customer confidence in a company, lowering the perceived risk of electronic exchange with that company and increasing the likelihood of consumers engaging in online business. The biggest barrier to the growth of online business is the public's fears about privacy and security online (Metzger, 2004). How secure they perceive their Web transactions to be and how confident they

are that their personal information is safe are the most important determinants of how good an e-commerce Web site is (Park & Jun, 2003). Therefore, Web features of high individualism and high uncertainty avoidance dimensions must be included if a company is developing from limited usage Web sites to the direction of online business.

### **5.3.2 Internet culture**

The Internet culture exists and might affect Web site design and perceptions of Web users. Too many studies have focused on country-specific or technology-specific studies of the Internet without considering the nature of the information technology under investigation (Ford, Connelly, & Meister, 2003). With people from the same business culture sharing similar beliefs and attitudes, regardless of their nationalities (Callahan, 2005b), the Internet could succeed in turning all cultures of the world into one monolithic culture. Web users might possess an online culture in the Internet, regardless of their national cultures, since the Internet is a medium of a global nature.

We should not understand Web sites in the same way as we have understood other media. It has been developed within a short period of time and through different development processes. The way people have perceived this unique medium is different from that of other media. Its unique characteristics might be stronger than those of other media developed a long time ago. The digital technologies of computerisation, electronic communication and mass media create both mediascapes and audience on a scale that was unimaginable in the framework of the analogue technologies of the first and second industrial revolutions (Hand & Sandywell, 2002). Unlike other older, analogue media which are sent to many by a few in a hierarchical and unidirectional way within limited space, the Internet makes it possible to send information and communication to many in a horizontal, interactive pattern across territories. With a



computer in most households wired up to the worldwide Web, we live in virtual communities and create a digital culture.

The Internet culture is described as the outcome of “cultural synchronisation” as was claimed in Hamelink’s (1988) book. He preferred the concept of cultural synchronisation to cultural imperialism used in the international literature since cultural synchronisation can take place without imperialistic relations. Exogenously developed technologies like the Internet are introduced more on the basis of the interests and need of countries than those of the host country. The indiscriminate adoption of foreign technology can obviously produce profound cultural effects. The Internet is the main carrier of transnational cultural synchronisation.

Johnston and Johal (1999) mapped out the culture of the Internet in their study using Hofstede’s (1980) dimension of cultural variations. The Internet initially reflected a collective nature, emphasising the notion of cooperation and sharing, since it began its emergence with the focus on free information for all. In contrast, the Internet has more recently experienced a culture clash, and is paving the way forward in a more individualistic fashion. It possesses characteristics that lean towards low power distance. No hierarchical structures or bureaucratic procedures are required to gain access to the Internet. The whole structure is of an informal nature without emphasis on status or acceptance of inequality. Status cues are usually less visible and there is a tendency for perceptions about status to converge. Groups on the Internet form without the traditional barriers to participation based on occupation, socioeconomic status, position in the corporate or educational hierarchy, or other factors (Wallace, 1999).

Furthermore, prominent rhetorics of the Internet culture are the cosmopolitan and globalisation paradigm. The cosmopolitan paradigm reflects the Anglo-American model

since the Internet originally came from the USA. Also, the widespread adoption of information and communication technologies (ICT) has developed with globalisation. The cosmopolitan and globalisation paradigms represent liberalisation, deregulation, migration, and the expansion of capitalism and democracy (Kraemer et al., 2005). Therefore, it is expected that more globally oriented Web users, due to the influence of the Internet culture, reflect more cosmopolitan values and favour Web sites tailored to more capitalist content.

In the findings from the open-ended questions, the participants expressed a similar desire, regardless of their ethnic groups, to see more detailed information on the company and products. Web users expected detailed information about the company and its products not only in texts, but also in graphics on corporate Web sites. There are many words to describe Internet users, such as *the digital citizen*, *the global village people*, *the net generation*, and *the superconnected*. These names can easily give the impression that Internet users form a cohesive ingroup. The Internet users are “*information elite*”, as Hermeking (2005) defined.

This argument is consistent with a previous study revealing that Korean university students preferred to choose Internet shopping sites that present detailed, exact information about products (Hwang et al., 2006). Online consumers often have to base their judgements and decisions solely on the information presented on the Web sites and they want to be provided with even sensory and appearance information since they cannot touch or smell the products (Liao, Proctor, & Salvendy, 2008). E-commerce Web sites were mainly influenced by rational content appeals like text-heavy layout and large Web site volume (Hermeking, 2005). The desire of Web users to see more detailed information explains why Web sites characterised by a dominant low-context style were

prevalent even in target countries with high-context communication preferences.

Marketing research on frequent Internet users all over the world shows a continued dominance of informational over entertainment needs. Internet users in the UK, for example, motivated primarily by information needs, prefer informational to entertaining TV programs. Internet users in Germany read books and daily newspapers more often than non-users. Similarly, in the UK and in the Netherlands, the Internet as an informative medium has been found to be more complementary to the traditional newspaper industry than cannibalistic. Finally, even studies on the recent increase in Internet usage in Korea revealed that Internet users watched TV less often, but spent more hours reading books than non-users (Rhee & Kim, 2004).

#### **5.4 Web user's similar perception toward corporate Web sites**

Four fictitious Websites providing the optimal condition and maximal difference of cultural characteristics were designed for this study. Web site 1 and Web site 3 represented culturally opposite characteristics according to Hofstede's and Hall's dimensions. The four Web sites were controlled to illustrate only variations of cultural characteristics; therefore, there was much less likelihood for Web users to be distracted from other components of a Web site. There were clear differences of Web users' attitudes toward Web sites and their future intentions between the four Web sites. All three ethnic groups liked Web site 3 (New Zealand-specific texts and graphics) most and Web site 1 (Korean-specific texts and graphics) least. Similarly, there were differences in the participants' future intentions. The participants expressed the most positive future intentions toward Web site 3 (New Zealand-specific texts and graphics) and the least positive toward Web site 1 (Korean-specific texts and graphics). However, the difference in the future intention variable was not statistically significant between the

ethnic groups.

Korean university students, whether they lived in South Korea or were studying in New Zealand, showed almost opposite values to the original scores measured by Hofstede about 30 years ago. This strongly supports the argument by Taylor (Taylor, 2005) on future research direction in international advertising. He emphasised the necessity of measuring respondents' cultural dimensions. Cross-cultural studies should not rely just on the literature or contend that one country is more collectivistic than another, since scales to measure the cultural dimensions are typically available and also many believe that at least some level of cultural convergence is taking place (Taylor, 2005).

There were only minor differences in the cultural dimensions between the three ethnic groups. The results were in contrast to our prediction. The culture of Korean university students was unexpectedly like that of New Zealand on Hofstede's dimensions, higher on individualism, lower on uncertainty avoidance, and lower on power distance dimensions. The three ethnic groups displayed similar lower scores on masculine dimension. This was a conspicuous difference from previous studies which just assumed their participants' cultures according to Hofstede's and Hall's original results. There was evidence of convergence of the participants' (young university students) value systems in this research context.

Several explanations can be elaborated for the underlying reasons for the cultural convergence of university students. One reason might be, as discussed, the influence of the internal characteristics of the Internet such as Internet culture and genre of Web site. Also, it can be assumed that since the Web sites were designed in English, the English language is strongly related with the USA culture due to its origin and could convey cosmopolitan American values which were the cultural characteristics of Web site 3.

However, a more significant underlying reason for this finding could be found in those who viewed the sites in this context.

#### **5.4.1 International segmentation**

As Cleveland and Laroche (2007) claimed, market researchers and practitioners should not utilise countries, but consider similar consumers more important than national differences. International segmentation is considered as one of the solutions to the standardisation versus adaptation debate in that it creates the conceptual framework for offering products and/or marketing programs that are standardised across countries by targeting the same consumer segment(s) in different countries (Steenkamp & Hofstede, 2002). Many companies recognise that groups of consumers in different countries often have more in common with one another than with other consumers in the same country. Hence, they choose to serve segments (e.g. young people, new mothers, business travelers, and computer users) that transcend national borders (Moriarty & Duncan, 1991). International segmentation aids the firm in structuring the heterogeneity that exists among consumers and nations and helps to identify segments that can be targeted in an effective and efficient way.

The youth segment is a transnational market ideology created by mass culture and the development of global marketing. Youth culture, like other manifestations of Western modernity, is inherently modern, global, and Western at its core (Kjeldgaard & Askegaard, 2006). Youth culture is often associated with a rebellious breaking of the mainstream and often equally portrayed as a problem or threat to the social order. In the market-segmentation literature, the global youth segment is constructed as sharing a similar set of desires based on global brands and consumption practices. In this research, Web users were demographically or culturally similar to each other and also displayed

similarity in their perceptions toward the Web sites. This complies with Viswanathan and Dickson's (2007) definition of customer homogeneity. They insisted that customer homogeneity should mean the homogeneity of customer response to the marketing mix.

In the case of communication technology like Web sites, who is going to use the new technology is important. This young group should be treated with importance since the Internet shopping user can be clearly divided according to age. The 20-29 age group accounts for the largest portion of Korean Internet shopping users at 82.2% according to a report of National Internet Development Agency of Korea (NADA) (NIDA, 2008). Convergence and fragmentation driven by the globalisation of information could coexist. The globalisation of information has not only broken down country and cultural barriers, but contributed to the creation of new ones. Barriers which do not follow traditional ethnic or religious affiliations could be based on sub-cultures such as techies versus greens (Schlegelmilch & Sinkovics, 1998). Sub-groups across country boundaries might be considered more important than cultural differences between countries.

#### **5.4.2 Change of culture**

Hofstede's typology of culture is one of the most widely accepted and frequently cited in academic works. The question remains whether this typology is still valid in a time of information revolution led by the Internet and globalisation, since the etic studies like Hofstede's and Hall's were undertaken before the recent revolution in cross border communication and the accelerated movement of peoples between countries. This raises the question as to whether their cultural dimensions are as relevant in the new millennium as when they were originally developed (Fletcher, 2006).

Traditionally culture has been viewed as localised and defined by territorial boundaries (Craig & Douglas, 2006). One reason for culture change is global flows that are

transforming cultures and diluting the differences between them. Craig and Douglas (2006) explained the five global flows identified by the sociologist Appadurai (1990, cited in Craig & Douglas, 2006) which were mediascapes (flows of image and communication), ethnoscapes (flows of tourists, migrants, and foreign students), ideoscapes (flows of political ideas and ideologies), technoscapes (flows of technology), and finanscapes (flows of capital and money). The global flows dramatically change the character of the global landscape and dissolve the boundaries between national cultures. It is not unusual to see young Korean people watching their favourite US TV shows with their laptop computers in trendy coffee franchises like Starbucks, in Seoul, the capital of Korea (DPA, 2008). Because of these global flows, individualism, autonomy, freedom, and mobility, which are associated with core Western values and capitalism, become the trend in contemporary societies.

The impact of these cultural influences increased significantly in the late twentieth century and many basic cultural orientations within traditional societies are changing. With advances in information and communication technologies, the permeability of cultural boundary is accelerating the change of culture at much higher speed. According to Lee and Ungson (2008), new technologies underlying the Internet-centric economy of Korea create a new breed of customers, empower individuals, and change their patterns of consumption. In South Korea, the Internet is seen not as the voice of authority, but as the voice of the people challenging that authority in Korea (Coyner, 2007, para 4). The global flow of an online game like 'Starcraft', Korea's most popular online game, provides graphic testimony of the competitive intensity displayed by younger Koreans (Lee & Ungson, 2008).

### 5.4.3 Economic development

Along with global flows, there is another likely explanation for the phenomenon of Westernised cultural traits in South Korean university students. The South Korean economy has made a dramatic leap over 70 years since the country's liberation from Japanese colonisation and skyrocketed 520-fold over the years (An & Kim, 2007). South Korea has developed from a traditional agricultural society to a predominantly urban, educated, industrial society and achieved remarkable economic growth. South Korea's rapid economic development is attributed to the dynamics of industrialisation based on effective government intervention, a highly educated workforce, and the strategies and structures of large business groups, or *chaebols* (Lee & Ungson, 2008).

Hofstede (1980) speculated that individualism would increase and the power distance norm will decrease as long as national wealth increased in the longer term. Also, Triandis supported the view (1995) that industrialisation encourages a shift from family values to the development of individualism due to affluence, exposure to mass media, and modernisation. As such, economic development and cultural change seem to move in coherent patterns (Allen et al., 2007). For example, Japanese responses indicated that there has been a shift of values toward individualism during only a few years of dramatic economic development (Zhang & Shavitt, 2003). Hong Kong and Japan grew strong economically and have shifted away from 'mastery' values since 1982 (Allen et al., 2007). This is also in line with Hyun's (2001) research revealing that traditional values like those of Confucius were not strong among young Koreans. However, the phenomenon does not suggest that there is an abandonment of feelings of national pride or Korean values. Nor does it imply that participants embrace only Western values and disrespect local and traditional values.



Furthermore, De Mooij argued that paradoxical values were found in most cultures and that they were frequently present in advertising. It has been suggested that this may be particularly true in countries that have experienced rapid economic development (Taylor, 2005). South Korean economic development was praised with such accolades as ‘The Miracle on the Han River’ (the Han river flows through Seoul, the capital of South Korea) and being one of the ‘Four Asian Tigers’, along with Taiwan, Singapore, and Hong Kong (Lee, 2003). The Korean university students in this study were born after 1980 and enjoyed fast economic development and foreign influence. Traditional Korean society practices might not be what they want. It was found that cultural practices of ‘as it is and cultural values of ‘as it should be’ were negatively correlated with one another in a recently conducted cultural study, GLOBE (an abbreviation of the Global Leadership and Organisational Behaviour Effectiveness project). It is assumed that young Korean adults might be ready for dynamic societal change.

### **5.5 First language**

This research suggests to practitioners and academics that Web sites targeting other cultures might not need dramatic cultural customisation in content and visual design but strongly suggests that translation of the interface into a target language is an essential step to a more positive attitude toward the Web site. Although the three groups showed similar favourability toward the four culturally different Web sites, the degrees of this favourability were significantly different. New Zealand university students indicated the highest average of attitudes toward the four culturally different Web sites, followed by Korean university students studying in New Zealand and Korean university students in South Korea.

Korean students in Korea were familiar with complicated Web sites with animation,

video, or illustration. However, Web sites designed in English might be one of the prominent underlying reasons for their less positive perceptions toward the Web sites. It was found in the responses of five participants to the open questions that they expressed discontent and fear, being overwhelmed by the predominance of English. These findings were consistent with the results claimed by previous research that about 75% of Web users in China and Korea preferred Web sites in their local languages, and chose local sites to make purchases (Singh & Boughton, 2005). Conversely, proficiency in the English language could be relevant to the New Zealand participants' more positive responses to the Web sites.

Beyond simple translation, Web designers need to study each culture for its specific language elements. It might be considered out-of-date that Japanese, Korean, and Chinese read vertically. As found in the open-ended questions of the questionnaire, Korean participants perceived the font size of the Web site designed for this research rather small. Special attention should be paid when translating Roman-based alphabets like English, French, and German to non-Roman-based alphabets like Chinese, Japanese, and Korean (Singh & Baack, 2004). The Korean alphabet, known as Han-gul, uses a pictographic font and looks large on the computer interface compared to English. For example, a font size of 12 in English looks smaller and less legible compared to a font size of 10 in Korean. Similarly, differing language structures mean that the size of the text grows by about 30% when translated into Roman-based languages (Singh & Baack, 2004). These language elements can alter the overall layout of the text and possibly decrease the relative impact of visual elements. Therefore, space considerations including the text length have to be taken into account when conceiving the text.

Another emic enquiry found in this research was local terminology. The researcher often

found the word *Sin-moon-go* on Korean corporate Web sites. The word refers to a big drum used during the Joseon Dynasty (1392-1910) and represents the system of handling complaints against the government during that period. The word was reborn as a channel through which people report petitions, complaints, and proposals. When Koreans find the word *Sin-moon-go* under the customer service section on Web site, they automatically know that here they can submit their complaints, petitions, and proposals. Furthermore, unlike New Zealanders, Koreans always use titles connected with their profession, place of work and rank when they both speak and write in Korean. Therefore, translating a Web site into a local language by using software on the Internet that offers automatic translation services is not sufficient. The software may be prone to various cultural errors. Web developers could standardise a general strategy of Web site design, but should modify execution and languages as needed (Taylor, 2005). In particular, metaphors, rhetorical expressions, and typography should be considered carefully for effective online communication.

## 5.6 Web site transformation

This research identifies the underlying patterns of differences and similarities which can provide a platform for companies at the strategic and operational level when they create their corporate Web sites for other cultures. For Web site interface design, the most common approach is the standardisation-localisation process like advertising in broadcasting or printing. Standardisation is accomplished by removing all culture-specific content such as language and culturally meaningful icons from the Web site interface. On the contrary, localisation enhances the Web site interface to fit the Web users of a particular culture and to accommodate local requirements such as language, country-related information, writing styles, and so forth. However, the complicated findings found in this empirical study suggest that the simple standardisation-

localisation process introduced in the Web site localisation models is too general to apply to corporate Web site design. The localisation process of a company's Web site is strongly affected by a target country's broadband infrastructure, a company's online presence strategy and size, its industry characteristics, and target Web users.

A new framework of Web site transformation is suggested in this research. Table 33 shows the transformation in Web feature adoption from limited usage Web sites to more complex ones. The solid arrows lines represent the direction of transformation in Websites.

Table 33: Transformation in Web feature adoption of corporate Web sites

	Limited usage Web sites	————→	More complex Web sites
Company size	Small	————→	Large
High-speed Internet Infrastructure	Low broadband penetration rate	————→	High broadband penetration rate
Online strategy	General publicity	————→	Online business
Cultural characteristics	High power distance		Low power distance
	Low collectivism		High collectivism
	Low individualism		High individualism
	Low uncertainty avoidance		High uncertainty avoidance
	Low masculinity	————→	High masculinity
Industry	Durable	————→	Service & non-durable
In this research	New Zealand Web sites	————→	Korean Web sites

## 5.7 Conclusion

The differences and similarities found in this study are not completely due to the fact that South Korea and New Zealand are two countries divided by culture, but there might be other significant factors such as a company's characteristics, its online presence

strategy, national broadband infrastructure, and unique Internet culture. Also, global flows, accelerated by the Internet, are changing traditional cultural orientations to more westernised values like individualism and capitalism. The young adult segment, the participants in this research, is most shaped by the global cultural flows. Therefore, Hofstede's and Hall's studies undertaken before the revolution of the Internet and dramatic movement of global flows might not be enough to explain what is happening in Web site design between the two countries and young Web users' perceptions toward it.

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## Chapter 6: Conclusions and Implications

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### 6.1 Summary

This research studied the meaning of cultural differences in the Internet environment where national or ethnic boundaries are blurred. Hofstede's and Hall's studies have been employed as the theoretical foundation for studying the impact of national culture on corporate Web site design and users' perceptions. The findings of two important research questions were presented.

The first question was whether there were cultural impacts on the content of corporate Web sites from the two different countries. The differences and similarities manifested in the use of visuals and Web features displayed results that are inconsistent with previous studies. The findings are explained in that corporate Web sites of South Korea and New Zealand are divided not only by the two national cultures, but also by differences in a company's adoption of online business and size, its industry characteristics, and a country's broadband infrastructure.

These internal and external factors have not been explored in previous cross-cultural studies of Web site design. If a company is small and has a business purpose of general publicity online, its corporate Web site might be static, displaying cultural characteristics of high power distance, low individualism, low collectivism, low uncertainty avoidance, and low masculinity. On the other hand, if a company has extensive resources and pursues online business on its Web site, the site might be more complex with features of low power distance, high collectivism, high individualism, high uncertainty avoidance, and high masculine dimensions. Compared to the durable sector, Web sites from the non-durable and the service sector utilised more online

business. Depending on their different purposes and requirements, different cultural characteristics of Web sites were emphasised to varying extents.

In addition, a more important question was asked and answered in the current study: do people from countries at the opposite ends of Hofstede's and Hall's cultural dimensions prefer Web sites with culturally congruent elements to those with culturally incongruent elements? This research question is especially important since it measures the perceptions of Web users from different cultures rather than the Web site elements as such. Participants from different cultures responded to the design of Web sites in similar ways, preferring the Web site with westernised features. The underlying reasons for this phenomenon might be the cultural convergence of the participants and, the influence of Internet culture and genre of Web site. However, language structure and local terminology on the Web sites were considered still important for Web site effectiveness. In conclusion, these findings, which differed from many previous theoretical studies, emphasised more the importance of a technically and linguistically congruent interface which fits the target users at different locals than that of a culturally congruent graphics and features.

## **6.2 Implications**

The way a company presents itself on the Internet through its Web site has become a significant topic for both academic researchers and corporate practitioners. The findings of this research have important implications for both business management and academia.

### **6.2.1 Implications for the theoretical field**

The present research employed multiple methods, content analysis and experimental research, to investigate cultural impact on Web site design. A multimethod approach is

deemed highly desirable in cross-cultural research. Many of the previous studies have concluded their findings based on a content-analysis of Web sites from different countries and displayed cultural design guidelines. By contrast, in this research, the Web site design guidelines were applied to manipulate the design of culturally congruent and incongruent Web sites, which were used to measure how the degree of cultural adaptation affected a user's perception of Web site effectiveness.

Additionally, a limited number of studies explored industry effects. Industry types affect the adoption or non-adoption of e-commerce of a company. This research is considered to be more significant since it incorporated international segmentation into understanding users' perceptions. Because of the unique Internet culture driving convergence and fragmentation, digital citizens, especially young adults, are constructed as sharing a similar set of perceptions toward Web sites. This provides academic researchers with evidence to support the notion that the standardisation versus adaptation debate is not suitable in the Internet environment. Furthermore, the majority of cross-cultural studies have been conducted mainly in Triad countries. In particular, cross-cultural studies in Web site design have been researched with multinationals' Web sites and people from Triad countries. This research undertaken in the specific contexts, New Zealand and South Korea, therefore, adds value in that sense.

Although this study was developed on the basis of Hofstede's work, it is strongly suggested that there is a need to study the culture of a target audience in depth. Hofstede's model is based on research that was begun nearly 20 years ago and developed within an organisational setting. His scales and findings have been revalidated (Hofstede, 1991); however, there might have been some cultural convergence or acculturation, as found in this research. Hofstede's work can still be



used to understand general patterns of culture change for each country sample. However, alternative approaches will become necessary as online intercultural communication is fostered by the continued expansion and diffusion of the Internet.

### **6.2.2 Implication for managers**

Apart from theoretical consideration, our findings provide practical implications for international marketing managers and Web developers who may consider making or revising their corporate Web sites for other cultures. Their Web sites must not only provide company and product information to customers but also match the desired Web user response with effective Web site design for which a specific set of instrumental or technical, economic, social, aesthetic, and symbolic attributes are needed.

First of all, the findings of this research provide some understanding of the practice of main visuals and Web features for designing more effective Web sites in various industries. Cultural and social proximity has been created through the Internet's ubiquity and ease of access. However, due to differing industrial characteristics and the nature business, industries differ in their use of Web features and functions and some companies might not even wish to provide comprehensive Web features. Therefore, a full understanding of both the idiosyncrasies of the Internet and industrial differences should be considered as a prerequisite for effective design of corporate Web sites. These findings can be used as a guideline for companies to adopt, implement, or diffuse Web technology. For this reason, more specifically, those who have rich industrial business experiences or who have received formal business training would be better candidates for Web site development projects.

Furthermore, this research suggests the need to gather data about the potential population group (e.g. young or old) in a particular culture prior to designing a

corporate Web site for that culture. If the site is targeting young, heavy Web users, a simple underlying assumption of their national cultural values derived from previous typologies might be a mistake. The results indicate that such barriers can perhaps be overcome since young Web user groups have similar cultural values and might more readily accept westernised content of a Web site.

However, when companies are introduced via a global medium, the Internet, language barriers are still big issues in the designing Web sites. Beyond simple translation, international marketing managers and Web developers need a full understanding of language elements such as structure and local terminology. Therefore, it is necessary to involve local people.

In addition, the majority of companies in New Zealand regarded the Web only as a platform to promote their products/services or as a channel to broadcast their news/images. It is risky for those companies to overlook the potential of the Web since their international rivals in other countries may use these opportunities. Therefore, it is suggested that New Zealand companies should build more Web features on their Web sites and follow their Korean counterparts' developmental steps in terms of Web feature adoption. Korea and New Zealand differed significantly on reciprocal communication features like log-on system (e.g. personalisation feature in this research) and interactive feedback (e.g. sharing experience in this research). When the development of a corporate Web site moves to an advanced stage, it should provide more consumer-advertiser interaction.

On the contrary, Korean companies should take into consideration that some countries do not have the high-speed Internet infrastructures for viewing complex multimedia presentations; in other words, users from those countries live in the environment where

they are technologically unable to process them and might not see the necessity of them.

Given the short history of the Internet as a marketing tool for a company, there have been very few published studies where academics and practitioners team up to conduct studies on cultural effects on Web site design. The integrated studies will provide solid results that are theoretically interesting and generalisable while simultaneously being practically actionable. Additionally, to fully address the research questions there might be a need for a large-scale study across many countries.

### 6.3 Limitations

This study is limited in several ways. The first limitation is that of the restricted sample. This study considered only two different cultures. To have a better understanding of cultural issues, research needs to cover more geographically extended areas which are not limited to specific regions like Western and Eastern cultures. The degree of importance assigned to designing a culturally sensitive user interface may vary from country to country.

There are some inherent limitations to the methods (Han & Shavitt, 1994). Although content analysis is a well-established method of studying advertising messages and communication content, it is likely for coders to interpret explicit content rather than meaning embedded in the content messages, in other words, a connotative level of content is easily overlooked (Anderson et al., 2006). Secondly, content analysis inhibits researchers from assessing the effect or signification of the content, but only measures the frequency or repeatability of sign or element in the body of content which does not mean that sign or element are necessarily the most significant (Wimmer & Dominick, 2006). What is practised in the content of a medium might not always be what people think effective. Also, it does not allow for interpreting the underlying reasons why

differences in the frequency of use of a technique exist (Taylor, 2002). In contrast, experimental research limits variation to the manipulated factors so that causal relationship can be established, but such manipulations may not resemble social phenomena in their natural settings, and thus may be low in external validity (Han & Shavitt, 1994).

Furthermore, the use of a single cohort limits the ability to generalise findings. This study was conducted with university students who were educated and heavy Web users. University students are likely to have high levels of cosmopolitanism and globalisation. Also, the participants considered themselves experienced Internet users. Cultural differences might play a greater role for novice than experienced users. If other cohorts (e.g. people aged 40-50) or a wider representation of populations were examined, there could be different findings between South Korea and New Zealand with respect to the effects of cultural values on the adoption of e-commerce. Generally, age is negatively correlated with computer usage. Caution therefore should be used in generalising these results beyond this context.

Although the two nations involved in this research have similar information technology adaptation, the infrastructure of Korean information technology has been developed further under the government's strategic policy. Factors related to the infrastructure of Web sites were not examined although they might affect attitudes and behavioural intention differently between the two countries. Therefore, future research should compare countries with similar levels of high-speed Internet infrastructure, but with different cultural value orientations.

Another limitation is the use of Hofstede's and Hall's models. As Baack and Singh (2007) pointed out, applying any one or two cultural typologies might not be a good

guide to creating cultural congruent or incongruent contents of Web sites. The models might be oriented toward western thinking, since, for example, Hofstede's instruments were developed by the international team, consisting only of western researchers (Hofstede, 1980). Future research needs to take a complex multi-faceted look at cultural adaptation in Web sites by including more varied, additional cultural typologies.

The inevitable cultural bias of the researcher in conducting the research should, of course, be kept in mind in cultural studies, especially in research such as this one, which had a high level of involvement in designing Web sites. Also, the Web sites for this research were created by the researcher whose limited technical ability resulted in some common features of Web sites not being included. For example, features such as club or chat rooms, FAQ's, and newsletters, which represent Hofstede's collectivism dimension, were not part of the Korean-specific Web sites.

This study focused on the influence of cultural impact on Web users' perceptions toward Web sites of an electronic company. The kind of company and its products might result in different findings. Some marketing scholars argued that studying cross-cultural differences for shared products like washers, dryers, and home furnishings are more appropriate than personal products like cosmetics and fashion apparel. Other argued that non-durable products like food, with low involvement for buying decision, have more tendencies to be adapted culturally. Other factors such as genre and institutional guidelines might affect Web users' attitude toward Web sites.

There might be cultural differences if this research had studied cultural differences in Internet motivation and Internet usage patterns across cultures, although the participants have similar perceptions toward Web site design. The high involvement of the Korean population in online communities should not be ignored, for example, their involvement

in online communities like ‘Daum’ ([www.daum.net](http://www.daum.net)) and ‘Cyworld’ ([www.cyworld.co.kr](http://www.cyworld.co.kr)) is higher than in any other countries (Park & Jun, 2003). Web users in Korea tend to spend more time in online communities or communication, but less time in online shopping. For this reason, more online community sites tend to include online shopping in their Web sites.

#### 6.4 Final reflections

The Internet is still a relatively new medium for conducting business. Having been widely used by companies for just over a decade, its ultimate impacts are still to be seen. Numerous studies have been conducted on the technical aspects of the Internet and the commercial benefits that it brings to organisations. This research attempts to broaden the scope of cross-cultural research by expanding cross-cultural studies to the electronic environment. Only a limited number of scholars have examined the impact of cultural context on the design of corporate Web sites and Web users’ perceptions, thus this study extends the knowledge in this regard.

Although these findings should not be generalised across all countries or cultures, it is believed that they do provide critical insights for academic researchers and practitioners who make appealing Web sites for other countries or cultures, especially in the examined countries. In the absence of large-scale analysis in this area, an empirical study like this research contributes to the advance of theoretical knowledge in a cross-cultural study and the development of practical guidelines to Web site design.

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## Appendices

### Appendix 1. New Zealand and South Korean company lists

Table 34 : Korean company list

Industry	Company Name	URL
Agriculture & Fishing (10)	Han Kook Fruits & Vegetables	<a href="http://www.hkck.co.kr">www.hkck.co.kr</a>
	Joong Ang Fruits & Vegetables	<a href="http://www.ejoongang.co.kr">www.ejoongang.co.kr</a>
	Lotte Milk	<a href="http://www.lottemilk.co.kr">www.lottemilk.co.kr</a>
	Nong Woo Bio	<a href="http://www.nongwoobio.co.kr">www.nongwoobio.co.kr</a>
	Onnara	<a href="http://www.onnara.com">www.onnara.com</a>
	Oyang Corporation	<a href="http://www.oy.co.kr">www.oy.co.kr</a>
	Sajo Industries	<a href="http://www.sajo.co.kr">www.sajo.co.kr</a>
	Seoul Milk	<a href="http://www.seoulmilk.co.kr">www.seoulmilk.co.kr</a>
	Shinhan F&B	<a href="http://www.myzingo.co.kr">www.myzingo.co.kr</a>
	Silla Co.	<a href="http://www.sla.co.kr">www.sla.co.kr</a>
Apparel & Jewellery (10)	Agabang	<a href="http://www.agabang.com">www.agabang.com</a>
	Cambridge Members	<a href="http://www.cambridge.co.kr">www.cambridge.co.kr</a>
	Good People	<a href="http://www.j.co.kr">www.j.co.kr</a>
	In the F	<a href="http://www.inthef.co.kr">www.inthef.co.kr</a>
	Jindo F & CO.	<a href="http://www.jindofand.co.kr">www.jindofand.co.kr</a>
	Kolon Fashion	<a href="http://www.kolonfashion.biz">www.kolonfashion.biz</a>
	LG Fashion	<a href="http://www.lgfashion.co.kr">www.lgfashion.co.kr</a>
	Shinwon	<a href="http://www.sw.co.kr">www.sw.co.kr</a>
	Trybrands	<a href="http://www.trybrands.co.kr">www.trybrands.co.kr</a>
	Woosung I & C	<a href="http://www.woosungshirts.com">www.woosungshirts.com</a>
Building materials & Construction (10)	Byucksan Engineering & Construction	<a href="http://www.becco.co.kr">www.becco.co.kr</a>
	Daewoo Engineering & Construction	<a href="http://www.dwconst.co.kr">www.dwconst.co.kr</a>
	Daelim Industrial	<a href="http://www.daelim.co.kr">www.daelim.co.kr</a>
	Doosan Heavey	<a href="http://www.doosanheavy.com">www.doosanheavy.com</a>
	GS Engineering & Construction	<a href="http://www.gsconst.co.kr">www.gsconst.co.kr</a>
	Hyundai Engineering & Construction	<a href="http://www.hdec.co.kr">www.hdec.co.kr</a>

	Kumho Industrial	<a href="http://www.kumhoenc.com">www.kumhoenc.com</a>
	POSCO	<a href="http://www.posco.com">www.posco.com</a>
	Ssanyong E&C	<a href="http://www.ssyenc.com">www.ssyenc.com</a>
	Sungwon Co.	<a href="http://www.sungwon.co.kr">www.sungwon.co.kr</a>
Business Assistance Service (10)	Cheil Communications	<a href="http://www.cheil.com">www.cheil.com</a>
	Gentech Holdings	<a href="http://www.g-entech.com">www.g-entech.com</a>
	Hyosung ITX	<a href="http://www.hyosungitx.co.kr">www.hyosungitx.co.kr</a>
	Korea Ratings	<a href="http://www.korearatings.com">www.korearatings.com</a>
	MPC	<a href="http://www.mpc.co.kr">www.mpc.co.kr</a>
	National Information & Credit Evaluation	<a href="http://www.nice.co.kr">www.nice.co.kr</a>
	Nice e-Banking Services	<a href="http://www.nicebanking.co.kr">www.nicebanking.co.kr</a>
	SCI	<a href="http://www.sci.co.kr">www.sci.co.kr</a>
	Shin Cheon Co.	<a href="http://www.shincheon.co.kr">www.shincheon.co.kr</a>
	S1	<a href="http://www.s1.co.kr">www.s1.co.kr</a>
Durables (10)	Borneo International Furniture	<a href="http://www.bif.co.kr">www.bif.co.kr</a>
	Enex	<a href="http://www.enex.co.kr">www.enex.co.kr</a>
	Halla Climate Control Co.	<a href="http://www.hcc.co.kr">www.hcc.co.kr</a>
	Humax	<a href="http://www.humaxdigital.com/korea/">www.humaxdigital.com/korea/</a>
	LG Cable	<a href="http://www.lgcable.co.kr">www.lgcable.co.kr</a>
	LG Electronics	<a href="http://www.lge.co.kr">www.lge.co.kr</a>
	Samsung Electronics	<a href="http://www.sec.co.kr">www.sec.co.kr</a>
	Samsung Techwin	<a href="http://www.samsungtechwin.co.kr">www.samsungtechwin.co.kr</a>
	Shindoricoh	<a href="http://www.sindo.co.kr">www.sindo.co.kr</a>
	Woongjin Coway	<a href="http://www.coway.co.kr">www.coway.co.kr</a>
Energy (10)	Daegu City Gas	<a href="http://www.Taegugas.co.kr">www.Taegugas.co.kr</a>
	Daehan City Gas	<a href="http://www.daehancitygas.com">www.daehancitygas.com</a>
	Incheon City Gas	<a href="http://www.icgas.co.kr">www.icgas.co.kr</a>
	Korea Gas Corporation	<a href="http://www.kogas.or.kr">www.kogas.or.kr</a>
	Korea Electric Power	<a href="http://www.kepco.co.kr">www.kepco.co.kr</a>
	Kyungdong City Gas	<a href="http://www.kdgas.co.kr">www.kdgas.co.kr</a>
	Pusan City Gas	<a href="http://www.sk-enron.com/pusan/main.jsp">www.sk-enron.com/pusan/main.jsp</a>
	Samchully	<a href="http://www.samchully.co.kr">www.samchully.co.kr</a>
	Seoul City Gas	<a href="http://www.seoulgas.co.kr">www.seoulgas.co.kr</a>
	Yesco	<a href="http://www.lsyesco.com">www.lsyesco.com</a>
Finance &	Dongbu Insurance	<a href="http://www.idongbu.com">www.idongbu.com</a>

Insurance (10)	Industrial Bank of Korea	<a href="http://www.ibk.co.kr">www.ibk.co.kr</a>
	Hana Financial Group	<a href="http://www.hanafn.com">www.hanafn.com</a>
	Han Kook Capital	<a href="http://www.hkcapital.co.kr">www.hkcapital.co.kr</a>
	Korea Exchange Bank	<a href="http://www.keb.co.kr">www.keb.co.kr</a>
	Korea Investment Holdings	<a href="http://www.koreaholdings.com">www.koreaholdings.com</a>
	KTB Network	<a href="http://www.ktb.co.kr">www.ktb.co.kr</a>
	Samsung Card Co.	<a href="http://www.samsungcard.co.kr">www.samsungcard.co.kr</a>
	Shinhan Financial Group	<a href="http://www.shinhangroup.com">www.shinhangroup.com</a>
	Woori Finance Holdings	<a href="http://www.woorifg.com">www.woorifg.com</a>
Food & Beverages (10)	Binggae	<a href="http://www.bing.co.kr">www.bing.co.kr</a>
	CJ Cheil Jedang Corp	<a href="http://www.cj.co.kr">www.cj.co.kr</a>
	HITE Brewery	<a href="http://www.hite.com">www.hite.com</a>
	KSDB	<a href="http://www.ksdb.co.kr">www.ksdb.co.kr</a>
	Lotte Confectionery	<a href="http://www.lotteconf.co.kr">www.lotteconf.co.kr</a>
	Nongshim	<a href="http://www.nongshim.com">www.nongshim.com</a>
	Orion Corp.	<a href="http://www.orionworld.com">www.orionworld.com</a>
	Samlip General Foods	<a href="http://www.samlipgf.co.kr">www.samlipgf.co.kr</a>
	Samyang Foods	<a href="http://www.samyangfood.co.kr">www.samyangfood.co.kr</a>
	Seoul Food Industrial	<a href="http://www.seoul-food.co.kr">www.seoul-food.co.kr</a>
Retail Sales (10)	CJHS	<a href="http://www.cjmall.com">www.cjmall.com</a>
	D & Shop	<a href="http://www.dnshop.com">www.dnshop.com</a>
	Eyesvision	<a href="http://www.eyeshop.com">www.eyeshop.com</a>
	GSHS	<a href="http://www.gseshop.co.kr">www.gseshop.co.kr</a>
	Hyundai DSF	<a href="http://www.ehyundai.com">www.ehyundai.com</a>
	Kyobobook	<a href="http://www.kyobobook.co.kr">www.kyobobook.co.kr</a>
	Lotte Shopping Co.	<a href="http://www.lotteshopping.com">www.lotteshopping.com</a>
	Savezone I & C	<a href="http://www.savezone.co.kr">www.savezone.co.kr</a>
	Shinsegae Co.	<a href="http://www.shinsegae.com">www.shinsegae.com</a>
	Wizwid	<a href="http://www.wizwid.com">www.wizwid.com</a>
Science & Technology (10)	Crystal Genomics	<a href="http://www.crystalgenomics.com">www.crystalgenomics.com</a>
	Daeduck Electronics	<a href="http://www.daeduckgds.com">www.daeduckgds.com</a>
	Eco solution	<a href="http://www.ecosol.co.kr">www.ecosol.co.kr</a>
	HumanTec	<a href="http://www.humantec.co.kr">www.humantec.co.kr</a>
	Hynix Semiconductor	<a href="http://www.hynix.co.kr">www.hynix.co.kr</a>
	Interflex Co.	<a href="http://www.interflex.co.kr">www.interflex.co.kr</a>
	LG Micron	<a href="http://www.lgmicon.com">www.lgmicon.com</a>
	NHN	<a href="http://www.nhncorp.com">www.nhncorp.com</a>

Telecommunication (10)	Viomed	<a href="http://www.viomed.co.kr">www.viomed.co.kr</a>
	Yooshin	<a href="http://www.yooshin.co.kr">www.yooshin.co.kr</a>
	Hanaro Telecom	<a href="http://www.hanaro.com">www.hanaro.com</a>
	Hannet	<a href="http://www.hannet.net">www.hannet.net</a>
	KL-Net	<a href="http://www.klnet.co.kr">www.klnet.co.kr</a>
	KT Corporation	<a href="http://www.kt.com">www.kt.com</a>
	KTF	<a href="http://www.ktf.com">www.ktf.com</a>
	KTH	<a href="http://corp.paran.com">http://corp.paran.com</a>
	KRT Net	<a href="http://www.krtnet.co.kr">www.krtnet.co.kr</a>
	LG Dacom	<a href="http://www.lgdacom.net">www.lgdacom.net</a>
	LG Telecom	<a href="http://www.lgtelecom.com">www.lgtelecom.com</a>
	SK Telecom	<a href="http://www.sktelecom.com/main.html">www.sktelecom.com/main.html</a>
Transport (10)	Dongbang	<a href="http://www.dongbang.co.kr">www.dongbang.co.kr</a>
	Dongyang Express	<a href="http://www.dyexpress.co.kr">www.dyexpress.co.kr</a>
	Hanjin Logistics	<a href="http://www.hanjin.co.kr">www.hanjin.co.kr</a>
	Hyundai Merchant Marine	<a href="http://www.hmm21.com">www.hmm21.com</a>
	Glovis	<a href="http://www.glovis.net">www.glovis.net</a>
	KCTC	<a href="http://www.kctc.co.kr">www.kctc.co.kr</a>
	Korean Airlines	<a href="http://kr.koreanair.com">http://kr.koreanair.com</a>
	Korea Express	<a href="http://www.korex.co.kr">www.korex.co.kr</a>
	Kukbo	<a href="http://www.kukbo.com">www.kukbo.com</a>
	Sun Kwang	<a href="http://www.sun-kwang.co.kr">www.sun-kwang.co.kr</a>

Table 35 : New Zealand company list

Industry	Company name	URL
Agriculture & Fishing (10)	A2 Corporation	<a href="http://www.a2corporation.com">www.a2corporation.com</a>
	AFFCO Holdings Ltd	<a href="http://www.affco.co.nz">www.affco.co.nz</a>
	Dairy Equity Ltd	<a href="http://www.dairyequity.co.nz">www.dairyequity.co.nz</a>
	Fonterra Co-operative Group	<a href="http://www.fonterra.co.nz">www.fonterra.co.nz</a>
	ENZA	<a href="http://www.enza.co.nz">www.enza.co.nz</a>
	Sanford	<a href="http://www.sanford.co.nz">www.sanford.co.nz</a>
	Satara Co-operative Group	<a href="http://www.satara.co.nz">www.satara.co.nz</a>
	Seek a Kiwifruit Industries Ltd	<a href="http://www.seeka.co.nz">www.seeka.co.nz</a>
	Turners & Growers Ltd	<a href="http://www.turnersandgrowers.com">www.turnersandgrowers.com</a>
	ZESPRI Group	<a href="http://www.zespri.com">www.zespri.com</a>

Apparel & Jewellery (10)	Ambler & Co.	<a href="http://www.ambler.co.nz">www.ambler.co.nz</a>
	Canterbury of New Zealand	<a href="http://www.canterburynz.com">www.canterburynz.com</a>
	Cavalier Corporation Ltd	<a href="http://www.cavcorp.co.nz">www.cavcorp.co.nz</a>
	Ezibuy	<a href="http://www.ezibuy.co.nz">www.ezibuy.co.nz</a>
	Hallenstein Glasson	<a href="http://www.hallensteinglasson.co.nz">www.hallensteinglasson.co.nz</a>
	Kathmandu	<a href="http://www.kathmandu.co.nz">www.kathmandu.co.nz</a>
	Line 7 New Zealand	<a href="http://www.line7.com">www.line7.com</a>
	Michael Hill International	<a href="http://www.michaelhill.co.nz">www.michaelhill.co.nz</a>
	Postie Plus	<a href="http://www.postieplus.co.nz">www.postieplus.co.nz</a>
	Pumpkin Patch	<a href="http://www.pumpkinpatch.biz">www.pumpkinpatch.biz</a>
Building materials & Construction (10)	AB Equipment	<a href="http://www.abequipment.co.nz">www.abequipment.co.nz</a>
	Acorn Building Supplies	<a href="http://www.acornbuilding.co.nz">www.acornbuilding.co.nz</a>
	Alliance Construction	<a href="http://www.allianceconstruction.co.nz">www.allianceconstruction.co.nz</a>
	Fletcher Building	<a href="http://www.fletcherbuilding.com">www.fletcherbuilding.com</a>
	Glenn Henderson Ltd	<a href="http://www.hendersondemolition.co.nz">www.hendersondemolition.co.nz</a>
	Hawkins Construction	<a href="http://www.hawkins.co.nz">www.hawkins.co.nz</a>
	Mainzeal Property and Construction	<a href="http://www.mainzeal.co.nz">www.mainzeal.co.nz</a>
	Nuplex Industries Ltd	<a href="http://www.nuplex.co.nz">www.nuplex.co.nz</a>
	Steel & Tube Holdings Ltd	<a href="http://www.steelandtube.co.nz">www.steelandtube.co.nz</a>
	Winstone Wallboards	<a href="http://www.gib.co.nz">www.gib.co.nz</a>
Business Assistance Service (10)	Allied Work Force Group	<a href="http://www.labourhire.co.nz">www.labourhire.co.nz</a>
	Amtel Communications	<a href="http://www.amtel.co.nz">www.amtel.co.nz</a>
	BERL Business and Economic Research	<a href="http://www.berl.co.nz">www.berl.co.nz</a>
	Brookers Ltd	<a href="http://www.brookers.co.nz">www.brookers.co.nz</a>
	Canary Data Solutions	<a href="http://www.canary.co.nz">www.canary.co.nz</a>
	Diligent Board Member Services, INC	<a href="http://www.boardbooks.com">www.boardbooks.com</a>
	Finzsoft Solutions	<a href="http://www.finzsoft.com">www.finzsoft.com</a>
	Jade Software Corporation	<a href="http://www.jadeworld.com">www.jadeworld.com</a>
	Miller Dean Chartered Accountants and Audits	<a href="http://www.millerdean.co.nz">www.millerdean.co.nz</a>
	Spotless Service	<a href="http://www.spotless.co.nz">www.spotless.co.nz</a>
Durables (10)	Ebos Group	<a href="http://www.ebos.co.nz">www.ebos.co.nz</a>

	Fisher & Paykel Appliances Hldgs	<a href="http://www.fisherpaykel.co.nz">www.fisherpaykel.co.nz</a>
	Fisher & Paykel Healthcare Corporation	<a href="http://www.fphcare.com">www.fphcare.com</a>
	Methven Ltd	<a href="http://www.methven.biz">www.methven.biz</a>
	Mercer Stainless	<a href="http://www.mercers.co.nz">www.mercers.co.nz</a>
	Provenco Group Ltd	<a href="http://www.provenco.com">www.provenco.com</a>
	Rakon Ltd	<a href="http://www.rakon.co.nz">www.rakon.co.nz</a>
	Ramset	<a href="http://www.ramset.co.nz">www.ramset.co.nz</a>
	Scott Technology Ltd	<a href="http://www.scott.co.nz">www.scott.co.nz</a>
	Smartpay Ltd	<a href="http://www.smartpay.co.nz">www.smartpay.co.nz</a>
Energy (10)	Contact Energy	<a href="http://www.contactenergy.co.nz">www.contactenergy.co.nz</a>
	Genesis Power	<a href="http://www.genesisenergy.co.nz">www.genesisenergy.co.nz</a>
	Horizon Energy	<a href="http://www.horizonenergy.net.nz">www.horizonenergy.net.nz</a>
	Infratil Ltd	<a href="http://www.infratil.com">www.infratil.com</a>
	Meridian Energy	<a href="http://www.meridianenergy.co.nz">www.meridianenergy.co.nz</a>
	Natural Gas Corporation of New Zealand (Vector Energy)	<a href="http://www.ngc.co.nz">www.ngc.co.nz</a>
	New Zealand Refining	<a href="http://www.nzrc.co.nz">www.nzrc.co.nz</a>
	New Zealand Windfarms	<a href="http://www.nzwindfarms.co.nz">www.nzwindfarms.co.nz</a>
	SunSeeker Energy	<a href="http://www.sunseekerenergy.co.nz">www.sunseekerenergy.co.nz</a>
	Trust Power	<a href="http://www.trustpower.co.nz">www.trustpower.co.nz</a>
Finance & Insurance (10)	ANZ	<a href="http://www.anz.co.nz">www.anz.co.nz</a>
	ASB Capital	<a href="http://www.asb.co.nz">www.asb.co.nz</a>
	BNZ	<a href="http://www.bnz.co.nz">www.bnz.co.nz</a>
	Dominion Finance	<a href="http://www.dominionfinance.co.nz">www.dominionfinance.co.nz</a>
	Dorchester Pacific	<a href="http://www.dorchesterpacific.co.nz">www.dorchesterpacific.co.nz</a>
	Lombard Group	<a href="http://www.lombardgroup.co.nz">www.lombardgroup.co.nz</a>
	New Zealand Finance	<a href="http://www.nzf.co.nz">www.nzf.co.nz</a>
	Pyne Gould Corporation	<a href="http://www.pgc.co.nz">www.pgc.co.nz</a>
	Tower Insurance	<a href="http://www.towerlimited.com">www.towerlimited.com</a>
Food & Beverages (10)	Vero Insurance	<a href="http://www.vero.co.nz">www.vero.co.nz</a>
	Charlie's Group Ltd	<a href="http://www.charlies.co.nz">www.charlies.co.nz</a>
	Delegats Group Ltd	<a href="http://www.delegats.co.nz">www.delegats.co.nz</a>
	DB Breweries	<a href="http://www.dbbreweries.co.nz">www.dbbreweries.co.nz</a>
	Goodman Fielder Ltd	<a href="http://www.goodmanfielder.com.au">www.goodmanfielder.com.au</a>
	Griffins Foods	<a href="http://www.griffins.co.nz">www.griffins.co.nz</a>



	Heinz Wattie's Ltd	<a href="http://www.heinz.co.nz">www.heinz.co.nz</a>
	Just Water International Ltd	<a href="http://www.jwi.co.nz">www.jwi.co.nz</a>
	Lion Nathan Limited	<a href="http://www.lion-nathan.com.au">www.lion-nathan.com.au</a>
	NZ Wine Company	<a href="http://www.nzwineco.co.nz">www.nzwineco.co.nz</a>
	Oyster Bay Marlborough Vineyards Ltd	<a href="http://www.obmvl.co.nz">www.obmvl.co.nz</a>
Retail Sales (10)	Boise Cascade Office Products (NZ)	<a href="http://www.officemax.co.nz">www.officemax.co.nz</a>
	Briscoe Group Ltd	<a href="http://www.briscoegroup.co.nz">www.briscoegroup.co.nz</a>
	Farmlands Trading Society	<a href="http://www.farmlands.co.nz">www.farmlands.co.nz</a>
	Foodstuffs	<a href="http://www.foodstuffs.co.nz">www.foodstuffs.co.nz</a>
	Kirkcaldie & Stains	<a href="http://www.kirkcaldies.co.nz">www.kirkcaldies.co.nz</a>
	Life Pharmacy	<a href="http://www.lifepharmacy.co.nz">www.lifepharmacy.co.nz</a>
	Mitre 10	<a href="http://www.mitre10.co.nz">www.mitre10.co.nz</a>
	Smiths City	<a href="http://www.smithscitygroup.co.nz">www.smithscitygroup.co.nz</a>
	Warehouse Group	<a href="http://www.thewarehouse.co.nz">www.thewarehouse.co.nz</a>
	Whitcoulls Group	<a href="http://www.arw.co.nz/">www.arw.co.nz/</a>
Science & Technology (10)	BLIS Technologies	<a href="http://www.blis.co.nz">www.blis.co.nz</a>
	Botry-Zen	<a href="http://www.botryzen.co.nz">www.botryzen.co.nz</a>
	Cadmus Technology Ltd	<a href="http://www.cadmus.co.nz">www.cadmus.co.nz</a>
	Cavotec MSL Holdings	<a href="http://www.cavotec.com">www.cavotec.com</a>
	CER Group Ltd	<a href="http://www.cer.co.nz">www.cer.co.nz</a>
	Genesis Reseach & Development Corp	<a href="http://www.genesis.co.nz">www.genesis.co.nz</a>
	ICP Biotechnology	<a href="http://www.icpbio.com">www.icpbio.com</a>
	Pacific Edge Biotechnology	<a href="http://www.pacificedgebiotech.com">www.pacificedgebiotech.com</a>
	Sealegs Corporation	<a href="http://www.sealegs.com">www.sealegs.com</a>
	Windflow Technology	<a href="http://www.windflow.co.nz">www.windflow.co.nz</a>
Telecommunications (10)	Atg Technology Group	<a href="http://www.atgltd.co.nz">www.atgltd.co.nz</a>
	Avotus	<a href="http://www.avotus.com">www.avotus.com</a>
	Cabletalk Group	<a href="http://www.cabletalk.co.nz">www.cabletalk.co.nz</a>
	ihug	<a href="http://www.ihug.co.nz">www.ihug.co.nz</a>
	Pro-active Telecommunications	<a href="http://www.proactivetech.co.nz">www.proactivetech.co.nz</a>
	Teamtalk	<a href="http://www.teamtalk.co.nz">www.teamtalk.co.nz</a>
	Telecom Corp	<a href="http://www.telecom.co.nz">www.telecom.co.nz</a>
	TelstraClear	<a href="http://www.telstraclear.co.nz">www.telstraclear.co.nz</a>
	Vodafone New Zealand	<a href="http://www.vodafone.co.nz">www.vodafone.co.nz</a>

	Zintel Group	<a href="http://www.zintel.co.nz">www.zintel.co.nz</a>
Transport (10)	Air New Zealand	<a href="http://www.airnewzealand.com">www.airnewzealand.com</a>
	Crown Relocations	<a href="http://www.crownrelo.co.nz">www.crownrelo.co.nz</a>
	Eurocan Beacon International	<a href="http://www.eurocan.co.nz">www.eurocan.co.nz</a>
	Freightways Ltd	<a href="http://www.freightways.co.nz">www.freightways.co.nz</a>
	InterCity	<a href="http://www.intercity.co.nz">www.intercity.co.nz</a>
	McCullough Ltd	<a href="http://www.mmnz.biz/mccullough.htm">www.mmnz.biz/mccullough.htm</a>
	Mainfreight Ltd	<a href="http://www.mainfreight.com">www.mainfreight.com</a>
	New Zealand Couriers Ltd	<a href="http://www.nzcouriers.co.nz">www.nzcouriers.co.nz</a>
	New Zealand Post	<a href="http://www.nzpost.co.nz">www.nzpost.co.nz</a>
	Owens Group	<a href="http://www.owensglobal.com">www.owensglobal.com</a>

## Appendix 2. Use of visuals and features by New Zealand and South Korean industries

Table 36 : Use of visuals by industry sector

	Industry <sup>a</sup> - Frequency (%)												Chi-square
	I(1) n =20	I(2) n =20	I(3) n =20	I(4) n =20	I(5) n =20	I(6) n =20	I(7) n =20	I(8) n =20	I(9) n =20	I(10) n =20	I(11) n =20	I(12) n =20	Values
H1: description of a product	80	85	80	35	75	20	20	85	80	55	60	55	$\chi^2=54.911^b$
H2: demonstration of a product	15	75	90	35	55	15	10	30	40	50	45	65	$\chi^2=55.314^b$
H3: people associated with others	35	35	20	20	15	25	20	20	0	30	20	25	N/A <sup>d</sup>
H4: celebrity models	0	30	15	0	10	0	10	10	10	0	0	0	N/A <sup>d</sup>
H5: animated illustrations	20	15	20	10	5	40	30	25	25	20	20	5	N/A <sup>d</sup>
H6: moving visuals	60	75	75	45	65	60	80	65	55	70	65	55	N/A <sup>d</sup>
H7: music or sound effects	5	20	25	0	0	5	10	5	5	0	5	0	N/A <sup>d</sup>

<sup>a</sup> **I(1)**: agriculture & fishing, **I(2)**: apparel & jewellery, **I(3)**: building materials & construction, **I(4)**: business assistance service, **I(5)**: durables, **I(6)**: energy, **I(7)**: finance & insurance, **I(8)**: food & beverages, **I(9)**: retail sales, **I(10)**: science & technology, **I(11)**: telecommunication, and **I(12)**: transport

<sup>b</sup> Industry sector differed significantly at  $p < .001$ , <sup>c</sup> Industry sector differed significantly at  $p < .05$

<sup>d</sup> N/A: statistically invalid or insignificant at  $p < .05$

Table 37: Use of Web features by industry sector

	Industry <sup>a</sup> - Frequency (%)												Chi-square
	I(1)	I(2)	I(3)	I(4)	I(5)	I(6)	I(7)	I(8)	I(9)	I(10)	I(11)	I(12)	Values
	n =20	n =20	n =20	n =20	n =20	n =20	n =20	n =20	n =20	n =20	n =20	n =20	
Hierarchy information	55	25	80	50	30	85	65	45	35	60	45	45	$\chi^2=30.167^b$
Messages of leaders	65	40	85	80	85	95	90	80	70	90	90	80	N/A <sup>d</sup>
Vision statement	90	85	95	100	95	100	100	100	85	100	100	100	N/A <sup>d</sup>
Community relations	30	45	60	30	45	85	65	65	45	35	60	55	$\chi^2=30.167^c$
Newsletter	90	80	90	95	90	100	95	95	95	100	90	75	N/A <sup>d</sup>
Links to local Web sites	85	25	75	45	35	55	60	55	60	85	70	75	$\chi^2=32.807^b$
Loyalty program	0	60	5	0	15	15	25	15	85	0	30	15	N/A <sup>d</sup>
National identity	5	0	5	5	5	5	10	15	5	5	0	5	N/A <sup>d</sup>
Sharing experience	20	15	10	35	10	35	25	55	30	25	50	20	$\chi^2=22.821^c$
Search engine	40	25	40	35	35	55	65	45	70	25	60	40	N/A <sup>d</sup>
Personalisation	65	60	30	35	60	70	60	60	85	15	55	55	$\chi^2=31.754^b$
Good privacy statement	55	65	30	55	55	75	70	75	85	40	65	55	$\chi^2=21.935^c$

Product uniqueness	90	80	80	85	85	95	40	85	60	95	100	75	N/A <sup>d</sup>
Employment opportunities	70	75	85	80	80	85	60	80	90	65	85	60	N/A <sup>d</sup>
Customer service	80	95	90	85	90	85	80	70	80	65	95	100	N/A <sup>d</sup>
Index/directory	100	100	90	100	100	100	100	90	100	100	100	100	N/A <sup>d</sup>
History of the company	75	70	90	75	80	65	85	90	85	70	65	70	N/A <sup>d</sup>
Terms and conditions	50	65	20	55	55	60	70	45	95	30	60	40	$\chi^2=33.438^b$
Awards	40	45	60	40	55	45	50	60	65	75	45	45	N/A <sup>d</sup>
Financial information	70	60	65	65	85	95	95	70	80	100	85	65	N/A <sup>d</sup>
Product advertisement	45	90	50	50	45	50	40	70	85	50	75	45	$\chi^2=26.857^c$
Clear gender role	5	0	0	0	0	0	0	0	0	0	0	0	N/A <sup>d</sup>
Rank and prestige and use of superlatives	90	100	95	100	100	100	100	90	90	100	100	90	N/A <sup>d</sup>
Online business	25	45	10	25	20	45	45	20	80	15	50	65	$\chi^2=43.485^b$

<sup>a</sup> **I(1)**: agriculture & fishing, **I(2)**: apparel & jewellery, **I(3)**: building materials & construction, **I(4)**: business assistance service, **I (5)**: durables, **I(6)**: energy, **I(7)**: finance & insurance, **I(8)**: food & beverages, **I(9)**: retail sales, **I(10)**: science & technology, **I(11)**: telecommunication, and **I(12)**: transport

<sup>b</sup> Industry sector differed significantly at  $p < .001$ , <sup>c</sup> Industry sector differed significantly at  $p < .05$

<sup>d</sup> N/A: statistically invalid or insignificant at  $p < .05$

## Appendix 3. Demographic information of three ethnic groups

Table 38 : Demographic statistics of ethnic group 1

Gender				
	Frequency	Percent		
Male	29	50%		
Female	29	50%		
Total	58	100%		
Age				
	Frequency	Percent	Mean	SD
Under 17	0	0		
18-20	0	0		
21-23	13	22.4%	4.09	0.732
24-26	27	46.6%		
Over 27	18	31%		
How many hours a day do you spend on the Internet?				
	Frequency	Percent	Mean	SD
I hardly use the Internet	2	3.4%		
Less than 1 hour	13	22.4%		
1hr – 3hr	27	46.6%	3.02	0.868
4hr – 6hr	14	24.1%		
More than 7 hr	2	3.4%		
Do you consider yourself skilled at using the Internet?				
	Frequency	Percent	Mean	SD
1 (not at all)	0	0		
2	6	10.3%		
3	19	32.8%	3.62	0.875
4	24	41.4%		
5 (very much)	9	15.5%		

Table 39 : Demographic statistics of ethnic group 2

Gender				
	Frequency	Percent		
Male	24	38.1%		
Female	39	61.9%		
Total	63	100%		
Age				
	Frequency	Percent	Mean	SD
Under 17	2	3.2%	2.90	1.103
18-20	26	41.3%		
21-23	20	31.7%		
24-26	6	9.5%		
Over 27	9	14.3%		
How many hours a day do you spend on the Internet?				
	Frequency	Percent	Mean	SD
I hardly use the Internet	3	4.8%	2.73	0.627
Less than 1 hour	14	22.2%		
1hr – 3hr	43	68.3%		
4hr – 6hr	3	4.8%		
More than 7 hr	0	0%		
Do you consider yourself skilled at using the Internet?				
	Frequency	Percent	Mean	SD
1 (not at all)	1	1.6%	3.70	0.873
2	4	6.3%		
3	18	28.6%		
4	30	47.6%		
5 (very much)	10	15.9%		

Table 40 : Demographic statistics of ethnic group 3

Gender				
	Frequency	Percent		
Male	17	32.1%		
Female	36	67.9%		
Total	53	100%		
Age				
	Frequency	Percent	Mean	SD
Under 17	2	3.8%	3.51	1.219
18-20	10	18.9%		
21-23	16	30.2%		
24-26	9	17.0%		
Over 27	16	30.2%		
How many hours a day do you spend on the Internet?				
	Frequency	Percent	Mean	SD
I hardly use the Internet	1	1.9	2.98	0.665
Less than 1 hour	9	17.0		
1hr – 3hr	33	62.3		
4hr – 6hr	10	18.9		
More than 7 hr	0	0		
Do you consider yourself skilled at using the Internet?				
	Frequency	Percent	Mean	SD
1 (not at all)	2	3.8%	3.30	0.890
2	5	9.4%		
3	25	47.2%		
4	17	32.1%		
5 (very much)	4	7.5%		



## Appendix 4. Survey - English version

March 2007

Dear students,

I am inviting you to participate in my research. The research is to test whether a Web user's attitude toward the Web site is affected by cultural aspects of the Web user and the cultural characteristics of the Web site.

The survey process is simple.

- ① Please visit MGE's Web site <http://www.mge1.zc.bz>
- ② Spend some time browsing the Web site.
- ③ Click the survey button at the bottom left corner of the Web pages.
- ④ Complete the online questionnaire based on your experience of browsing the Web site.

This survey consists of **28 simple close-ended questions** (8 questions for your attitude toward the Web site, 16 questions for your values, and 4 questions for your demographic information) and **4 simple open-ended questions**. It will only take about **less than 15 minutes** for you to complete.

<b>Your Web site's number: "1"</b>
------------------------------------

Thank you in advance for your participation in this survey. If you have any questions or concerns about completing the survey or about being in this study, please contact me at [M.G.Choi@massey.ac.nz](mailto:M.G.Choi@massey.ac.nz). Regardless of whether you choose to participate, please let me know if you would like a summary of my findings.

Sincerely,

Mun Ga Choi

Department of Communication and Journalism

*» The survey will expire on 30 March 2007*

Instructions:

**Thank you for participating in this survey.**

**Please answer the following questions by ticking the appropriate button and click the submit button after completing the questions.**

**Note:**

**This survey is confidential and taking part in this survey represents your informed consent.**



**What is your Web site number? - Your Web site's number is indicated in the coverletter**

☐ 1   ☐ 2   ☐ 3   ☐ 4

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#### About the Web site

**The following items assess your general favourability toward the Web site you just visited.**



**My first impression of this Web site is good.**

☐ 1 (strongly disagree)   ☐ 2 (moderately disagree)   ☐ 3 (slightly disagree)   ☐ 4 (neutral)   ☐ 5 (slightly agree)   ☐ 6 (moderately agree)   ☐ 7 (strongly agree)



**This Web site makes it easy for me to build a relationship with this company.**

☐ 1 (strongly disagree)   ☐ 2 (moderately disagree)   ☐ 3 (slightly disagree)   ☐ 4 (neutral)   ☐ 5 (slightly agree)   ☐ 6 (moderately agree)   ☐ 7 (strongly agree)



**I am satisfied with the service provided by this Web site.**

☐ 1 (strongly disagree)   ☐ 2 (moderately disagree)   ☐ 3 (slightly disagree)   ☐ 4 (neutral)   ☐ 5 (slightly agree)   ☐ 6 (moderately agree)   ☐ 7 (strongly agree)



**I feel comfortable in surfing this Web site.**

☐ 1 (strongly disagree)   ☐ 2 (moderately disagree)   ☐ 3 (slightly disagree)   ☐ 4 (neutral)   ☐ 5 (slightly agree)   ☐ 6 (moderately agree)   ☐ 7 (strongly agree)



**I feel surfing this Web site is a good way for me to spend my time.**

☐ 1 (strongly disagree)   ☐ 2 (moderately disagree)   ☐ 3 (slightly disagree)   ☐ 4 (neutral)   ☐ 5 (slightly agree)   ☐ 6 (moderately agree)   ☐ 7 (strongly agree)



**It is hard to put into words, but this Web site leaves me with a good feeling.**

☐ 1 (strongly disagree)   ☐ 2 (moderately disagree)   ☐ 3 (slightly disagree)   ☐ 4 (neutral)   ☐ 5 (slightly agree)   ☐ 6 (moderately agree)   ☐ 7 (strongly agree)

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**I would like to visit this Web site again in the future.**

- ☐ 1 (strongly disagree) ☐ 2 (moderately disagree) ☐ 3 (slightly disagree) ☐ 4 (neutral) ☐ 5 (slightly agree) ☐ 6 (moderately agree) ☐ 7 (strongly agree)



**If I needed one of these products and this Web site provided online shopping service, I would consider buy it from this Web site.**

- ☐ 1 (strongly disagree) ☐ 2 (moderately disagree) ☐ 3 (slightly disagree) ☐ 4 (neutral) ☐ 5 (slightly agree) ☐ 6 (moderately agree) ☐ 7 (strongly agree)



**What particular aspects of the Web site did you find most appealing?**



**What particular aspects of the Web site did you find least appealing?**

### About your values

**Please think of an ideal job. In choosing an ideal job, how important would it be to you to...**



**have sufficient time for your personal or family life.**

- ☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**have good physical working conditions (good ventilation, lighting, and adequate work space, etc.).**

- ☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**have a good working relationship with your boss.**

☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**have security of employment.**

☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**work with people who cooperate well with one another.**

☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**be consulted by your boss in his/her decisions.**

☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**have an opportunity for advancement to higher level jobs.**

☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**have an element of variety and adventure in the job.**

☐ 1 (of utmost importance) ☐ 2 (very important) ☐ 3 (of moderate importance) ☐ 4 (of little importance) ☐ 5 (of very little or no importance)



**How often do you feel nervous or tense?**

☐ 1 (never) ☐ 2 (seldom) ☐ 3 (sometimes) ☐ 4 (usually) ☐ 5 (always)



**How often, in your experience, are young people afraid to express disagreement with their parents?**

☐ 1 (very seldom) ☐ 2 (seldom) ☐ 3 (sometimes) ☐ 4 (frequently) ☐ 5 (very frequently)



**Most people can be trusted.**

☐ 1 (strongly agree) ☐ 2 (agree) ☐ 3 (neutral) ☐ 4 (disagree) ☐ 5 (strongly disagree)



**Conflicts with our opponents are best resolved by both parties compromising a bit.**

☐ 1 (strongly agree) ☐ 2 (agree) ☐ 3 (neutral) ☐ 4 (disagree) ☐ 5 (strongly disagree)



**The main reason organisations have bosses and subordinates is so that everyone knows who has authority over whom.**

☐ 1 (strongly agree) ☐ 2 (agree) ☐ 3 (neutral) ☐ 4 (disagree) ☐ 5 (strongly disagree)



**Competition between students usually does more harm than good.**

☐ 1 (strongly agree) ☐ 2 (agree) ☐ 3 (neutral) ☐ 4 (disagree) ☐ 5 (strongly disagree)



**Rules in an organisation should not be broken - even if somebody thinks it is not in the organisation's best interest.**

☐ 1 (strongly agree) ☐ 2 (agree) ☐ 3 (neutral) ☐ 4 (disagree) ☐ 5 (strongly disagree)



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

☐ 1 (strongly agree) ☐ 2 (agree) ☐ 3 (neutral) ☐ 4 (disagree) ☐ 5 (strongly disagree)

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### About yourself



**Are you :** ☐ Male ☐ Female



**Which of the following age categories are you in?**

☐ under 17 ☐ 18 – 20 ☐ 21 - 23 ☐ 24 – 26 ☐ over 27



**Please write the ethnic group you belong to (e.g. Chinese, Maori, or Italian).**



**On average, how many hours a day do you spend on the Internet?**

☐ I hardly use the Internet ☐ less than 1 hour ☐ 1hr - 3hr ☐ 4hr - 6hr ☐ more than 7hr



**Do you consider yourself skilled at using the Internet?**

☐ 1 (not at all) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very much)



**Are there any further comments you would like to make regarding this questionnaire?**

## Appendix 5. Survey - Korean version

학생 여러분께,

저의 논문의 서베이 참여를 부탁드립니다. 이 연구의 주된 목적은 웹사용자의 특정 웹사이트에 대한 의견이 그 웹사이트의 문화적 특성과 웹사용자 본인의 문화적 특성에 의해 영향을 받는지를 알아보는 것입니다.

서베이의 과정은 간단합니다.

- ①먼저 다음의 “**MG Electronics**” 회사 웹사이트에 방문해 주십시오.  
<http://www.mge3.zc.bz>
- ②웹사이트를 여기저기 구경해 주십시오.
- ③웹페이지의 왼쪽 아래쪽에 있는 “survey” 버튼을 클릭해 주십시오.
- ④방금 구경한 웹사이트의 경험을 토대로 온라인 질문서를 완성해 주십시오.

이 서베이는 29 개의 간단한 객관식 질문들 (방문한 웹사이트에 대한 당신의 견해에 관한 질문 8 가지, 당신의 가치에 대한 질문 16 가지, 당신에 관한 질문 5 가지)과 3 개의 간단한 주관식 질문들로 이루어져 있습니다. 온라인 질문서를 완성하는 데 대략 15 분 미만이 소요될 것 입니다.

당신이 방문한 웹사이트 번호: “3”

만약 서베이 또는 이 논문에 대해서 질문이 있으시면 [M.G.Choi@massey.ac.nz](mailto:M.G.Choi@massey.ac.nz) 으로 연락 주십시오. 서베이의 참여 여부의 관계없이, 만약 이 논문의 조사결과를 알고 싶으시면 연락 주십시오. 바쁘시더라도 많은 참여 부탁드립니다.

감사합니다.

최문가드림

Department of Communication and Journalism  
Massey University, New Zealand

**» The survey will expire on 31 Dec 2006**

**설명:**

이 서비스에 참여해 주셔서 감사합니다.

알맞은 버튼에 체크하므로 다음의 질문에 대해 주시고, 답변이 끝나시면 "submit button"을 눌러 주십시오.

**주의:**

이 서비스는 비밀이 보장되며, 이 서비스에 참여하는 것은 당신의 "설명에 근거한 자발적 동의 (informed consent)" 간주 합니다.

➔ 당신의 웹사이트 번호는 무엇입니까? - 웹사이트 번호는 받으신 이메일이나 웹사이트 주소를

참고 하십시오.

(예를 들면, 당신이 방문한 웹사이트의 주소가 만약 **www.mge1.zc.bz** 라면 1 번에, 만약 **www.mge4.zc.bz** 라면 4 번에 체크해 주십시오.)

☐ 1   ☐ 2   ☐ 3   ☐ 4

**웹사이트에 대하여**

다음의 질문들은 금방 방문한 웹사이트에 대한 당신의 일반적인 호감도를 측정하는 것입니다.

➔ 이 웹사이트에 대한 나의 첫 느낌은 좋다.

☐ 1 (전혀 동의하지 않음)   ☐ 2 (동의하지 않음)   ☐ 3 (약간 동의하지 않음)   ☐ 4 (중간)   ☐ 5 (약간 동의함)   ☐ 6 (동의함)   ☐ 7 (매우 동의함)

➔ 이 웹사이트는 내가 이 회사와의 관계를 맺는 것을 쉽게 만든다.

☐ 1 (전혀 동의하지 않음)   ☐ 2 (동의하지 않음)   ☐ 3 (약간 동의하지 않음)   ☐ 4 (중간)   ☐ 5 (약간 동의함)   ☐ 6 (동의함)   ☐ 7 (매우 동의함)

➔ 나는 이 웹사이트에 의해 제공되는 서비스에 만족한다.

☐ 1 (전혀 동의하지 않음)   ☐ 2 (동의하지 않음)   ☐ 3 (약간 동의하지 않음)   ☐ 4 (중간)   ☐ 5 (약간 동의함)   ☐ 6 (동의함)   ☐ 7 (매우 동의함)

➔ 나는 이 웹사이트를 서핑함에 편안함을 느낀다.

☐ 1 (전혀 동의하지 않음)   ☐ 2 (동의하지 않음)   ☐ 3 (약간 동의하지 않음)   ☐ 4 (중간)   ☐ 5 (약간 동의함)   ☐ 6 (동의함)   ☐ 7 (매우 동의함)

➔ 나는 이 웹사이트를 서핑하는 것이 나의 시간을 보내는 좋은 방법이라고 느낀다.

☐ 1 (전혀 동의하지 않음)   ☐ 2 (동의하지 않음)   ☐ 3 (약간 동의하지 않음)   ☐ 4 (중간)   ☐ 5 (약간 동의함)   ☐ 6 (동의함)   ☐ 7 (매우 동의함)

➔ 말로 표현하기는 어렵지만, 이 웹사이트는 나에게 좋은 느낌을 남긴다.

- 1 (전혀 동의하지 않음) ○ 2 (동의하지 않음) ○ 3 (약간 동의하지 않음) ○ 4 (중간) ○  
5 (약간 동의함) ○ 6 (동의함) ○ 7 (매우 동의함)

➔ 나는 이 웹사이트를 미래에 다시 방문하고 싶다.

- 1 (전혀 동의하지 않음) ○ 2 (동의하지 않음) ○ 3 (약간 동의하지 않음) ○ 4 (중간) ○  
5 (약간 동의함) ○ 6 (동의함) ○ 7 (매우 동의함)

➔ 만약 이 제품들중에 하나가 필요하다면, 또한 이 웹사이트가 온라인쇼핑 서비스를 제공한다면,  
나는 이 웹사이트에서 제품을 구입하는 것을 생각해 보겠다.

- 1 (전혀 동의하지 않음) ○ 2 (동의하지 않음) ○ 3 (약간 동의하지 않음) ○ 4 (중간) ○  
5 (약간 동의함) ○ 6 (동의함) ○ 7 (매우 동의함)

➔ 당신은 이 웹사이트의 어떤 특정한 면이 가장 맘에 드십니까?

➔ 당신은 이 웹사이트의 어떤 특정한 면이 가장 맘에 안 드십니까?

#### 당신의 가치관에 대하여

가장 이상적인 직업에 대해 생각해 주십시오, 생각하셨다면, 이상적인 직업을 선택하는데 있어서,  
다음의 항목들이 당신에게 얼마나 중요한지 확인해 주십시오.

➔ 개인적으로 혹은 가족들과 보내는 시간이 충분히 있어야 한다.

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○  
5 (거의 중요하지 않다)

➔ 물리적인 근무환경이 좋아야 한다. (좋은 환기시설과 조명시설, 충분한 업무공간 등)

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○  
5 (거의 중요하지 않다)



➔ **상사와 좋은 업무적 관계이어야 한다.**

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○ 5 (거의 중요하지 않다)

➔ **고용에 대한 안정이 있어야 한다.**

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○ 5 (거의 중요하지 않다)

➔ **협력을 잘하는 동료들이 있어야 한다.**

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○ 5 (거의 중요하지 않다)

➔ **상사의 조언을 쉽게 구할 수 있어야 한다.**

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○ 5 (거의 중요하지 않다)

➔ **더 높은 단계의 업무로 발전 할 수 있는 기회를 가질 수 있어야 한다.**

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○ 5 (거의 중요하지 않다)

➔ **업무에 있어서 다양성과 모험적인 요소가 있어야 한다.**

- 1 (최고로 중요하다) ○ 2 (매우 중요하다) ○ 3 (보통이다) ○ 4 (별로 중요하지 않다) ○ 5 (거의 중요하지 않다)

➔ **얼마나 자주 긴장이나 불안감을 느끼십니까?**

- 1 (전혀 없다) ○ 2 (거의 없다) ○ 3 (가끔 그렇다) ○ 4 (대체로 그렇다) ○ 5 (항상 그렇다)

➔ **당신의 경험으로 볼때, 자녀들이 부모의 의견에 반대견해를 표시하는 것을 얼마나 자주 어려워 합니까?**

- 1 (아주 드물다) ○ 2 (드물다) ○ 3 (때때로) ○ 4 (자주) ○ 5 (매우 자주)

➔ **대부분의 사람들은 믿을만 하다.**

- 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ **상대방과의 분쟁을 가장 잘 해결하는 방법은 당사자 모두가 조금씩 양보하는 것이다.**

- 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 조직이 상사와 부하직원의 체계를 가지는 주된 이유는 모든 사람들이 누가 누구의 권한 아래 있는지 알기 위함이다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 학생들끼리의 경쟁은 대체로 긍정적인 면 보다는 부정적인 면이 많다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 조직의 규칙을 깨는 것이 조직에 최선의 이익이 되는 경우에도 조직의 규칙은 깨져서는 안된다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 사람들이 인생에서 실패했을 때, 그것은 그들 자신의 잘못이다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 대부분의 사람들은 믿을만 하다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 상대방과의 분쟁을 가장 잘 해결하는 방법은 당사자 모두가 조금씩 양보하는 것이다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 조직이 상사와 부하직원의 체계를 가지는 주된 이유는 모든 사람들이 누가 누구의 권한 아래 있는지 알기 위함이다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 학생들끼리의 경쟁은 대체로 긍정적인 면 보다는 부정적인 면이 많다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 조직의 규칙을 깨는 것이 조직에 최선의 이익이 되는 경우에도 조직의 규칙은 깨져서는 안된다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

➔ 사람들이 인생에서 실패했을 때, 그것은 그들 자신의 잘못이다.

○ 1 (매우 동의함) ○ 2 (동의함) ○ 3 (잘 모르겠다) ○ 4 (동의하지 않음) ○ 5 (매우 동의하지 않음)

#### 당신에 대하여

➔ 당신은 ○ 남성입니까? ○ 여성입니까?

➔ 다음중 당신이 속한 연령그룹은 어느 것입니까?

○ 1 (17 세이하) ○ 2 (18-20) ○ 3 (21-23) ○ 4 (24-26) ○ 5 (27 이상)

➔ 평균적으로, 당신은 하루의 몇시간을 인터넷을 하는 것에 보냅니다?

○ 1 (거의 사용하지 않는다) ○ 2 (한시간 이하) ○ 3 (1 시간 - 3 시간) ○ 4 (4 시간 - 6 시간)  
○ 5 (7 시간 이상)

➔ 당신은 자신이 인터넷을 사용하는데 능숙하다고 생각합니까?

○ 1 (전혀 그렇지 않다) ○ 2 ○ 3 ○ 4 ○ 5 (매우 그렇다)

➔ 이 질문서에 관해서 덧붙이고 싶은 의견이 있습니까?