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MASTER IN INTERNATIONAL MANAGEMENT - MIM

**How national culture impacts on consumers' decision-making styles: a comparative study  
among Americans, Brazilians, Chinese, and Japanese in the purchase of cell phones**

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GETULIO VARGAS FOUNDATION  
ESCOLA BRASILEIRA DE ADMINISTRAÇÃO PÚBLICA E DE EMPRESAS  
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## **Abstract**

*The influence of the national culture on consumer decision-making styles is investigated using a sample of Americans, Brazilians, Chinese, and Japanese consumers who have purchased a cell phone in the past three years. To make the research possible, a survey was used as a method of data collection. It relates Hofstede's cultural classification typology with Sproles and Kendall's consumer style inventory (CSI). The multivariate analysis of variance (MANOVA) results indicate six decision-making styles together with other consumer behavioral characteristics that can be used to distinguish and profile consumers who purchase cell phones. Empirical findings reveal that among Americans, Brazilians, and Japanese; Americans are the most quality conscious, brand conscious, innovative, and hedonistic shoppers; Brazilians are the most loyal, and Japanese, the most confused by overchoice consumers. Conceptual contributions and managerial implications are discussed.*

**Key words:** National culture; decision-making style; Hofstede; consumer style inventory (CSI)

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# 1. INTRODUCTION

Studying cross-cultural decision-making styles is one way of reducing the gap left by international management on whether or not managers should apply a common or personalized management style to a specific culture (Leo *et al.*, 2005). Consumer decision-making style refers to the mental orientation or approach a consumer has towards making choices (Sproles and Kendall, 1986).

Although consumer decision-making style represents a relatively consistent pattern of cognitive and affective responses (Bennett and Kassarian, 1972), national culture has been proved to impact significantly on individual values and attitudes (Hofstede, 1984). Thus, culture is expected to have a significant influence on consumer decision-making style.

Dealing with people is not simple; dealing with people from a different cultural background can be very pleasurable and interesting, but it can also be very frustrating and difficult. Understanding the culture of an individual can broaden the mind so as to comprehend why one behave, act and think in such a way.

The phenomenon of globalization has changed the way people think, behave, and do business; therefore, in order to achieve successful results in marketing strategies, marketers have to carefully analyze what the intrinsic reasons in peoples' minds are and how these reasons act as driving forces in motivating consumers to respond positively to these marketing stimuli. In the same line of thought, it is important for marketers to understand how consumers behave and



respond to the various information they receive in various forms such as word-of-mouth, radio, internet and TV advertisements, and so on.

The purpose of this thesis is to investigate the relationship between national culture and consumer decision-making styles regarding the purchase of cell phones. It examines how cultural differences impact the way consumers behave during the decision-making process when purchasing the product.

New communication technology has made the world a global village; doing business globally has been recognized as the long-term goal of many organizations. In order to identify the influences a national culture has on the consumer decision-making style, this research selected a situation in which the consumer would purchase a cell phone. Cell phones appear to be a required product by everyone no matter which social class, age, gender, race, or nationality, one belongs to. To make this research measurable, it uses Hofstede's well-known and commonly used cultural dimensions (Hofstede, 1984) and Sproles and Kendall's (1986) Consumer Style Inventory (CSI) framework.

This thesis integrates the concept of CSI with Hofstede's typology of culture and tests empirically predictions from the framework on a sample of consumers from Brazil, China, Japan and the United States.

Hofstede's typology of culture dimensions was introduced in the 80's and continues in current studies on management and marketing (Furrer *et al.*, 2000). He characterized culture with four

dimensions: power distance, uncertainty avoidance, individualism/collectivism, and masculinity/femininity.

Previous literature has identified three ways to characterize consumer decision-making styles: the consumer typology approach, the psychographics/lifestyle approach, and the consumer characteristics approach (Sproles and Kendall, 1986). Firstly, the consumer typology approach seeks to categorize consumers into groups or types that are related to retail patronage (Bellenger and Korgaonkar, 1980; Darden and Ashton, 1974; Darden and Reynolds, 1971). Such studies have focused typically on specific products, product groups or on the general retail marketplace (Westbrook and Black, 1985).

Secondly, the psychographics/lifestyle approach identifies over a hundred characteristics related to consumer behavior based on general personality traits, or general needs and values associated with the consumer's general activities interests or lifestyle (Lastovicka, 1982; Wells, 1974).

Finally, the consumer characteristics approach emphasizes the cognitive and affective orientations towards purchasing in consumer decision-making (Westbrook and Black, 1985). This approach holds the assumption that consumers possess cognitive and affective orientations to determine their consumer decision-making styles (Fan and Xiao, 1998; Sproles and Kendall, 1986).

All three approaches agree that consumers respond to the market with basic decision-making styles (Sproles and Kendall, 1986). However, the last one, the consumer characteristics approach

has been perceived to be more powerful and explanatory than the first two (i.e. the consumer typology and psychographics/lifestyle approaches) due to its focus on consumers' mental orientation (Lysonski *et al.*, 1996); therefore, it (i.e. the consumer characteristics approach) will be found in this thesis.

Looking at different consumer behavior with different eyes is the attitude recommended in international and global marketing (Usunier, 2000). Buyer behavior and consumer needs are largely driven by cultural norms (Kotabe and Helsen, 2004). From a global marketing perspective, the cultural environment matters for two main reasons. First and foremost, cultural forces are a major factor in shaping a company's global marketing mix program. Global marketing managers constantly face the thorny issue of understanding to what degree cultural differences should force adaptations of the firm's marketing strategy. Cultural blunders can easily become a constant affair for multinationals. Some of the possible liabilities of cultural gaffes include embarrassment, loss of customers, legal consequences, missed opportunities, damage control, and tarnished reputation (Dalgic and Heijblom, 1996). Second, cultural analysis often pinpoints market opportunities. Companies that meet the cultural needs that their competitors have so far ignored often gain a competitive edge (Swasy, 1993).

The special issue of the Journal of Consumer Psychology on cultural issues, in 2000, demonstrated the growing interest in cultural differences in consumer behavior and highlighted the importance of understanding the cultural context of consumer behavior in an increasingly globalized marketplace (Maheswaran and Shavitt, 2000).

Although mobile phone usage, popularity, accessibility, and availability vary across countries, it is undeniable that cell phones have made an outrageous social impact everywhere. In French, mobile phone is called *portable*, or *G*, which stands for GSM (Global Systems for Mobile Communications). In Spanish, it is called *móvil*; since Spanish language is one of the most spoken languages in the world, it suffers many variations among different Spanish speaking countries; for instance, in Colombia, it is called *celular*; same as in Brazil, a Portuguese speaking country. Germans call it *handy*; Americans call it *cell phone*. In Arabic, it is sometimes called *mobile*, but often a telephone *sayaar* or *makhmul* (both of which refer to carrying) or a telephone *gowal* (air telephone). In Thai, it is called a *moto*. In Japan it is *keitai denwa*, a carrying telephone, or simply *keitai*, or even just *ke-tai*. In Chinese, it is called *shouji*, a hand machine.

However it is called, and wherever it is used, this simple, accessible technology alters the way in which individuals conduct their everyday lives. It has extensive implications for the cultures and societies in which it is used; it changes the nature of communication, and affects identities and relationships. It affects the development of social structures and economic activities, and has considerable bearing on its users' perceptions of themselves and their world (Plant, 2001).

Although the decision-making process towards different cell phones depends on the services and tariffs that cell phone carriers offer, other factors such as resources availability, socio-economic and technological level of a country as well as cultural aspects do make an enormous impact on a consumer's mind for which cell phone to purchase, how and where to use it.

One typical example is how one culture responds to a cell phone ring. One might consider it normal to let the cell phone ring out loud and find it appropriate to talk on the phone in movie theaters, in high-end restaurants, and so on; others might think that this is absurd. In China, in general, people would not react or object to the high volume conversations they often overhear, and also, the users do not feel that their actions are bothering others. A clear example of this is that most foreigners who visit China often find taxi drivers talking really loud on their cell phones and for those who don't understand Chinese will think that they are having a big fight but the truth is that most of the time they would be just chatting. In Thailand, it is even common to receive phone calls during a movie section in the movie theater. On the other side of the globe, Americans often feel bothered by cell phone rings and they do not hesitate to ask unfamiliar people to be quite; you often hear “sshhhhh” in the movie theaters in the United States of America (USA). Among the four cultures in study, the USA is considered the most individualistic one (Hofstede, 1984); it is not surprising that they appear to be more reluctant when they feel that their privacy and personal space are invaded.

Portability etiquette and a new way of living surge with the increasing number of people using mobile phones. There are norms created that are accepted worldwide; for instance, it is considered inappropriate to talk on the cell phone while flying, driving, attending a mass, and in certain places such as hospitals and religious places (churches, mosques, synagogues, etc).

Trains in England, Japan, Switzerland, and in the USA now have quiet cars or carriages. Restaurants in cities as diverse as Cairo and Chicago have introduced *no-mobile* policies or

*mobile-free* zones in an attempt to maintain the senses of privacy and personal space which are considered crucial to their atmosphere (Plant, 2001).

In the beginning of its market introduction, cell phone was used only to make and receive calls, and as time went by, more and more cell phones featured more functions such as text messaging, camera, video games, flashlight for finding things in the dark (keyholes and walkways), and now with the smartphones, the variety of functions extended significantly: e-mailing, movie recording, audio and video player, internet browser, global positioning satellite (GPS), notepad, etc. In Japan, people even use it as a debit card (there is a microchip attached inside the cell phone that identifies the charges made) and as a subway or train card, and in the near future it will be able to detect how many calories, a sandwich or a cookie has, and even measure your blood pressure. It is not uncommon to find one who owns more than one cell phone; one can have a cell phone for professional purposes, for family, for pleasure, and even for affairs. Mobile phones do almost all the basic things a computer does but it is much smaller and can fit in the palm of anyone's hand.

In 2005, a study from University of Michigan (2004) compared similarities and differences of perceptions and uses of cell phones among college students of various countries and found that people are facing similar social changes and adjusting to them frequently in similar ways.

Taylor Nelson Sofres Intersearch conducted the 2004 Lemelson-MIT Invention Index survey from 12<sup>th</sup> to 19<sup>th</sup> November, 2003 (Wadley, 2004). Lemelson-MIT Program is a non-profit organization that celebrates inventors and invention. A representative sample of 1,023 adults and

500 teens (ages 12 to 17) from USA was used. The eighth annual Lemelson-MIT Invention Index study found that the cell phone beat the top leader inventions: alarm clock and television. Among other important cited inventions are shaving razors, microwaves, coffee pots, computers, and vacuum cleaners. This study found that the cell phone also edges alarm clock as most hated inventions, yet one cannot live without. According to Merton Flemings, director of the Lemelson-MIT Program, the cell phone has clearly been beneficial in connecting people; however, one of the side-effects is that it sometimes becomes annoying when you get interrupted by the ring of the cell phone or feel annoyed by people talking in their cell phones in inadequate environments.

This thesis combines a literature review with a quantitative study into the consumer decision-making styles of four cultures. To understand a complex phenomenon such as consumer innovativeness or consumer impulsiveness fully, a detailed framework is needed that incorporates multiple antecedents at different levels of abstraction. In particular, this study postulates important effects of values, consumer-context-specific dispositions, and national culture.

The countries selected for this study were chosen on purpose. They rank in the top ten of world's largest cell phone consumers by country according to the Central Intelligence Agency Factbook (2008) (table I). In addition to this, Japan has the highest score in masculinity (table V); and the USA has the highest score in individualism (table IV). Brazil does not take the first position in any of Hofstede's dimensions, but it deserves special attention since it represents the sixth world largest cell phone market and up to now, no publications contrasting Brazilian consumers'

decision-making styles with other countries' consumers were found in the well-known business scientific journals.

Table I. World largest cell-phone market by country

| Rank | Country        | Cell phones   | %    |
|------|----------------|---------------|------|
| 1    | World          | 2,168,433,600 | 100% |
| 2    | European Union | 466,000,000   | 21%  |
| 3    | China          | 461,100,000   | 21%  |
| 4    | United States  | 233,000,000   | 11%  |
| 5    | India          | 166,100,000   | 8%   |
| 6    | Russia         | 150,000,000   | 7%   |
| 7    | Japan          | 101,700,000   | 5%   |
| 8    | Brazil         | 99,919,000    | 5%   |
| 9    | Germany        | 84,300,000    | 4%   |
| 10   | Italy          | 71,500,000    | 3%   |

Source: Central Intelligence Agency - The World Factbook (2008).

This thesis is divided into five chapters. The next chapter covers the literature review exploring the research question of this thesis and secondary questions as well. Chapter 3 explains the methodology used to test the hypotheses. Chapter 4 shows the results on whether or not the hypotheses were supported along with the methodology applied. Chapter 5 explores the general conclusions, managerial implications, limitations and suggestions for further research.

## **2. LITERATURE REVIEW**

The literature review considers the conceptual background to the research, focusing on two main perspectives: Hofstede's cultural dimensions (1984) and Sproles and Kendall's Consumer Style Inventory (1986). These perspectives are key-features of this research to determine how culture



influences the consumer decision-making style. This review is followed by a definition of the major concepts; therefore, one can have a theoretical basis before looking at the empirical studies. The conceptual overview of this study starts with a brief definition of culture and a few more concepts that are related to it; then, it follows with the definition of Hofstede's typology of culture and Sproles and Kendall's CSI factors.

The findings may be limited by the fact that only one product type (i.e. cell phone), a relatively high involvement item which could only be afforded by some consumers, was considered. Indeed, it was considered that behavior patterns for other products or in other economic-social-political environments might differ. The rationale for choosing this particular item (i.e. cell phone) was that previous studies indicate that consumers hold diverse views about brands in this product class (Essoo and Dibb, 2004).

## **2.1. Culture**

Culture has been referred to as a set of values, ideas, artifacts, and other meaningful symbols that help individuals communicate, interpret, and evaluate as members of society (Engel *et al.*, 1993). Hofstede (1991) defines culture as “the collective programming of the mind which distinguishes the members of one group or category from those of another”.

Culture is a learned, shared, compelling, interrelated set of symbols whose meanings provide a set of orientations for members of society. These orientations, taken together, provide solutions to problems that all societies must solve if they are to remain viable (Terpstra and David, 1991).

The concept of kinship varies across different cultures. There are cultures that consider a family unit as being only the children and their parents (nuclear family) and others that consider it as being the children, their parents, their grandparents, their aunties, uncles, and cousins, and so on (a larger family unit).

Each individual has a set of reference groups that he will rely on to build his beliefs, values, and norms. For instance, a college professor will have his family, his friends, his college colleagues, and his hobby's partners; in sum, he will have groups that he will have a feeling of belonging and his opinions and actions will matter to the members of the group and vice-versa.

People from different nations continue to have their own distinct habits and tastes, their values and norms rooted in their national cultures (Zhu *et al.*, 2006). Usunier (1996) found there is no empirical evidence to show homogenization of tastes or the appearance of universal price-minded consumer segments. De Mooij (2004) also claims that most previous consumer behavior studies have been based on the USA markets, few have been done to compare consumer behavior across culture. This study would like to contribute to this study field in a way that it will put more efforts on consumer behavior research under the cultural context. It will focus on how cultural differences affect customer's buying decision.

Cultural assumptions underlie our thoughts (Hoppe, 2004) and ultimately our decisions. Culture refers to the dynamic process that occurs within a given society group and which creates the cognitive map of beliefs, values, meaning and attitudes that drive perception, thoughts, reasoning, actions, responses and interactions (Tung, 1995). Thus, culture impacts on what is

seen as most important within a country (Hoppe, 2004). Unsurprisingly then, major cultural differences in cognition, emotion and motivation have been identified (Markus and Kitayama, 1991).

One should keep in mind that culture is very dynamic and is constantly exposed to changes in the environment in social institutions (legal, political, commercial, religious, among others) and in an individual's own cultural values. As culture changes periodically so does individuals' values. The shared cultural priorities in society help shape the social and economic reward contingencies to which people must adapt in the institutions in which they spend most of their time (families, schools, businesses, and so forth) in order to function smoothly and effectively (Smith and Schwartz, 1997). People belong to a particular national culture and are therefore subject to the conflicts and compatibilities between their own value structure and the national cultural priorities. National cultural priorities will encourage the activation of certain types of values and attitudes, that is, those that are in line with and conducive to maintaining national cultural priorities, whereas values and attitudes that run counter to cultural priorities are discouraged (Schwartz, 1994; Triandis, 1989).

## **2.2. Values**

Some marketers have become convinced that the role played by people's values is absolutely central to their personal development, to their actions as citizens and to their behavior as consumers (Lowe and Corkindale, 1998).

A country's culture long has been identified as a key environmental characteristic underlying systematic differences in consumer behavior (Lynn *et al.*, 1993). It is a powerful force shaping people's perceptions, dispositions, and behaviors (Triandis, 1989). A nation's culture affects the needs consumers satisfy through the acquisition and use of goods (Roth, 1995).

This is not meant to imply that culture and country are the same. Culture can be conceptualized at different levels, including the national level (Dawar and Parker, 1994). Studying the effects of national culture requires that there is some meaningful degree of within-country commonality and between-country differences in national cultures (Dawar and Parker, 1994). Conceptual (Hofstede, 1991; Schwartz, 1994) and empirical (Hofstede, 1984; Smith and Schwartz, 1997) evidence indicates that this is indeed the case.

Hofstede's national cultural dimensions are widely accepted and have been used by many marketing researchers to locate and compare countries (Dawar and Parker, 1994; Lynn *et al.*, 1993; Roth, 1995).

### **2.3. Hofstede's 4 cultural dimensions classification typology**

Geert Hofstede did his research by running a questionnaire at all IBM's subsidiaries around the world. He ran a total of 116,000 questionnaires during the period between 1968 and 1972 (Hofstede, 2001). The series of questions were related to the behavioral and cultural factors. The results from his research after a complete statistical analysis identified 31 behavioral indicators.

From these 31 indicators, only 4 were considered valid as it represented a strong correlation with reality (Hofstede, 1984).

Hofstede's research objective was to show different cultures, taking into concern relative measures, instead of absolute ones, which could characterize local corporate culture. The main point of Hofstede's work was to determine the general behavior of country from a logic that tries to visualize which culture is stronger in terms of a certain aspect or characteristic when it is compared to another culture.

Hofstede (1984) characterized national culture into four cultural dimensions:

- Power Distance Index (PDI)
- Uncertainty Avoidance Index (UAI)
- Individualism Index (IDV)
- Masculinity Index (MAS)

Each of the cultural dimensions will be explained in more details below.

### **2.3.1. Power Distance Index (PDI)**

Power distance is defined as “the extent to which the less powerful person in a society accepts inequality in power and considers it as normal. Inequality exists within any culture, but the degree of it that is tolerated varies between one culture and another” (Hofstede, 1984, p. 390).

Hierarchy or unequal power distribution among elements of a society is more common in large power distance cultures than in small ones. Elements of a society can be referred as the groups that a member belongs to such as family, school, workplace, and the community. Countries that score high in the power distance index (PDI) tolerate more inequality and have more need for power, wealth, prestige, and status than in countries that score low in this dimension (Hofstede, 1991).

There are several examples that can clearly illustrate this Hofstede dimension. Since this thesis is studying four different cultures, a few cultural examples are suggested. In China, a large power distance country (Hofstede, 1984), it is well accepted by the Chinese society that the elder is supposed to take care of the younger (the word elder and younger are not related only to age, but also to power); this belief has a strong influence from *Kong Fu Ze*, most known by westerners as Confucius. According to this Chinese thinker and philosopher, five basic relationships constitute the Chinese cultural values: between sovereign and minister, between father and son, between elder and younger brother, between husband and wife, and between friends (Hofstede, 1991; Osland, 1990). In this line of thought, it is not surprising to encounter many types of formalities: at school, students call their teachers by their last names; at the workplace, orders from superiors are accepted by subordinates without objection; and at home, the younger are supposed to respect and listen to the elder; in addition, only a few languages in the world, namely Chinese, have specific words for older brother (ge ge), older sister (jie jie), younger brother (di di), and younger sister (mei mei).

Very different from Chinese, Americans seem to be more easy-going with the formalities stated above; for example, at the workplace, in general, American subordinates and superiors consider each other equal but playing different roles, where each could possibly be switched in the future.

Table II shows the countries' power distance index scores studied by Hofstede.

Table II. Power distance Index Values

| Rank  | Country        | PDI | Rank  | Country        | PDI |
|-------|----------------|-----|-------|----------------|-----|
| 1     | Malaysia       | 104 | 27/28 | South Korea    | 60  |
| 2/3   | Guatemala      | 95  | 29/30 | Iran           | 58  |
| 2/3   | Panama         | 95  | 29/30 | Taiwan         | 58  |
| 4     | Philippines    | 94  | 31    | Spain          | 57  |
| 5/6   | Mexico         | 81  | 32    | Pakistan       | 55  |
| 5/6   | Venezuela      | 81  | 33    | JAPAN          | 54  |
| 7     | Arab countries | 80  | 34    | Italy          | 50  |
| 8/9   | Ecuador        | 78  | 35/36 | Argentina      | 49  |
| 8/9   | Indonesia      | 78  | 35/36 | South Africa   | 49  |
| 10/11 | India          | 77  | 37    | Jamaica        | 45  |
| 10/11 | West Africa    | 77  | 38    | UNITED STATES  | 40  |
| 12    | Yugoslavia     | 76  | 39    | Canada         | 39  |
| 13    | Singapore      | 74  | 40    | Netherlands    | 38  |
| 14    | BRAZIL         | 69  | 41    | Australia      | 36  |
| 15/16 | France         | 68  | 42/44 | Costa Rica     | 35  |
| 15/16 | HONG KONG      | 68  | 42/44 | Germany (F.R.) | 35  |
| 17    | Colombia       | 67  | 42/44 | Great Britain  | 35  |
| 18/19 | Salvador       | 66  | 45    | Switzerland    | 34  |
| 18/19 | Turkey         | 66  | 46    | Finland        | 33  |
| 20    | Belgium        | 65  | 47/48 | Norway         | 31  |
| 21/23 | East Africa    | 64  | 47/48 | Sweden         | 31  |
| 21/23 | Peru           | 64  | 49    | Ireland        | 28  |
| 21/23 | Thailand       | 64  | 50    | New Zealand    | 22  |
| 24/25 | Chile          | 63  | 51    | Denmark        | 18  |
| 24/25 | Portugal       | 63  | 52    | Israel         | 13  |
| 26    | Uruguay        | 61  | 53    | Austria        | 11  |
| 27/28 | Greece         | 60  |       |                |     |

Source: Hofstede (2001).

### 2.3.2. Uncertainty Avoidance Index (UAI)

Uncertainty Avoidance Index (UAI) measures the degree of tolerance for, as the term already says, uncertainty. Cultures with high UAI are less tolerant of ambiguity and unexpected

situations than cultures with low UAI; therefore, they have structured their societies with more strict rules for social behavior and before any actions are taken, they try to first have a plan on hand and most likely, will have contingency plans in mind if things do not go as expected. So, they try to follow a line of thought and act as planned in a very straight-forward way. When things don't go as expected, frustration and intolerance are very visible. On one side, high UAI societies try to avoid risks as much as possible. On the other side, societies with low UAI are more willing to accept risks; therefore their actions inclines more towards innovativeness, extrovertiveness, and entrepreneurial spirit. Such cultures (i.e. low UAI cultures) are more tolerant to different opinions and actions among members. They tend to look more for new ways of doing things and drawing different lines of thought; usually, seeking for short cuts to solve problems and to make life easier. Table III shows the countries' uncertainty avoidance index scores studied by Hofstede.

Table III. Uncertainty Avoidance Index Values

| Rank  | Country        | UAI | Rank  | Country        | UAI |
|-------|----------------|-----|-------|----------------|-----|
| 1     | Greece         | 112 | 28    | Ecuador        | 67  |
| 2     | Portugal       | 104 | 29    | Germany (F.R.) | 65  |
| 3     | Guatemala      | 101 | 30    | Thailand       | 64  |
| 4     | Uruguay        | 100 | 31/32 | Iran           | 59  |
| 5/6   | Belgium        | 94  | 31/32 | Finland        | 59  |
| 5/6   | Salvador       | 94  | 33    | Switzerland    | 58  |
| 7     | JAPAN          | 92  | 34    | West Africa    | 54  |
| 8     | Yugoslavia     | 88  | 35    | Netherlands    | 53  |
| 9     | Peru           | 87  | 36    | East Africa    | 52  |
| 10/15 | Spain          | 86  | 37    | Australia      | 51  |
| 10/15 | Argentina      | 86  | 38    | Norway         | 50  |
| 10/15 | Panama         | 86  | 39/40 | South Africa   | 49  |
| 10/15 | France         | 86  | 39/40 | New Zealand    | 49  |
| 10/15 | Chile          | 86  | 41/42 | Indonesia      | 48  |
| 10/15 | Costa Rica     | 86  | 41/42 | Canada         | 48  |
| 16/17 | Turkey         | 85  | 43    | UNITED STATES  | 46  |
| 16/17 | South Korea    | 85  | 44    | Philippines    | 44  |
| 18    | Mexico         | 82  | 45    | India          | 40  |
| 19    | Israel         | 81  | 46    | Malaysia       | 36  |
| 20    | Colombia       | 80  | 47/48 | Great Britain  | 35  |
| 21/22 | Venezuela      | 76  | 47/48 | Ireland        | 35  |
| 21/22 | BRAZIL         | 76  | 49/50 | HONG KONG      | 29  |
| 23    | Italy          | 75  | 49/50 | Sweden         | 29  |
| 24/25 | Pakistan       | 70  | 51    | Denmark        | 23  |
| 24/25 | Austria        | 70  | 52    | Jamaica        | 13  |
| 26    | Taiwan         | 69  | 53    | Singapore      | 8   |
| 27    | Arab countries | 68  |       |                |     |

Source: Hofstede (2001).



### **2.3.3. Individualism (IDV)**

Individualism measures to which degree individuals see themselves and make decisions based on “I” rather than “We” (Hofstede, 1991). In individualistic countries, individuals are mainly concerned about their own and immediate family’s opinion. Loyalty between members from such cultures are not expected; on the other side, members from collectivistic cultures feel that they belong to a large group and feel indebted and grateful to the members of their group so as a retribution, these individuals remain loyal and care about the well-being of other members.

Hofstede (1991) has identified very distinct characteristics between individualistic and collectivistic countries. On the one hand, members from an individualistic country value their personal time in the sense that they want time to work, but also time to spend on their personal activities, freedom to adjust their work schedule to better suit their lifestyle; and challenge in terms of achieving a personal goal. On the other hand, members from collectivistic countries value training where they can improve themselves as workers; care about their physical conditions so they could increase their productivity; and they’d like to acquire more skills in the sense that they could use them to do better at work.

Chinese belong to a collectivistic culture and the nature of collectivism is reflected in the Chinese family and kinship system (Hsu, 1970). The kinship system means continuous and long-lasting human ties which do not have clearly defined boundaries (Yau, 1988; Yau *et al.*, 1986). It is, therefore, important to note that unlike the American society, for the Chinese, family welfare is more important than oneself. If necessary, the Chinese would sacrifice their own well-

being for the benefits of the family or group. This value has a particular implication for advertising. Brazilians and Japanese are considered fairly collectivistic cultures (Hofstede, 1984). Different from Brazilians, Chinese, and Japanese, Americans seem to be more easy-going with the formalities stated above (Hofstede, 1991). American children seem to leave their parent's house at a young age without feeling obliged to look after them when they become older or to consult their parents before taking decisions, such as what major to pursue or which college to go to. Table IV show the countries' individualism index scores studied by Hofstede.

Table IV. Individualism Index Values

| Rank  | Country        | IDV | Rank  | Country     | IDV |
|-------|----------------|-----|-------|-------------|-----|
| 1     | UNITED STATES  | 91  | 28    | Turkey      | 37  |
| 2     | Australia      | 90  | 29    | Uruguay     | 36  |
| 3     | Great Britain  | 89  | 30    | Greece      | 35  |
| 4/5   | Canada         | 80  | 31    | Philippines | 32  |
| 4/5   | Netherlands    | 80  | 32    | Mexico      | 30  |
| 6     | New Zealand    | 79  | 33/35 | Yugoslavia  | 27  |
| 7     | Italy          | 76  | 33/35 | Portugal    | 27  |
| 8     | Belgium        | 75  | 33/35 | East Africa | 27  |
| 9     | Denmark        | 74  | 36    | Malaysia    | 26  |
| 10/11 | Sweden         | 71  | 37    | HONG KONG   | 25  |
| 10/11 | France         | 71  | 38    | Chile       | 23  |
| 12    | Ireland        | 70  | 39/41 | Singapore   | 20  |
| 13    | Norway         | 69  | 39/41 | Thailand    | 20  |
| 14    | Switzerland    | 68  | 39/41 | West Africa | 20  |
| 15    | Germany (F.R.) | 67  | 42    | Salvador    | 19  |
| 16    | South Africa   | 65  | 43    | South Korea | 18  |
| 17    | Finland        | 63  | 44    | Taiwan      | 17  |
| 18    | Austria        | 55  | 45    | Peru        | 16  |
| 19    | Israel         | 54  | 46    | Costa Rica  | 15  |
| 20    | Spain          | 51  | 47/48 | Pakistan    | 14  |
| 21    | India          | 48  | 47/48 | Indonesia   | 14  |
| 22/23 | JAPAN          | 46  | 49    | Colombia    | 13  |
| 22/23 | Argentina      | 46  | 50    | Venezuela   | 12  |
| 24    | Iran           | 41  | 51    | Panama      | 11  |
| 25    | Jamaica        | 39  | 52    | Ecuador     | 8   |
| 26/27 | BRAZIL         | 38  | 53    | Guatemala   | 6   |
| 26/27 | Arab countries | 38  |       |             |     |

Source: Hofstede (2001).

#### **2.3.4. Masculinity (MAS)**

Masculinity (MAS) measures the extent to which a culture has its social roles clearly distributed among its members. Masculine societies value more “male” characteristics such as assertiveness, competitiveness, success, status. Feminine societies are more inclined to solidarity, modesty, caring, and quality of life. More “masculine” societies largely emphasize those values of wealth, material success, ambition, and achievement. In contrast, more “feminine” societies emphasize typical self-transcendence values such as benevolence, equality, caring for the weak, and preserving the environment (Hofstede, 1984; Hofstede, 1991). Nonetheless, this does not mean that men play in a masculine way and women plays in a feminine way; this dimension characterizes the culture of a society as masculine or feminine based on male or female characteristics given by nature.

Japan scores high in this dimension; it is the most masculine culture according to Hofstede’s classification. However, all the other three countries are considered fairly masculine as well. Table V shows the countries’ masculinity index scores studied by Hofstede.

Table V. Masculinity Index Values

| Rank  | Country        | MAS | Rank  | Country     | MAS |
|-------|----------------|-----|-------|-------------|-----|
| 1     | JAPAN          | 95  | 28    | Singapore   | 48  |
| 2     | Austria        | 79  | 29    | Israel      | 47  |
| 3     | Venezuela      | 73  | 30/31 | Indonesia   | 46  |
| 4/5   | Italy          | 70  | 30/31 | West Africa | 46  |
| 4/5   | Switzerland    | 70  | 32/33 | Turkey      | 45  |
| 6     | Mexico         | 69  | 32/33 | Taiwan      | 45  |
| 7/8   | Ireland        | 68  | 34    | Panama      | 44  |
| 7/8   | Jamaica        | 68  | 35/36 | Iran        | 43  |
| 9/10  | Great Britain  | 66  | 35/36 | France      | 43  |
| 9/10  | Germany        | 66  | 37/38 | Spain       | 42  |
| 11/12 | Philippines    | 64  | 37/38 | Peru        | 42  |
| 11/12 | Colombia       | 64  | 39    | East Africa | 41  |
| 13/14 | South Africa   | 66  | 40    | Salvador    | 40  |
| 13/14 | Ecuador        | 63  | 41    | South Korea | 39  |
| 15    | UNITED STATES  | 62  | 42    | Uruguay     | 38  |
| 16    | Australia      | 61  | 43    | Guatemala   | 37  |
| 17    | New Zealand    | 58  | 44    | Thailand    | 34  |
| 18/19 | Greece         | 57  | 45    | Portugal    | 31  |
| 18/19 | HONG KONG      | 57  | 46    | Chile       | 28  |
| 20/21 | Argentina      | 56  | 47    | Finland     | 26  |
| 20/21 | India          | 56  | 48/49 | Yugoslavia  | 21  |
| 22    | Belgium        | 54  | 48/49 | Costa Rica  | 21  |
| 23    | Arab countries | 53  | 50    | Denmark     | 16  |
| 24    | Canada         | 52  | 51    | Netherlands | 14  |
| 25/26 | Malaysia       | 50  | 52    | Norway      | 8   |
| 25/26 | Pakistan       | 50  | 53    | Sweden      | 5   |
| 27    | BRAZIL         | 49  |       |             |     |

Source: Hofstede (2001).

## 2.4. Cultural comparison analysis

In order to compare these four different cultures, it is necessary to keep in mind the tables stated above as well as the concepts previously defined. Hofstede's cultural dimensions will be used as references or a mean to allow this study to compare one culture to another. Note that Hofstede did not analyze China as country, but he analyzed a region of China, Hong Kong. For this thesis purpose, it will consider Hong Kong scores to represent China.

In terms of power distance, the USA scored 40 points, taking the 38<sup>th</sup> position. Japan scored 54 points, taking the 33<sup>rd</sup> position. Brazil scored 69 points, taking the 14<sup>th</sup> position. Finally, China scored 80 points, taking the 7<sup>th</sup> position. Noticing that the total points is of 104, all the four countries have from low to high PDI.

The consequences of this classification are summed up in the table below. China and Brazil belong to a very large power distance culture and Japan and USA belong to an average power distance culture. Thus, China and Brazil are more affected by the characteristics stated by Hofstede (2001) on table VI for the high PDI cultures.

Table VI. The Power Distance Societal Norm

| Low PDI   | High PDI   |
|---|--|
| All should be interdependent.   | A few should be independent; most should be dependent.   |
| Inequality in society should be minimized.  | There should be an order of inequality in this world in which everyone has his/her rightful place; high and low are protected by this order. |
| Hierarchy means an inequality of roles, established for convenience.                        | Hierarchy means existential inequality.  |
| Subordinates are people like me.  | Superiors consider subordinates as being of a different kind.  |
| Superiors are people like me.   | Subordinates consider superiors as being a different kind.   |
| The use of power should be legitimate and is subject to the judgment between good and evil. | Power is a basic fact of society that antedates good or evil; its legitimacy is irrelevant.  |
| All should have equal rights.   | Power holders are entitled to privileges.  |
| Powerful people should try to look less powerful than they are.                             | Powerful people should try to look as powerful as possible.  |
| Stress on reward, legitimate and expert power.  | Stress on coercive and referent power.   |
| The system is to blame.   | The underdog is to blame.  |
| The way to change a social system is by redistributing power.                               | The way to change a social system is by dethroning those in power.   |
| Latent harmony between the powerful and the powerless.                                      | Latent conflict between the powerful and the powerless.  |
| Older people neither respected nor feared.  | Older people respected and feared.   |

Source: Hofstede (2001).

Another comparison that may be done is related to Uncertainty Avoidance Index (UAI). In this aspect, it is observed that Brazil and Japan can be grouped together as possessing a high UAI, and China and the USA can be grouped together as possessing a not so high UAI.

China scores 30 points, taking the 48<sup>th</sup> position. USA scores 46 points, taking the 43<sup>rd</sup> position. Brazil scores 76 points, taking the 21<sup>st</sup>/22<sup>nd</sup> position. Finally, Japan scores 92 points, taking the 7<sup>th</sup> position. Considering that the total points are 112, 92 (i.e. Japan's UAI) points is something that catches attention.

The table below sums up cultures with low UAI (i.e. China and the USA) and cultures with high UAI (i.e. Brazil and Japan).

Table VII. The Uncertainty Avoidance Societal Norm

| Low UAI   | High UAI   |
|---|--|
| The uncertainty inherent in life is relatively easily accepted and each day is taken as it comes. | The uncertainty inherent in life is felt as a continuous threat that must be fought. |
| Ease, lower stress, less anxiety.   | Higher stress, anxiety, neuroticism.   |
| Being busy is not a virtue per se.  | Inner urge to be busy.   |
| Suppression of emotions.  | Expression of emotions.  |
| Subjective well-being.  | Less subjective well-being.  |
| Openness to change and innovation.  | Conservatism, law and order.   |
| Willingness to take unknown risks.  | Only known risks are taken.  |
| What is different is curious.   | What is different is dangerous.  |
| Tolerance of diversity.   | Xenophobia.  |
| Younger people are respected.   | Older people are respected and feared.   |
| Comfortable with ambiguity and chaos.   | Need for clarity and structure.  |
| Appeal of novelty and convenience.  | Appeal of purity.  |
| Belief in one's own ability to influence one's life, one's superiors, and the world.              | Feeling of powerlessness toward external forces.                                     |

Source: Hofstede (2001).

Another important indicator for this study is Individualism-collectivism. This indicator classifies Brazil and Japan in a similar way. China is the most collectivistic one among these four

countries. Finally, the USA is the most individualistic country according to Hofstede's classification.

China scores 20 points, taking the 39<sup>th</sup>/41<sup>st</sup> position. Brazil scores 38 points, taking the 26<sup>th</sup>/27<sup>th</sup> position. Japan scores 46 points, taking the 22<sup>nd</sup>/23<sup>rd</sup> position. Finally, the USA scores 91 points, taking the 1<sup>st</sup> position. For this specific indicator, there is no doubt that USA has the most individualistic characteristics of the left side of table VIII below.

Table VIII. The Individualism Societal Norm

| Low IDV  | High IDV   |
|--|--|
| In society, people are born into extended families or clans, which protected them in exchange for loyalty. | In society, everyone is supposed to take care of him- or herself and his or her immediate family only. |
| “We” consciousness.  | “I” consciousness.   |
| Community.   | Society.   |
| Collectivity orientation.  | Self-orientation.  |
| Value standards differ for in-groups and out -groups: particularism.                                       | Value standards should apply to all: universalism.   |
| Identity is based in the social system.  | Identity is based in the individual.   |
| “Shame” cultures.  | “Guilt” cultures.  |
| High-context communications.   | Low-context communication.   |
| Emotional dependence of individual on institutions and organizations.                                      | Emotional independence of individual from institutions or organizations.                               |
| Emphasis on belonging: membership ideal.   | Emphasis on individual initiative and achievement: leadership ideal.                                   |
| Private life is invaded by institutions and organizations.   | Everyone has a right to a private life.  |
| Survival.  | Hedonism.  |
| Activities imposed by context.   | Self-started activities.   |
| Expertise, order, duty, security provided by organization or clan.   | Autonomy, variety, pleasure, individual financial security.  |
| Traditional society.   | “Modern” or “postmodern” society.  |

Source: Hofstede (2001).

Finally, the last dimension to be analyzed is the Masculinity-femininity. For this aspect, Japan is the one that catches more attention as it scores the highest among all countries and regions researched by Hofstede (a total of 53 including countries and regions).

Brazil scores 49 points, taking the 27<sup>th</sup> position. The USA scores 62 points, taking the 15<sup>th</sup> position. China scores 66 points, taking the 9<sup>th</sup> position. Finally, Japan scores 95 points, taking the 1<sup>st</sup> position. The main characteristics of the masculinity-femininity cultural dimension are stated in the table IX:

Table IX. The Masculinity Societal Norm

| Low MAS   | High MAS   |
|---|--|
| Relationship orientation.   | Ego orientation.   |
| Quality of life and people are important.   | Money and things are important.  |
| Stress on who you are.  | Stress on what you do.   |
| Work in order to live.  | Live in order to work.   |
| Minimum emotional and social role differentiation between the genders.                              | Maximum emotional and social role differentiation between the genders.                                   |
| Men should be tender and take care of both performance and relationships; women should be the same. | Men should be tough and take care of performance; women should be tender and take care of relationships. |
| Men and women should be modest.   | Men should be and women may be assertive and ambitions.  |
| Sympathy for the weak.  | Sympathy for the strong.   |
| Small and slow are beautiful.   | Big and fast are beautiful.  |

Source: Hofstede (2001).

Table X sums up the four countries score of Hofstede classification typology and figure I shows these scores in a graph for illustration purposes:

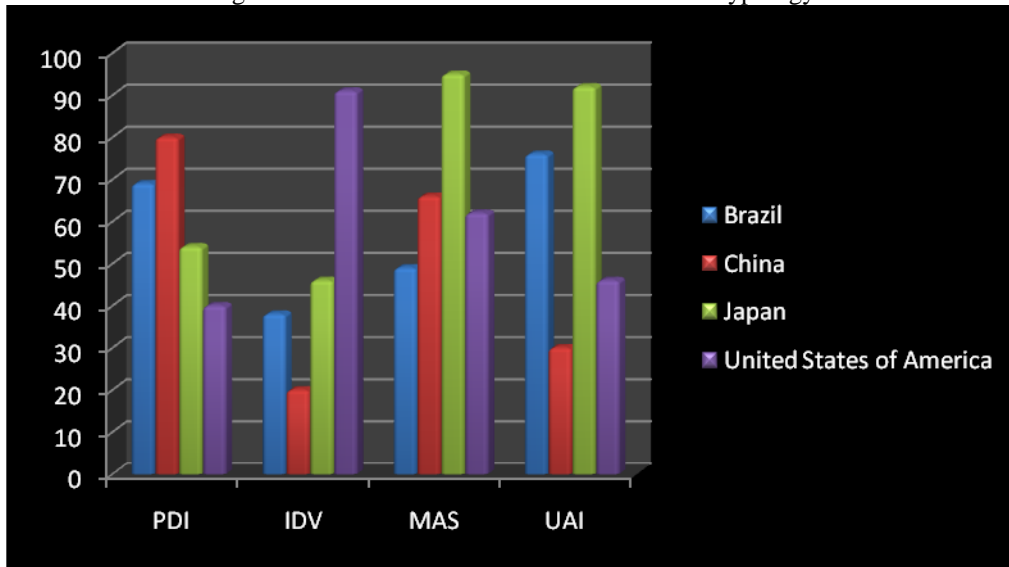
Table X. Hofstede's cultural classification by country

|           | PDI (104) | Rank | Low/ High | UAI (112) | Rank  | Low/ High | IDV (91) | Rank  | Low/ High | MAS (95) | Rank | Low/ High |
|-----------|-----------|------|-----------|-----------|-------|-----------|----------|-------|-----------|----------|------|-----------|
| Brazil    | 69        | 14   | ↑         | 76        | 21/22 | ↑         | 38       | 26/27 | ↓         | 49       | 27   | ↑         |
| Hong Kong | 80        | 7    | ↑         | 30        | 48    | ↓         | 20       | 39/41 | ↓         | 66       | 9    | ↑         |
| Japan     | 54        | 33   | ↑         | 92        | 7     | ↑         | 46       | 22/23 | ↑         | 95       | 1    | ↑         |
| USA       | 40        | 38   | ↓         | 46        | 43    | ↓         | 91       | 1     | ↑         | 62       | 15   | ↑         |

Source: Hofstede (1991).



Figure I. Hostede's cross-cultural classification typology



Source: Hostede's (1991).

## 2.5. Consumer Style Index (CSI)

A free market economy, assumes informed, educated consumers with the power to influence the market through their rational decisions when confronted with choices in the market. Consumer decision-making, thus, is of great interest for consumer educators and marketers interested in serving the consumer (Canabal, 2002). Several researchers in the field of consumer economics have concluded that consumers follow different styles or rules in making decisions when confronted with choices in the market (Dollinger and Danis, 1998; Fan and Xiao, 1998; Hafstrom *et al.*, 1992; Kendall and Sproles, 1990; Sproles, 1985; Sproles and Kendall, 1986). Sproles and Kendall (1986) define a consumer decision-making style as a mental orientation characterizing a consumer's approach to making choices. These studies have further suggested that external factors such as culture may influence the way consumers develop the styles that are discussed below (Canabal, 2002).

Sproles and Kendall (1986) developed the Consumer Style Index (CSI) in order to classify different groups of consumer styles. They came up with eight significant consumer styles: 1) perfectionist, high-quality conscious (quality); 2) brand conscious (brand); 3) innovative and fashion conscious (innovative); 4) recreational or hedonistic shopping conscious (recreation); 5) price-value conscious (price); 6) impulsive/careless (impulse); 7) confused by overchoice (confused); and 8) habitual and brand loyal (loyal).

Despite the eight-dimensional structure being confirmed in the original study (i.e. 8 consumer decision-making styles), there are indications that the eight-factor model does not represent an ideal solution because some dimensions showed poor reliability (Tai, 2005). As a result, some country-specific structures of decision-making styles emerged in many studies (Hafstorm *et al.*, 1992; Durvasula *et al.*, 1993; Lysonski *et al.*, 1996; Shim, 1996; Mitchell and Bates, 1998). These studies were conducted in divergent cultural situations without much modification to the instrument, and were restricted to student samples, but their findings generally confirmed the value of using the CSI (Tai, 2005). In addition, Sproles and Kendall recommended using the inventory with different population groups to determine the generality of its applicability (Canabal, 2002).

To examine the applicability of the instrument, the analysis investigated the psychometric properties of the CSI. First, the dimensionality of the consumer styles inventory was evaluated by examining the factor solution (Gerbing and Anderson, 1988). In essence, the amount of variance explained by the extracted factors (i.e. their eigenvalues) was recorded. Additionally, item-factor correlations (i.e. factor loadings) and another analysis with a varimax rotation was

used to obtain the factor solution which is consistent with the analytic procedure used by Sproles and Kendall (1986).

The selection of an appropriate product for this research required considerable care (Essoo and Dibb, 2004). Hirschman (1981b), Delener (1991), and Sood and Nasu (1995) indicate that products chosen for studies should not be bound to a particular culture and should be purchased by all individuals in the population. Hirschman (1981b) used products such as apparel and home furnishings, Delener (1991) used an automobile and Sood and Nasu (1995) used a radio set. Essoo and Dibb (2004) used a television set since the purchase of this product is made irrespective of cultural and religious backgrounds. For this research, a cell phone was used since it is not restricted to any cultural background. The definition of each Sproles and Kendall (1986) decision-making style is found below:

#### **2.5.1. Perfectionist, high-quality conscious**

This group of consumers evolves the ones who search for the very best quality in products. Those consumers higher in perfectionism could also be expected to shop more carefully, more systematically, or by comparison. They are not satisfied with the “good enough” product (Sproles and Kendall, 1986). Quality-conscious decision-making implies the perception of a hierarchy of quality levels (Leo *et al.*, 2005). Hofstede’s (2001) cultural dimension of power distance deals with inequality in prestige, wealth and power and Hofstede’s (2001) cultural dimension of individualism deals with “I” consciousness which one’s identity is based on the individual. In this line of thought, cultures with higher power distance or highly individualistic

would be more likely to engage in the quality conscious decision-making style; high PDI as it refers to hierarchy versus equality and highly individualistic cultures as it refers to one's identity, self-orientation, autonomy, and variety.

Moreover, consumers from individualistic cultures focus on "I" instead of "We" (Hofstede, 2001), so they would buy a cell phone to own the best, or the most multi-functional one, in a way that is more compatible with their lifestyle. According to Hofstede's individualism index values (table IV), the USA score the highest. Americans possess variety-seeking tendencies due to the cultural assumption that choice is an indicative of the act of self-expression (Kim and Droplet, 2003). In this line of thought, it is hypothesized:

*H<sub>1</sub>: Consumers from individualistic cultures tend to be more quality conscious than consumers from collectivistic cultures.*

Therefore, Americans tend to be more quality conscious than Brazilians, Chinese, and Japanese.

### **2.5.2. Brand conscious**

Brand conscious decision-making style refers to a consumer's orientation towards the purchase of expensive and well-known brands. Brands are symbols of status and prestige (Leo *et al.*, 2005). Large power distance cultures perceive quality, social status and prestige as important (Hofstede, 2001). In addition, brand can be a cue to quality in developing countries, because the quality of their unbranded products varies widely. "The variation in quality is due to the

countries' many small, dispersed and uncoordinated manufacturers and retailers. Branded products provide at least some assurance of a standardized quality" (Maxwell, 2001, p. 327). A brand can rely on the reputation it has earned through its existence in the market; in such case, consumers, in order to avoid possible risks, would be willing to pay a premium for well-known brands (Maxwell, 2001).

Besides the cultural dimension of power distance, there is also the dimension of individualism related to this factor (i.e. brand conscious). An individualistic culture values the "I" in a sense that "I" has its own identity and therefore, "I" make my own decisions and choices without having the approval from the group. Members from individualistic cultures might buy a brand that they perceive suitable to their personality. Brands are symbols that convey meanings to consumers and fashion consciousness for individuals from an individualistic cultural background (Manrai *et al.*, 2001).

Americans belong to an individualistic culture and they value the "I" instead of "We"; owning a cell phone that best suits one's personality is very important; in this sense, they look for brands that match with their needs and desires. For instance, there are brands that are more traditional; others, more fashionable, and so on. Brand consciousness is related to highly individualistic cultures (Hofstede, 2001), thus, it is hypothesized:

*H<sub>2</sub>: Consumers from individualistic cultures are more brand conscious than consumers from collectivistic cultures.*

Therefore, Americans are more brand conscious than consumers from the other three cultures.

### **2.5.3. Innovative/Fashion conscious**

Hofstede (1984, 1991, 2001) identifies three dimensions of national culture that can be related to consumer innovativeness: individualism (high), uncertainty avoidance (low), and masculinity (high).

Building on the conceptualizations of Hirschman (1980), Foxall (1988), and Venkatraman and Price (1990), consumer innovativeness is defined as the predisposition to buy new and different products and brands rather than remain with previous choices and consumption patterns. Consumer innovativeness is a secondary, generalized disposition in that: (1) it is operant in only a limited set of contexts and roles, namely, the consumer setting (Lastovicka, 1982), and (2) it has a generalized effect on the adoption of new products and brands across a variety of goods and services (Midgley and Dowling, 1978). However, the strength of this effect is moderated by innovation characteristics, marketing, and other factors. Because of these moderating factors, people high in innovativeness might not always adopt new items or be among the earliest adopters.

National cultural uncertainty avoidance measures the degree to which societies tend to feel threatened by uncertain, risky, ambiguous, or undefined situations and the extent to which they try to avoid such situations by adopting strict codes of behavior. In countries where uncertainty avoidance is high, a feeling of “what is different is dangerous” prevails (Hofstede 1991, p. 119).

When cultures are high in uncertainty avoidance, consumers are resistant to change from established patterns and will be focused on risk avoidance and reduction. Conversely, in low uncertainty avoidance societies, the feeling would be “what is different is curious” and worth exploring (Hofstede 1991, p. 119).

A society characterized by high uncertainty avoidance suppresses deviant ideas and behavior, shows resistance to innovation, encourages stability and maintenance of the status quo among its members, and supports institutions that protect conformity (Hofstede, 1991). Thus, high national cultural uncertainty avoidance reinforces the effect of high individual-level resultant conservation. The converse is true for societies low in uncertainty avoidance.

New items are more risky, and their performance and use are more ambiguous than established products and brands. Therefore, countries characterized by high levels of uncertainty avoidance provide a cultural environment that is less conducive to innovativeness than countries characterized by low levels of uncertainty avoidance. In the latter case, exploration of novel situations and objects actually is valued and instilled in its citizens.

Sociologists often have argued that group-level variables can and do have effects over and above the characteristics of the group members (Erbring and Young, 1979). Thus, consumers in some countries may be, on average, higher in innovativeness than consumers in other countries due to systematic differences in the national environment (Gatignon *et al.*, 1989).

Innovative consumers look for new things and keep up-to-date with new products and new styles of living and doing things. They are curious to try new things so they are not so afraid of taking risks. According to Hofstede, the predisposition to purchase new and different products and brands is characterized by a high individualistic orientation (Hofstede, 1984). These characteristics are clearer in Western cultures, as compared to Eastern cultures (Hofstede, 2001). Consumers from individualistic cultures present higher propensity to risk and innovativeness than ones from collectivistic cultures. In this sense, Americans, consumers who belong to the most individualistic culture (Hofstede, 1984), prefer rational thinking and are active information searchers.

Individualism pertains to the degree to which people in a country prefer to act as individuals rather than act as a group. In collectivistic countries, there is a close-knit social structure, in which people expect their group to care for them in exchange for unwavering loyalty. Collectivist cultures are conformity oriented and show a higher degree of group behavior and concern to promote their continued existence, whereas people in individualistic societies are emotionally more detached from in-groups (other than immediate family) and place their personal goals, motivations, and desires ahead of those of the in-group (Kagitcibasi, 1997). In individualistic societies, the social fabric and group norms are much looser. People tend not to follow social norms, but rather make decisions and initiate behaviors independently of others (Roth, 1995). A child would learn very early to think of him or herself as “I” instead of as part of “we,” whereas the inverse holds for collectivistic societies (Hofstede, 1991). Midgley and Dowling (1978) have emphasized that consumer innovativeness involves a tendency to initiate new behaviors, independently of others. Such predispositions should be valued positively in



individualistic societies but valued negatively in collectivistic societies. Individuals from individualistic cultures focus on high public self-consciousness, variety-seeking, and less conformity behavior (Hofstede, 2001). Consumer innovativeness will be higher in countries whose national culture is characterized by higher levels of individualism; in this line of thought, it is hypothesized:

*H<sub>3</sub>: Consumers from individualistic cultures are more innovative than consumers from collectivistic cultures.*

*In this line of thought, Americans are more innovative than consumers from the other three cultures.*

Moreover, more “masculine” societies place greater emphasis on wealth, success, ambition, material things, and achievement, whereas more “feminine” societies place greater value on people, helping others, preserving the environment, and equality (Hofstede, 1984). The purchase of new items is one way for a person to assert his or her interests and to show (off) wealth and success (Rogers, 1983). Furthermore, it is plausible that the greater emphasis that “masculine” societies give to material things (Hofstede, 1991) is expressed in a greater propensity to purchase new items, among other things (Mowen, 1995). In addition, more “masculine” societies place greater value on achievement, and there is evidence, based on observed behavior, that achievement is related positively to innovativeness (Rogers, 1983). Thus, it is hypothesized:

*H<sub>4</sub>: Consumers from masculine cultures are more innovative than consumers from feminine cultures.*

*So if Brazilians and Japanese consumers are compared, Japanese are expected to be more innovative than Brazilians.*

#### **2.5.4. Recreation or hedonistic shopping conscious**

Recreational or hedonistic consumption designates those facets of consumer behavior that relate to the multisensory, fantasy and emotive aspects of one's experience with products. In marketing research, rarely has the full scope of emotional responses to products been investigated. In research of hedonistic consumption, however, this range of feelings plays a major role. The seeking of emotional arousal is posited to be a major motivation for the purchase of certain product classes, e.g., novels, plays and sporting events (Holbrook, 1980). Further, emotional involvement is tied to the purchase of even simple products such as cigarettes, food, and clothing (Levy, 1959). The literature from these varied areas provides insights that can usefully extend and supplement the traditional orientation towards consumer research in marketing. These insights are evolutionary progressions of current paradigms and perspectives; however, in some ways they represent a fundamentally different orientation toward the examination of the interaction between consumers and products.

Using a hedonistic consumption perspective, products are viewed not as objective entities but rather as subjective symbols. The researcher is concerned not so much with what the product is

as with what it represents. Product image, not strict reality, is a central focus; consumer emotive response, rather than just semantic learning, is a key criterion. Thus, the hedonic perspective seeks not to replace traditional theories of consumption but rather to extend and enhance their applicability (Hirschman and Holbrook, 1982).

Consumers from this style like shopping and they just enjoy the shopping activity itself. Shopping for fun is an internal state that makes the individual feel happiness and pleasure (Hofstede, 2001).

A hedonistic consumer style helps identify and understand the cultural sources of images, both of a real and fantasy nature that guide consumers in their adoption and usage of products (Hirschman and Holbrook, 1982). The literature suggests two propositions that might influence the hedonist consumer: one is that the consumer tends to treat a product according to the perspective learned from his/her ethnic group. Similarly, the values shared by members of a given social class or gender affect desires for and responses to products; and two, the amount of fantasy and emotionality encouraged/permitted in their members varies across cultures (Hirschman, 1981a, Hirschman, 1981b, Singer, 1966).

Hedonism is related to the cultural dimension of individualism; individuals who belong to individualistic cultures are more likely to practice more hedonistic shopping (Hofstede, 2001).

As said before, American is the most individualistic culture, so it is hypothesized that:

*H<sub>5</sub>: Consumers from individualistic cultures are more likely to practice hedonistic cell phone shopping than consumers from collectivistic cultures.*

*So, Americans are more likely to practice hedonistic cell phone shopping than consumers from the other three cultures.*

#### **2.5.5. Price-value conscious**

Here it is found consumers who are usually seeking sales. They usually try to get the best product out of the money they are willing to spend. As an example, a study in 41 countries by Furnham *et al.* (1994) demonstrates that different cultures can have very different attitudes toward spending money. Maxwell (2001) analyzed the tension between the desire to consume and the desire not to spend among Americans and Indians. The premise is that, due to the different cultural contexts, individuals from one culture differ in their attitudes toward brands, money, and other costs of time and stress. These differences will then influence how price/brand affects the willingness to purchase out of the two groups.

However, empirical research has indicated that money attitudes are independent of income. Furnham and Okamura (1999) conclude that different national cultures hold different attitudes toward money and related behaviors, such as saving and spending. An example is the results of an ethnographic study which concluded that contrary to the economic theory that consumption determines savings, with Indians, “their need for saving determines their consumption” (Jain and Joy, 1997, p. 647).

Hofstede's cultural dimensions that relate to price conscious decision-making style are individualism/collectivism and masculinity/femininity. Collectivistic cultures are expected to be more concerned with the status attributed to a given brand and more sensitive to maintaining prestige and status (Ho, 1976; Zhou and Nakamoto, 2001); therefore, they are willing to pay more in order to save "face" to their in-group members. Another Hofstede dimension that relates to price consciousness, as stated above, is masculinity. A masculine-oriented culture emphasizes on ego-goals such as careers and money (Hofstede, 2001), price-conscious decision-making means that items are bought for less and, thus, more material goods can be accumulated. Price consciousness is related to individualistic or masculine cultures; according to Hofstede (2001) Americans are highly individualistic and Japanese, highly masculine, so in this line of thought, it is hypothesized that:

*H<sub>6</sub>: Consumers from collectivistic cultures are less price conscious than consumers from individualistic cultures.*

*Therefore, Brazilians and Chinese are less price conscious than Americans and Japanese.*

#### **2.5.6. Impulsive/Careless**

Consumers from this group usually shop by impulse and sometimes if they could go back, they would not have made the purchase. Also, the purchase by these consumers might not even have a need.

Impulsive consumer buying behavior is a widely recognized phenomenon. In the USA, for instance, it accounted for up to 80% of all purchases in certain product categories (Abrahams, 1997; Smith, 1996), and it has been suggested that purchases of new products result more from impulse purchasing than from prior planning (Sfiligoj, 1996). A 1997 study found that an estimated \$4.2 billion of annual store volume was generated by impulse sales of items such as candy and magazines (Mogelonsky, 1998). Paco Underhill, author of the book “Why We Buy: The Science of Shopping” (1999), affirms that many purchases are being made on the premises of the stores themselves as customers give in to their impulses. Furthermore, technologies such as television shopping channels and the Internet expand consumers’ impulse purchasing opportunities, increasing both the accessibility to products and services and the ease with which impulse purchases can be made (Kacen and Lee, 2002).

Impulsive buying behavior is a sudden, compelling, hedonically complex purchasing behavior in which the rapidity of the impulse purchase decision process precludes thoughtful, deliberate consideration of all information and choice alternatives (Bayle and Nancarrow, 1998; Rook, 1987; Thompson *et al.*, 1990; Weinberg and Gottwald, 1982).

Given that impulsiveness is related to sensation-seeking and emotional arousal (Rook, 1987; Weinberg and Gottwald, 1982), it is likely that people in collectivistic cultures learn to control their impulsive tendencies more than people from individualistic cultures. In fact, children in collectivistic cultures are socialized to control their impulses at an early age (Ho, 1994).

In individualistic cultures, people often ignore the potential negative consequences of their impulsive buying behavior (Rook, 1987), preferring to focus on the positive consequences of their actions and on their own feelings and goals. This may not be true for people from collectivistic cultures who are more likely to focus on the potential negative consequences of their behavior and the effect of their actions on in-group members (Triandis, 1995). Studies found that, “the greater likelihood that people in collectivistic cultures will consider the negative consequences of their actions makes the suppression of the impulse trait-behavior relationship more probable” (Kacen and Lee, 2002, p.165).

These differences between individualistic and collectivistic culture are best explained by examining the tenants on which the cultural patterns of individualism and collectivism are based (Kacen and Lee, 2002). As Kim *et al.* (1994) explained Western individualistic societies are based on the tenant of liberalism. In these societies individuals are encouraged to be rational and are given individual rights to define their own goals and choose freely. Conversely, East Asian collectivists are based on Confucianism, which promotes common goals and social harmony over individual interests (Kacen and Lee, 2002). Individuals from highly individualistic countries are more impulsive shoppers than ones from collectivistic countries (Triandis, 1995). Following this line of thought, it is hypothesized:

*H<sub>7</sub>: Consumers from individualistic cultures are more impulsive buyers than consumers from collectivistic cultures.*

*Therefore, Americans are more impulsive buyers than consumers from the other three culture*

### **2.5.7. Confused by overchoice**

Consumer confusion is likely to become increasingly problematic for a variety of reasons: consumers are subjected to greater amounts of information, the number of products available is proliferating rapidly, product imitation strategies are increasing and technology is becoming ever more sophisticated. These factors, when combined, can make purchasing products, particularly technical products, very confusing (Leek and Kun, 2006).

This can be particularly acute in high-involvement and complex purchases where consumers devote more time and effort to gathering and processing information and have a higher propensity to become overloaded. However, the consumer is not protected against information overload and the law currently gives no consideration to information overload as a consumer issue (Mitchell and Papavassiliou, 1999).

Overchoice confusion is caused by the quantity of relevant information and the choice of brands available in the consumer decision-making (Mitchell *et al.*, 2004). It is argued that consumers do not overload themselves with information but only examine small portions of the available information (Jacoby, 1984). However, due to the vast amount of information in the external environment, it is also possible that consumers may fail to attend to a vital piece of information, which may result in confusion (Mitchell *et al.*, 2004).

Consumers are now facing more than ever before so many different brands (at the beginning only Motorola was available in the market, and now there are: Aiko, Nokia, LG, Samsung, Sony



Ericsson, HTC, Apple, Panasonic, Philips, Toshiba, Pantech, Siemens, among others) and each of them has dozens of models, some apparently very similar to each other, so similar that you think they look the same. Moreover, there are so many colors, and features, that it is very natural to be confused. Consumers from this group face difficulties in making decisions due to the excessive information regarding brands, models, and their functionalities.

Much of the research into consumer confusion has been carried out in Western cultures such as the United Kingdom (e.g. Balabanis and Craven, 1997; Mitchell and Bates, 1998; Turnbull *et al.*, 2000), the Netherlands (e.g. Poiesz and Verhallen, 1989), France (e.g. Kapferer, 1995a, b) and the USA (e.g. Loken *et al.*, 1986; Sproles and Kendall, 1986; Foxman *et al.*, 1990). Moreover, Leek and Chansawatkit (2006) carried out research on confusion in the mobile phone market in Thailand and found that the same aspects of the industry (i.e. handsets, services and tariffs) caused confusion in the United Kingdom as well. In terms of confusion reduction, it was found that Thai consumers rely on friends and family to a greater extent to reduce confusion, which would be expected in a collectivistic culture. Further research on confusion in collectivistic cultures is needed where it is necessary to provide further understanding and validate the existing findings (Hui and Triandis, 1985; Lee and Green, 1991; Triandis, 1982). Consumers from collectivist cultures tend to be less confused by overchoice because members from such cultures will make decisions, most of the time, based on “we” rather than “I”, consulting their close friends and family before making decisions and consumers from individualistic cultures will make decisions, most of the time, based on “I” and rely more on the information given by the media than their close friends and family. In this line of thought, it is hypothesized that:

*H<sub>8</sub>: Consumers from individualistic cultures are expected to be more confused by overchoice than consumers from collectivistic cultures.*

*So, Americans are expected to be more confused by overchoice consumers than consumers from the other three cultures.*

#### **2.5.8. Habitual and brand loyal**

Few studies have evaluated the significance of cultural influence on consumer proneness to brand loyalty. Brand loyalty is getting harder to acquire. Increasing global economic uncertainty and intense competition in the marketplace have made it abundantly clear that companies have to improve their business models to attract, satisfy, and form sustainable relationships with customers (Lam, 2007). These results will help international marketers understand the cultural nuances of their host country and aid in anticipating potential benefits and problems when interacting cross-culturally (Brodbeck *et al.*, 2002). The ability to identify and segregate the cultural factors that can affect or hinder consumer proneness to be brand loyal will certainly be of great help in improving marketing and business strategies.

Jacoby and Chestnut (1978) state “If brand loyalty is ever to be managed, not just measured, it will have to be elaborated in a much more detailed description of cognitive activities rather than focusing only on behavioral aspects of brand loyalty (e.g., repeated purchase)”. This statement made by Jacoby and Chestnut (1978) implies that previous studies of brand loyalty have mostly focused on the measurement issue of brand loyalty by investigating repeated purchase of a brand.

Cognitive aspects of brand loyalty make it possible to predict what purchase behavior would be followed by a certain cognitive response. For example, a bad attitude toward a certain brand would result in switching behavior of purchase (Ha, 1998).

De Mooij (1998) suggests that companies should “act global, think local” by reaping all the benefits of globalization in production, sourcing, distribution, marketing, and the connected benefits of economies of scale in production and organization, but accept that mental images cannot be standardized. This is the global strategy of those firms which have learned to understand that they will only thrive on respect for and exploitation of local cultural values. These companies build relationships with consumers and their communication objective is to build trust. And, with the advent of new technologies to support the creative effort, this task is most achievable.

The brand loyal type consumer is the wishful one for marketers and companies. Consumers from this group have clearly in their mind their favorite brand. They usually have habits of going to the same stores and continue to purchase the same brand and just upgrade for a new model. For instance, a Nokia’s consumer who owns a N70 model would upgrade his/her cell phone for new model such as N73, N76, N81, N95, etc. Same would happen to Motorola’s, Samsung’s, among other brands’ habitual and loyal consumers.

Members from large power distance and collectivistic culture configuration are found to show a higher degree of brand loyalty. Power distance is the willingness to accept that those with power are entitled to it and those without power ought to accept the way things are and just go along.

Big market-share brands are the kings of their brand world and consumers from cultures with high power distance tend to believe in them implicitly: the dominant brand has achieved what it has because it is the best and one should not question it (Palumbo and Herbig, 2000). The power distance dimension is related to uncertainty avoidance (risk), meaning that it is more difficult for new entrants to compete in a market that belongs to a large power distance culture because consumers of such culture accept that a certain brand is the best and they do not want to risk switching for something unknown.

Collectivistic cultures also tend to form brand loyal consumers since collective orientation has implications for consumer attitude formation and brand loyalty and ensures the survival of the dominant brand (Robinson, 1995). Conformance to the group plays a role: when an individual chooses another brand than the group-members or switches brands, it distinguishes this person from the group. So, it is preferable to choose the popular or perceived popular brands (Hofstede, 2001).

Cultures with large power distance and collectivism configuration reflect higher brand loyalty scores; this is reinforced in societies with a high uncertainty avoidance dimension, which makes it very difficult for new entrants to gain market share (De Mooij, 1998). Brand loyalty is related to large power distance, collectivistic and high uncertainty avoidance culture. In this line of thought, it is hypothesized:

*H<sub>9</sub>: Consumers from collectivistic or large power distance cultures are more brand loyal than consumers from individualistic or small power distance cultures.*

*So, Brazilians and Chinese are more brand loyal than Americans and Japanese.*

In order to build a consistent theoretical background for this research, it was necessary to state and define the subject matter related terms, and to link Hofstede's cultural dimensions (1984) with Sproles and Kendall's CSI (1986). Hofstede's cultural dimensions classification typology (1984) was a mean to measure culture, so that Sproles and Kendall's CSI (1986) instrument could be used and analyzed; in other words, the eight decision-making styles could be applied to see if consumers from a certain culture tend to make decisions leaning towards quality, brand, innovation, or others factors. Table XI summarizes the nine hypotheses that this thesis will test. The next chapter explains the methodology used.

Table XI. Summary of hypothesis in the consumer decision-making styles and Hofstede's cultural dimensions table

| <div>Hofstede \ CSI</div> | Quality        | Brand          | Innovative     | Recreation     | Price          | Impulse        | Confused       | Loyal          |
|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| PDI                       |                |                |                |                |                |                |                | H <sub>9</sub> |
| IDV                       | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | H <sub>5</sub> |                | H <sub>7</sub> | H <sub>8</sub> |                |
| UAI                       |                |                |                |                |                |                |                |                |
| MAS                       |                |                | H <sub>4</sub> |                | H <sub>6</sub> |                |                |                |

### 3. METHODOLOGY

#### 3.1. The questionnaire

Researchers are interested in constructs rather than items or scales per se (DeVellis, 2003). For instance, this thesis compares the degree of relevance of certain factors (quality, brand, innovation, and so forth) in determining consumer's decision-making styles depending on his culture background. Consumer decision-making style is intrinsic with one's cultural background

reflecting in one's behavior and action. Therefore, recording responses to a questionnaire may, in many cases, be the best method of assessing those intrinsic set of concerns (DeVellis, 2003).

The main purpose of the questionnaire is to try to answer the research question. The questionnaire has to be well prepared and follow certain rules, so the researcher can be able to collect a standardized set of data and then apply a statistical technique to analyze the data (Botelho and Almeida, 2005). The questionnaire was a mean to collect the information from the cell phone purchasers from the four cultures.

The questionnaire had to be adapted to the respondents in a sense that it can be easily read and understood. Issues such as the place for the application, the length of time that it takes for one to answer and the quantity of questions asked may or may not motivate interviewees to respond.

The questionnaire was organized into three sections: section 1 covered the eliminatory questions; section 2, the topic-related questions; and section 3, the socio-demographics questions. Section 1 involved questions that would drive the researcher to include or exclude the respondents' answer in the sample. One of the questions was if the respondent has purchased a cell phone in the past three years. Since the subject matter of this thesis is related to the purchase of a cell phone, respondents who did not purchase at least one cell phone in the past 3 years would not be appropriate to be included in the sample. Section 2 asked specific questions about the subject matter of this thesis. The last part of the questionnaire, section 3, covered the socio-demographics questions. It is appropriate to ask sensitive questions, in other words, questions concerning one's identity at the last part of questionnaire (Almeida and Botelho, 2005).

The questions in the questionnaire were coded in order to facilitate the tabulation process. The questionnaire contained 39 Likert-scaled items scored from 1 (strongly disagree) to 5 (strongly agree), and the analysis employed statistical procedures equivalent to those used by Sproles and Kendall (1986). An adaptation of the original Sproles and Kendall (1986) consumer decision-making style questionnaire (CSI) was necessary to suit this study.

Each version of the questionnaire with the exception of the English one, was translated by a fluent bilingual translator and then back-translated into English by another bilingual translator in order to do a precise cross-national research. Minor changes were made in the wording to clarify the semantics in Chinese, Japanese, and Portuguese versions.

### **3.2. Pre-testing and questionnaire review**

Once the preparation of the questionnaire was completed, it was important to test the questionnaire and see if the overall aspects were meeting its objectives (instructions, sequence of questions, the questions' content, vocabulary, clarity, redundancy, and adequacy to the respondent's profile).

The pre-test was done personally so the interviewees' gestures and body language (e.g. facial expressions of tiredness, tediousness, surprise, etc.) could also be observed. In addition, it was measured how long the interviewees took to answer the questionnaire: approximately seven minutes.

The Portuguese version of the questionnaire was pre-tested by six people, Chinese one by seven, English one by five, and Japanese one by five as well. People who participated in the pre-test were asked their opinion regarding the layout of the questionnaire, whether or not it should be fitted in one or two pages, the font type and size and also the questionnaire's questions themselves where three requirements were observed: how relevant they think each item is to what the researcher intended to measure; the items' clarity and conciseness; and to point out ways of tapping into any issues that the researcher might have failed to include.

After listening and analyzing the suggestions from the participants of the pre-test, a few changes were done on the questionnaire without losing the original identity and purpose. The pre-test was a way to enhance the clarity of the questionnaire and to cover aspects that were crucial for the validity of the data collection; then, the next step was the field work.

### **3.3. Data collection**

Samples by convenience were used instead of student samples which are dominant in the previous studies of the CSI.

The period of the data collection was from August to September, 2008. The interviewers conducted the questionnaire in shopping malls, universities, companies, and through a mailing list in Brazil, China, Japan and the USA. In Brazil, the respondents were from the states of Parana, Rio de Janeiro, and Sao Paulo. In China, the respondents were from the cities of Beijing, Guangzhou, and Shanghai. In Japan, the respondents were from the prefectures of Aichi,



Fukuoka, Hyogo, and Osaka. In the USA, the respondents were from the states of New Jersey and New York. Since the purpose of this study is to analyze how culture influences the consumers' decision-making style, only respondents who were born and lived more than half of their lifetime in their respective country of birth and whose parents were born in the same country of the respondent were considered for statistical analysis in order to avoid any bias.

The researcher aimed to achieve similar sample sizes across the four countries: an approximate amount of 100 respondents each. In practice, there were a total of 448 respondents, but only 371 were considered valid (table XIII): 108 from Brazil, 52 from China, 107 from Japan, and 104 from the USA. Respondents who left many questions blank or marked many times two answers for a single question or answered "no" to any of the first two questions of the questionnaires (first question was if the respondent has purchased a cell phone in the past three years and the second question was if the respondent was a native and has lived more than half of his/her lifetime in his/her native country) were considered invalid for the questionnaire.

With the exception of the Chinese sample, all samples reached the desired number. This can be explained by many factors. In China, it was encountered more difficulties to collect data than in other three countries: many people hesitated to answer to the questionnaire stating that they did not have time or said that they would reply as soon as possible but never did; perhaps, due to Chinese culture, Chinese among the four nationalities studied were the ones who hesitated most to answer to the questionnaire; there were also fewer interviewers in China than the other three countries to personally distribute and collect the questionnaires. The overall Japanese respondents took more time to answer to the questionnaire than the other three countries'

respondents as they wanted to go carefully question by question and think for a little bit before answering. Differently, the overall American respondents were pretty quick in answering to questions; it seemed that they already had the answers in mind. Brazilians were very friendly in answering to the questionnaire: many still added personal comments about how they shopped for cell phones like “I buy on Ebay” or “Yes, I only buy on sale cell phones”.

### **3.4. Dependent variables versus independent variables**

For this study, the countries, Brazil, China, Japan, and the USA, were treated as the independent variables and the eight decision-making styles of Sproles and Kendall were treated as the eight factors (dependent variables).

The questionnaire in Chinese, English, Japanese, and Portuguese is listed in annex 1, 2, 3, and 4 respectively. Eight items of the questionnaire measured the factor perfectionism, high-quality consciousness (Quality), 5 items measured brand consciousness (Brand), 7 items measured innovative/fashion consciousness (Innovative), 5 items measured recreation or hedonistic shopping consciousness (Recreation), 3 items measured price-value consciousness (Price), 5 items measured impulsive/careless shopping (Impulse), 3 items measured confusion by overchoice (Confused), and 3 items measured brand loyalty (Loyal). It is listed in table XII the question numbers in the questionnaire that relates to each factor (i.e. dependent variable):

Table XII. Dependent variables in the questionnaire

| Dependent variables | Question no. in the questionnaire | Scale  | Scale Origin               |
|---------------------|-----------------------------------|--------|----------------------------|
| Quality             | 1, 4, 5, 7, 16, 22, 24, 39        | Likert | Sproles and Kendall (1986) |
| Brand               | 15, 29, 31, 33, 34                | Likert | Sproles and Kendall (1986) |

|            |                           |        |                            |
|------------|---------------------------|--------|----------------------------|
| Innovative | 2, 12, 20, 23, 36, 37, 38 | Likert | Sproles and Kendall (1986) |
| Recreation | 3, 8, 14, 27, 28          | Likert | Sproles and Kendall (1986) |
| Price      | 10, 13, 30                | Likert | Sproles and Kendall (1986) |
| Impulse    | 9, 11, 18, 19, 25         | Likert | Sproles and Kendall (1986) |
| Confused   | 6, 32, 35                 | Likert | Sproles and Kendall (1986) |
| Loyal      | 17, 21, 26                | Likert | Sproles and Kendall (1986) |

The items measuring each factor are listed below:

### Quality

- A cell phone doesn't have to be the best in the market to satisfy me.
- I put special effort in choosing the very best quality cell phone.
- I shop quickly, buying the first cell phone that seems good enough.
- Getting a very good quality cell phone is very important to me.
- I don't give much thought or care when shopping for cell phones.
- In general, I usually try to buy the best overall quality cell phone.
- My standards and expectations for the cell phone I buy are very high.
- When it comes to purchasing a cell phone, I try to get the very best or perfect choice.

### Brand

- I prefer buying a cell phone from one of the best selling brands.
- The higher the price of a cell phone, the better its quality.
- The more expensive brands of cell phones are usually my choice.
- The most advertised brands of cell phones are usually very good choices.
- I find well-known national brands of cell phones the best.

### Innovative

- A newly released model/brand cell phone is not something I would be eager to find out about.
- I enjoy taking chances in buying unfamiliar brands of cell phones just to get some variety in my purchases.
- I would rather wait for others to try a new cell phone model/brand than try it myself.
- Researching new cell phone brands is generally a waste of time.
- When I hear of a store selling the cell phone I want to purchase, I take advantage of the first opportunity to find out more about it.
- When I see a new brand of cell phone somewhat different from usual, I do a search on it.
- When I see a new model or a different brand of cell phone, I often buy it just to see what it is like.

#### Recreation

- I enjoy shopping for cell phones just for the fun of it.
- Shopping for a cell phone is one of the more enjoyable activities in my life.
- I make my cell phone shopping trips fast.
- Shopping for a cell phone is not a pleasant activity for me.
- Shopping for a cell phone wastes my time.

#### Price

- I usually try to buy cell phones at sale prices.
- I shop carefully to buy the best value cell phone for the money I spend.
- I usually choose the cheapest cell phones.

### Impulse

- I am impulsive when purchasing a cell phone.
- I carefully watch how much I spend on cell phones.
- I should plan better when shopping for a cell phone.
- I take the time to shop carefully for the best cell phone.
- Often I make careless cell phone purchases I later wish I had not.

### Confused

- All the information I get on different cell phone models/brands confuses me.
- The more I learn about cell phones, the harder it seems to choose the best.
- There are so many brands of cell phones to choose from that I often feel confused.

### Loyal

- I regularly change the brand of the cell phones I buy.
- If I have a favorite cell phone brand, I buy this cell phone brand over and over.
- Once I find a cell phone brand I like, I stick with it.

## 3.5. Measures

### 3.5.1. Reliability of the scale used

The Cronbach's alpha is the average mean of all the coefficients that results from different ways of dividing by two all the items from the scale. This coefficient ranges from 0 to 1, and a value of 0.6 or lower represents, in general, unsatisfactory reliability (Malhotra *et al.*, 1996; Malhotra *et*

*al.*, 2004). The reliability of the scales used in the questionnaire was shown by the Cronbach's alpha, which is frequently used by researchers and its efficiency is recognized for this type of research (Peterson, 1994). SPSS (originally, Statistical Package for the Social Sciences) version 14 software was used as a helpful tool in the analysis of the statistical part of the study. The statistics of Cronbach's alpha and item-to-total correlations was undertaken to assess the internal consistency of the instrument (Nunnally and Bernstein, 1994). Items that had factor loadings lower than 0.30 were deemed to be poor indicators of the construct and were removed from the analysis and hypotheses testing. Item-to-total correlations serve as proxies from the correlations between the observed items and the unobserved latent variable (i.e. the causal pathways from the latent variable to the individual items) (DeVellis, 2003). "Any summated scale should be analyzed for reliability to ensure its appropriateness before proceeding to an assessment of its validity" (Hair *et al.*, 1998, p. 118). Scales are reliable to the extent that they consist of reliable items that share a common latent variable. Coefficient alpha corresponds closely to the classical definition of reliability as the proportion of variance in a scale that is attributable to the true score of the latent variable. Factor Analysis was used to test the validity of the items and to determine the dimensionality of a scale. In essence, factor analysis looks for sets of items that tend to be endorsed across respondents, in other words, it looks for groups of similar items based not on just their content but also on how similarly these items were evaluated by respondents. It was used in this study to see if the same factor structure (same makeup and number of dimensions) applied across the countries studied.

Note that there are items in the questionnaire whose correlations with other items are negative; then the appropriateness of reverse scoring those items was considered (e.g. question 5 of

questionnaire: “I shop quickly, buying the first cell phone that seems good enough”). It was done by changing scores for those items at the time of coding. For instance, items that had their scores reversed were computed “5-strongly agree” for those whose answer was “1-strongly disagree” and computed “4-agree” for those whose answer was “2-disagree” and vice-versa.

### **3.6. Analysis**

For each respondent, an aggregate score for each decision-making style was calculated from the item score (the sum of all items multiplied by their respective principal component). Correlations between observed item responses and a factor representing a latent variable that is not directly observed or measured can be computed by positing the sum of all item responses as a reasonable numerical estimate of the one, all-encompassing variable that is assumed to account for inter-item correlations. This overall sum is an estimate of the latent variables’ “score”. Because the actual scores for all items are presumed to be determined by one latent variable, a quantity combining information from all items (i.e. overall sum) is a reasonable estimate of that latent variable’s numerical value (DeVellis, 2003). Mean scores were then compared for each style using multivariate analysis of variance technique (MANOVA).

The starting point to any multivariate analysis is to define the research problem and the objectives of the analysis in conceptual terms before the researcher specifies the variables or measures. A conceptual model does not need to be complex and detailed; it can be just a simple representation of the relationships studied. For instance, if a relationship of dependence is

established as the research purpose, the researcher needs to specify dependent and independent concepts.

The most adequate multivariate technique depends on whether or not the researcher has dependent and independent variables; how many variables can be treated as dependent ones in a single analysis; and how these variables, dependent or independent, are measured.

MANOVA is a statistics technique that can be used to explore, simultaneously, the relationships between many independent categorical variables and two or more dependent metric variables. This technique appears to be very useful when the researcher plans an experimental situation, dealing with many non-metric variables to test hypotheses regarding the variance in answers of groups about two or more metric dependents (Hair *et al.*, 2005).

After assessing the overall group differences, further analysis to determine the source of these group differences was conducted with post hoc tests (Scheffe) to identify if there were significant differences among groups.

## **4. RESULTS**

A breakdown of the respondents' socio-demographics information from the four countries is listed on table XIII. Socio-demographics questions are important piece of information as they serve as evidence whether or not the researcher is achieving his/her target audience.



Table XIII. Respondents' Socio-demographics data

| Country<br>(No. of respondents)<br>% |                                      | %      | Brazil<br>(108)<br>29.11% | China<br>(52)<br>14.02% | Japan<br>(107)<br>28.84% | USA<br>(104)<br>28.03% |
|--------------------------------------|--------------------------------------|--------|---------------------------|-------------------------|--------------------------|------------------------|
| Sex                                  | Female                               | 50.67% | 47                        | 33                      | 55                       | 53                     |
|                                      | Male                                 | 49.33% | 61                        | 19                      | 52                       | 51                     |
| Marital status                       | Single                               | 54.45% | 65                        | 27                      | 55                       | 55                     |
|                                      | Married                              | 45.01% | 43                        | 25                      | 51                       | 48                     |
|                                      | Other                                | 0.54%  | 0                         | 0                       | 1                        | 1                      |
| Age group                            | 25 or below                          | 26.15% | 38                        | 18                      | 21                       | 20                     |
|                                      | Between 26 - 35                      | 52.02% | 46                        | 20                      | 64                       | 63                     |
|                                      | Between 36 - 45                      | 20.22% | 23                        | 14                      | 20                       | 18                     |
|                                      | Between 46 - 55                      | 1.62%  | 1                         | 0                       | 2                        | 3                      |
| Education level                      | Not a high school graduate           | 2.43%  | 0                         | 2                       | 3                        | 4                      |
|                                      | High school graduate or some college | 26.42% | 42                        | 4                       | 22                       | 30                     |
|                                      | Bachelor's graduate                  | 61.46% | 38                        | 46                      | 79                       | 65                     |
|                                      | Post-graduate and above              | 9.70%  | 28                        | 0                       | 3                        | 5                      |
| Occupation                           | Study only                           | 19.95% | 26                        | 3                       | 22                       | 23                     |
|                                      | Work only                            | 63.07% | 61                        | 32                      | 73                       | 68                     |
|                                      | Work and study                       | 16.71% | 21                        | 17                      | 11                       | 13                     |
|                                      | Retired                              | 0.27%  | 0                         | 0                       | 1                        | 0                      |

For this study, the respondent's income was asked in the currency of his/her country and also in ranges in order to diminish his/her hesitation to answer. In the American, Chinese and Japanese version, it was asked the yearly income since it appears more common in such versions; only in the Portuguese version, it was asked the monthly income since it appears more common in Brazilian questionnaires (perhaps most of the Brazilian respondents would have to make some calculations if their yearly income was asked because they are not used to being asked in this way). Table XIV illustrates the respondents' income. In addition, income ranges considered each country's gross domestic product (GDP) by purchase power parity); therefore, if they are converted into a single currency, they will be different numbers. However, it was appropriate to suit the real income of each country and adequate for the purpose of this thesis. Americans were asked their income range in American dollar; Brazilians, in real; Chinese, in renminbi; and Japanese, in yen.

Table XIV. Number of respondents per income range

| Brazil (monthly)  |    | China (yearly)     |    | Japan (yearly)     |    | USA (yearly)        |    |
|-------------------|----|--------------------|----|--------------------|----|---------------------|----|
| ≤ R\$1,500        | 19 | ≤ RMB 15,000       | 5  | ≤ ¥200,000         | 21 | ≤ US\$20,000        | 21 |
| R\$1,501 - 3,000  | 45 | RMB15,001 - 35,000 | 11 | ¥200,001 - 300,000 | 42 | US\$20,001 - 30,000 | 38 |
| R\$3,001 - 5,000  | 18 | RMB 35,001- 60,000 | 23 | ¥300,001 - 450,000 | 28 | US\$30,001 - 45,000 | 26 |
| R\$5,001 - 10,000 | 22 | RMB 60,001- 85,000 | 9  | ¥450,001 - 650,000 | 7  | US\$45,001 - 65,000 | 12 |
| ≥ R\$10,001       | 4  | RMB 85,001         | 4  | ≥ ¥650,001         | 9  | ≥ US\$65,001        | 7  |

Factor Analysis via Principal Component Analysis was conducted on the 39 items to examine the suitability of the 8-factor model in each country (Brazil, Japan and the USA). Because of the size of the Chinese sample being approximately half of any other three samples (Brazil, Japan, and USA) and the limited amount of time left for research, the researcher decided to leave China out in order to show more consistent and reliable results by comparing similar sample sizes (table XIII). Reliability tests were conducted on all 39 items that were below the thresholds of 0.6 for Cronbach's alpha and 0.3 for item-to-total correlation were removed from further analyses; these "unreliable" items are bolded on table XV. Therefore, 12 items of the original inventory were found to be problematic, as they distorted the factor solution. Deleting these items and working with the 27-item inventory made the study more reliable as it loaded only items above the threshold of 0.6 for Cronbach's alpha and 0.3 for item-to-total correlation, making it a 27-item-inventory and six-factor solution as listed on table XVI. The removal of items measuring price consciousness and impulsive shopping made it unable to analyze these two factors using the MANOVA, which is used to establish the statistical significance of group differences in the whole profile of predictor variables and to reduce the number of predictors for a classification analysis (Huberty, 1984; Montemayor, 1996).

Table XV. Initial reliability results (item-to-total correlations and Cronbach's alpha)

|                  | Brazil                     |                 | Japan                      |                 | USA                        |                 |
|------------------|----------------------------|-----------------|----------------------------|-----------------|----------------------------|-----------------|
|                  | Item-to-total correlations | Factor Loadings | Item-to-total correlations | Factor Loadings | Item-to-total correlations | Factor Loadings |
| Quality 1        | 0.46                       | 0.59            | <b>0.29</b>                | 0.40            | 0.60                       | 0.68            |
| Quality 4        | 0.75                       | 0.84            | 0.62                       | 0.77            | 0.84                       | 0.89            |
| Quality 5        | 0.49                       | 0.61            | 0.31                       | 0.40            | 0.69                       | 0.76            |
| Quality 7        | 0.57                       | 0.71            | 0.64                       | 0.78            | 0.72                       | 0.80            |
| Quality 16       | 0.55                       | 0.67            | 0.52                       | 0.62            | 0.72                       | 0.79            |
| Quality 22       | 0.56                       | 0.68            | 0.55                       | 0.70            | 0.64                       | 0.73            |
| Quality 24       | 0.66                       | 0.77            | 0.53                       | 0.69            | 0.84                       | 0.89            |
| Quality 39       | 0.34                       | 0.45            | 0.62                       | 0.74            | 0.73                       | 0.80            |
| Cronbach's Alpha | 0.83                       |                 | 0.80                       |                 | 0.91                       |                 |
| Brand 15         | 0.55                       | 0.74            | 0.49                       | 0.67            | 0.51                       | 0.67            |
| Brand 29         | 0.47                       | 0.65            | 0.60                       | 0.76            | 0.65                       | 0.79            |
| Brand 31         | 0.47                       | 0.66            | 0.53                       | 0.70            | 0.66                       | 0.80            |
| Brand 33         | 0.56                       | 0.75            | 0.64                       | 0.79            | 0.62                       | 0.77            |
| Brand 34         | 0.60                       | 0.78            | 0.61                       | 0.78            | 0.64                       | 0.79            |
| Cronbach's Alpha | 0.76                       |                 | 0.79                       |                 | 0.82                       |                 |
| Innovative 2     | 0.34                       | 0.50            | 0.48                       | 0.70            | 0.60                       | 0.72            |
| Innovative 12    | <b>0.27</b>                | 0.41            | <b>0.14</b>                | 0.28            | 0.57                       | 0.69            |
| Innovative 20    | 0.48                       | 0.64            | <b>0.02</b>                | 0.05            | 0.42                       | 0.53            |
| Innovative 23    | 0.47                       | 0.65            | 0.40                       | 0.59            | 0.58                       | 0.71            |
| Innovative 36    | 0.58                       | 0.75            | 0.50                       | 0.75            | 0.69                       | 0.80            |
| Innovative 37    | 0.63                       | 0.79            | 0.67                       | 0.85            | 0.73                       | 0.84            |
| Innovative 38    | 0.44                       | 0.62            | <b>0.29</b>                | 0.50            | 0.64                       | 0.76            |
| Cronbach's Alpha | 0.74                       |                 | 0.64                       |                 | 0.84                       |                 |
| Recreation 3     | 0.38                       | 0.58            | 0.67                       | 0.83            | 0.71                       | 0.82            |
| Recreation 8     | 0.35                       | 0.55            | 0.67                       | 0.84            | 0.69                       | 0.79            |
| Recreation 14    | 0.40                       | 0.61            | <b>0.21</b>                | 0.32            | 0.71                       | 0.82            |
| Recreation 27    | 0.63                       | 0.82            | 0.70                       | 0.85            | 0.73                       | 0.84            |
| Recreation 28    | 0.61                       | 0.81            | 0.69                       | 0.83            | 0.78                       | 0.87            |
| Cronbach's Alpha | 0.70                       |                 | 0.79                       |                 | 0.88                       |                 |
| Price 10         | 0.36                       | 0.84            | 0.50                       | 0.89            | 0.61                       | 0.91            |
| Price 13         | <b>0.19</b>                | 0.74            | <b>0.11</b>                | 0.28            | <b>0.12</b>                | 0.31            |
| Price 30         | <b>0.08</b>                | 0.28            | 0.44                       | 0.87            | 0.45                       | 0.86            |
| Cronbach's Alpha | <b>0.35</b>                |                 | <b>0.52</b>                |                 | <b>0.56</b>                |                 |
| Impulse 9        | <b>0.05</b>                | 0.32            | 0.45                       | 0.95            | 0.36                       | 0.83            |
| Impulse 11       | 0.38                       | 0.76            | <b>0.20</b>                | 0.31            | <b>0.25</b>                | 0.46            |
| Impulse 18       | <b>0.18</b>                | 0.51            | 0.32                       | 0.20            | <b>0.12</b>                | 0.11            |
| Impulse 19       | <b>0.17</b>                | 0.53            | <b>0.23</b>                | 0.10            | <b>0.16</b>                | 0.31            |
| Impulse 25       | <b>0.20</b>                | 0.53            | 0.42                       | 0.94            | <b>0.29</b>                | 0.80            |
| Cronbach's Alpha | <b>0.38</b>                |                 | <b>0.56</b>                |                 | <b>0.45</b>                |                 |
| Confused 6       | 0.51                       | 0.80            | 0.64                       | 0.88            | 0.33                       | 0.62            |
| Confused 32      | 0.47                       | 0.77            | 0.34                       | 0.59            | 0.50                       | 0.82            |
| Confused 35      | 0.46                       | 0.76            | 0.71                       | 0.91            | 0.67                       | 0.90            |
| Cronbach's Alpha | 0.67                       |                 | 0.72                       |                 | 0.68                       |                 |
|                  |                            |                 |                            |                 |                            |                 |
| Loyal 17         | 0.49                       | 0.75            | 0.55                       | 0.77            | 0.48                       | 0.73            |
| Loyal 21         | 0.60                       | 0.84            | 0.77                       | 0.91            | 0.64                       | 0.86            |
| Loyal 26         | 0.63                       | 0.86            | 0.69                       | 0.87            | 0.67                       | 0.88            |
| Cronbach's Alpha | 0.75                       |                 | 0.81                       |                 | 0.76                       |                 |

Table XVI. Reliability and validity for final items

|                  | Brazil                     |                 | Japan                      |                 | USA                        |                 |
|------------------|----------------------------|-----------------|----------------------------|-----------------|----------------------------|-----------------|
|                  | Item-to-total correlations | Factor Loadings | Item-to-total correlations | Factor Loadings | Item-to-total correlations | Factor Loadings |
| Quality 4        | 0.73                       | 0.84            | 0.61                       | 0.77            | 0.84                       | 0.89            |
| Quality 5        | 0.49                       | 0.63            | 0.31                       | 0.40            | 0.68                       | 0.76            |
| Quality 7        | 0.57                       | 0.71            | 0.64                       | 0.79            | 0.73                       | 0.81            |
| Quality 16       | 0.55                       | 0.69            | 0.53                       | 0.63            | 0.71                       | 0.78            |
| Quality 22       | 0.56                       | 0.69            | 0.53                       | 0.69            | 0.66                       | 0.75            |
| Quality 24       | 0.64                       | 0.77            | 0.53                       | 0.70            | 0.84                       | 0.89            |
| Quality 39       | 0.35                       | 0.47            | 0.63                       | 0.76            | 0.73                       | 0.80            |
| Cronbach's Alpha | 0.82                       |                 | 0.80                       |                 | 0.92                       |                 |
|                  |                            |                 |                            |                 |                            |                 |
| Brand 15         | 0.55                       | 0.74            | 0.49                       | 0.67            | 0.51                       | 0.67            |
| Brand 29         | 0.47                       | 0.65            | 0.60                       | 0.76            | 0.65                       | 0.79            |
| Brand 31         | 0.47                       | 0.66            | 0.53                       | 0.70            | 0.66                       | 0.80            |
| Brand 33         | 0.56                       | 0.75            | 0.64                       | 0.79            | 0.62                       | 0.77            |
| Brand 34         | 0.60                       | 0.78            | 0.61                       | 0.78            | 0.64                       | 0.79            |
| Cronbach's Alpha | 0.76                       |                 | 0.79                       |                 | 0.82                       |                 |
|                  |                            |                 |                            |                 |                            |                 |
| Innovative 2     | 0.35                       | 0.59            | 0.56                       | 0.78            | 0.60                       | 0.77            |
| Innovative 23    | 0.40                       | 0.67            | 0.39                       | 0.62            | 0.63                       | 0.80            |
| Innovative 36    | 0.55                       | 0.80            | 0.50                       | 0.73            | 0.68                       | 0.83            |
| Innovative 37    | 0.58                       | 0.82            | 0.67                       | 0.85            | 0.76                       | 0.88            |
| Cronbach's Alpha | 0.68                       |                 | 0.73                       |                 | 0.83                       |                 |
|                  |                            |                 |                            |                 |                            |                 |
| Recreation 3     | 0.35                       | 0.59            | 0.71                       | 0.84            | 0.72                       | 0.85            |
| Recreation 8     | 0.33                       | 0.57            | 0.73                       | 0.85            | 0.67                       | 0.81            |
| Recreation 27    | 0.65                       | 0.84            | 0.73                       | 0.86            | 0.71                       | 0.85            |
| Recreation 28    | 0.64                       | 0.84            | 0.68                       | 0.82            | 0.75                       | 0.87            |
| Cronbach's Alpha | 0.69                       |                 | 0.86                       |                 | 0.86                       |                 |
|                  |                            |                 |                            |                 |                            |                 |
| Confused 6       | 0.51                       | 0.80            | 0.64                       | 0.88            | 0.33                       | 0.62            |
| Confused 32      | 0.47                       | 0.77            | 0.34                       | 0.59            | 0.50                       | 0.82            |
| Confused 35      | 0.46                       | 0.76            | 0.71                       | 0.91            | 0.67                       | 0.90            |
| Cronbach's Alpha | 0.67                       |                 | 0.72                       |                 | 0.68                       |                 |
|                  |                            |                 |                            |                 |                            |                 |
| Loyal 17         | 0.49                       | 0.75            | 0.55                       | 0.77            | 0.48                       | 0.73            |
| Loyal 21         | 0.60                       | 0.84            | 0.77                       | 0.91            | 0.64                       | 0.86            |
| Loyal 26         | 0.63                       | 0.86            | 0.69                       | 0.87            | 0.67                       | 0.88            |
| Cronbach's Alpha | 0.75                       |                 | 0.81                       |                 | 0.76                       |                 |

The multivariate statistic for MANOVA was found to be statistically significant (Wilk's Lambda = 0.653,  $F = 4.81$ ,  $p < 0.01$ ). This result suggested that the mean vectors of predictor variables were different in at least one group (Brazil, Japan, or the USA). Levene test results also indicated that no violation of the homogeneity of variance ( $p < 0.05$ ) was observed in decision-making styles variables: quality (0,002), brand (0,007), innovative (0,00), recreation (0,003), confused (0,005), and loyal (0,008). Table XVII shows all mean scores derived from the three countries. Sheffe's tests also indicated particular pairs of group mean differences which are bolded on table XVII.

Table XVII. Cross-cultural differences in decision-making styles

| CSI Styles | Brazil Mean | Japan Mean   | USA Mean     | Hypothesis                        | Support for hypotheses |
|------------|-------------|--------------|--------------|-----------------------------------|------------------------|
| Quality    | 16.18       | 12.00        | 18.49        | H <sub>1</sub>                    | Yes                    |
| Brand      | 9.66        | 8.21         | 11.90        | H <sub>2</sub>                    | Yes                    |
| Innovative | 7.16        | 8.14         | 10.66        | H <sub>3</sub> and H <sub>4</sub> | Yes                    |
| Recreation | 6.42        | <b>10.37</b> | <b>11.00</b> | H <sub>5</sub>                    | Yes                    |
| Confused   | <b>6.41</b> | 7.78         | <b>6.30</b>  | H <sub>8</sub>                    | No                     |
| Loyal      | 8.68        | <b>7.80</b>  | <b>7.68</b>  | H <sub>9</sub>                    | Yes                    |

The MANOVA results are presented in table XVII with six of the seven hypotheses supported. Note that since China's data were left out of the analysis, the hypotheses testing was narrowed down to cultures of three countries: Brazil, Japan, and the USA (i.e. only the mean scores from Brazil, Japan, and the USA were compared).

Hypothesis 1, "*Consumers from individualistic cultures tend to be more quality conscious than consumers from collectivistic cultures.*", was supported as there were significant differences between those cultures (note that China was left out of the analysis) and among them, Americans show to be the most quality conscious; Brazilians after the Americans and lastly, the Japanese.

Hypothesis 2, “*Consumers from individualistic cultures are more brand conscious than consumers from collectivistic cultures.*”, was supported with a significant difference which Americans are the most brand conscious, and then Brazilians and Japanese last.

Hypothesis 3, “*Consumers from individualistic cultures are more innovative than consumers from collectivistic cultures.*”, was supported with a significant difference.

Hypothesis 4, “*Consumers from masculine cultures are more innovative than consumers from feminine cultures.*”, was supported with a significant difference.

Hypothesis 5, “*Consumers from individualistic cultures are more likely to practice hedonistic cell phone shopping than consumers from collectivistic cultures.*”, was supported with a significant difference which Brazilians show to practice less hedonistic cell phone shopping compared to Americans and Japanese whom do not show a significant difference.

Hypothesis 6, “*Consumers from collectivistic cultures are less price conscious than consumers from individualistic cultures.*”, and Hypothesis 7, “*Consumers from individualistic cultures are more impulsive buyers than consumers from collectivistic cultures.*”, were not able to prove since they could not be tested due to the lack of reliability amongst the items.

Hypothesis 8, “*Consumers from individualistic cultures are expected to be more confused by overchoice than consumers from collectivistic cultures.*”, was not supported as the Japanese

show to be the most confused by overchoice and no significant difference between Americans and Brazilians.

Hypothesis 9, “*Consumers from collectivistic or large power distance cultures are more brand loyal than consumers from individualistic or small power distance cultures.*”, was supported as there was significant difference between Brazilians and the other two cultures (American and Japanese); however, there was no significant difference between them.

## **5. CONCLUSIONS**

The findings show mixed evidence for the application of Hofstede’s cultural dimensions to Americans, Brazilians, and Japanese decision-making styles. One must be cautious when applying these schemes to global buyer behavior. It is important to bear in mind that these four Hofstede’s cultural dimensions and the respective country scores that were derived from Hofstede’s work were not determined in a consumer context. In fact, questions have been raised about the ability of these values to make meaningful prediction about consumption patterns (De Mooij, 1994).

It appears to be that even though a country receives a classification with cultural characteristics of Hofstede’s typology of culture; these characteristics do not interact with each other. For instance, quality conscious decision-making style relates to large power distance cultures but also to individualistic cultures, therefore; if power distance dimension stands out, Brazilians

would be more quality conscious, and if individualism stands out, then Americans would be more quality conscious.

Similarly, a brand conscious decision-making style is a characteristic of large power distance culture and individualistic culture as well. So, if the power distance dimension stands out, Brazilians would be the most brand conscious among these three, and if the individualism dimension stands out, then Americans would be the most brand conscious. In this type of decision-making style, individualism stood out, so Americans are the most brand conscious.

Recreation conscious or hedonistic shopping refers to the extent to which shopping is considered pleasurable and fun (Sproles and Kendall, 1986); moreover, hedonism is related to individualistic cultures matching with the results as Americans and Japanese showed to practice more hedonistic shopping than Brazilians.

Innovative consumers are prevalent characteristics of individualistic, masculine and low uncertainty avoidance cultures. Among these three cultures, Japan scores higher in masculinity and also higher in uncertainty avoidance; the USA scores higher in individualism and lower in uncertainty avoidance. Brazilians belong to a collectivistic, masculine and high uncertainty avoidance society. This example shows clearly how these dimensions do not interact with each other. The results showed that Americans are the most innovative ones; followed by the Japanese and finally, the Brazilians. For this specific situation, the dimension of individualism stood out followed by the masculinity and then the uncertainty avoidance.



Price-value and impulsive shopping decision-making styles could not be identified accurately because of the reliability and validity reasons. It is important in the future to do more studies in these two styles to understand why they were unable to be identified and to see if CSI is applicable to any population sample or just to the population where the original CSI was applied (i.e. female college students in the USA).

Confusion by overchoice is a characteristic of an individualistic culture. Among these three cultures, Brazil, Japan, and the USA, the Japanese showed to be the most confused by overchoice, and Americans, the least. Further research is necessary to analyze if this situation happened only because the product in concern was a cell phone or not since the literature indicates that individualistic cultures tend to have a more confused by overchoice decision-making style.

Brand loyal decision-making style is a characteristic of a large power distance and collectivistic culture. Brazilians showed to be the most brand loyal followed by Japanese and Americans. The results are in line with the theory which states that Brazilians belong to a larger power distance and more collectivistic culture than American or Japanese culture.

Yi and Park (2003) found that culture may not be a stagnant phenomenon, and more variables should be explored to accurately evaluate cultural differences in decision-making styles. Further research is needed for a better understanding on consumer behavior and how they make decisions. When researching, one will realize those individual characteristics can be grouped in a

few main consumer styles. Moving forward, there is a significant correlation between consumer style and the culture where the members of the same society are embedded.

### **Managerial implications**

There are a number of managerial implications that can be extracted from the research. This study aimed to contribute to the literature and to the management arena by helping them to identify how national culture influences consumers' decision-making styles.

Companies that are planning to enter new markets, but do not know in depth about them may use the presented framework (i.e. framework that correlates Hofstede's cultural dimensions and Sproles and Kendall Consumer Style Inventory) to obtain a better understanding and evaluate whether or not it is the best decision to draw companies initial offer in the specific markets.

In addition to that, if a company plans to launch a determined product with very clear attributes (e.g. quality, brand, price, etc), meaning that the majority of potential buyers share similar opinions regarding this specific product, it can make a comparison with a competitive product which can be either from its own company or from its competitor to define how it is going to put in practice its marketing plan and to see in which countries, the company may enter first if it is planning to launch the product in more than one country.

The results of the current study show that there is a significant difference on decision-making styles depending on the culture a consumer is inserted in. Managers who are working with

different markets might use different approaches to launch their products since consumers from different cultures respond differently to the same marketing program, product, or service.

From the literature review, it is seen that even though the product, in this case, a cell phone, which is a product that is used worldwide; however, the places, the length of time, the purposes, and the format, and functions for the same product (i.e. cell phone) vary depending on the country it is used. For instance, many consumers in Brazil use the cell phone to receive and make calls; at most, they use it to text messages, but in Japan, many Japanese use it to play games or as a credit card. It is a safe approach to listen what the market wants so international managers can better allocate their resources. For instance, in China, it is very rare to find flip phones at cell phone stores; however, in Japan, flip phones are usually the most popular cell phone styles available at stores. This might be a sign showing what different markets are asking for.

An implication that deserves some attention is that the original purpose of a cell phone was to connect the cell phone user to someone who he wanted and vice-versa. Now, the cell phone has gained many more functions. Cell phone carriers were offering only voice packages, but now they are offering voice and data packages. For instance, how far away would people start shopping through their cell-phones? Do landline phones have a deadline to be extinguished?

### **Limitations and directions for further research**

This thesis has a number of limitations that are listed below. These limitations can also be subject matters for further research.

Only respondents who actually really have purchased a cell phone in the past three years were selected for this study to allow objective evaluation of the results (Malhotra *et al.*, 2004). Other types of sampling techniques for future studies may look at stratified or purposive sampling depending on the nature of the study and whether it is aimed at generalization. For instance, stratification could be used to differentiate between the ethnic groups of African-American, Hispanics, Asian-Americans, Caucasian in the USA; or to differentiate between gender or age ranges of a specific culture. However, for the purpose of this study, selection of respondents by convenience was deemed appropriate. Future research could use stratified sampling to explore a specific market which the researchers are interested in exploring.

The study tested only three countries empirically. The results are not intended to be generalizable. Further research is suggested to ensure the validity and reliability of the existing studies in this area. Moreover, to gain a better and more general overview of this research area, future studies may expand the sample to include other nations with similar market profile. From Table I, it is clear that India, Russia, and Germany are big cell phone markets but there is really a few work published about those countries.

The study was cross-sectional as it was done at one point in time. This is a limitation and also an avenue for future research as future studies may examine a longitudinal study. Moreover, there were two decision-making styles (i.e. price and impulsive shopping) that were unable to be identified due to validity and reliability reasons. Therefore, further research may be useful to analyze if there are any issues with the two decision-making styles.

In the past decades, cell phones have gone through many radical improvements, and have gained more functions. Each country has a distinct cultural background and different countries have different market needs. Companies may explore what are the expectations and desires that consumers from different countries are looking for. For instance, while Japanese consumers might be looking for cell phones which take high resolution pictures and play high definition videos, Brazilian consumers might be looking for cell phones with a music player function. In this line of thought, future studies may explore a way to reduce the gap by conciliating different cultures and different market demand.

Quality is the sum of several different, heterogeneous aspects, some of which involve different subjects: interpreters, clients, users, speakers; each with a different view and perception of quality. There are variations even within the same group: among users, quality expectations tend to vary, but also individual tastes and criteria, often related to socio-linguistic factors (Garzone, 2002). Quality is not intrinsic to an object. Like beauty, which is a property attributed to an object or work of art, quality is not a neutral feature but might also be ascribed to the much-cited eye of the beholder (Schrödter, 2001). Different observers are unlikely to have a common definition of what constitutes quality. In this line of thought, future studies might explore different definitions of quality according to the culture that individuals are embedded (e.g. a high-quality cell phone can be one thing for Americans and another thing for Chinese).

This thesis has selected Hofstede's cultural dimensions typology as a tool to measure four different cultures. Hofstede's model was developed in the 80's when he came up with four significant cultural dimensions (power distance, uncertainty avoidance,

individualism/collectivism, and masculinity/femininity) after running more than 100,000 questionnaires for five years at the IBMs around the world. Applying the questionnaires in a single company allowed him to avoid other variables such as different corporate culture or a very heterogeneous sample (i.e. individuals who only work or only study). Later on, Hofstede has added a fifth dimension called long-term orientation which measures the degree to which people delay gratification of their material, social and emotional needs. Although, Hofstede has updated his “cultural model” in these past years (i.e. he has published books and articles in the 2000’s about culture) and many researchers use his model as a way to measure culture, there are other more recent tools to measure culture developed by well-known cross-cultural researchers such as Fons Trompenaars , Charles Hampden-Turner, Edward T. Hall, etc; so, future researchers may use other tools besides Hofstede’s one to measure culture as well.

For the American sample, the respondents were from the states of New Jersey and New York. These two states offer a range of distinct communities that cultivates their own cultures such as Latin-American, Arabian, Chinese, and so on, even though, many generations of a determined family were born and raised in the USA. So, future studies may explore if samples from these two states may or may not reflect the true image of American consumers.

This thesis has adapted Sproles and Kendall’s (1986) original questionnaire to make it appropriate for collecting the necessary and specific data about the research’s subject matter. The questionnaire suffered a few changes: it was originally about general shopping and it was adapted to shopping for cell phones specifically. After adapting the questionnaire in English (i.e the original questionnaire was created in English), the researcher has translated it into three

different languages. Future researchers interested in this topic may use this questionnaire either in Chinese, English, Japanese, or Portuguese as a helpful tool to do their studies. Moreover, future studies may take advantage of the scale that this present thesis has prepared in order to compare different cultures. Future studies may also take this research further to either extend it to more countries or to collect a bigger sample size to increase the validity of its results.

Researchers may take this thesis framework a little further to analyze specific cell phone companies' offers and then explore the reasons for possible successes or failures in launching determined type of cell phone in a determined type of market. So, they could study cell phones from Nokia, Motorola, LG, Sony Ericsson, or any other cell phone company.

The theme of this thesis has called attention about the impact of the culture on consumers' decision-making style. Culture is a dynamic process and it is constantly changing over time. The cultural changes can be seen in the behavior, values, norms, thoughts, and actions from a group of members. Similarly, the needs and desires from this group of members change over time. So, this thesis contributed to go a step further about understanding this relationship: national culture and decision-making styles. It also hopes to inspire new studies and to open new horizons to explore this relationship.

## REFERENCES

- Abrahams, B. (1997), "It's all in the mind". Marketing. March 27, pp. 31-33.
- American Psychological Association (2001), Publication Manual of the American Psychological Association, 5<sup>th</sup> edition.
- Balabanis, G. and Craven, S. (1997), "Consumer confusion from own brand lookalikes: an exploratory investigation", *Journal of Marketing Management*, Vol. 13, pp. 299-313.
- Bayley, G. and Nancarrow, C. (1998), "Impulsive purchasing: a qualitative exploration of the phenomenon", *Qualitative Market Research*, Vol. 1 No. 2, pp. 99-114.
- Bellenger, D.N. and Korgaonkar, P.R. (1980), "Profiling the recreational shopper", *Journal of Retailing*, Vol. 56 No. 3, pp. 77-91.
- Bennett, P.D. and Kassarian, H.H. (1972), *Foundations of marketing series: consumer behavior*, New Jersey: Prentice-Hall.
- Brewer-Doran, K. (2002), "Lessons learned in cross cultural research of Chinese and North American consumers", *Journal of Business Research*, Vol. 55, pp.823-829.
- Brodbeck, F.C., Frese, M. and Javidan, M. (2002), "Leadership made in Germany: low on compassion, high on performance", *Academy of Management Executive*, Vol. 16 Issue 1, February, pp.16-29.
- Botelho, D. and Almeida (2006), "Construção de Questionários" in Botelho, Delane & Deborah Moraes Zouain org. *Pesquisa Quantitativa em Administração*, Editora Atlas, pp. 90-108.
- Canabal, M.E. (2002), "Decision making styles of young South Indian consumers: an exploratory study", *College Student Journal* (01.Mar.02)
- Central Intelligence Agency (2008), The World Factbook. Retrieved July 02, 2008 from <http://www.cia.gov/library/publications/the-world-factbook/rankorder/2151rank.html>
- Dalgic, T. and Heijblom, R. (1996), "International marketing blunders revisited - some lessons for managers", *Journal of International Marketing*, Vol. 4 No. 1, pp. 81-91.
- Darden, W.R. and Ashton, D. (1974), "Psychographics profiles of patronage preference groups", *Journal of Retailing*, Vol. 50 No. 4, pp. 99-112.
- Darden, W.R. and Reynolds, F.D. (1971), "Shopping orientations and product usage roles", *Journal of Market Research*, Vol. 8, pp. 505-508.



- Dawar, N. and Parker, P. (1994), "Marketing universals: consumers' use of brand name, price, physical appearance, and retailer reputation as signals of product quality", *Journal of Marketing*, Vol. 58, April, pp. 81-95.
- Delener, N. (1990), "The effects of religious factors on perceived risk in durable goods purchase decision", *Journal of Consumer Marketing*, Vol. 7 No.3, Summer, pp. 27-38.
- De Mooij, M. (1994), *Advertising Worldwide*, New York, NY: Prentice-Hall.
- De Mooij, M. (1998), *Global Marketing and Advertising*, Thousand Oaks, CA: Sage Publications.
- De Mooij, M. (2004), *Consumer Behavior and Culture: Consequences for Global Marketing and Advertising*, Sage, Thousand Oaks, CA.
- DeVellis, R.F. (2003), *Scale development: theory and applications*, Newbury Park, CA: Sage Publications.
- Dollinger, M.J. and Danis, W. (1998), "Preferred decision-making styles: A cross-cultural comparison", *Psychological Reports*, Vol. 82 No. 3, June, pp. 755-762.
- Durvasula, S., Lysonski, S. and Andrews, J.C. (1993), "Cross-cultural generalisability of a scale for profiling consumers' decision-making styles", *The Journal of Consumer Affairs*, Vol. 27 No. 1, pp. 55-65.
- Engel, J.F., Blackwell, R.D. and Miniard, P.W. (1993), *Consumer Behavior*, Fort Worth, TX, The Dryden Press.
- Erbring, L. and Young, A.A. (1979), "Individuals and social structure: contextual effects as endogenous feedback", *Sociological Methods and Research*, Vol. 7, May, pp. 396-430.
- Essoo, N. and Dibb, S. (2004), "Religious influences on shopping behavior: an exploratory study", *Journal of Marketing Management*, Vol. 20 No. 7/8, September, pp. 683-712.
- Fan, J.X. and Xiao, J.J. (1998), "Consumer decision-making styles of young-adult Chinese", *The Journal of Consumer Affairs*, Vol. 32 No. 2, pp. 275-293.
- Foxall, G.R. (1988), "Consumer innovativeness: novelty seeking, creativity, and cognitive style", in Hirschman, E.C., Sheth, J.N. (Eds), *Research in Consumer Behavior*, JAI Press, Greenwich, CT, Vol. Vol. 3, pp.79-113.
- Foxman, E.R., Meuhling, D.D. and Berger, N.W. (1990), "An investigation of factors contributing to consumer brand confusion", *Journal of Consumer Affairs*, Vol. 24, pp. 170-189.
- Furnham, A. and Okamura, R. (1999), "Your money or your life: behavioral and emotional predictors of money", *Human Relations*, Vol. 52 No. 9, pp. 1157-1177.

- Furnham, A., Kirkcaldy, B. and Lynn, R. (1994), "National attitudes to competitiveness, money and work among young people: first, second and third world differences", *Human Relations*, Vol. 47 No. 1, pp. 119-132.
- Furrer, O., Liu, B.S.C. and Sudharshan, D. (2000), "The relationship between culture and service quality perceptions - basis for cross-cultural market segmentation and resource allocation", *Journal of Service Research*, Vol. 2 No. 4, pp. 355-371.
- Garzone, G. (2002), "Quality and norms in interpretation" in G. Garzone & M. Viezzi (Eds.), *Interpreting in the 21st Century, Challenges and Opportunities*, Amsterdam/Philadelphia: John Benjamins, pp. 107-119.
- Gatignon, H., Eliashberg, J. and Robertson, T.S. (1989), "Modeling multinational diffusion patterns: an efficient methodology", *Marketing Science*, Vol. 8 No. 3, pp. 231-247.
- Gerbing, D.W. and Anderson, J.C. (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment", *Journal of Marketing Research*, Vol. 25 May, pp. 186-192.
- Ha, C. L. (1998), "The theory of reasoned action applied to brand loyalty", *Journal of Product & Brand Management*, Vol. 7 Issue 1, pp. 51-61.
- Hafstorm, J.L, Chae, J.S. and Chung, Y.S. (1992), "Consumer decision-making styles comparison between United States and Korean young consumers", *The Journal of Consumer Affairs*, Vol. 26 No. 1, pp. 146-158.
- Hair, J., Anderson, R.E. and Tatham, R.L. (1998), *Black WC Multivariate Data Analysis*, 5<sup>th</sup> edition, Englewood Cliffs, NJ, Prentice-Hall.
- Hair, J., Black B., Babin, B and Anderson, R. (2005), *Multivariate Data Analysis*, 6<sup>th</sup> edition, Englewood Cliffs, NJ, Prentice-Hall.
- Hirschman, E.C. (1980), "Innovativeness, novelty seeking, and consumer creativity", *Journal of Consumer Research*, Vol. 7, December, pp. 283-295.
- Hirschman, E.C. (1981a), "American Jewish ethnicity: its relationship to some selected aspects of consumer behavior", *Journal of Marketing*, Vol. 45, Summer, pp. 102-110.
- Hirschman, E.C. (1981b), "Attributes of attributes and layers of meaning," in *Advances in Consumer Research*, Vol. 7, J. C. Olson, ed., Ann Arbor: Association for Consumer Research.
- Hirschman, E.C. and Holbrook, M.B. (1982), "Hedonic consumption: emerging concepts, methods and propositions", *Journal of Marketing*, Vol. 46, Summer, pp. 92-101.
- Ho, D.Y.F. (1976), "On the concept of face", *American Journal of Sociology*, Vol. 81 No. 4, pp. 867-884.

- Ho, D.Y.F. (1994), "Cognitive socialization in Confucian heritage cultures" In Patricia M. Greenfield & Rodney R. Cocking (Eds.), *Cross-cultural roots of minority child development*, Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., pp. 2885-2913.
- Hofstede, G. (1984), *Culture's consequences: international differences in work-related values*, Beverly Hills, CA: Sage Publications.
- Hofstede, G. (1991), *Cultures and organizations: software of the mind*, London: McGraw-Hill.
- Hofstede, G. (2001), *Culture's consequences: comparing values behaviors, institutions, and organizations across nations*, London: Sage Publications.
- Holbrook, M.B. (1980), "Some preliminary notes on research in consumer esthetics" in *Advances in Consumer Research*, Vol. 7, J.C. Olson, ed., Ann Arbor: Association for Consumer Research.
- Hong, J.W., Muderrisoglu, A. and Zinkham, G.M. (1987), "Cultural differences and advertising expression: a comparative content analysis of Japanese and US magazine advertising", *Journal of Advertising*, Vol. 16 No. 1, pp. 55-62.
- Hsu, F.L.K. (1970), *Americans and Chinese: Reflections on Two Cultures and Their People*, Doubleday, National History Press, New York, NY.
- Huberty, C.J. (1984), "Issues in the use and interpretation of discriminant analysis", *Psychological Bulletin*, Vol. 95 No. 1, pp 156-171.
- Hui, H.C. and Triandis, H.C. (1985), "Measurement in cross-cultural psychology: a review and comparison of strategies", *Journal of Cross-Cultural Psychology*, Vol. 16, June, pp. 131-152.
- Invention Index. (2004). In Massachusetts Institute of Technology. Retrieved July 2, 2008 from <http://www.web.mit.edu/invent/n-pressreleases/n-press-04index.html>
- Jacoby, J. (1984), "Perspectives on information overload and decision quality", *Journal of Consumer Research*, Vol. 14 No. 4, pp. 432-436.
- Jacoby, J. and Chestnut, R.W. (1978), *Brand Loyalty: Measurement and Management*, New York, NY, John Wiley & Sons.
- Jain, A.K. and Joy, A. (1997), "Money matters: an exploratory study of the socio-cultural context of consumption, saving and investment patterns", *Journal of Economic Psychology*, Vol. 18, pp. 649-675.
- Kacen, J.J. and Lee, J.A. (2002), "The influence of culture on consumer impulsive buying behavior", *Journal of Consumer Psychology*, Vol. 12 No. 2, pp. 163-176.

- Kagitcibasi, C. (1997), "Individualism and collectivism" in Berry, J.W., Segall, M.H., and Kagitcibasi, C. (Eds), *Social Behavior and Applications*, 2d ed., *The Handbook of Cross-Cultural Psychology*, Vol. 3, Allyn and Bacon, Boston, MA, pp. 1-49.
- Kapferer, J.N. (1995a), "Brand confusion: empirical study of a legal concept", *Psychology and Marketing*, Vol. 12 No.6, pp. 551-568.
- Kapferer, J.N. (1995b), "Stealing brand equity: measuring perceptual confusion between national brands and 'copycat' own label products", *Marketing and Research Today*, pp. 96-102.
- Kim, H.S. and Droplet, A. (2003). "Choice and self-expression: a cultural analysis of variety seeking", *Journal of Personality and Social Psychology*, Vol. 85 No. 2, pp.373-382.
- Kim, U., Triandis, H.C., Kagitcibasi, C., Choi, S. and Yoon, G. (1994), Introduction. In U. Kim, H. C. Triandis, C. Kagitcibasi, S. Choi, & G. Yoon (Eds.), *Individualism and collectivism: theory, method, and applications*, Thousand Oaks, CA: Sage Publications, pp. 1-16.
- Kotabe, M. and Helsen, K. (2004), *Global Marketing Management*, 3<sup>rd</sup> edition, Hoboken, NJ, John Wiley & Sons.
- Lam, D. (2007), "Cultural influence on proneness to brand loyalty", *Journal of International Consumer Marketing*, Vol. 19 Issue 3, pp. 7-21.
- Lastovicka, J.L. (1982), "On the Validation of Lifestyle Traits: A Review and Illustration", *Journal of Marketing Research*, Vol. 19, February, pp. 126-138.
- Lee, C. and Green, R.T. (1991), "Cross cultural examinations of the Fishbein behavioral intentions model", *Journal of International Business Studies*, Vol. 22, pp. 289-305.
- Leek, S. and Chansawatkit, S. (2006), "Consumer confusion in the Thai mobile phone market", *Journal of Consumer Behavior*, forthcoming.
- Leek, S. and Kun, D. (2006), "Consumer confusion in the Chinese personal computer market", *Journal of Product & Brand Management*, Vol. 15 No. 3, pp. 184-193.
- Leo, C., Bennet, R. and Hartel, C. (2005), "Cross-cultural differences in consumer decision-making styles", *Cross Cultural Management*, Vol. 12 No. 3, pp. 32-61.
- Levy, S.J. (1959), "Symbols for sale", *Harvard Business Review*, Vol. 37, July-August, pp. 117-119.
- Loken, B., Ross, I. and Hinkle, R.L. (1986), "Consumer confusion of origin and brand similarity perceptions", *Journal of Public Policy and Marketing*, Vol. 5, pp. 195-211.
- Lowe, A.C.T. and Corkindale, D.R. (1998), "Differences in "cultural values" and their effects on responses to marketing stimuli: a cross-cultural study between Australians and Chinese from the People's Republic of China", *European Journal of Marketing*, Vol. 32 No. 9/10, pp. 943-867.

- Lynn, M., Zinkhan, G.M. and Harris, J. (1993), "Consumer Tipping: A Cross-Country Study", *Journal of Consumer Research*, Vol. 20, December, pp. 478-488.
- Lysonski, S., Durvasula, S. and Zotos, Y. (1996), "Consumer decision-making styles a multi-country investigation", *European Journal of Marketing*, Vol. 30 No. 12, pp. 10-21.
- Maheswaran, D. and Shavitt, S. (2000), "Issues and new directions in global consumer psychology", *Journal of Consumer Psychology*, Vol. 9 No. 2, pp. 59-66.
- Malhotra, N.K., Agarwal, J. and Peterson, M. (1996), "Methodological issues in cross-cultural research. A state-of-the-art review", *International Marketing Review*, Vol. 13 No. 5, pp. 7-43.
- Malhotra, N.K., Hall, J., Shaw, M. and Oppenheim, P.P. (2004), *Essentials of marketing research: An applied orientation*, Frenchs Forest, NSW, Prentice Hall.
- Manrai, L.A., Lascu, D.N., Manrai, A.K. and Babb, H.W. (2001), "A cross-cultural comparison of style in Eastern Europe emerging markets", *International Marketing Review*, Vol. 18 No. 3, pp. 270-285.
- Markus, H. and Kitayama, S. (1991), "Culture and the self: implications for cognition, emotion, and motivation", *Psychological Review*, Vol. 98 No. 2, pp. 224-253.
- Maxwell, S. (2001), "An expanded price/brand effect model. A demonstration of heterogeneity in global consumption", *International Marketing Review*, Vol. 18 No. 3, pp. 325-343.
- Midgley, D.F. and Dowling, G.R. (1978), "Innovativeness: the concept and its measurement", *Journal of Consumer Research*, Vol. 4, March, pp. 229-242.
- Mitchell, V.W. and Bates, L. (1998), "UK consumer decision making style", *Journal of Marketing Management*, Vol. 14, pp. 199-225.
- Mitchell, V.W. and Papavassiliou, V. (1999), "Marketing causes and implications of consumer confusion", *Journal of Product & Brand Management*, Vol. 8 No. 4, pp. 319-339.
- Mitchell, V.W., Walsh, G. and Yamin, M. (2004), "Toward a conceptual model of consumer confusion", *paper presented at the ACR Conference*, Portland, OR, 7-10 October.
- Mogelonsky, M. (1998), "Keep candy in the aisles", *American Demographics*, 20, pp. 32.
- Montemayor, E. F. (1996), "Congruence between pay policy and competitive strategy in high-performance firms", *Journal of Management*, Vol. 22 No. 6, pp. 889-908.
- Mowen, J.C. (1995), *Consumer Behavior*, 4th ed. Englewood Cliffs, NJ: Prentice Hall.
- Nunnally, J. and Bernstein, I.H. (1994), *Psychometric theory*, 3<sup>rd</sup> edition, New York: McGraw-Hill.

- Osland, G.E. (1990), "Doing business in China: a framework for cross-cultural understanding", *Marketing Intelligence & Planning*, Vol. 8 No. 4, pp. 4-14.
- Palumbo, F. and Herbig, P. (2000), "The multicultural context of brand loyalty", *European Journal of Innovation Management*, Vol. 3. No. 3, pp. 116-125.
- Plant, S. (2001), "*The effects of mobile telephones on social and individual life*", Motorola Report, pp. 1-45.
- Poiesz, T.B.C. and Verhallen, T.M.M. (1989), "Brand confusion in advertising", *International Journal of Advertising*, Vol. 8, pp. 231-244.
- Robinson, C. (1995), "Asian culture", *Journal of the Market Research Society*, Vol. 38 No. 1, pp. 55-63.
- Rogers, E.M. (1983), *Diffusion of Innovations*, 3rd edition. New York: The Free Press.
- Rook, D.W. (1987), "The buying impulse", *Journal of Consumer Research*, Vol. 14, pp. 189-199.
- Roth, M.S. (1995), "The effects of culture and socioeconomics on the performance of global brand image strategies" *Journal of Marketing Research*, Vol. 32, May, pp. 163-175.
- Schrödter, M. (2001), Qualität in der sozialen Arbeit. Zur Rekonstruktion des Gültigkeitskriteriums professionalisierten Handelns. Retrieved December 11, 2008 from <http://www.uni-bielefeld.de/>
- Schwartz, S.H. (1994), "Beyond individualism/collectivism: new cultural dimensions of values" in *Individualism and collectivism: theory, method, and applications*, U. Kim et al., eds. Thousand Oaks, CA: Sage Publications, pp. 85-119.
- Sfiligoj, E. (1996), (June 30) "Helping the title guy to merchandise". Periscope, 20.
- Shim, S. (1996), "Adolescent consumer decision-making styles the consumer socialization perspective", *Psychology and Marketing*, Vol. 13 No. 6, pp. 547-569.
- Singer, J.L. (1966), *Daydreaming: an introduction to the experimental study of inner experience*, New York: Random House.
- Smith, D. (1996), "The joy of candy", National Petroleum News Supplement, S2.
- Smith, P.B. and Schwartz, S.H. (1997), "Values" in *Handbook of Cross-Cultural Psychology*, Vol. 3, Social Behavior and Applications, 2d ed.
- Sood, J. and Nasu, Y. (1995), "Religiosity and nationality: an exploratory study of their effect on consumer behavior in Japan and The United States", *Journal of Business Research*, Vol. 34, pp. 1-9.

- Sproles, G.B. (1985), "From perfectionism to fadism: measuring consumers' decision-making styles", in Schnittgrund, K.P. (Ed.), *Proceedings, American Council on Consumer Interests*, ACCI, Columbia, MO, pp. 79-85.
- Sproles, G.B. and Kendall, E.L. (1986), "A methodology for profiling consumers' decision-making styles", *Journal of Consumer Affairs*, Vol. 24 No.1, pp. 134-147.
- Sproles, G.B. and Kendall, E. (1990), "Consumer decision-making styles as a function of individual learning styles", *Journal of Consumer Affairs*, Vol. 24 No. 1, pp. 134-47.
- Swasy, A. (1993), "The prince of darkness", *Advertising Age*, Vol. 64 Issue 40, September, pp. 16-19.
- Tai, S.H.C. (2005), "Shopping styles of working Chinese females", *Journal of Retailing and Consumer Services*, Vol. 12 No. 3, pp. 191-203.
- Terpstra, V. and David, K. (1991), "The cultural environment of international business", Cincinnati, OH, South-Western Publishing Co.
- Thompson, C.J., Locander, W.B. and Pollio, H.R. (1990), "The lived meaning of free choice: an existential-phenomenological description of everyday consumer experience of contemporary married women", *Journal of Consumer Research*, Vol. 17, pp. 346-361.
- Triandis, H.C. (1982), "Dimensions of cultural variation as parameters of organizational theories", *International Studies of Management and Organization*, Vol. 12 No. 4, pp. 139-169.
- Triandis, H.C. (1989), "The self and social behavior in differing cultural contexts", *Psychological Review*, Vol. 96, July, pp. 506-520.
- Triandis, H.C. (1995), *Individualism and collectivism*, Boulder, CO, Westview.
- Tung, R.L. (1995), "International organizational behavior". In F. Luthans (Ed.), *Virtual OB*, New York, McGraw-Hill.
- Turnbull, P.W., Leek, S. and Ying, G. (2000), "Customer confusion: the mobile phone market", *Journal of Marketing Management*, Vol. 16, pp.143-163.
- Usunier, J.C. (1996), *International marketing: a cultural approach*, 2<sup>nd</sup> edition, Hemel, Hempstead, Prentice-Hall.
- Usunier, J.C. (2000), *Marketing across the Cultures*, 3<sup>rd</sup> edition, Harlow, Prentice-Hall.
- Venkatraman, M.P. and Price, L.L. (1990), "Differentiating between cognitive and sensory innovativeness: concepts, measurement, and implications", *Journal of Business Research*, Vol. 20, June, pp. 293-315.

- Wadley, J. (2004), *Cross-cultural cell phone study reveals similarities*. Retrieved July 2, 2008 from [www.ur.umich.edu/0607/Apr02\\_07/02.shtml](http://www.ur.umich.edu/0607/Apr02_07/02.shtml)
- Weinberg, P. and Gottwald, W. (1982), "Impulsive consumer buying as a result of emotions", *Journal of Business Research*, Vol. 10, pp. 43-57.
- Wells, W.D. (1974), *Lifestyles and psychographics*, Chicago, American Marketing Association.
- Westbrook, R.A. and Black, W.C. (1985), "A motivation-based shopping typology", *Journal of Retailing*, Vol. 61 No. 1, pp.78-101.
- Yau, O.H.M., (1988), "Chinese cultural values: their dimensions and marketing implications", *European Journal of Marketing*, Vol. 22 No. 5, pp. 44-57.
- Yau, O.H.M., Li, Y.J. and Lo, T.H. (1986), "Marketing and marketing research in China", *Journal of International Marketing and Marketing Research*, Vol. 18 No. 1, pp. 3-18.
- Yi, J.S. and Park, S. (2003), "Cross-cultural differences in decision-making styles: a study of college students in five countries", *Social Behavior and Personality*, Vol. 31 No. 1, pp. 35-48.
- Zhou, Z. and Nakamoto, K. (2001), "Price perceptions: a cross-national study between American and Chinese young consumers", *Advances in consumer research*, Vol. 28 No. 1, pp.161-168.
- Zhu, M., Quan, R. and Xuan, K. (2006), "The impact of Sino-western cultural differences on IT products consumption", *Journal of Technology Management in China*, Vol. 1 No. 2, pp.159-173.



## Appendix 1

尊敬的朋友,以下是一份有关手机购买情况的问卷调查,这只是一份学术性的调查问卷,我们不会透露您的身份,而且您所选择的答案都绝对不会用作任何的商业用途(请您用5到10分钟的时间来完成此问卷)

|  |   |
|--|---|
| 这三年内,您买过手机吗?( ) 买过 ( ) 没买过             | 如果您在以上的两道问题中有其中一项的选项是“否”的话,那您就不用继续回答以下的问题了。 |
| 您是中国人吗?并且您已经在巴西生活了大半生的时间吗?( ) 是 ( ) 不是 |   |

请在下列问题中,圈出最能表达您意见的程度选项:

| 1<br>强烈反对                          | 2<br>不同意 | 3<br>未定 | 4<br>同意 | 5<br>非常同意 |   |
|------------------------------------|----------|---------|---------|-----------|---|
| 请在此列内打钩, 勾选最能代表您态度的选项              |          |         |         |           |   |
| 1. 手机不一定要十全十美,能令自己满意就行.            | 1        | 2       | 3       | 4         | 5 |
| 2. 对于新款手机,我是不会急于去了解的.              | 1        | 2       | 3       | 4         | 5 |
| 3. 对我来说,买手机是一种乐趣.                  | 1        | 2       | 3       | 4         | 5 |
| 4. 我会尽量选购质量最好的手机.                  | 1        | 2       | 3       | 4         | 5 |
| 5. 我购物很快,见到可以的手机就买.                | 1        | 2       | 3       | 4         | 5 |
| 6. 我被过多的手机品牌,型号及其资料搞糊涂了.           | 1        | 2       | 3       | 4         | 5 |
| 7. 就我而言,得到一个高品质的手机是非常重要的.          | 1        | 2       | 3       | 4         | 5 |
| 8. 我通常因为冲动才购买手机.                   | 1        | 2       | 3       | 4         | 5 |
| 9. 我一见到喜欢的手机就会购买.                  | 1        | 2       | 3       | 4         | 5 |
| 10. 我尽量去买特价的手机.                    | 1        | 2       | 3       | 4         | 5 |
| 11. 我很在乎买手机所花的费用.                  | 1        | 2       | 3       | 4         | 5 |
| 12. 我也喜欢选购不太流行的手机,目的是令我拥有不同品牌的手机.  | 1        | 2       | 3       | 4         | 5 |
| 13. 我会寻找同等价钱中最好的手机来购买.             | 1        | 2       | 3       | 4         | 5 |
| 14. 我购买手机不需要花费很长时间.                | 1        | 2       | 3       | 4         | 5 |
| 15. 我喜欢购买最畅销的品牌手机.                 | 1        | 2       | 3       | 4         | 5 |
| 16. 我购买手机时是不会考虑太多的.                | 1        | 2       | 3       | 4         | 5 |
| 17. 我经常换不同品牌的手机.                   | 1        | 2       | 3       | 4         | 5 |
| 18. 买手机之前要先做好足够的调查和比较, 有计划的购买.     | 1        | 2       | 3       | 4         | 5 |
| 19. 为了选购最好的手机,我愿意花多一点时间.           | 1        | 2       | 3       | 4         | 5 |
| 20. 新款手机面世后,我要等待它得到人们的认可后才去购买.     | 1        | 2       | 3       | 4         | 5 |
| 21. 如果我有特别喜欢的手机品牌,我会继续选购它.         | 1        | 2       | 3       | 4         | 5 |
| 22. 总的来说,我会尽量购买质量最好的手机.            | 1        | 2       | 3       | 4         | 5 |
| 23. 调查了解新品牌的手机,通常是很浪费时间的.          | 1        | 2       | 3       | 4         | 5 |
| 24. 我对购买手机的标准和期望是非常高的.             | 1        | 2       | 3       | 4         | 5 |
| 25. 我平时买手机的时候考虑得不够,结果买不好的话,我常常会后悔. | 1        | 2       | 3       | 4         | 5 |
| 26. 一旦我喜欢这个品牌手机,我会继续使用同一品牌.        | 1        | 2       | 3       | 4         | 5 |
| 27. 购买手机对我来说并不是一种愉快的活动.            | 1        | 2       | 3       | 4         | 5 |
| 28. 购买手机很浪费我的时间.                   | 1        | 2       | 3       | 4         | 5 |
| 29. 手机价钱越高质量越好.                    | 1        | 2       | 3       | 4         | 5 |
| 30. 我通常都会选择最便宜的手机品牌.               | 1        | 2       | 3       | 4         | 5 |
| 31. 我通常都会选择最昂贵的手机品牌.               | 1        | 2       | 3       | 4         | 5 |
| 32. 对手机了解得越多,越难选择最好的.              | 1        | 2       | 3       | 4         | 5 |
| 33. 最著名的品牌手机,通常是最好的选择.             | 1        | 2       | 3       | 4         | 5 |
| 34. 最著名的手机品牌最适合我.                  | 1        | 2       | 3       | 4         | 5 |
| 35. 有这么多的手机品牌让我选择,常常令我感到困惑.        | 1        | 2       | 3       | 4         | 5 |
| 36. 当我得知商店出售我想购买的手机我会第一时间去了解.      | 1        | 2       | 3       | 4         | 5 |
| 37. 当我看见一个很有特色的新款品牌手机时,我就想认识了解它.   | 1        | 2       | 3       | 4         | 5 |
| 38. 当我见到新款手机,我就立即买,目的是想了解它.        | 1        | 2       | 3       | 4         | 5 |
| 39. 当要买手机的时候,我会尝试作出最佳最完美的选择.       | 1        | 2       | 3       | 4         | 5 |

请在下列问题中,用“X”标示出您的选择,每题只能选择一个答案:

| 性别                    | 婚姻状况                                     | 年龄  | 教育程度  | 每月的总收入   |
|-----------------------|--|---|---|--|
| (1) 女;<br>(2) 男.      | (1) 未婚;<br>(2) 已婚;<br>(3) 离异;<br>(4) 其它. | (1) 25岁或以下;<br>(2) 26岁-35岁;<br>(3) 36岁-45岁;<br>(4) 46岁-55岁;<br>(5) 55岁以上. | (1) 中学以下;<br>(2) 中学毕业或大学以下;<br>(3) 大学毕业;<br>(4) 硕士. | (1) 1,500.00元人民币以下;<br>(2) 1,501.00元人民币-3,000.00元人民币;<br>(3) 3,001.00元人民币-5,000.00元人民币;<br>(4) 5,001.00元人民币-10,000.00元人民币;<br>(5) 10,001.00元人民币以上. |
| 您父亲是中国人吗?( ) 是 ( ) 不是 |  |   | 您母亲是中国人吗?( ) 是 ( ) 不是                               |  |

衷心感谢您宝贵的意见!!!

## Appendix 2

Dear respondent, the questionnaire below is about cell phone purchases. Since the purpose of this questionnaire is academic research, your identity is not revealed and this information will not be used for commercial purposes. (it takes approximately 7 minutes to answer it)

|   |   |
|---|---|
| Have you purchased a cell phone in the last three years? ( ) Yes ( ) No                 | If you've answered "NO" to any of the questions on the left, please, do not continue answering the questionnaire. |
| Were you born and have lived more than half of your lifetime in the USA? ( ) Yes ( ) No |   |

*Next to each statement, circle the number that best expresses your opinion according to the scale below:*

| 1<br>Strongly disagree   | 2<br>Disagree | 3<br>Undecided | 4<br>Agree | 5<br>Strongly agree |   |
|--|---------------|----------------|------------|---------------------|---|
| 1. A cell phone doesn't have to be the best one in the market to satisfy me.   | 1             | 2              | 3          | 4                   | 5 |
| 2. A new releasing cell phone is not something I would be eager to find out about.   | 1             | 2              | 3          | 4                   | 5 |
| 3. I enjoy shopping for cell phones in general just for the fun of it.   | 1             | 2              | 3          | 4                   | 5 |
| 4. I put special effort in choosing the very best quality cell phone.  | 1             | 2              | 3          | 4                   | 5 |
| 5. I shop quickly, buying the first cell phone that seems good enough.   | 1             | 2              | 3          | 4                   | 5 |
| 6. All the information I get on different cell phone model/brand confuses me.  | 1             | 2              | 3          | 4                   | 5 |
| 7. Getting a very good quality cell phone is very important to me.   | 1             | 2              | 3          | 4                   | 5 |
| 8. Shopping for a cell phone is one of the enjoyable activities in my life.  | 1             | 2              | 3          | 4                   | 5 |
| 9. I am impulsive when purchasing a cell phone.  | 1             | 2              | 3          | 4                   | 5 |
| 10. I usually try to buy cell phones at sale prices.   | 1             | 2              | 3          | 4                   | 5 |
| 11. I carefully watch how much I spend on cell phone purchases.  | 1             | 2              | 3          | 4                   | 5 |
| 12. I enjoy taking chances in buying unfamiliar brands of cell phones just to get some variety in my purchases.                        | 1             | 2              | 3          | 4                   | 5 |
| 13. I shop carefully to buy the best value cell phone for the money I spend.   | 1             | 2              | 3          | 4                   | 5 |
| 14. I make my cell phone shopping trips fast.  | 1             | 2              | 3          | 4                   | 5 |
| 15. I prefer buying a cell phone from one of the best selling brands.  | 1             | 2              | 3          | 4                   | 5 |
| 16. I don't give much thought or care when shopping for cell phones.   | 1             | 2              | 3          | 4                   | 5 |
| 17. I regularly change the brand of the cell phones I buy.   | 1             | 2              | 3          | 4                   | 5 |
| 18. I should plan better when shopping for a cell phone.   | 1             | 2              | 3          | 4                   | 5 |
| 19. I take the time to shop carefully for the best cell phone.   | 1             | 2              | 3          | 4                   | 5 |
| 20. I would rather wait for others to try a new cell phone type/brand than try it myself.  | 1             | 2              | 3          | 4                   | 5 |
| 21. If I have a favorite cell phone brand, I buy this cell phone brand over and over.  | 1             | 2              | 3          | 4                   | 5 |
| 22. In general, I usually try to buy the best overall quality cell phone.  | 1             | 2              | 3          | 4                   | 5 |
| 23. Researching for new cell phone brands is generally a waste of time.  | 1             | 2              | 3          | 4                   | 5 |
| 24. My standards and expectations for the cell phone I buy are very high.  | 1             | 2              | 3          | 4                   | 5 |
| 25. Often I make careless cell phone purchases I later wish I had not.   | 1             | 2              | 3          | 4                   | 5 |
| 26. Once I find a cell phone brand I like, I stick with it.  | 1             | 2              | 3          | 4                   | 5 |
| 27. Shopping for a cell phone is not a pleasant activity to me.  | 1             | 2              | 3          | 4                   | 5 |
| 28. Shopping for a cell phone wastes my time.  | 1             | 2              | 3          | 4                   | 5 |
| 29. The higher the price of a cell phone, the better its quality.  | 1             | 2              | 3          | 4                   | 5 |
| 30. I usually choose the cheapest cell phones.   | 1             | 2              | 3          | 4                   | 5 |
| 31. The more expensive brands of cell phones are usually my choice.  | 1             | 2              | 3          | 4                   | 5 |
| 32. The more I learn about cell phones, the harder it seems to choose the best.  | 1             | 2              | 3          | 4                   | 5 |
| 33. The most advertised brands of cell phones are usually very good choices.   | 1             | 2              | 3          | 4                   | 5 |
| 34. I find well-known national brands of cell phones the best.   | 1             | 2              | 3          | 4                   | 5 |
| 35. There are so many brands of cell phones to choose from that I often feel confused.   | 1             | 2              | 3          | 4                   | 5 |
| 36. When I hear of a store selling the cell phone I want to purchase, I take advantage of the first opportunity to find more about it. | 1             | 2              | 3          | 4                   | 5 |
| 37. When I see a new brand of cell phone somewhat different from usual, I search about it.   | 1             | 2              | 3          | 4                   | 5 |
| 38. When I see a new model or a different brand of cell phone, I often buy it just to see what it is like.                             | 1             | 2              | 3          | 4                   | 5 |
| 39. When it comes to purchasing a cell phone, I try to get the very best or perfect choice.  | 1             | 2              | 3          | 4                   | 5 |

*On the questions below, please, mark only one alternative for each question:*

| Gender   | Marital Status   | Group Age  | Education   | Gross yearly individual income   |
|--|--|--|---|--|
| (1) Feminine;<br>(2) Masculine.                | (1) Single;<br>(2) Married;<br>(3) Divorced;<br>(4) Other. | (1) 25 years old or less;<br>(2) Between 25 and 35;<br>(3) Between 36 and 45;<br>(3) Between 46 and 56;<br>(4) More than 55. | (1) Incomplete high-school;<br>(2) High-school graduate or incomplete college;<br>(3) College graduate;<br>(4) Post-graduate. | (1) US\$ 20,000 or less;<br>(2) Between US\$ 20,001 and US\$ 30,000;<br>(3) Between US\$ 30,001 and US\$ 45,000;<br>(4) Between US\$ 45,001 and US\$ 65,000;<br>(5) More than US\$ 65,001. |
| Was your father born in the US? ( ) Yes ( ) No |  |  | Was your mother born in the US? ( ) Yes ( ) No  |  |

*Thank you very much for the information!!!*

## Appendix 3

回答者各位：下記アンケートは携帯電話の購入に関するものです。アンケートは学術研究目的であり、回答者の個人情報は保護され、この情報は商業目的に使用されることはありません。（回答所要時間17分程度です。）

|  |  |
|--|--|
| 最近3年以内に携帯電話を購入しましたか？ ( )はい ( )いいえ        | 左記どちらかの質問にいいえと回答した場合、アンケート回答の必要はありません。 |
| 日本生まれもしくは人生の半分以上日本に住んでいますか？ ( )はい ( )いいえ |  |

以下の各設問に対し、最もあなたの考えに近いものに○をつけて下さい。

| 1<br>全くそう思わない  | 2<br>そう思わない | 3<br>どちらでもない | 4<br>そう思う | 5<br>とてもそう思う |
|--|-------------|--------------|-----------|--------------|
| 1. 携帯は完璧である必要はない。自分が満足できるものであれば十分だ。                  |             |              |           | 1 2 3 4 5    |
| 2. 新型の携帯について私は色々知りたがる方ではない。                          |             |              |           | 1 2 3 4 5    |
| 3. 私にとって携帯を買うことは一種の楽しみである。                           |             |              |           | 1 2 3 4 5    |
| 4. 最高品質の携帯を購入するため、できる限りの努力をする。                       |             |              |           | 1 2 3 4 5    |
| 5. 私は携帯購入の際、選ぶのが早い。十分良さそうな携帯だと思ったら、即購入する。            |             |              |           | 1 2 3 4 5    |
| 6. 携帯の機種やメーカーが多すぎて困惑する。                              |             |              |           | 1 2 3 4 5    |
| 7. 高品質の携帯を手に入れることは私にとって大変重要だ。                        |             |              |           | 1 2 3 4 5    |
| 8. 私の生活において、携帯の購入は楽しいことのひとつだ。                        |             |              |           | 1 2 3 4 5    |
| 9. 一目惚れする携帯を見つけたら、即購入する。                             |             |              |           | 1 2 3 4 5    |
| 10. できるだけセール価格の携帯を購入する。                              |             |              |           | 1 2 3 4 5    |
| 11. 携帯の購入にいくらお金を使うか非常に気にする。                          |             |              |           | 1 2 3 4 5    |
| 12. 購入の幅を広げるため、有名でないメーカーの製品を興味本位で購入することがある。          |             |              |           | 1 2 3 4 5    |
| 13. 支払う価格で最良の携帯を購入するため注意深く探す。                        |             |              |           | 1 2 3 4 5    |
| 14. 携帯の購入にさほど時間がかからない。                               |             |              |           | 1 2 3 4 5    |
| 15. 最も売れているメーカーの携帯を購入する。                             |             |              |           | 1 2 3 4 5    |
| 16. 携帯はさほどあれこれ考えずに購入する。                              |             |              |           | 1 2 3 4 5    |
| 17. 携帯購入の際、以前と異なるメーカーの製品をよく購入する。                     |             |              |           | 1 2 3 4 5    |
| 18. 携帯購入は調査や比較を十分した上でもっと計画的に購入すべきである。                |             |              |           | 1 2 3 4 5    |
| 19. 最良の携帯を購入するには十分な時間をかける。                           |             |              |           | 1 2 3 4 5    |
| 20. 新型の携帯や新規メーカーの製品は実際に自分で試すより他人の感想を聞いてからにする。        |             |              |           | 1 2 3 4 5    |
| 21. 好きなメーカーがあれば、そのメーカーの製品を繰り返し購入する。                  |             |              |           | 1 2 3 4 5    |
| 22. 一般的に最高品質の携帯を探し、購入する。                             |             |              |           | 1 2 3 4 5    |
| 23. 新規メーカーの製品を調べることはたいい時間の無駄だ。                       |             |              |           | 1 2 3 4 5    |
| 24. 自分自身が購入する携帯に対する基準や期待は非常に大きい（高い）。                 |             |              |           | 1 2 3 4 5    |
| 25. 携帯購入後、しばしば購入時機種選びにもっと注意を払うべきだったと後悔することがある。       |             |              |           | 1 2 3 4 5    |
| 26. 一旦好きな携帯メーカーができると、そのメーカーの製品にこだわる。                 |             |              |           | 1 2 3 4 5    |
| 27. 携帯購入は私にとって楽しいことではない。                             |             |              |           | 1 2 3 4 5    |
| 28. 携帯購入に割く時間は無駄だ。                                   |             |              |           | 1 2 3 4 5    |
| 29. 携帯は価格が高ければ高いほど、高品質だ。                             |             |              |           | 1 2 3 4 5    |
| 30. たいい低価格帯の携帯を購入する。                                 |             |              |           | 1 2 3 4 5    |
| 31. たいい高価格帯の携帯を購入する。                                 |             |              |           | 1 2 3 4 5    |
| 32. 携帯について知れば知るほど、最高の携帯を選ぶことは難しい。                    |             |              |           | 1 2 3 4 5    |
| 33. 有名メーカーの携帯を選んでおけば失敗しない。                           |             |              |           | 1 2 3 4 5    |
| 34. 有名な国内メーカーの携帯が一番だ。                                |             |              |           | 1 2 3 4 5    |
| 35. 携帯にはたくさんのメーカーがありすぎて、時々困惑する。                      |             |              |           | 1 2 3 4 5    |
| 36. 自分が欲しいと思っている携帯がショップに入荷したら、実際手にとって見るためにショップに足を運ぶ。 |             |              |           | 1 2 3 4 5    |
| 37. 非常に特色ある新規メーカーの携帯を見たら、その製品について色々知りたくなる。           |             |              |           | 1 2 3 4 5    |
| 38. 新製品を見るとその製品がどんなものなのか確かめるためにその製品を購入する。            |             |              |           | 1 2 3 4 5    |
| 39. 携帯の購入となると最良で完璧な製品選びをしようと努力する。                    |             |              |           | 1 2 3 4 5    |

以下の質問に対し、回答を一つ選択し、印をつけて下さい。

| 性別                              | 結婚状況                                  | 年齢   | 教育   | 総年収   |
|---------------------------------|---------------------------------------|--|--|---|
| (1) 女性<br>(2) 男性                | (1) 未婚<br>(2) 既婚<br>(3) 離婚<br>(4) その他 | (1) 25歳以下<br>(2) 26歳以上35歳以下<br>(3) 36歳以上45歳以下<br>(4) 46歳以上55歳以下<br>(5) 56歳以上 | (1) 高校中退<br>(2) 高校卒業または大学中退<br>(3) 大学卒業<br>(4) 卒業見込み | (1) ¥2,000,000 以下<br>(2) ¥2,000,001 以上 ¥3,000,000 以下<br>(3) ¥3,000,001 以上 ¥4,500,000 以下<br>(4) ¥4,500,001 以上 ¥6,500,000 以下<br>(5) ¥6,500,001 以上 |
| あなたのお父さんは日本生まれですか？ ( )はい ( )いいえ |                                       |  | あなたのお母さんは日本生まれですか？ ( )はい ( )いいえ                      |   |

ご協力ありがとうございました!!!

## Appendix 4

Caro respondente, o questionário abaixo refere-se à compra de celulares. Por se tratar de uma pesquisa acadêmica, sua identidade **não** será revelada e as informações **não** serão usadas para fins comerciais. (leva-se aproximadamente 7 minutos para respondê-lo)

|  |  |
|--|--|
| Você comprou um aparelho celular nos últimos 3 anos ? ( ) Sim ( ) Não            | Caso tenha respondido “Não” a alguma pergunta ao lado, por favor, não continue a responder o questionário. |
| Você é brasileiro e viveu mais da metade da sua vida no Brasil ? ( ) Sim ( ) Não |  |

**Ao lado de cada frase abaixo, circule o número que melhor expressa sua opinião de acordo com a seguinte escala:**

|                     |          |              |          |                     |
|---------------------|----------|--------------|----------|---------------------|
| 1                   | 2        | 3            | 4        | 5                   |
| Discordo totalmente | Discordo | Indeciso (a) | Concordo | Concordo totalmente |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. Um celular não precisa ser perfeito ou o melhor para me satisfazer.  | 1 | 2 | 3 | 4 | 5 |
| 2. Um novo tipo de celular não me despertaria curiosidade para saber mais sobre o mesmo.  | 1 | 2 | 3 | 4 | 5 |
| 3. Eu gosto de comprar celular simplesmente por comprar.  | 1 | 2 | 3 | 4 | 5 |
| 4. Eu me esforço para escolher o celular da melhor qualidade.   | 1 | 2 | 3 | 4 | 5 |
| 5. Minhas compras são rápidas, compro o primeiro celular que julgo ser suficientemente bom.   | 1 | 2 | 3 | 4 | 5 |
| 6. Informações adicionais que adquiro sobre uma nova marca/novo modelo de celular me confundem mais ainda.                            | 1 | 2 | 3 | 4 | 5 |
| 7. Adquirir um celular de boa qualidade é muito importante para mim.  | 1 | 2 | 3 | 4 | 5 |
| 8. Minhas compras de celular são por impulso.   | 1 | 2 | 3 | 4 | 5 |
| 9. Eu sou impulsivo(a) quando compro celular.   | 1 | 2 | 3 | 4 | 5 |
| 10. Sempre que posso, compro celular em promoção.   | 1 | 2 | 3 | 4 | 5 |
| 11. Eu sou muito cauteloso(a) no quanto gasto na compra de celular.   | 1 | 2 | 3 | 4 | 5 |
| 12. Eu gosto de comprar também marcas não tão conhecidas de celular para variar.  | 1 | 2 | 3 | 4 | 5 |
| 13. Presto bastante atenção para comprar o melhor celular com o dinheiro gasto por ele.   | 1 | 2 | 3 | 4 | 5 |
| 14. Minhas compras de celular são rápidas.  | 1 | 2 | 3 | 4 | 5 |
| 15. Eu prefiro comprar celular de marcas mais vendidas.   | 1 | 2 | 3 | 4 | 5 |
| 16. Na verdade, eu não ligo muito para minhas compras de celular.   | 1 | 2 | 3 | 4 | 5 |
| 17. Eu geralmente troco de marcas de celulares.   | 1 | 2 | 3 | 4 | 5 |
| 18. Eu deveria planejar melhor minhas compras de celular do que normalmente faço.   | 1 | 2 | 3 | 4 | 5 |
| 19. Eu gasto tempo para comprar o melhor celular.   | 1 | 2 | 3 | 4 | 5 |
| 20. Eu prefiro esperar que outras pessoas testem primeiro outros tipos/marcas de celular para depois eu comprar.                      | 1 | 2 | 3 | 4 | 5 |
| 21. Se eu tenho marcas preferidas de celular, eu as compro novamente.   | 1 | 2 | 3 | 4 | 5 |
| 22. Em geral, eu tento comprar celular da melhor qualidade.   | 1 | 2 | 3 | 4 | 5 |
| 23. Pesquisar novas marcas de celular é um desperdício de tempo.  | 1 | 2 | 3 | 4 | 5 |
| 24. Meu padrão e expectativas de compras de celular são bem altos.  | 1 | 2 | 3 | 4 | 5 |
| 25. Eu geralmente compro celulares sem a atenção devida, da qual me arrependo depois.   | 1 | 2 | 3 | 4 | 5 |
| 26. Quando compro um celular de uma marca que me satisfaz, me torno fiel a ela.   | 1 | 2 | 3 | 4 | 5 |
| 27. Comprar celular não é uma atividade prazerosa para mim.   | 1 | 2 | 3 | 4 | 5 |
| 28. Comprar celular desperdiça meu tempo.   | 1 | 2 | 3 | 4 | 5 |
| 29. Quanto mais caro for o celular, melhor a sua qualidade.   | 1 | 2 | 3 | 4 | 5 |
| 30. Geralmente, escolho celulares mais baratos.   | 1 | 2 | 3 | 4 | 5 |
| 31. Geralmente escolho as marcas mais caras de celular.   | 1 | 2 | 3 | 4 | 5 |
| 32. Quanto mais eu aprendo sobre celular, mais difícil fica a escolha.  | 1 | 2 | 3 | 4 | 5 |
| 33. As marcas mais anunciadas são geralmente boas escolhas.   | 1 | 2 | 3 | 4 | 5 |
| 34. As marcas mais conhecidas, para mim, são as melhores.   | 1 | 2 | 3 | 4 | 5 |
| 35. Há tantas marcas de celulares a escolher, que fico confuso(a).  | 1 | 2 | 3 | 4 | 5 |
| 36. Quando fico sabendo que chegou o celular que tanto espero numa certa loja, vou correndo para lá para saber mais sobre a novidade. | 1 | 2 | 3 | 4 | 5 |
| 37. Quando fico sabendo de uma nova marca de celular, diferente da maioria das marcas, eu a investigo.                                | 1 | 2 | 3 | 4 | 5 |
| 38. Ao tomar conhecimento de um novo modelo/nova marca de celular, compro para conhecer.  | 1 | 2 | 3 | 4 | 5 |
| 39. Tento fazer uma boa ou uma perfeita escolha quando vou comprar um celular.  | 1 | 2 | 3 | 4 | 5 |

**Nas questões a seguir, por favor, assinale apenas uma alternativa para cada questão:**

| Sexo                                  | Estado Civil   | Faixas de Idade  | Grau de Instrução   | Renda Pessoal Mensal Bruta  |
|---------------------------------------|--|--|---|---|
| (1) Feminino;<br>(2) Masculino.       | (1) Solteiro;<br>(2) Casado;<br>(3) Divorciado;<br>(4) Outros. | (1) 25 anos ou menos;<br>(2) Entre 26 e 35 anos;<br>(3) Entre 36 e 45 anos;<br>(4) Entre 46 e 55 anos;<br>(5) Mais de 55 anos. | (1) Colegial incompleto;<br>(2) Colegial completo ou superior incompleto;<br>(3) Superior completo;<br>(4) Pós-graduação. | (1) R\$ 1.500,00 ou menos;<br>(2) Entre R\$ 1.501,00 a R\$ 3.000,00;<br>(3) Entre R\$ 3.001,00 a R\$ 5.000,00;<br>(4) Entre R\$ 5.001,00 a R\$ 10.000,00;<br>(5) Mais de 10.001,00. |
| Seu pai é brasileiro? ( ) Sim ( ) Não |  |  | Sua mãe é brasileira? ( ) Sim ( ) Não   |   |

**Muito obrigado pelas informações!!!**