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Cultural differences in the context of fast food website design: a comparison of Taiwan and the United States

Yin-Sin Chang

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Cultural differences in the context of fast food website design:
A comparison of Taiwan and the United States

by

Yin-Sin Chang

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

Major: Graphic Design

Program of Study Committee:
Paul Bruski, Major Professor
Sunghyun Kang
Fred Malven

Iowa State University
Ames, Iowa

2015

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ABSTRACT

Research on cross-national websites reveals that culture is an important factor in the characteristics of websites in different countries. This research examines websites of fast food chains and presents preliminary results describing their tendencies to differ between Taiwan and the U.S.

Hofstede’s five cultural dimensions and Hall’s two cultural dimensions were adopted as the basic cultural framework for comparing fast food chain websites in Taiwan and the U.S. Burger chains and chicken-based restaurant chains are the focus of this study, because those two categories commonly offer similar products. Three English-version fast-food chain websites from the U.S. and seven traditional Chinese website versions (including those for American, Japanese and Taiwanese fast-food brands) from Taiwan were selected. The examined Taiwanese fast-food chains’ websites are regarded as a whole population which includes all Taiwanese fast-food brands that have built a web presence. The homepage and one secondary page (menu/main product) of each website were examined.

The study examined whether and how cultural variables that characterize Taiwanese culture and U.S. culture are reflected in website designs. Slogans in Taiwanese fast food chains’ websites tend to use metaphors, which indicates that a literal text may have more than one meaning. Anthropomorphism and mascots, commonly used in Taiwan, are absent from U.S. fast food chains’ websites. This study includes creation of a set of infographics that examine visual communication rules and patterns of Taiwanese fast food chain websites, comparing and contrasting them to those of the U.S. These infographics aim to serve as a brief guide to website design for international businesses and designers.
CHAPTER 1
INTRODUCTION

1.1 Background of the Study

The world has become a global marketplace as the World Wide Web has flourished. According to Fortune global 500 (Fortune magazine, 2015b), all the Fortune global 500 companies have already built a web presence, suggesting that a website may be a sufficient and necessary condition for success in the global marketplace.

Cultural awareness of website design has increased dramatically because of an increased number of non-English speaking users (Internet World Stats, 2015d) and their attempts to defend their own traditional cultural features (Shen, Woolley, & Prior, 2006); therefore, a “one size fits all” website does not fit global customers’ needs (Khanum, Fatima, & Chaurasia, 2012).

Hermeking (2005) indicated that fast foods are classified as culture-bound products for which cultural factors should be considered in the design of websites to fit local tastes. Hofstede’s five-dimension (1991) and Hall’s two-dimension models (1976) were used for comparing relevant aspects of the culture of two countries. According to Hermeking (2005), Hofstede’s theory provides quantitative ranks, a static and simple approach, while Hall’s model provides qualitative comparisons, which are flexible for grouping patterns and changing them as needed.

Content analysis is used in this study to explore the cultural markers and website content of selected sample websites. Content analysis is widely used to explore cultural contributions to website design (Ahmed, Mouratidis, & Preston, 2009; Eristi, 2009;
Hermeking, 2005; Juric, Kim, & Kuljis, 2003; Khanum et al., 2012; N. Singh & Boughton, 2005; N. Singh, Zhao, & Hu, 2005; Würtz, 2005). To allow people to quickly and accurately obtain information from this research, the study results will be presented in the form of infographics.

1.2 Significance of the Study

Fast food is a product of Western civilization. The purpose of this study is to determine whether Taiwan visually represents this Western food on websites differently from the way the United States does, and what main cultural factors are related to website design.

This study of fast food chain websites may generate culture-based design guidelines, which can help designers deal with the problem of specific cultural differences between Taiwan and the United States with regard to online environments and help multinational food companies to investigate and plan a suitable strategy for marketing in Taiwan.

This thesis describes an exploratory study of web design across the cultures of Taiwan and the United States specific to the fast food industry. Strong cultural markers have been identified for fast food chains’ websites of Taiwan and the United States, which might serve as a basis for further research on use of these markers by other sectors of the food industry in cross-cultural website design.

The results of the study can not only be applied in entering Taiwan’s market, but also serve as a valuable source of information for entering similar Asian markets (such as those of China, Hong Kong, Japan, or Korea), because of the close geographical relations and considerable similarities of cultural characteristics of various Asian nations.
1.3 Overview of the Thesis

Chapter Two provides fundamental concepts related to this research. The definition of culture and how it differs over time and among different disciplines are provided. Two important theories of cultural dimensions and research on these cultural dimensions are reviewed, and the cultural background and cultural values of Taiwan are illustrated. A brief overview of “glocalization” (Mucha & Leszczyńska, 2010) and the influences of the Internet are included, and concepts such as cultural markers and website elements are discussed in detail.

Chapter Three describes the research performed. The reasons, theories and details of sample selection are elaborated. In-depth case studies that evaluate the culture-by-culture factors are presented to illustrate cultural differences in fast food chains’ websites in Taiwan and the United States.

Chapter Four describes the creative design of infographic explanation, based on the findings of Chapter Three. A series of sets are categorized by cultural markers, each set comparing a cultural marker with respect to a specific item. Each set is supplemented with a brief text explanation to enhance understanding by readers.

Chapter Five provides a summary of the work and a brief conclusion. Some potential improvements of current Taiwanese fast food chains’ websites are suggested, and preliminary ideas for future research are proposed.
2.1 Culture and Cultural Differences

2.1.1 Definition of culture

Culture is a term with many different meanings, and the concept of culture has changed over time. The word “culture” originated from the Latin “cultura,” which means “cultivating,” first of the soil and later of the mind. In ancient times, the term “culture” referred to “civilization,” and the people of many empires, such as ancient Greece and ancient China, believed that their own language, religion, laws, government, artifacts and all other aspects of their way of life were superior to those of people outside their empires, and people who were different from the people in the empire were considered “barbarians.” Thus a culture was synonymous with a country (Jandt, 2015). The “culture” of a period also may refer to its “high” culture, characteristic of the educated elite, a definition that has shifted to a very different concept at present.

For some people, culture refers to aesthetic matters such as music, art, and literature, whereas others think of culture as referring to life styles or behavioral patterns. Kroeber and Kluckhohn (1952) collected over 160 definitions of culture. A famous definition indicated that “Culture, or civilization, taken in its broad, ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society” (Tylor, 1871). In other words, culture is a way of life formed within a group, whose members gain knowledge through learning and
pass it along to others in the group. This defines culture as including any creation made by humans during their social development. Tayeb (1998) indicated that Tylor’s definition gives literal meaning to the concept that culture is an important factor in shaping people’s attitudes and actions. Based on Tylor’s definition, Wissler (1923) proposed a definition of culture that included a lengthy listing of what should constitute culture; he thought that culture needs to include speech, material objects, art, knowledge, religion, society, property, government and ways of making war. Some scholars thought Tylor’s definition was too broad and his list of the elements too random and proposed shorter and more concise definitions of culture.

Linton (1936) thought of culture as “the total social heredity of mankind,” and Herskovits (1948) defined culture as “the man-made part of the environment.”

Those scholars who disagreed that material culture, institutional culture and mental culture should be lumped together proposed their own ideal definitions for their own disciplines, such as politics, economics, anthropology, philosophy and linguistics. From the aesthetic or humanistic point of view, culture is commonly thought of as high culture; from the ethnographic view, culture is considered an entire way of life; and on the basis of symbolic notions, culture is considered as a system of shared meanings. Some of these definitions or concepts conflict with one another, whereas others share many similar phenomena.

Kroeber and Kluckhohn (1952) divided definitions of culture into six categories: descriptive, historical, normative, psychological, structural and genetic.

1. Descriptive definitions: Emphasize listing of all aspects of human life and give a broad definition. This group has been influenced mainly by Edward Tylor.
2. Historical definitions: Emphasize that culture is social heritage based on traditions that can be passed on from generation to generation.

3. Normative definitions: Emphasize regulation. This category has two main features: (1) culture consists of rules or ways; (2) culture includes ideals or values. Both of these can shape social and personal behavior.

4. Psychological definitions: Emphasize the ability of culture to satisfy psychological needs such as problem-solving, learning and formation of habits.

5. Structural definitions: Emphasize patterning and organizational culture. Related to the descriptive category, which considers a random list of customs, but the structural category focuses on relationships and connections of the customs to form a coherent whole.

6. Genetic definitions: Emphasize the genesis and continued existence of a culture, which is formed by interaction, adaption and creation between members of the human species. Within this category are three main subcategories: (1) cultures consist of products or artifacts; (2) cultures consist of ideas, and (3) cultures consist of symbols.

Recent research by Baldwin, Faulkner, Hecht, and Lindsley (2006) included more than 300 definitions of culture. These definitions are derived from various disciplines, such as anthropology, psychology, linguistics, sociology, political science, intercultural and international communication, etc. Seven themes of a definition of culture were proposed: structure or pattern, function, process, product, refinement, group-membership and power or ideology.
1. Structure or pattern: Emphasizes that culture is a system of elements. Thoughts, beliefs, behavior, customs, languages, and symbols created by groups, relationships or organizations can be considered in this category. Both concrete structures and abstract cognitions can represent the culture of a group and explain its ecological or genetic differences from other groups.

2. Function: Emphasizes that culture is a tool. Researchers believe that people’s ability to achieve their goals or survive in the world is based on their ability to learn and adapt the ways and beliefs of the culture they belong to.

3. Process: Emphasizes that culture consists of ongoing practices. This theme treats culture as an active creation by a group of people and sees culture as a process of differentiating that group from others.

4. Product: Emphasizes that culture includes specific objects, activities or knowledge. The results of process are included in this category, such as artworks, architecture, music, texts and artifacts.

5. Refinement: Emphasizes culture as moral and intellectual development. Human beings pursue perfection, and this pursuit of perfection makes humans distinct from other species.

6. Group-membership: Emphasizes that culture signifies membership. Group-membership can be defined by different regions and continents, such as countries, or a western and eastern area of one country. Group-membership culture can also represent things or ideas that groups use, create, have and share, such as things used by Generation X, Hippies, or today’s youth culture.
7. Power or ideology: Emphasizes that culture is based on dominant relations.

For example, although art, music and literature can result from many social practices, a particular style of music or art may become a central feature of a society because of social stratification and class division, which involve economic and political forces. When one group exerts dominance over others, its culture becomes the most popular in that era.

Whether culture is defined in terms of abstract ideas or tangible objects, it ultimately refers to the importance and value of human activity and symbolic structure (Reisinger, 2009). Studying culture enables us to understand how people live, think, talk and do things. Moreover, culture offers guidelines that alter and shape people’s behavior so that they act in socially accepted ways within a group. Each cultural group has its unique features that distinguish it from other cultural groups in terms of traditions, expectations, values and behaviors.

2.1.2 Cultural distance

By its nature, culture refers to a particular group, which could be a country, or an ethnic, religious or corporate group. Because of increased globalization and liberalization of economies in recent years, more and more opportunities exist for different particular groups/countries to interact. Because different cultures have their own features, questions related to differences between cultures arise.

Reisinger (2009) defined cultural distance as a gap, or space, between different cultures. Cultural distances have been widely researched in an attempt to explain phenomena in areas such as psychology, philosophy, the hospitality industry, international business,
global marketing operations, and tourist information. Underlying the matter of acculturation of cultural distance in sojourners research is the concept that the greater the cultural difference, the more difficulties and distress will be experienced by sojourners (Baldwin et al., 2006; Ward & Kennedy, 1999). In international business research, it has been shown that when differences between the foreign and the home country increase, the cost of entry into a foreign market increases (Gomez-Mejia & Palich, 1997). Chemers, Oskamp, and Constanzo (1995) pointed out the need to decrease the cultural distance between employees within a multinational corporation, because it is predictable that the greater the cultural distance is between employees, the more conflicts may appear when they are working together.

2.1.3 Cultural differences and dimensions

On the basis of the previous section, it could be summarized that a group of people who share the same lifestyles and beliefs have the same culture and that the lifestyles and beliefs of people in a given culture will differ from those of other groups at some level. People from different cultures have distinct experiences, behaviors and preferences, and those will influence their expectations of one another with regard to interpersonal relationships, commercial activities and international relations. To determine what differences exist and how much difference there is between different cultures, Hofstede’s Dimensions of Culture is an important tool.
2.1.3.1 Geert Hofstede’s five cultural dimensions

Geert Hofstede conducted what was probably the largest cross-national survey on cultural distance between 1978 and 1983. Information was collected on more than 100,000 IBM employees in over 50 countries, and five different dimensions of culture were identified (Hofstede, 2005).

1. **Power Distance Index (PDI):** The PDI cultural dimension refers to the relationships between people on the basis of strict obedience to authority, concentration of power, and the level of authoritarianism in a group. High PDI countries tend to emphasize hierarchical relationships between people. An enterprise with high PDI will have large differences in salary and status. In many Eastern countries, elders, parents and teachers teach young people obedience and expect automatic respect. In contrast, people in low PDI countries experience flatter hierarchies and are unwilling to accept inequality within the group. Cho, Kwon, Gentry, Jun, and Kropp (1999) indicated that the PDI cultural dimension is the most frequently examined in studies of Western versus Asian cultures.

2. **Individualism versus Collectivism (IDV):** The IDV cultural dimension refers to the strength of relationships of individuals in a group. Individualism is characterized by loose ties. People in an individualistic culture are independent and attach more importance to themselves than to the group. They expect personal achievement, satisfaction and freedom. In a collectivist culture, people are highly integrated into the group. In Japan, a typical collectivist society, people pursue benefits to the organization rather than to
themselves as individuals. The results of Hofstede’s research showed that the higher the score in individualism, the lower the score in the power distance dimension.

3. **Masculinity versus Femininity (MAS):** The MAS cultural dimension refers to the balance between gender roles in the society. In a society with high masculinity, huge gender differences may exist in rules of morality and social norms. In a traditional masculine culture, people seek advancement, challenge and recognition, while in a feminine culture, people value security, tenderness and harmony. In Japan, a highly masculine culture, it is difficult for females to achieve promotion in a company, and women often resign from their jobs after they marry.

4. **Uncertainty Avoidance Index (UAI):** The UAI cultural dimension refers to the tolerance for uncertainty. Three important indices of UAI are rule orientation, reemployment stability, and stress. It is natural for people to feel anxiety and perceive threats in uncertain situations. Potential ways of decreasing uncertainty include having more regulations, increasing salaries, and gaining knowledge. In high UAI cultures, people feel a great deal of pressure and tend to be expected to accept longer career commitments. In low UAI cultures, people have more relaxed attitudes, enjoy challenges, and are willing to express feeling and thoughts. “Differences” can be considered threats in some high UAI cultures; a person with a tattoo may be considered a hoodlum, although on a celebrity, a tattoo may be considered fashionable.
5. **Long Term versus Short Term Orientation (LTO):** The LTO cultural dimension refers to people’s focus on the distant future or the present. A long-term focus has been encouraged by Confucian philosophy in many Asian countries. People in such cultures tend to prepare for the future; persistence and saving are conspicuous characteristics of these people. In countries with a short-term orientation, people consider the present more important than the future and care about the current social hierarchy and immediate satisfactions.

2.1.3.2 **Edward Hall’s high-context and low-context culture**

Another way to examine cultural differences divides cultures according to their ways of communicating. Hall (1976) suggested categorizing cultural frameworks according to differences in conveying meanings when people talk to each other. Two culture-based communication styles are those seen in a low-context culture (LC) and in a high-context culture (HC).

Hall presented the argument that in LC cultures, nearly everything is explicit, while in HC cultures, much of the information is implicit (1976). When a person says that he is hungry but cannot leave his work right now, listeners from a LC and a HC culture will interpret the same sentence differently. A LC culture person is likely to think the speaker intends to starve until the work is finished, while a HC culture person may think the statement implies that the listener should bring food to the speaker or help finish the work.

1. **Low-context culture (LC):** In an LC culture, people spell things out exactly, using explicit speech to convey their messages. In this type of culture, the communication style shows the literal meanings of actual words used, and it is
easy for a listener to receive the plainly coded messages. Gudykunst, Ting-Toomey, and Chua (1988) described LC communication as direct and precise.

2. **High-context culture (HC):** In an HC culture, people tend to talk around the point and embellish it. Context is more important than words. Nonverbal means of communications, such as tone of voice, facial expression, gestures and posture, play vital roles in conversation as well. Although speakers do not spell things out in detail, they expect listeners to grasp the meaning based on their background, common sense or knowledge. Gudykunst et al. (1988) described HC communication as indirect and ambiguous.

High and low-context cultures are so designated relative to each other and not in an absolute sense with respect to communication and the message’s delivery. Hall (1976) states, “Although no culture exists exclusively at one end of the scale, some are high while others are low.” When Asian cultures are compared with Western cultures, higher-context cultures tend to be more common in Asia than in the West. Even within the same country, communication styles can be different. In the United States, the style of communication typically used is classified as low-context communication, but when comparisons are made within the U.S., the northern United States has a relatively high-context culture and the southern United States is regarded as having a relatively low-context culture.

In general, long-established cultures tend to be high-context cultures. People rely on their history, their status, and their relationships; they focus on having close connections over a long period of time within a group. Therefore, speakers tend to imply ideas rather than stating them explicitly, and listeners are expected to understand the meaning. In contrast, in low-context cultures, which tend to be individualistic and task-centered, speakers tend to
spell things out plainly for prioritizing needs, and listeners get explicit cues about what to do or what to expect next.

2.2 Culture of Taiwan

2.2.1 Geography and history of Taiwan

Taiwan is an East Asia country located in the Pacific Ocean. Its territories can be classified into several island groups. The Island of Taiwan is the largest island and the main territory of Taiwan. The surrounding islands, including Penghu Islands, Kinmen, Matsu Islands, Orchid Islands, Green Islands and other minor islands, are territories of Taiwan as well. The neighboring countries of Taiwan are China, Japan and the Philippines.

To understand the culture of Taiwan, it is helpful to look at its history. Tonio Andrade’s article (2010) provides an easy path to understanding the relatively brief history of Taiwan, which was first introduced to the western world during the Age of Discovery. The Portuguese, the first Europeans to reach the island of Taiwan, named it Formosa. In the 17th century, Spanish and Dutch explorers occupied northern Taiwan and southern Taiwan, respectively. In 1642, the Spanish lost a decisive battle and left Taiwan as the Dutch colony was expanding. This was the same era during which the Ming Dynasty fell. Koxinga (Zheng Cheng-gong), a military leader of the Ming Dynasty, decided to utilize Taiwan as a strategic staging point to re-establish the Ming Dynasty from the Qing Dynasty. In 1661, Koxinga defeated the Dutch and established the Kingdom of Tungning in Taiwan. Taiwan did not become part of China until the Kingdom of Tungning surrendered to the Qing Dynasty in 1683.
In the late 19th century, the Qing Dynasty and Japan went to war. After the military defeat of the Qing Dynasty, Taiwan became part of the Japanese empire. Taiwan was then ruled by Japan for five decades, until the Allied powers defeated Japan in World War II, after which Taiwan was no longer Japan's overseas colony.

In the early 20th century, huge upheavals occurred in China—the Hsin-hai Revolution and the Chinese Civil War. In the Hsin-hai Revolution, China's last imperial dynasty, the Qing dynasty, ended, and the Republic of China (ROC) was established, which represented the beginning of China's republican era.

During the unstable early republican era, differences between the Nationalist Kuomintang Party (KMT) and the Chinese Communist Party (CCP) finally resulted in the Chinese Civil War. The CCP founded the People's Republic of China (PRC) in mainland China, while the KMT retreated to Taiwan in 1949, where it established a government.

### 2.2.2 Cultural diversity of Taiwan

Taiwanese culture is a blend of diverse elements of its original culture and foreign cultures. As an island state, Taiwan easily interacts with external cultures, especially with those of nearby countries. Looking back at Taiwan’s historical experience, it can be seen that Taiwan has not lost its own character and culture even after having various colonizers during its history. Taiwan resisted the foreign culture invasions not by rejection, but rather by peaceful coexistence with external cultures. Taiwan is talented at absorbing colonizing cultures into its own customs and traditions (Keating, 2010). Therefore, Taiwanese culture is particularly noted for its openness, compatibility and innovation.
Three ethnic groups in Taiwan have been recognized officially (U.S. Central Intelligence Agency, The World Factbook): Taiwanese (including Hakka), mainland Chinese, and indigenous. When the Nationalist Kuomintang Party (KMT) retreated to Taiwan in 1949, the million Nationalists also came to Taiwan. Because the incoming Chinese administration controlled Taiwan’s political power, serious rifts and divisions were created between the mainland-China born and the Taiwan-born. In CIA’s categories, Taiwanese (including Hakka) generally means the Han ethnic group, people who migrated from China many generations ago. The mainland Chinese group was born in mainland-China, coming to Taiwan with KMT and later generations. The indigenous people are Taiwan’s original inhabitants. Because of changes throughout the ages, ethnic groups can no longer be viewed in such a simple manner.

Multicultural citizenship has been regarded as vital to the development of multiculturalism in Taiwan (Wang, 2004). In 2001, Taiwan’s president, Chen Shui-Bian, proclaimed Taiwan a multi-ethnic and multi-cultural country (Presidential Palace, 2001), an announcement that was intended to ensure that multiculturalism became basic national policy in laws and regulations in Taiwan. Because of changes in Taiwanese society, the main ethnic groups could be identified as the Hoklo (fulao), Hakka (kejia), Mainlanders (waishengren), Aborigines (yuanzhumin) and New Migrants (foreign brides) (Wang, 2004).

National identity has been a source of conflict within Taiwan for decades, with people in the island arguing about which identity they have—Chinese or Taiwanese. Development of democracy has changed the national identity greatly. In 1992, only 17% of people in Taiwan considered themselves Taiwanese, 25% Chinese and 46% both Chinese and Taiwanese. According to the latest data from Election Study Center of National Chengchi
University (Jan, 2015), 61% of people in Taiwan consider themselves Taiwanese, 4% Chinese and 33% both Chinese and Taiwanese.

Taiwan’s indigenous people, the original inhabitants of Taiwan Island, have seen their land colonized by various foreign powers. During these colonizations, many Taiwanese tribes lost their land, languages, cultures and naming rights (Chiu & Chiang, 2012). In 1984, the first Aborigines’ organization was established and led a series of name rectification movements. More and more indigenous people are trying to find aboriginal bloodlines in their genealogy, officially promote name changes to use aboriginal names, and retain other elements of historical significance for their identity, culture and tribes. Before 2000, nine aboriginal tribes were officially recognized by Taiwan’s government; at present, sixteen are officially recognized. The success of the aborigines’ multicultural citizenship movement has encouraged Hakka ethnic people to trace their origin and migrations.

The most recent group recognized by the Taiwan public is the New Migrants, foreign brides from China, although some come from other Asian countries (Vietnam, Indonesia, Thailand and the Philippines). This new group migrated to Taiwan after marrying citizens of Taiwan.

2.2.3 Food culture and fast food in Taiwan

“Food culture” refers to the food-related aspects of the complex whole that constitutes the culture in general of the people in a region, including knowledge, beliefs, customs, habits and other factors that shape people’s dietary practices and preferences. Each particular food culture can also combine with other food cultures so as to form a new food culture (Bennion, 1995). Food culture serves as a witness of the history and evolution of various factors (Tang,
The Taiwanese food culture has been influenced by geography, colonization, and changes in economics and politics (Chang & Yang, 2004; Juo, Liu, & Wang, 2005). In the 17th century, Dutch colonists who occupied southern Taiwan established rice and sugar agriculture, which changed the dietary habits of the indigenous people. Under Japanese rule, izakaya (Japanese style pubs) were introduced, and sushi, sashimi and bentoh became part of the Taiwanese food culture. When the Kuomintang Party (KMT) of China retreated to Taiwan in 1949, noodles and dumplings became widely accepted by the public (Juo et al., 2005). The culture of Taiwan is rich and diverse because the people have been willing to embrace new cultures and combine them with the former way of life to form something new.

Along with social development, industries and businesses have become prominent, and the number of dual-earner households has increased. One consequence is an increase in the number of people eating out. When the fast food restaurant chain McDonald’s opened its first restaurant in Taiwan, a new world record of a week’s sales was set in its opening week.

Fast food is food that can be prepared and provided to customers quickly (M. Kent, 1997). Popular fast foods include burgers, fried chicken, french fries and chips. Fast foods are usually high in calories, fat, and sodium but low in essential nutrients such as vitamins and minerals. Fast food restaurants provide their products to customers in a very short time through standard operating procedures and cafeteria service (Wu, 2014). In Taiwan, fast food generally means burgers (with meat or eggs), fried meat (such as chicken or pork) and fried foods of plant origin (such as potato or sweet potato) (Chen, 2010).

According to the Taiwan Chain Stores and Franchise Association (TCFA), three categories of western fast-food restaurants are those serving primarily burgers, chicken-based products, and pizza. In this research, we focus on burger chains and chicken-based restaurant
chains, because those two categories commonly share similar products. American, Japanese and Taiwanese local brands of fast-food restaurants compete in Taiwan’s market. The American brand fast-food restaurants are McDonald’s, KFC and Burger King; Mos Burger and Lotteria are Japanese brands; and three local fast food restaurants are TKK Fried Chicken, 21 Century and DanDan Burger. Most fast food chains have stores all over Taiwan. However, Lotteria has physical stores only in Taipei, while DanDan Burger is located only in southern Taiwan.

In Taiwan, McDonald’s is a direct store, while other international fast food restaurant brands are franchised. McDonald’s has the largest share of the Taiwanese fast food market, followed by Mos Burger and KFC. McDonald’s was the first fast food restaurant in Taiwan, opening in 1984, and it has built a very successful and positive corporate image. A pleasant environment and excellent service entices customers to remain loyal to the stores (Lan, 2015). Nevertheless, U.S. McDonald’s has announced it intends to sell all 413 of its Taiwan-based stores in order to expand its business in China (Burkitt, 2015).

The most famous product in Mos Burger is the organic rice burger, which combines Eastern and Western food. Also, Mos Burger launches new products every season, using seasonal foods. These two features make Mos Burger very different from other fast food restaurants. KFC, although a chicken-based restaurant, also offers a Taiwanese style breakfast menu. Pastel de nata is its special product, which people often buy as a gift when they plan to visit friends. Burger King targets primarily the younger generation, while other brands focus more on the family. TKK Fried Chicken focuses on local flavor menu items, such as fries made from fresh sweet potato rather than from frozen potato strips. DanDan Burger provides burgers and fried chicken, with various local foods as sides. Roast chicken is
21 Century’s main product, and Lotteria has the usual products offered by most fast food restaurants, such as burgers, fried chicken and fries.

2.2.4 Taiwan’s cultural values

Taiwan’s cultural values have been molded by three philosophies, Confucianism, Taoism and Buddhist, all of which manifest in attitudes that greatly influence Taiwanese daily life. Briefly, Confucianism concentrates on human relationships, specifically those between ruler and subject, father and son, elder brother and younger brother, husband and wife, and friend and friend (Yao, 2005). The main idea of the five principal relationships is not the hierarchy of superior and subordinate, but the dual aspects of responsibility and obligation. Confucianism aims at developing a moral and ethical system following the five constant virtues: benevolence, righteousness, propriety, wisdom, and fidelity.

While Confucianism is concerned with social order and the moral side of life, Taoism focuses on personal spiritual life. Tao means literally "the path" or "the route," or "the method" and focuses on harmony and the proper way to live. Taoism pursues the balance of all creations of the universe. To achieve balance, meditation, exercise, proper diet, right thinking, and right action are necessary. Yin-Yang, the main concept of Taoism, represents opposite forces in the universe that are needed for harmony to exist. Yin originally meant "sunless" while Yang meant "sunny." Yin is associated with the female, cold or dark, whereas Yang is associated with the opposites. Taoists strive to give up materialistic desires and pursue simplicity and selflessness. Their actions are in accordance with lack of exaggeration, hyperbole or overeagerness. Taoism has a moral and ethical element as well, including the three virtues of kindness, moderation and humility.
Buddhism deals with immortality, death and the afterlife, considerations that guide and influence the ways people act, talk and think. Many Taiwanese believe that a person’s life will be judged and he or she will either be rewarded in heaven or punished in hell before the next reincarnation. However, a person can improve the prospects for a future life by performing acts of kindness, and by showing compassion, honesty, truthfulness and chastity during one’s present life. Everything a person does during life counts with regard to poetic justice, another important belief affecting Taiwanese people’s daily life. Poetic justice does not just happen after death or after the next reincarnation; one can be rewarded in one’s present life, too. Therefore, people are encouraged to engage in constant effort and practice in being disciplined and living in peace and harmony with self and others.

2.2.5 Taiwan’s cultural dimensions

Taiwan and U.S scores and ranks, based on the latest version of Hofstede’s country cultural dimensions (August 2015), are presented in Table 1. The ranks of PDI, IDV, MAS and UAI are ranked for 78 countries and regions, while LTO is ranked for 86 countries and regions. Scores and ranks represent relative, not absolute, positions of countries.

<table>
<thead>
<tr>
<th>Cultural Dimension</th>
<th>Power Distance Index</th>
<th>Individualism Index</th>
<th>Masculinity Index</th>
<th>Uncertainty Avoidance Index</th>
<th>Long-Term Orientation Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Score</td>
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<td>Rank</td>
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<tr>
<td>Taiwan</td>
<td>44-45</td>
<td>58</td>
<td>68</td>
<td>17</td>
<td>45-47</td>
</tr>
<tr>
<td>United States</td>
<td>61-62</td>
<td>40</td>
<td>1</td>
<td>91</td>
<td>20</td>
</tr>
</tbody>
</table>
Taiwan is ranked 44-45, while the United States is ranked 61-62, in power distance among 78 countries; Taiwan is ranked 68 and the United States 1, in individualism vs. collectivism; Taiwan is ranked 45-47 and the United States 20, in masculinity vs. femininity; Taiwan is ranked 40 and the United States 66, in uncertainty avoidance; and Taiwan is ranked 2 and the United States 70-72, in long-term vs. short-term orientation. Thus Taiwan and the United States show the most pronounced differences in IDV and LTO, although PDI, MAS and UAI differ distinctly different in the two countries as well.

Figure 1 shows differences between Taiwan and the United States with regard to five cultural dimensions. When PDI values are compared, it is obvious that Taiwan is characterized by less equality than the United States. Taiwan has a more clear hierarchy of leaders to subordinates, and of teachers to students. People in the United States attempt to reduce the inequality of interpersonal relations than people in Taiwan do.

Taiwan is a typical collectivist society, largely due to Confucian tenets. Its people focus on harmonious relations and dignity, regardless of personal feelings. The United States has an extremely high score on IDV, ranking number 1 among 78 countries; its people resist compromising their rights and freedoms and strive for independence as individuals. Individualism values individual interests over group interests, the total opposite of collectivism.

PDI and IDV tend to be negatively correlated (Hofstede & Hofstede, 2005); countries with high PDI scores usually have low IDV scores, and vice versa. Taiwan and the United States reflect this correlation.
Figure 1. Taiwan and U.S. cultural dimension rankings (Tsai, 2009)
Taiwan has an MAS score slightly below average and is thus considered a slightly “feminine” society. Both men and women in a feminine society are expected to be tender and have flexible roles in the family structure. The low MAS score (high femininity) also reflects Taiwan’s cultural value of living in peace and harmony with self and others. In contrast, the U.S. tends to be more masculine. The typical behavioral pattern of masculinity is ego orientation; people strive to be their best and aim for success and achievement. In the case of both Taiwan and the U.S., MAS and IDV are positively correlated.

Taiwan has a high score on the UAI dimension. People may see an unknown situation as a threat, which motivates them to keep busy and work hard and which makes security an important element in their career goals. In contrast, the U.S. scores below average on the UAI dimension, which means the anxiety about uncertainty is relatively low, so that people feel free to change and are open to accepting new ways.

Taiwan has a markedly higher score than the U.S. on the LTO dimension. In a pragmatic, long-term-orientated society, people show pronounced interest in saving money, investing and encouraging higher education to prepare for the future. The demands of virtue override most other considerations, in line with the cultural values of Confucianism, Taoism and Buddhism. The U.S. has a short-term orientation; its people show a tendency to live in the moment and pursue personal fulfillment and self-actualization in ways that may bring immediate results.

Edward Hall (1990) divided cultures into two categories on the basis of high-context (HC) cultures and low-context (LC) cultures. Generally Asian, Eastern Mediterranean and Latin American countries have high-context cultures, whereas Western/Northern European
countries have low-context cultures (Figure 2). Hall defined “Context is the information that surrounds an event; it is inextricably bound up with the meaning of that event” (1990).

**Figure 2.** Cultures arranged along high-context and low-context dimension (Samovar, Porter and McDaniel, 2006)

Similarly to Hofstede’s concept of cultural dimensions, the concept of HC and LC cultures classes cultures relative to each other; a culture may be of high context compared with one other culture but low context compared with another. Samovar et al. (2006) stated that one culture may contain both HC culture and LC culture characteristics.
Taiwan, Japan and South Korea, which have been influenced significantly by Chinese culture (Fan, 2000), rank similarly to China in the HC/LC cultural dimension (Samovar et al., 2006). As citizens of a HC culture, the Taiwanese emphasize interpersonal relationships, which leads to a communication style that is very polite and aims to avoid embarrassing others or themselves. People tend to give ambiguous responses when they do not agree with an opinion or reject a request; instead of a direct “no,” Taiwanese tend to say “I am not sure” or “I will think about it.” The writing style within a culture is similar to the conversational style; for example, people of a HC culture spell out few details and omit explanations, assuming that everyone knows much of what is being stated or written, even if explicit details are left out.

The U.S. has a LC culture with a rational, verbal, and explicit communication style. Communications are generally as accurate and efficient as it is possible to make them, with no hidden meanings in the messages. Members of such a culture tend to have many task-orientated relationships that begin and end quickly and generally communicate in a way consistent with their true feelings or intentions, with little hesitation, to ensure that the message is received as it was intended to be. The writing style also makes the message as explicit as possible, every written word speaking for itself.

Strong relationships exists among Hofstede’s cultural dimensions, Hall’s HC/LC cultural dimensions, and Taiwan’s cultural values. Würtz (2005) indicated that a HC society usually has a high PDI. Influenced by the ideas of Confucianism, Taoism and Buddhism, the Taiwanese are group-oriented and place great value on human relationships, reflecting Taiwan’s high PDI. Because of close in-group relationships, members tend to share background information freely, which can help them pull materials together during
conversation, with both speaker and listener expecting each other to understand the meaning. This phenomenon, Taiwan being a HC culture along with having a high PDI score, is consistent with Würtz’s conclusion.

The IND dimension is related to the HC/LC cultural level as well (Würtz, 2005). Taiwan’s traditional culture emphasizes group benefits rather than personal goals, which fits the concept of Hofstede’s collectivistic dimension. The lack of clarity in intention and ambiguity in communication are designed to maintain peace within the group. Both Taiwan and the U.S. show a significant correlation between IND and HC/LC cultural scores.

2.3 Cultural Awareness in Website Design

2.3.1 Importance of the Internet

In 1995, only 0.4% of the world population used the Internet, a figure that had increased to more than 40% by the end of 2014 (Internet World Stats, 2015a). According to predictions in ICT Facts and Figures – The world in 2015, published by International Telegraph Union, an estimated 3.2 billion people would have access to the Internet by the end of 2015, and 4.7 billion by 2025 (Burt, Kleiner, Nicholas, & Sullivan, 2014). An estimated 87% of the population in the U.S., and 84% of the population in Taiwan, used the Internet in August 2015 (Internet World Stats, 2015b).

The concept of the "Global Village," coined by Marshall McLuhan in 1962, is a metaphor for a world interconnected via electronic communications and a trend toward worldwide cultural convergence (Witzel, 2003). Because of new technologies that link the world electronically, Internet users can reach millions of people worldwide without
geographical considerations or time constraints. For enterprises, the Internet is a location-free, time-free universal source (Ibrahim, 2015). Because of the Internet’s cross-national nature, enterprises, by using websites, can communicate and interact with their target audiences and even easily reach those who might be potential customers on a global scale. M. Maynard and Tian (2004) pointed out that the Internet is more effective and more easily accessible than traditional media such as TV commercials, newspapers, and magazines for enterprises to use to market around the world.

In 1999, Esrock and Leichty predicted that approximately 90 percent of Fortune 500 companies would establish websites within 5 years. All of the Fortune 500 corporations are currently online with websites (Fortune magazine, 2015a), and all of the Fortune 500 global corporations have already built a web presence (Fortune magazine, 2015b). A website is not only essential to running a business; it is also a significant component of the business, similar to a corporate logo (Esrock & Leichty, 2000). Ibrahim (2015) indicated that the corporate website is a useful channel for delivering and maintaining the corporation image and identity, as well as for shaping and enhancing the corporation reputation.


Websites are also an important tool for public relations. A company can monitor information flow between itself and the public and can use websites to disseminate positive information for shaping its corporate image (Cooley, 1999; M. Goodman, Rolland, & O’Keefe Bazzoni, 2009; Sullivan, 1999). Especially in the case of a specific issue, companies can get the public’s feedback quickly and respond immediately (Chun & Davies, 2001; Esrock & Leichty, 1998, 1999, 2000; M. L. Kent & Taylor, 2003; Tian, 2006).
Because Cyberspace is a location-free and time-free platform (Ibrahim, 2015), a company can run its business 24 hours a day throughout the year to reach target consumers and potential customers. Moreover, because the Internet is inherently global in nature, companies can cross national boundaries, reaching foreign customers (N. Singh et al., 2005).

A website is a convenient platform to showcase all the products a company offers (Esrock & Leichty, 1999) and makes it relatively easy to categorize information for different target audiences (M. B. Goodman, Castelo Branco, & Lima Rodrigues, 2006). Consumers around the world can easily use the Internet to obtain the information they need, regardless of whether the company is local or half a world away.

A corporate website not only supports business-to-consumer commercial activities, but can establish credibility in situations of business-to-business investment or partnerships as well (Sullivan, 1999; Tan, Nielsen, & Dou, 2002). Disclosure of financial information to the interested parties on corporate websites may arouse other corporations’ interest in investing. Moreover, the public tends to assume that a company has a website, just as Fortune 500 or Fortune global 500 big businesses have.

Disclosing information online is relatively inexpensive. Compared with the cost of using website marketing for twenty-four hours per day throughout the year, the cost would be astronomical for use of traditional media, such as television commercials. Therefore, establishing a website is a valuable investment, as it provides a limitless, easy, and low-cost way of extending a market (Chun & Davies, 2001; Esrock & Leichty, 1999; Sullivan, 1999). Also, as Esrock and Leichty (1999) pointed out, websites build active relationships between companies and their website visitors. Companies can assume those visitors who browse the
website are potential customers or re-visitors who are interested in the company or its products.

Overall, then, a website is a convenient platform for promoting a company’s products and services as well as a useful channel for attracting more customers (Chiou, Lin, & Perng, 2010). The advantages of having websites lead to the conclusion that proper use of a website can enable a company to reach millions worldwide and increase its profits considerably.

2.3.2 Globalization and glocalization

The Internet is widely used in North America, where one of every two people was an Internet user by 2015 (Internet World Stats, 2015c). With the expansion of the Internet, more non-English speaking users can also access the Internet. The average increase in the world as a whole was 806% from 2000 to 2015 (Internet World Stats, 2015d), during which time the number of non-English speaking users increased dramatically. The numbers in Africa, Middle East and Asia grew 6839%, 3426% and 1268%, respectively, while in North America it was 190%. Thus the Web connects different parts of the world, and people in different parts of the world have opportunities to participate in cyberspace and obtain the same information from it (N. Singh et al., 2005).

The flourishing of the World Wide Web brought about integration among economies, and societies, a process of integration called “globalization,” popularized by Levitt (1983). Robertson emphasized that the main concept of globalization is treating the world as a whole (1992) and Barker supported the idea that globalization is a worldwide homogenizing process (1999). Tomlinson (1999) referred to globalization as interconnections and interdependencies among nations; the famous metaphor for this “shrinking world” is Marshall McLuhan's term,
“global village.” Levitt (1983) predicted that providing customers all around the world the same information will homogenize customers’ tastes and demands and make the market a single unified global market. Allio (1989) and Levitt (1983) suggested that international enterprises should sell a specific thing in the same way everywhere.

In contrast, Mooij (2010) contended that global brands and global products exist, but global people do not. A globally standardized product that is popular in one area is not guaranteed to be popular with people in other regions as well. Inglehar and Baker stated that globalization, which results in world compression, can produce both homogenous and heterogeneous results (2000). Frequently, global connectivity raises the awareness of a defensive need to protect traditional cultural features (Robertson, 1992; Shen et al., 2006). Undeniably, global connectivity and local practices are bound together in today’s society, and it is necessary to examine and evaluate local practices and lifestyles during globalization (Tomlinson, 1999).

“Glocalization,” a term denoting the combination of “globalization” and “localization,” was proposed as the result of Japanese business practices in the 1980s (Mucha & Leszczyńska, 2010). Robertson explained glocalization as the process of addition of global influences to local cultural meanings, which helps the local culture and global influences to absorb each other naturally (1995). A strategy for offering products or services developed and distributed globally and customized for a local market is highly recommended if international corporations are to enter foreign markets (M. L. Maynard, 2003). The advantages of adopting glocalization as a marketing strategy are that it encourages global availability and ensures localized quality at the same time (Shen et al., 2006).
A standardized website, with its context merely translated into different languages for different regions, is inefficient as a marketing tool and inadequate for the course of glocalization (Khanum et al., 2012; Würtz, 2005; Yeo, 2003). A standardized website may achieve the goal of international exposure, but it does not fit the concept of glocalization, which incorporates local uniqueness (Chapin, 2000). When websites from different cultures are observed, the website designs are seen to have features significantly influenced by the culture in which the websites originated (Juric et al., 2003). Therefore, international corporations’ websites should be “born-global” with consideration of different cultures and languages for their target global consumers (N. Singh & Matsuo, 2004).

In order to communicate with a particular culture via websites, cultural awareness in coding meaning to messages based on locals’ cultural experiences is vital (Eristi, 2009). Researchers believe a culturally appropriate website design will attract more consumers and gain the trust of consumers (Hermeking, 2005; Kondratova & Goldfarb, 2006, 2010; Marcus & Gould, 2000; Snelders, Morel, & Havermans, 2011). Adopting cultural factors in websites could enhance users’ experience in acquiring knowledge (Davis, Wang, & Lindridge, 2008). A famous example is seen in the case of Coca-Cola; in 1999, Coca-Cola Corporation realized that “although Coca-Cola is a global brand, customers do not drink Coca-Cola globally.” Consequently, Coca-Cola adopted a new marketing strategy, “think local, act local,” to recognize, respect, and emphasize the needs of customers in local markets (Tian, 2006).

According to Baalbaki and Malhotra (1993) and Meffert and Bolz (1994), products can be classified as “culture-free” or “culture-bound,” terms that refer to nondurable consumer goods and durable high-interest, high-tech or digital products, respectively. The websites for culture-free products were characterized by modest standardization with uniform
content and design appropriate to their global market. However, Hermeking’s research (2005) showed more cultural adaptation on culture-free product websites in recent years compared to earlier eras. More colored backgrounds and animated illustrations or moving visuals were used with respect to other cultural markers.

Hermeking (2005) reported that the websites for culture-bound products (such as low-interest products) adopted more local cultural features than did websites for culture-free products. Websites for McDonald’s (which offers low-interest products) in HC cultures adopted a higher rate of animations than those in LC cultures did (Würtz, 2005), whereas Benz (which offers high-interest products) websites tend to be standard and of LC style (Hermeking, 2005).

2.3.3 Cultural dimensions and website design

A number of researchers have examined global websites from the point of view of Hofstede’s five cultural dimensions and Hall’s HC/LC cultural dimensions. Marcus and Gould (2000) and Kralisch, Eisend, and Berendt (2005) applied Hofstede’s cultural dimensions to a cross-cultural analysis of websites, and Ju-Pak (1999), Khanum et al. (2012), Okazaki (2005), Hermeking (2005) and Würtz (2005) applied Hall’s HC/LC cultural dimensions. N. Singh (2003), N. Singh and Matsuo (2004), N. Singh et al. (2005), and Ahmed et al. (2009) conducted research that applied both of these simultaneously. Based on these studies, each cultural dimension appears in Table 2, with the main implications for website design.
Table 2. Main features of website design in terms of cultural dimensions

<table>
<thead>
<tr>
<th>Cultural Dimension</th>
<th>Main features</th>
</tr>
</thead>
<tbody>
<tr>
<td>High PDI cultures</td>
<td>Tall structure/information architecture</td>
</tr>
<tr>
<td></td>
<td>Focus on expertise and authority</td>
</tr>
<tr>
<td>High IDV cultures</td>
<td>Product-oriented images</td>
</tr>
<tr>
<td></td>
<td>Focus on materialism and consumerism</td>
</tr>
<tr>
<td>High MAS cultures</td>
<td>Male theme</td>
</tr>
<tr>
<td></td>
<td>Graphics used for utilitarian purposes</td>
</tr>
<tr>
<td>High UAI cultures</td>
<td>Simple navigation</td>
</tr>
<tr>
<td></td>
<td>Redundant cues</td>
</tr>
<tr>
<td>High LTO cultures</td>
<td>Focus on practical value</td>
</tr>
<tr>
<td></td>
<td>Patience in achieving results and goals</td>
</tr>
<tr>
<td>HC cultures</td>
<td>Heavy use of symbols</td>
</tr>
<tr>
<td></td>
<td>Diverse and colorful</td>
</tr>
</tbody>
</table>

2.1.3.1 Hofstede’s five cultural dimensions and web design

Marcus and Gould (2000) designed the components (metaphor, mental models, navigation, interaction and appearance) of website design based on Hofstede’s five cultural dimensions and illustrated the characteristics of the components as follows (Aaron Marcus and Associates, Inc):

- Metaphors: Ease of recognition of terms, images, and concepts
- Mental Model: Appropriate organization and representation of data, functions, tasks, and roles
- Navigation: Efficient movement within the mental model through menus, dialogue boxes, and control panels
- Interaction: Effective input/output sequencing, including feedback
- Appearance: High quality perceptual characteristics

In Marcus and Gould’s research (2000), (1) a high PDI culture has relatively restricted authentication; for example, a password might be needed to access the website. The metaphors and appearance show clear hierarchy, such as social roles of the company, certification stamps or images of leaders. Interaction tends to give error messages only, with no supportive cues provided. (2) High IDV cultures tend to use product-oriented images and
action-oriented, direct, active verbs in metaphors. Interaction usually involves search engines and customizable devices. (3) High MAS cultures tend to be monochronic, providing an explorative and control-style navigation. Interactions gain attention through games, quizzes or competitions, and sensory elements on websites, as well as masculine styles with utilitarian purposes. (4) In high UAI cultures, reducing anxiety is the main goal, such as through the use in metaphors of themes familiar to customers (i.e., aspects of daily life) and simple navigation that prevents users from getting lost in the site. Feedback from customers is important in the interaction component. Redundant cues on typography, with different weights or colors, are commonly used. (5) A high LTO culture uses family-related metaphors and social responsibility or practical values in mental models. National images, colors and flags and fuzzy images might also appear on the websites.

Singh proposed 35 cultural coding categories for four of Hofstede’s five cultural dimensions (omitting the LTO dimension), with the addition of Hall’s HC/LC culture (N. Singh, 2003; N. Singh & Matsuo, 2004; N. Singh et al., 2005). Collectivist cultures emphasize dependence on organizations or groups, which is reflected in website designs through building community relations, setting up a members’ club, releasing newsletters, using images of family or employees, and adopting national or historic visual elements. High UAI cultures seem to become anxious easily, avoid taking risks and require clear instructions; therefore, a high proportion of websites have FAQ’s, free trials and site maps. High PDI cultures stress hierarchical structures and favorable recognition. Organizational charts, quality assurances and awards, and titles of social status are frequently seen in the websites. In a high masculinity society, achievement, personal values, and male domination are emphasized by having games, images with themes related to males, and content focusing
on product effectiveness. A HC culture is inclined to polite communication, emotional appeals and aesthetics in website design. The messages are indirect or imply multiple meanings. Soft-sell strategies are used by creating an atmosphere and emotion related to customers’ feelings and condition or by using an entertainment theme. Multiple colors, art works, and illustrations are used for aesthetic purposes. The messages in LC cultures are direct and explicit, emphasizing product advantages. Also, messages in LC cultures tend to be informative via showing the policy and conditions of purchase.

Kralisch et al. (2005) focus on website navigation behavior with regard to LTO, UAI (Hofstede, 2005) and time perception (monochronic verse polychronic) cultures (Hall, 1976). Kralisch et al. (2005) confirmed that low LTO cultures (short-term oriented) focus on immediate achievement; therefore, website design should help users find information as quickly as possible, while in high LTO cultures users spend more time to explore websites. Low UAI websites provide maximal content and choices, while the high UAI websites provide relatively little content and relatively few choices, because “high UAI members tend to explore all available options in order to minimize the number of unknown situations and locations” (Kralisch et al., 2005). The term “polychronic culture” refers to a culture in which individuals prefer to do more than one thing at a time, while in a “monochronic culture,” individuals focus on one thing at a time. The navigation patterns have linear and non-linear designs for monochronic and polychronic cultures, respectively. The results of this study showed that monochronic cultures tend to be high UAI and low LTO oriented cultures, while polychronic cultures are inclined to be low UAI and high LTO oriented cultures.

Ahmed et al. (2009) explored the cultural impact on website design in Asian Eastern countries, the majority of which are regarded as high power distance and high context
cultures. Five features of high PDI and HC culture websites were examined. A high PDI and HC society emphasizes a hierarchical structure; therefore, having an organizational chart or showing the CEO’s image is important. Highlighting the titles of individuals, such as professional titles or academic degrees that show an individual’s social level or social roles, is important as well. Building relationships with other businesses and building trustworthiness in the minds of customers, which are other goals of high PDI and HC society websites, are accomplished by showing the logos or symbols of other cooperative partners, awards or official certification on websites. HC cultures prefer implicit communication styles; it is therefore common to see many images, metaphors, and animations in their websites.

2.1.3.2 Hall’s high-context/low-context culture and web design

Edward Hall (1976) proposed that all cultures can be designated in relation to one another according to their communication styles. Because of the variation in communication styles, it is predictable that websites in various cultures communicate their messages differently (Würtz, 2005). Cultural values are also reflected in website design, such as family values and elements of lifestyle often portrayed in the images in HC cultures websites (Marcus & Gould, 2000).

Okazaki (2005) pointed out that website advertisements/images in HC cultures tend to use an indirect approach, employing visuals and symbols to create emotion and atmosphere to connect with customers, whereas LC cultures tend to use a direct approach, using explicit information to highlight product features to persuade customers. This
marketing strategy is referred to as “soft sell” versus “hard sell” appeals in HC cultures and LC cultures, respectively.

Ju-Pak (1999) conducted research on Web advertising and concluded that HC cultures have relatively long web pages, tend to use text-limited layout (more images than text), use many more animated illustrations, and contain a large number of hyperlinks and clickable items.

Hermeking (2005) illustrated the features of appealing content and website layout shown in Figure 3. Hermeking stated that LC culture websites very often have explicit informational content. Corresponding to the visual layout, LC culture websites frequently have a compartmentalized, structured and intensive navigation support style. HC culture websites have less intensive navigation support (such as fewer sub-menus under the main navigation bar) and use clickable visual elements (such as pictures or icons) instead. Entertaining visuals and animated illustrations are sometimes used to an overwhelming degree on HC cultural websites.

Würtz (2005) claimed that the layouts of HC culture websites seem to be complex and unstructured, while layouts of LC culture websites are flat and organized. This study also applied Hall’s ideas (1976) concerning cultural variations in time perception and message speed. HC cultures are “polychronic cultures” while LC cultures are “monochronic cultures.” Polychronic and monochronic features are reflected in the hierarchy of navigation and the transparency of the website. More effort is needed to decode and respond to the message in HC cultures, while the message in LC cultures is easier to understand and react to; this is similar to the interpretation of Gudykunst et al. (1988), who described HC cultures as having
more indirect and ambiguous communication styles than those of LC cultures, which tend to have direct and precise communication styles.

Würtz (2005) also reported a high correlation between HC/LC cultures and the PDI and IDV dimensions. High PDI cultures have a “tall hierarchical structure” of their websites, which means that when one clicks on a link, a new page opens in a new browser window. For websites in low PDI cultures, a new page opens in the same browser window. The IDV dimension is reflected in the content of the images; websites of individualist cultures tend to have single individuals in images, whereas those of collectivist cultures tend to have more than one individual in each image.

Figure 3. General relation between web design styles and HC/LC cultures (Hermeking, 2005)
2.3.4 Cultural markers

Barber and Badre (1998) emphasized the importance of “usability” and “culture” by combining them into a new concept, “culturability,” which advocates adopting cultural factors to enhance the usability of the website. “Cultural markers are interface design elements and features that are prevalent, and possibly preferred, within a particular cultural group” (Barber & Badre, 1998). Cultural markers such as colors, symbols, graphics, multimedia, typefaces, metaphors, language, text, and navigation tools were found to influence website visitors’ experience (Barber & Badre, 1998).

Juric et al. (2003) categorized the criteria of website evaluation as verbal, visual and audio-visual. The verbal category includes language and formats (such as units of measurements or date format); the visual category covers images (photos, symbols, icons, and index), color (of background, text, link, and graphics), typeface and layout (the placement of the navigation bar, logo, title, and other website elements); and audio-visual consists of animation and sound. They concluded that not all of the cultural markers differed between UK and Korean websites; only color, menu placement, menu layout, and animation of text differed markedly.

Hermeking applied eight criteria to website examination. The five main criteria were content appeal (regarding both verbal and visual content), arrangement of layout, length of pages, multimedia and interactivity; three supplemental criteria were structure of content, website volume and navigation support (2005). Verbal content refers to two types: text-heavy or text-limited. LC cultures tend to be text-heavy, rational, explicit, and informative in communication style (Hermeking, 2005). Interactivity is related to hyperlinks and navigation support of a degree that could be highly intensive or less intensive.
Eristi (2009) reviewed published research and collected numerous possible website elements related to cultural values. Those elements were divided into eight categories of cultural markers: type of websites, color, typography, visual information, aesthetic factors, functional factors, layout, and interactions and navigation. The study examined 15 university websites with regard to cultural markers among 11 countries from Asia, the Middle East, North America, South America, Europe, and Australia. One significant difference across regions is layout, with Middle East layout flowing from top to bottom while Western countries feature center-aligned pages. The majority of the university websites used metaphors of quality of institutions, while European sites tended to more student-oriented.

Khanum et al. (2012) examined the degree to which website elements conform to Hofstede’s dimensions and the prominence of cultural markers in Arabic websites of Saudi Arabia, United Arab Emirates and Kuwait. The cultural markers examined in this research are color, layout, text, language and number of links. Color, text, and language are distinctive cultural markers in Arabic websites. Large numbers of leaders, official buildings, and official logos, used often in the images, fit Hofstede’s claim of High PDI in Arab cultures, whereas elements such as use of many group pictures and few authentication passwords supports his claim of low IDV in Arab cultures.

Smith, Dunckley, French, Minocha, and Chang (2004) examined Taiwanese and Indian e-finance websites by cultural attractors: color palettes, banner advertisements, cultural signs, metaphors, navigation system and other visual elements. The significant cultural attractors for both Taiwanese and Indian websites are use of color and color combinations, linguistic cues, use of culturally specific symbols, and iconography and trust signs.
In a study by Tsai (2009), Taiwanese websites and U.S. websites were examined as to navigation, layout, icons, color, and image. One conclusion is that not all cultural markers map precisely with cultural dimensions. Taiwanese websites lacked consistent navigation throughout the websites and rarely supplied a visual hierarchy for navigation. According to Hofstede (2005) and Marcus & Gould (2000), one feature of website representations in high PDI cultures is that websites have relatively consistent navigation systems. However, Taiwan, with a high PDI, did not show this website feature, whereas the U.S., with a relatively low PDI, did. The author assumed that the disagreement between the cultural dimensions and cultural markers was because of classification limitations of Hofstede’s cultural dimensions.

Hsieh, Chen, and Dai Hong (2013) compared Taiwan’s and Australia’s local government and city websites on the basis of five variables: visual presentation, navigation, links, layout and use of multimedia. Significant differences were seen between the two cultures’ website design, especially on the multimedia attribute. Most Taiwan sites incorporate moving pictures and animations, which are rarely used in Australian websites. The researchers speculated that Taiwan, as a HC culture, seeks to assimilate the human presence into websites, while such a presence may be a distraction in Australia, which is considered a LC culture. Hsieh (2014) further conducted experiments on improving one Taiwanese and one Australian website by embedding each of the culturally preferred design elements established by previous research (Hsieh et al., 2013). The results indicated that web design that adopts appropriate cultural elements will be more effective in communicating to people of specific locales.
CHAPTER 3

METHODOLOGY

Most of the research on cross-national websites has focused on government, university, tourism and e-commerce websites; a few have explored fast-food chain websites but have focused only on certain McDonald’s websites. Therefore, the goal of this research is to identify cultural markers specific for fast-food chain websites and identify any relationship that exists between cultural markers and cultural dimensions of fast-food chain websites of Taiwan and the U.S.

3.1 Research Design

The study examined differences between fast-food chain websites in Taiwan and the U.S. An effort was made to explain differences in terms of Hall’s dimensions (1976) and Hofstede’s dimensions (2005). The cultural markers considered in this project include visual cues and written text, based on the components proposed by Juric et al. (2003) and Hsieh et al. (2013).

This study used qualitative content analysis, a method that can deal with unstructured material and can process symbolic forms for studying cultural value appeals through context (Ahmed et al., 2009). Materials for content analysis are screenshots of websites that capture the message and complex context for later analysis (Tsai, 2009). Cultural markers were selected from published reports of previous research (Hsieh et al., 2013; Marcus & Gould, 2000), with revision of cultural markers after formative checking of 10% – 50% of the samples (Mayring, 2000). The screenshots of websites were obtained by the author between September 1 and 10, 2015.
3.2 Hypothesis

The main objective of this study is to examine whether and how certain cultural factors that characterize Taiwanese culture and U.S. culture are reflected in fast-food chain website designs and to attempt to verify our findings in terms of cultural dimensions.

On the basis of Hall’s HC/LC classification and Hofstede’s cultural dimensions, Taiwan is regarded as a HC culture, with relatively high power distance, collectivism, femininity, and uncertainty avoidance as well as a long-term orientation, while the U.S. is a LC culture, with low power distance, high individualism, high masculinity, and low uncertainty avoidance, as well as a short-term orientation. Questions arose regarding relationships between the features of cultural dimensions and the website designs of these two countries. Hypotheses are as follows:

H1. High PDI features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.

H2. Low IDV features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.

H3. Low MAS features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.

H4. High UAI features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.

H5. High LTO features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.
H6.HC features appear more frequently in fast food chains’ websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.

3.3 Candidate Cultural Markers

Taiwanese websites and U.S. websites were examined for the cultural markers proposed by Marcus and Gould (2000) and Hsieh et al. (2013). Within a feedback loop, those cultural markers were revised, eventually being formulated to new candidate cultural markers with respect to the fast food chains’ websites. The candidate cultural markers were categorized as to three attributes: verbal, visual and multimedia. The candidate cultural markers for this study are shown in Table 3.

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Cultural Markers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal</td>
<td>Slogan</td>
</tr>
<tr>
<td></td>
<td>Terms and conditions of purchase</td>
</tr>
<tr>
<td>Visual</td>
<td>Image</td>
</tr>
<tr>
<td></td>
<td>Symbol, icon, and index</td>
</tr>
<tr>
<td></td>
<td>Color</td>
</tr>
<tr>
<td></td>
<td>Text</td>
</tr>
<tr>
<td></td>
<td>Layout</td>
</tr>
<tr>
<td></td>
<td>Navigation</td>
</tr>
<tr>
<td>Multimedia</td>
<td>Animation, streaming video</td>
</tr>
</tbody>
</table>

Table 3. List of candidate cultural markers used
Definitions of cultural markers are as follows (details can be found in Marcus (2003), Hsieh et al. (2013), Khanum et al. (2012), Tsai (2009) and Juric et al. (2003)).

**Slogan:** Slogans have commercial purposes and appear in campaign commercials, being used to convey a message about the product and to capture the attention of the audience. This study focuses on the slogans on online advertisements.

**Terms and conditions of purchase:** Terms and conditions are disclaimers and statutory disclosures sections. This study focuses on the terms and conditions of purchase, not the terms and conditions of the website.

**Image:** Images are visual content that communicate through the sense of sight and that can improve website appeal and enhance the user’s experience. Images can illustrate concepts without the use of a large number of words and help to retain users’ interest and attentions, but it must be kept in mind that cultures may have different aesthetic values. Images in this study refer to images in online advertisements and images of products.

**Symbol, icon and index:** The word “icon” originated from the Greek “eikon,” which means image; an icon is a sign that resembles the thing it represents, so that it is easy to understand. An index is a sign that has a logical connection to the thing it represents but does not resemble the thing directly. A symbol is a sign without any logical connection to the thing it represents; it is the most abstract sign, and therefore its meaning must be learned. The similarity of these three types of sign is that they all convey messages and information; they may require culture-specific support information as well.

**Color:** Colors have strong associations with cultures, and a color may have different meanings in different cultures. Colors not only have aesthetic properties, but also provide
emotional qualities, visual cues, visual harmony and appropriateness for a particular purpose. Color, in this study, refers to overall use of color.

**Text:** Text is an important element of the website that shows the concept and content of the website and also provides visual cues to users. The hierarchy of the text directs the reading direction through use of typefaces, sizes, weights, and colors and gives guidelines to users on title, body content, highlighting or hyperlinks as well. Text in this study refers to typographic features.

**Layout:** The layout refers to the website’s structure, which arranges menus, images, text, and orientation of windows so as to influence the user’s reading direction. When the layout is well designed, users can skim the content quickly and comprehend the information easily. A consistent layout design throughout the website also helps users process information effectively. Layout in this study refers to the website alignment, structure and layout consistency.

**Navigation:** Navigation refers to the system that enables users to explore and to go to various locations in a website. The navigational tools, such as the navigation bar, hypertext links, search tools and other clickable items, can allow users to identify their current location and find their target locations.

**Multimedia:** Multimedia combines various content forms, such as text, sounds, images, animation or video, that can evoke more than one sensory perception in users. Proper use of multimedia can enrich users’ experience, whereas improper use can be a distraction.
3.4 Sample Selection

3.4.1 Selection of two cultures

Taiwan and the United States were selected because their cultures show distinct differences. According to the latest ranking of Hofstede’s cultural dimensions (2015), Taiwan tends to high power distance, collectivism, femininity, high uncertainty avoidance and long-term orientation, whereas the United States is opposite in each cultural dimension (Table 1). In terms of Hall’s HC/LC cultural dimension (1976), Taiwan is a HC cultural country and the United States is a LC cultural country. Since these two countries are essentially opposite in cultural dimensions, it would seem worthwhile to study how the differences between the two counties are related to website design.

3.4.2 Selection of the fast food industry

Fast foods are classified as culture-bound products (Hermeking, 2005) for which a standard website is not suitable for use in international markets; cultural factors need to be considered for fast food website designs to fit local tastes.

Eight fast food chains do business in Taiwan: the American brands McDonald’s, KFC and Burger King; the Japanese brands Mos Burger and Lotteria; and the Taiwanese brands TKK Fried Chicken, 21 Century and DanDan Burger; Lotteria was excluded from the sample because it did not have a website. Three U.S. fast food chains’ websites and seven Taiwanese websites served as the sample for this study. The selected Taiwanese websites can be regarded as the population, because they comprise all the Taiwan fast food chains that have a website.
The main purposes of Taiwan’s fast food chains’ websites are introducing the company and its products, releasing news of events, encouraging membership, and delivering services, while fast food chains’ websites of the U.S. mainly focus on shaping the company image, introducing products, and releasing news of events. Options and information for membership and delivering services are absent from U.S. fast food chains’ websites.

3.4.3 Selection of homepages and menu of products pages

The homepage is usually the first page, from which a visitor starts exploring a website. Its function can be regarded as similar to that of the reception room of a company, where visitors are received, questions are answered, and images of the company are represented. An attractive appearance and easy navigation of the homepage are important. Usually, if the website is consistent in all pages, the second and third level web pages will follow the structure of the homepage. Most website research examines the homepage (e.g., Eristi, 2009; Hermeking, 2005; Hsieh et al., 2014; Sihgh & Boughton, 2005; Snelders et al., 2011; Tsai, 2009).

The first products of the main product of the menu category was selected as the secondary page for examination. The reason for this selection is to check for consistency between the homepage and secondary page of the layout. Moreover, choosing the main product web pages of each fast food chain ensures that we examined the most important product of each company. Links of website homepages and menu pages are shown in Table 4.
Table 4. Websites selected for this research

**Taiwan fast food chain**

<table>
<thead>
<tr>
<th>#</th>
<th>Fast Food Chain</th>
<th>Web Page</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>McDonald’s</td>
<td>Home page</td>
<td><a href="http://www.mcdonalds.com.tw/tw/ch/index.html">http://www.mcdonalds.com.tw/tw/ch/index.html</a></td>
</tr>
<tr>
<td>2</td>
<td>KFC</td>
<td>Home page</td>
<td><a href="http://www.kfcclub.com.tw/">http://www.kfcclub.com.tw/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary page</td>
<td><a href="http://www.kfcclub.com.tw/Menu/Products/2.html">http://www.kfcclub.com.tw/Menu/Products/2.html</a></td>
</tr>
<tr>
<td>3</td>
<td>Burger King</td>
<td>Home page</td>
<td><a href="http://www.burgerking.com.tw/">http://www.burgerking.com.tw/</a></td>
</tr>
<tr>
<td>5</td>
<td>TKK Fried Chicken</td>
<td>Home page</td>
<td><a href="http://www.tkkinc.com.tw/">http://www.tkkinc.com.tw/</a></td>
</tr>
<tr>
<td>7</td>
<td>DanDan Burger</td>
<td>Home page</td>
<td><a href="http://home.so-net.net.tw/ywc580510/">http://home.so-net.net.tw/ywc580510/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary page</td>
<td><a href="http://home.so-net.net.tw/ywc580510/dm1.html">http://home.so-net.net.tw/ywc580510/dm1.html</a></td>
</tr>
</tbody>
</table>

**United States fast food chain**

<table>
<thead>
<tr>
<th>#</th>
<th>Fast Food Chain</th>
<th>Web Page</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>KFC</td>
<td>Home page</td>
<td><a href="http://www.kfc.com/">http://www.kfc.com/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary page</td>
<td><a href="http://www.kfc.com/menu/chicken/original-recipe">http://www.kfc.com/menu/chicken/original-recipe</a></td>
</tr>
<tr>
<td>3</td>
<td>Burger King</td>
<td>Home page</td>
<td><a href="http://www.bk.com/">http://www.bk.com/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary page</td>
<td><a href="http://www.bk.com/menu/burgers">http://www.bk.com/menu/burgers</a></td>
</tr>
</tbody>
</table>
3.5 Results

The cultural markers of website evaluation are categorized as verbal, visual and multimedia. The analysis includes the general description of the features of the Taiwanese and the U.S. fast food chains’ websites in terms of cultural markers; comparisons, and discussion of relationships between cultural markers and cultural dimensions as reflected in fast-food chain websites of the two countries.

3.5.1 Verbal attributes

3.5.1.1 Slogans

Taiwan’s fast food chains’ websites tend to use indirect messages and metaphors in advertisements. The slogan, “The most beautiful scenery of the world is to be in love with you” from TW McDonald’s homepage has several hidden meanings (Figure 4). First, this slogan echoes the “I’m lovin’ it” campaign. Second, the literal meaning of the sentence is that it is very pleasant to be with you. Third, it implies that McDonald’s offers a pleasant environment as well as excellent products and is a pleasant place for people to get together. All these interpretations are attempts to sell by shaping the corporation’s image.

Another McDonald’s tagline, “I am not surfing the waves, but friendships,” refers to a literal meaning and an extended meaning, which is that good buddies share special moments with McDonald’s products (Figure 5). The same tagline, “I’m lovin’ it,” is somewhat different; the U.S. promotes foods directly, whereas the foods are related to relationships between people in Taiwan.
On the 21 Century website, the homepage contains the slogan “Taking care of every chicken with persistence and tenderness” in large text, and supplementary text conveys the message “Using nice ingredients to make nice food” in text 10% of the size used for the slogan. Besides the literal meanings of the slogan and supplementary statement, the implication is that 21 Century uses high-quality chicken to produce such tasty foods (Figure 6).

In U.S. fast food chains’ websites, the text spells things out explicitly. One Burger King advertisement reminds customers that the Oreo Shake is offered in the new pumpkin flavor as well as its original/classic flavor (Figure 7). Another example, from a KFC advertisement in the U.S., has the product name, the title “Pittsburgh exclusive” and a subtitle “If they love it, you’ll get it,” addressing customers directly (Figure 8). The communication style of these two U.S. advertisements are direct, explicit and aggressive.

- **In terms of the HC/LC cultural dimension**

Hall presented the argument that in LC cultures, nearly all communication is explicit, while in HC cultures, much of the information is implicit (1976). Taiwan, as a HC culture, uses indirect ways to tell people that the product is good. The slogans on Taiwan’s advertisement tend to have slow message speeds, which require considerable time for decoding the message’s hiding meaning. One sentence may have more than one meaning, and readers need experience and previous knowledge to get the real meaning. The strategy is soft sell; creating an atmosphere of happiness and enjoyment, and making connections with people’s daily lives, is more often used than direct pursuit of customers. In contrast, direct, explicit communication patterns are preferred in the U.S. The literal meaning of the words is
exactly what they state. U.S. slogans tend to have fast message speeds and a hard-sell strategy that leads to precise and rational slogans.

**Table 5.** TW and U.S. slogans in terms of HC/LC cultures

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC culture</td>
<td>LC culture</td>
</tr>
<tr>
<td>Indirect and ambiguous</td>
<td>Direct and precise</td>
</tr>
<tr>
<td>Slow message speed</td>
<td>Fast message speed</td>
</tr>
<tr>
<td>Soft-sell approach</td>
<td>Hard-sell approach</td>
</tr>
<tr>
<td>Emotional</td>
<td>Rational</td>
</tr>
</tbody>
</table>

- **In terms of IDV**

Immediately reaching the goal is important in individualist cultures, which tend to use advertising slogans characterized by materialism and consumerism, as can be observed in the U.S. The slogans describe the product clearly based on the facts of the claim; then it goes directly to stating that the product is excellent and to encouraging customers to buy it. In contrast, collectivist societies emphasize human relationships, as can be observed in Taiwan’s fast-food chain websites. In Taiwanese advertisements, slogans referring to friends, family, and sharing are the most frequently used.

**Table 6.** TW and U.S. slogans in terms of IDV cultures

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collectivism</td>
<td>Individualism</td>
</tr>
<tr>
<td>Focus on relationships between family theme and products</td>
<td>Focus on products</td>
</tr>
<tr>
<td>Connect with customers</td>
<td>Persuade customers directly</td>
</tr>
<tr>
<td>Hyperbolic description of product</td>
<td>Facts regarding the product</td>
</tr>
</tbody>
</table>
Figure 4. TW McDonald's (Homepage) – Slogan 1
Translation: “The most beautiful scenery of the world is to be in love with you.”

Figure 5. TW McDonald's (Homepage) – Slogan 2
Translation: “I am not surfing the waves, but friendships.”
Figure 6. 21 Century (Homepage) – Slogan
Translation: “Taking care of every chicken with persistence and tenderness.”

Figure 7. U.S. Burger King (Homepage) – Slogan
3.5.1.2 Terms and conditions of purchase

Taiwan’s fast food chains tend to display long, detailed statements of terms and conditions of purchase at the bottom of website product pages. The TW KFC website lists all possible situations that presumably need to be specified, such as the extra price for fill-up options; statements about food quality, menu items and taste vary by location (Figure 9). On Mos Burger’s website, the space of the advertisement gallery is limited, but the terms and conditions of purchase are still shown at the bottom of the advertisement (Figure 10). At the bottom of the U.S. McDonald’s website, in contrast, there is only the declaration, in a tiny font, “Menu items vary by location. Deliciousness doesn’t” (Figure 11).

- **In terms of the HC/LC cultural dimension**

According to N. Singh (2003) and Hall (1976), LC cultures prefer clarity and directness, and Cho et al. (1999) concluded that LC cultures’ advertisements tend to be
highly informative about the warranty, return policy and other conditions related to the purchase. However, Taiwan, a HC culture, displays a long list of terms and conditions of purchase under the product introduction on almost every product web page. This does not match the assumption that LC cultures tend to have detailed lists of terms and conditions of purchase (Cho et al., 1999; Hall, 1976; N. Singh, 2003).

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC culture</td>
<td>LC culture</td>
</tr>
<tr>
<td>Long terms and conditions of purchase list under the product introduction pages and advertisements</td>
<td>Absent or short terms and conditions of purchase list under advertisements</td>
</tr>
</tbody>
</table>

**Table 7.** TW and U.S. terms and condition of purchase of products in terms of HC/LC cultures

- **In terms of UAI**

  One potential explanation for long lists of terms and conditions of purchase on Taiwanese product introductory pages is based on the UAI dimension. Marcus and Gould (2000) indicated that a high UAI culture’s website designs “attempt to reveal or forecast the results and implications of actions before users act.” The lists of terms and conditions of purchase of TW KFC include a large number of possible situations to avoid arguments; some of these situations refer to products sold only in certain regions; different fill-up promotions for different extra-value meals; and limitations on giving a discount for changing the choice of soft drink. These listed conditions are intended to cover situations in case they occur.
• **In terms of LTO**

Marcus and Gould (2000) stress that the content of high LTO countries’ websites emphasizes “practical values.” The lists of terms and conditions of purchase provide useful information that is helpful in reducing misunderstandings and therefore beneficial for building long-term relationships and credibility with customers.

• **In terms of MAS**

N. Singh and Matsuo (2004) pointed out that advantages of the product itself will be heavily stressed in high MAS websites. The TW KFC and Mos Burger websites use “Menu items and taste might vary by location” (Figure 9 #6 and Figure 10, first red text line on bottom), while the U.S. McDonald’s website claims “Menu items vary by location. Deliciousness doesn’t” (Figure 11). The U.S. McDonald does not hesitate to address the effectiveness of quality control of the food and the efforts to reach sales goals.

<table>
<thead>
<tr>
<th>Table 8. TW and U.S. terms and conditions of purchase of products in terms of UAI, LTO, and MAS cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TW</strong></td>
</tr>
<tr>
<td><strong>High UAI</strong></td>
</tr>
<tr>
<td>Prefer clear instructions</td>
</tr>
<tr>
<td>Forecast possible situations</td>
</tr>
<tr>
<td><strong>Long-term oriented</strong></td>
</tr>
<tr>
<td>Emphasize practical values for building relationships and credibility</td>
</tr>
<tr>
<td><strong>Femininity</strong></td>
</tr>
<tr>
<td>Relationship-oriented</td>
</tr>
<tr>
<td>Detailed and accurate descriptions of products</td>
</tr>
</tbody>
</table>
59

Figure 9. TW KFC (Secondary page) – Terms and conditions of purchase
Translation for #4: “Menu items and taste might vary by location.”

Figure 10. TW Mos Burger (Homepage) – Terms and conditions of purchase
3.5.2 Visual attributes

3.5.2.1 Images

The IND dimension is tied to the HC/LC cultural level. A HC culture society generally tends to be collectivist, with the images on the Internet often emphasizing people working or spending time with family and friends (Würtz, 2005), whereas a LC culture society is relatively individualistic, and relaxing by oneself is the theme commonly adopted on websites (Würtz, 2005). Individualism tends to be associated with relatively impersonal communication, and focusing on product-specific aspects is one of its styles (Hermeking,
In the selected fast food websites, few human images are shown on the homepages and main product webpages. Therefore, analyzing how products are photographed and presented will be a focus of this study.

**Images of people**

Only three of the ten selected samples have images of individuals on the website homepage or on the main product menu page: two Taiwanese websites (TKK Fried Chicken and 21 Century,) and one U.S. website (KFC). The image on the 21 Century website homepage shows two people holding a chicken and a roast chicken, with a background showing a group of people in the countryside (Figure 12). On the TKK Fried Chicken website, each of the four tabs on the slideshow displays a product with a group of people (Figure 13). On the U.S. KFC’s homepage, the only human presence is Colonel Sanders (Figure 14).

- **In terms of the HC/LC cultural dimension**

  In HC cultures, the focus is away from the products themselves and toward people enjoying the product (Würtz, 2005). Images of individuals are much larger than images of the product on Taiwanese websites for TKK Fried Chicken and 21 Century. In Taiwan, free-range chickens are seen only in the countryside, and “free range” is assumed to mean high-quality meat. 21 Century uses countryside and villagers images as a background to make a connection between these images and the qualities of their products, using a soft-sell approach (Figure 12).

  On the TKK Fried Chicken website, four categories of product suggestion (for romantic couples, friends, family members and colleagues) all show how happy people are when enjoying TKK food (Figure 13). The TKK Fried Chicken website shows the typical
features of HC cultures, creating an atmosphere and emotions related to customers’ feelings and constituting a soft-sell strategy.

The most important symbol of U.S. KFC is Colonel Sanders, who represents the prestige of the products and the company brand (Figure 14). This U.S. KFC advertisement is for a fund raising activity and uses an aggressive hard-sell approach, telling customers that the benefit is that $5 can help 20 children by use of the call action button.

Individuals along with products can be seen on the 21 Century and TKK Fried Chicken homepages (Figure 12 and Figure 13), while individuals by themselves are present in U.S. KFC homepages (Figure 14). The sample size of images that include human figures is too small to infer that HC cultures prefer either groups of individuals or single individuals together with products. It might be that HC cultures prefer to use various kinds of images (Würtz, 2005).

### Table 9. TW and U.S. images of people in terms of HC/LC cultures

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC culture</td>
<td>LC culture</td>
</tr>
<tr>
<td>Emotion</td>
<td>Prestige</td>
</tr>
<tr>
<td>Soft-sell approach</td>
<td>Hard-sell approach</td>
</tr>
<tr>
<td>Various types of image</td>
<td>Uniform types of image</td>
</tr>
<tr>
<td>Individuals together with products</td>
<td>Individuals separate from products</td>
</tr>
</tbody>
</table>

- **In terms of IDV**

The 21 Century advertisement shows two people in the foreground and a group of villagers in the background (Figure 12). On the TKK Fried Chicken website, the four categories of dating couples, friends, family members and colleagues (Figure 15) show the
features of a collectivistic culture, placing high importance on people and relations (Marcus & Gould, 2000). In contrast, the U.S. KFC advertisement shows the corporation’s symbol of identity and branding, Colonel Sanders (Figure 14), suggesting that it is more inclined to value consumerism (Marcus & Gould, 2000).

Table 10. TW and U.S. images of people in terms of IDV cultures

<table>
<thead>
<tr>
<th></th>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collectivism</td>
<td>Images with several individuals</td>
<td>Images with single individuals</td>
</tr>
<tr>
<td>Individualism</td>
<td>People and relations</td>
<td>Consumerism</td>
</tr>
</tbody>
</table>

**Images of products**

Generally speaking, the majority of images in Taiwan and the U.S. fast food chains’ homepages and product web pages show products alone, and only a few are images of human figures. The styles and the content of images also show marked differences between fast food chains’ websites in Taiwan and the U.S.

**Theme of advertisements**

The content of advertisements includes the number of products shown in one advertisement. Most advertisements show extra-value products, such as the TW KFC advertisement that emphasizes “XL” (Figure 20), TW Mos Burger offer of “buy one get one free to share with another person” (Figure 21) and even a raffle drawing for two people to travel together in TW Burger King’s advertisement (Figure 22). Those advertisements concentrate on high-value products in amounts large enough for sharing with others. In U.S fast food chains’ websites, although there is a specific classification of extra-value meals
(U.S. McDonald’s) or fill-up options (U.S. KFC), the concept of sharing with others is not found.

- **In terms of IDV**

Advertisements’ emphasis on extra-value products and sharing food with others might be related to the level of relationship orientation. Even in TW MacDonald’s two humanized advertisements (Figure 4 and Figure 5), elements are pairs, such as two humanized servings of ice cream, two cups, dolphins and seagulls. Würtz (2005) stated that time spent in close relationships is a key point in images of collectivist cultures. Low IDV cultures seek benefits for the group, and their dominant values are family and friends; the content of advertisements reflects the idea of human relationships.

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collectivism</strong></td>
<td><strong>Individualism</strong></td>
</tr>
<tr>
<td>Family theme</td>
<td>Product theme</td>
</tr>
<tr>
<td>Sharing</td>
<td>Oneself</td>
</tr>
<tr>
<td>Relations</td>
<td>Consumerism</td>
</tr>
</tbody>
</table>
Figure 12. 21 Century (Homepage) – Images of people

Figure 13. TKK Fried Chicken (Homepage) – Images of people
Figure 14. U.S. KFC (Homepage) – Images of people

Figure 15. TKK Fried Chicken (Download page) – Product suggestions
Figure 16. TW Burger King (Homepage) – Multiple products in an advertisement

Figure 17. TW Mos Burger (Homepage) – Multiple products in an advertisement
Figure 18. U.S. Burger King (Secondary page) – One product in an advertisement

Figure 19. U.S. KFC (Homepage) – One product in an advertisement
Figure 20. TW KFC (Homepage) – Extra value products

Figure 21. TW Mos Burger (Homepage) – Sharing of meal
**Numbers of products shown in an advertisement**

Taiwan’s fast food chains’ websites tend to show multiple items in one advertisement. The TW Burger King advertisement “Have fun with snacks” has five products (Figure 16), and the TW Mos Burger advertisement introduces two different seasonal products in one image (Figure 17). In contrast, advertisements for U.S. Burger King (Figure 18) and U.S. KFC (Figure 19) often show one product at a time.

**Categorized information in advertisements**

One noticeable phenomenon in the content of Taiwan’s fast food chains’ online advertisements is that it classifies and groups items; for example, price promotions for different items may appear together in one advertisement. An example from TW KFC shows items from the breakfast menu that have similar discounts (Figure 23), and one TW Burger King promotion listed items that have the same price in one advertisement (Figure 26). The
information is sufficient to ensure that customers need not collect information and compare
deals themselves. This type of advertisement is rarely seen on the U.S. fast food chains’
websites. A similar example from the selected website is from the Get Fresh Offers tab in the
website of U.S. Burger King (Figure 25). However, the concept is slightly different; this
advertisement says that those products start at $1, not that all those products are $1.

**Highlighting and redundant cues of price**

In Figures 20 to 24, which show pages from Taiwanese websites, prices of products
are highlighted in various ways, such as use of bold and large font, various colors, or a badge
around them. An important point is that not only is deal price highlighted, but the original
price is also shown on the advertisement. Visual cues, such as strikethrough, color or
typography, might be used to distinguish the deal price from the original price.

Prices are rarely seen on U.S. fast food chains’ websites. One example from a
selected website is from the Get Fresh Offers tab for U.S. Burger King; only the sale price is
shown, the original price being absent (Figure 26).

- **In terms of the HC/LC cultural dimension**

  HC cultures tend to be polychronic, which might explain the finding that TW fast
food online advertisements tend to introduce multiple items and include a great deal of
information at one time, while the U.S., as a LC culture, tends to use advertisements that are
monochronic and introduce one product in one advertisement. Categorized information on
advertisements and highlighting and redundant cues suggest that customers’ learning is
expected to occur through demonstration. In a LC culture, advertisements show basic
information, and customers who are interested will find extra, supplementary information.
• In terms of UAI

Taiwan's fast food chains put their messages across in advertisements as conspicuously as possible, so that advertisements end up looking like catalogues containing the maximum concentration of information. Advertisements that categorize similar deals and put them together in one advertisement provide customers clear guidelines for potential purchase behaviors. Displaying both the sale price and the original price provides information disclosure transparency, and redundant cues (original price and sale price) can reduce ambiguity. Those features might be explained from the UAI aspect.

High UAI cultures are relatively averse to risk-taking (Marcus & Gould, 2000), and when clear instructions and information on prices are provided, customers feel they are not likely to suffer losses. This helps reduce purchase uncertainty and facilitate purchase.

Kralisch et al. (2005) contended that “high UAI members tend to explore all available options in order to minimize the number of unknown situations.” Sanduijav (2008) pointed out that in advertising appeals, people of high UAI cultures need and expect extensive explanation and structure of the advertising message. The consumer behavior and consumption patterns require that a large volume of information be provided to consumers, to satisfy their passive attitude and allow them to experience the freedom of selection of the products they want from among the many options available.

Size and resolution of images

From the homepage of websites for TW Burger King (Figure 27) and U.S. Burger King (Figure 28), it can be seen that Taiwan has relatively small and low-resolution images, while the U.S. uses large and high-resolution images. Although the homepage of TW KFC (Figure 23) and of 21 Century (Figure 29) uses large images in the image gallery across the
browser screen, the product image is small and details are not easily seen. The images on U.S. fast food chains’ websites tend to use close-up photography showing details to convey the qualities of freshness and deliciousness of the food.

Table 12. TW and U.S. content and visual cues of advertisements in terms of HC/LC and UAI cultures

<table>
<thead>
<tr>
<th></th>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC culture</strong></td>
<td>Polychronic</td>
<td>Monochronic</td>
</tr>
<tr>
<td>Read several items of information at a time</td>
<td>Content of Ads: Customers' learning process occurs through demonstration</td>
<td>Content of Ads: Customers' learning process dependent on customers' needs</td>
</tr>
<tr>
<td><strong>LC culture</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High UAI</strong></td>
<td>Expect more and structured information of products</td>
<td>Acceptance of wondering</td>
</tr>
<tr>
<td>Information feed</td>
<td>Provide proper information</td>
<td></td>
</tr>
<tr>
<td>Redundant cues</td>
<td>Meaningful cues</td>
<td></td>
</tr>
</tbody>
</table>

Sense of depth

TW fast food chains’ website images tend to have a deep depth of field, while those of the U.S. tend to have a shallow depth of field. In the 21 Center advertisement (Figure 29), all products are in focus and there is no difference between foreground and background, while in the U.S. McDonald’s advertisement (Figure 30), only the foreground, the food in the center, is in focus. Taiwan’s images look flatter, whereas images in the U.S. advertisement look more three dimensional.

- **In terms of IDV**

In fast-food advertisements of the U.S., product images dominate, and use of a shallow depth of field draws the viewer’s attention to a certain part of the screen. This
strategy suits the idea of individualism in that it emphasizes the prominence and advantages of the product. Each advertisement focuses on only one product at a time, and the size of the product image can occupy a large proportion of the entire advertisement, which catches the eyes of viewers and helps them see details about the product.

<table>
<thead>
<tr>
<th>Table 13. TW and U.S. theme of images in terms of IDV cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TW</strong></td>
</tr>
<tr>
<td>Collectivism</td>
</tr>
<tr>
<td>Product image and text combine: relatively small image of product</td>
</tr>
<tr>
<td>Less active persuading</td>
</tr>
</tbody>
</table>

3.5.2.2 Symbols, icons, and indices

Use of symbols, icons, and indices

Taiwan’s fast food chains’ websites use a large number of symbols, icons, and indices on navigation bars and in webpage content. On the TW TFC website, symbols are used on the main navigation bar (the horizontal bar at the bottom of the homepage) and the secondary navigation bar (the vertical bar on the right side of the homepage) (Figure 23). TW Burger King shows a plane in the announcement of a raffle in which one can win a ticket to travel to Hawaii (Figure 27). 21 Century has symbols on the main navigation bar (Figure 29) and uses a chili pepper to represent spicy foods on the product menu web page. TW Mos Burger uses a large number of symbols, icons, and indices distributed throughout the entire website, such as in advertisements, the secondary navigation bar, and the product menu page. Figure 31 shows a part of the menu using ten different symbols, icons, and indices, signifying new, seasonal or location-limited, spicy, vegan, and made with beef from New Zealand or
Australia. The majority of the symbols on Taiwan fast food chains’ websites have images along with text.

U.S. fast food chains’ websites use far fewer symbols, and those are international signs that are understood by most people, such as location, search (Figure 18), logos of social media and global icons (Figure 19). Some symbols are used with text and others are not.

**Hierarchy of dollar sign**

In the “Highlighting and redundant cues of price” section, it was pointed out that showing the price of products is a notable characteristic of fast food chains’ websites in Taiwan. The dollar sign, a frequently used symbol, is highlighted with type that is solid, bold, outlined, in red or other high-contrast color, or over a red circle badge as a visual cue (e.g. Figure 23, Figure 24, Figure 29, Figure 31). All of the selected Taiwanese fast food chains’ websites show the dollar sign and price on their homepages and main product web pages. In fast food chains’ websites of the U.S., the dollar sign and price are only occasionally used; in this study, they were found only in a promotion advertisement (Figure 26).

- **In terms of the HC/LC cultural dimension**

Taiwan’s fast food chains’ websites use a much higher proportion of symbols than U.S. fast food chains’ websites do. N. Singh (2003) pointed out that HC cultures tend to use many graphical representations for aesthetic purposes. In addition, the communication style of HC cultures is implicit and tends to use non-verbal communication (Würtz, 2005). From the example of TW Mos Burger, it can be seen that using symbols can save webpage space and display more information. Okazaki (2005) pointed out that website advertisements/images in HC cultures tend to use an indirect approach, such as use of symbols that need to be decoded.
High use of the dollar sign is related to high UAI, as explained in the section on highlighting and redundant cues of prices. A high PDI culture might adopt symbols related to national identity and country-specific symbols, but this feature was not found in the homepages and main product webpages in this study.

<table>
<thead>
<tr>
<th>Table 14. TW and U.S. use of symbols in terms of HC/LC cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td>TW</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>HC culture</td>
</tr>
<tr>
<td>Heavy use of graphics and light on copy</td>
</tr>
</tbody>
</table>

3.5.2.3 Color

Color combinations

The color palettes of logos of fast food brands are similar in Taiwan and the U.S. Red, yellow and orange are regarded as appealing colors and are commonly used in the food industry because they stimulate appetite and evoke hunger (S. Singh, 2006). White and light background colors of fast food brands are popular in both Taiwan and the U.S. The exceptions are TW Burger King, which uses a brick wall as a background in both the homepage and the secondary pages, and TKK Fried Chicken, which uses red gradient as the homepage background color.

An important point to note is that Taiwan’s fast food chains’ websites use more colors than those of the U.S. On TW Mos Burger’s website, red is the dominant color, and the side navigation/sidebar uses four different colors (pink, green, blue and orange) (Figure 17). On the product page, each symbol has its own color (Figure 31). TW KFC’s website basically
follow the red, orange and yellow color palette, but different red, orange and yellow, green and gradient effects are adopted (Figure 32).

In the U.S., fast food chains’ websites use fewer color combinations (Figure 30). The only exception is the U.S. Burger King product menu web pages, which have text of several colors (Figure 33), which the other pages do not.

**Three-dimensional style**

Taiwan’s fast food chains’ websites tend to use a realistic style, while U.S. fast food chains’ websites have a flat design. In the TW Burger King website, images are framed and hung on the wall, and shadows are used to create three-dimensional effects (Figure 27). In the TW KFC website, shadows and gradients are conspicuous in the entire website (Figure 32).

- **In terms of the HC/LC cultural dimension**

According to Würtz (2005), websites in HC cultures tend to use diverse colors and the color palettes may be inconsistent. N. Singh and Matsuo (2004) showed that websites in HC cultures are expected to be rich in colors. The observation in this study is in accordance with the findings of those studies. Taiwan fast food chains’ websites show liberal use of various colors, while the U.S. fast food chains’ websites are relatively consistent in color schemes. Three-dimensional effects provide another aesthetic component.

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC culture</td>
<td>LC culture</td>
</tr>
<tr>
<td>Diverse and colorful</td>
<td>Consistent in color schemes</td>
</tr>
</tbody>
</table>
Figure 23. TW KFC (Homepage) – Value Advertisement

Figure 24. TW Burger King (Homepage) – Value Advertisement
Figure 25. U.S. Burger King (Secondary page) – Value Advertisement

Figure 26. U.S. Burger King (Secondary page) – Advertisement with price
**Figure 27.** TW Burger King (Homepage) – Full screen size of browser

**Figure 28.** U.S. Burger King (Homepage) – Full screen size of browser
Figure 29. 21 Century (Homepage) – Full screen size of browser

Figure 30. U.S. MacDonald’s (Secondary page) – Shallow depth of field
Figure 31. TW Mos Burger (Secondary page) – Use of symbol, icon, and index

Figure 32. TW KFC (Secondary page) – Use of color
Figure 33. U.S. Burger King (Secondary page) – Use of color
### 3.5.2.4 Text

The weight of the font in Taiwan’s fast food chains’ websites tends to be outlined, bold and black (e.g. Figure 23, Figure 27, Figure 29), while the typographic hierarchy is represented by light, bold, all caps, uppercase and lowercase print in fast food chains’ websites of the U.S.

Taiwan uses Traditional Chinese characters, which do not have italics or capital letters as alphabets of Latin languages do. Moreover, there is a lack of web fonts for Traditional Chinese characters, because a set of typeface requires creation of three thousand characters, and the strokes of characters require individual design and modification, which is time-consuming and costly. According to Cateora’s marketing environment model (2008), a country-specific influential factor is an “uncontrollable” factor in website design.

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few ways of presenting hierarchy of characters</td>
<td>A wide range of ways of presenting text hierarchy</td>
</tr>
</tbody>
</table>

### 3.5.2.5 Layout

**Layout and consistency**

Taiwan’s fast food chains’ websites tend to use center alignment on the homepage, with white space on both sides. The examples of TW Mos Burger (Figure 34) and 21 Century (Figure 36) show that homepages have different arrangements for stacked boxes, but basically can be regarded as elements positioned in one large single column aligned in the center of the screen.
Taiwan’s fast food chains’ websites generally use a two-column arrangement aligned to the left in secondary pages. From the examples of TW Mos Burger (Figure 35) and 21 Century (Figure 37), it is seen that secondary pages use two-column grids to arrange website elements. The asymmetric layout has the navigation bar on the left side of the screen and information on products on the right side.

Fast food chains’ websites in the U.S. often use center alignment in the homepage, with no white space on the sides. The U.S. KFC (Figure 38) homepage has images covering the entire browser window. The secondary page (Figure 39) uses a symmetric layout, with the images and text content across the entire screen.

Taiwan’s fast food chain’s websites do not show consistency throughout. In the TW Mos Burger website, the grid system, color palette, navigation menu and other visual elements differ greatly between the homepage (Figure 34) and the secondary page (Figure 35). The 21 Century website is similar in this respect (Figure 36 and Figure 37). The U.S. KFC website shows consistency between the homepage (Figure 38) and the secondary page (Figure 39), which have the same grid system, color palette, navigation bar and colors of images.

- **In terms of the HC/LC cultural dimension**

According to Würtz (2005), different structures of websites are related to differences in people’s thought patterns. The thought pattern tendency in LC cultures is logical and linear; therefore, U.S. fast food chains’ websites would be expected to show a preference for a consistent layout throughout the pages of the website. HC cultures have a parallel thinking pattern, which leads to a tendency to offer extra cues to guide website visitors, leading to inconsistency of the website layout.
Table 17. TW and U.S. layout in terms of HC/LC cultures

<table>
<thead>
<tr>
<th></th>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC culture</strong></td>
<td>Offer extra cues</td>
<td>Consistent in navigational system</td>
</tr>
</tbody>
</table>

**Hero image**

Fast food chains’ homepages in both Taiwan and the U.S. adopt a dynamic banner gallery, each of which displays a rotating list of images. Banner gallery frames in Taiwanese fast food chains’ websites are much smaller than those in the U.S. The specific type of web banner that U.S. fast food chains’ homepages adopt is the hero image, which refers to a large banner image that represents the website’s most important content and is often placed front and center in the web page. Compared with Taiwan’s smaller banner gallery, the hero image draws the viewers’ attention quickly and provides viewers with an overview of important content that is easily grasped.

- **In terms of IDV**

Although fast food chains’ homepages of both Taiwan and the U.S. have banners, the content and size of the images are very different between the two countries. Adopting hero images is a website design tendency, and so far adopting hero images has not been shown to be related to culture, but it is obvious that the images can vary in numerous ways. In fast food chains’ homepages of the U.S., the size and content of the hero image have the goal of immediately letting consumers know what the best-selling or strategically placed products or services are, showing a high level of materialism and consumerism. A detailed analysis of content of images is in the section “Images.”
Table 18. TW and U.S. use of hero images

<table>
<thead>
<tr>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collectivism</td>
<td>Individualism</td>
</tr>
<tr>
<td>Focus on product and</td>
<td>Focus on product</td>
</tr>
<tr>
<td>other information</td>
<td></td>
</tr>
<tr>
<td>Relatively small banner</td>
<td>Large banner</td>
</tr>
</tbody>
</table>

Fixed and fluid layout

A fixed website layout has fixed widths, and website elements are set to remain the same with the user’s screen resolution; website components with a fluid layout adjust according to the user’s screen resolution. 21 Century, one the seven Taiwanese fast food chains’ websites, uses a fluid layout (Figure 40). U.S. Burger King (Figure 41) and U.S KFC (Figure 42) have a fluid layout as well. When a fluid layout opens in a small browser window, the navigation bar or links are represented by a global icon (three or four horizontal lines) placed at the very top of the screen.
Figure 34. TW Mos Burger (Homepage) – Homepage layout

Figure 35. TW Mos Burger (Secondary page) – Secondary page layout
Figure 36. 21 Century (Homepage) – Homepage layout

Figure 37. 21 Century (Secondary page) – Secondary page layout
Figure 38. U.S. KFC (Homepage) – Homepage layout
Figure 39. U.S. KFC (Secondary page) – Secondary page layout
Figure 40. 21 Century (Homepage) – Fluid layout

Figure 41. U.S. Burger King (Homepage) – Fluid layout
3.5.2.6 Navigation

Consistency of navigation bar

In Taiwan, fast food chains’ websites tend to have a horizontal orientation for the main navigation bar and a vertical orientation for secondary navigation bars (e.g., Figure 43 and Figure 45). In the homepages, there is no specific trend in the location of the main navigation bar, which might be placed at the top of the screen or the bottom, and secondary navigations bars are placed either on the left or right side. DanDan Burger has one main navigation bar at the top of the web page and one left sidebar and one right sidebar on the homepage (Figure 43), but on the product menu web page, the two sidebars are omitted (Figure 44). TW KFC’s website has one main navigation bar on the bottom and one
supporting navigation bar on the left side of the homepage (Figure 45), but a new secondary navigation bar used on the left side of the product menu web page (Figure 46).

In the U.S., fast food chains’ websites have a high degree of consistency of navigation. U.S. McDonald’s websites have vertical alignment to the left in the navigation bar on both the homepage (Figure 47) and the secondary page (Figure 48). U.S. Burger King’s website has horizontal navigation on both the homepage (Figure 49) and the secondary page (Figure 50).

**Categories of products on navigation bar**

The main navigation bar can have more than one level, and can extend to sub-menus. All three U.S. fast food chain’s websites tend to specify all the different kinds of products on the sub-menu. Beef, pork, chicken, salads, sides, beverages, coffee, breakfast and value menu, and kids’ meals are listed on the menu. In Taiwan, the categories tend to consist of promotions, value menu, family menu, breakfast, kids’ menu and others. All meat products are grouped in the same category in Taiwan’s websites, while websites in the U.S. separate meat products into different categories. Salads, sides and desserts are in the same category in Taiwan’s fast food chain menu bars. TW McDonald’s and U.S. McDonald’s have the same number of products, but TW McDonald’s websites use fewer product categories on the navigation bars. In Taiwan’s sub-menu, burgers & sandwiches, chicken & fish are combined into one category; salads, snacks & sides, beverages, and desserts & shakes are combined into another category (Figure 51 and Figure 52).

- **In terms of UAI**

Marcus and Gould (2000) pointed out that in high UAI cultures, websites tend to be simple and limited in choices, to prevent users from getting lost in the websites. Kralisch et
al. (2005) stated that people of a low UAI culture prefer maximal content and choices. In fast food chains’ websites of the U.S., the genres of products on the navigation bar are listed in detail, while in Taiwan the navigation bars offer fewer product genres.

- **In terms of PDI**

  Websites offer different ways of accessing information, depending on the level of PDI of the culture (Marcus & Gould, 2000). Websites of high PDI cultures have highly structured navigation that shows tall (or deep) hierarchies, while those of low PDI cultures have less highly structured navigation that has shallow (or flat/broad) hierarchies. Taiwan’s fast food chains’ menu bars have few categories at each level, and these categories tend to be relatively generic, causing viewers to spend more time searching for specific items.

- **In terms of LTO**

  According to Kralisch et al. (2005), short-term orientation focuses on immediate achievement; therefore, website design in cultures of short-term orientation should help users find information as quickly as possible, while in high LTO cultures, users may be willing to spend more time to explore the websites.

**Sidebars and clickable icons**

Taiwan’s fast food chains’ websites tend to use fewer options on the navigation bar and to use many sidebars or clickable items instead of sub-menus. Thus designers must find space to place new sidebars. This process leads to inconsistency of layout and of the navigation system.

**Symbols on navigation bars**

Very often, navigation bars, sidebars and clickable items in Taiwan’s fast food chains’ websites have icons or images on them. One of TKK Fried Chicken’s navigation bars
has images on all the tabs, and those images have entertainment appeal (Figure 13). In the TW KFC homepage, the main navigation bar and sidebar contain many icons (Figure 45), and 21 Century also decorates the main navigation bar (Figure 36). The 21 Century homepage also has redundant options on the navigation bar that crosses the middle of the screen; those categories are the same as those on the navigation bar at the top of the screen.

- **In terms of the HC/LC cultural dimension**

Würtz (2005) contended that HC culture websites tend to have many sidebars, while LC culture websites have few. This is because HC cultures emphasize aesthetic appeal (N. Singh & Matsuo, 2004) and non-verbal communication (Würtz, 2005). Sidebars or clickable items rather than sub-menus might be used because HC cultures prefer to have more control over the appearance of the sidebar and clickable items, rather than being required to click a text-dominated sub-menu. Having symbols or illustrations on top of the navigation bar or sidebar is based on similar reasoning. Hermeking (2005) pointed out that the navigation bars in websites in HC cultures are less transparent than those in LC cultures. The navigation system in Taiwan depends on many links, whereas users can get an overview of the website from the homepage of U.S. fast food chains’ websites.

- **In terms of UAI**

N. Singh and Matsuo (2004) pointed out that in a high UAI culture, pictures or buttons on websites tend to have a hyperlink function for making the navigation process obvious. Marcus and Gould (2000) believed that people of high UAI cultures prefer simple navigation; however, if it is too simple to provide adequate information, redundant cues are needed to provide clarity.
Link for Membership

Five of the seven Taiwanese fast food chains’ websites have a register/login tab or link for members. The benefits of becoming a member are that members can receive newsletters, extra value coupons, free trials, and downloads for lottery drawings. U.S. fast food chains’ websites are open to everyone.

- **In terms of IDV**

  N. Singh and Matsuo (2004) pointed out that it is common in a collectivist culture for websites to have a club or membership tab, because individuals have an emotional dependence on groups or organizations and require a sense of belonging.

---

**Table 19.** TW and U.S. navigation in terms of HC/LC, UAI, IDV and PDI cultures

<table>
<thead>
<tr>
<th></th>
<th>TW</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC culture</strong></td>
<td>Emphasis aesthetic</td>
<td>Emphasis informative</td>
</tr>
<tr>
<td></td>
<td>Symbols and text on</td>
<td>Text on navigation bars</td>
</tr>
<tr>
<td></td>
<td>navigation bars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parallel navigation</td>
<td>Linear navigation</td>
</tr>
<tr>
<td></td>
<td>Polychronic</td>
<td>Monochronic</td>
</tr>
<tr>
<td></td>
<td>Complex and unstructured</td>
<td>Flat and organized</td>
</tr>
<tr>
<td></td>
<td>Less intensive</td>
<td>More intensive</td>
</tr>
<tr>
<td></td>
<td>Less transparency</td>
<td>More transparency</td>
</tr>
<tr>
<td></td>
<td>Prefer sidebars and</td>
<td>Prefer Sub-menu</td>
</tr>
<tr>
<td></td>
<td>clickable items</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inconsistent layout</td>
<td>Consistent layout</td>
</tr>
<tr>
<td><strong>High UAI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited choices</td>
<td>Maximal content and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>choices</td>
<td></td>
</tr>
<tr>
<td>Use redundant cues</td>
<td>Use redundant cues</td>
<td></td>
</tr>
<tr>
<td>for aesthetics</td>
<td>when needed</td>
<td></td>
</tr>
<tr>
<td><strong>High IDV</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Club and memberships</td>
<td>Open to everyone</td>
<td></td>
</tr>
<tr>
<td>Emotional dependence</td>
<td>Individuals independent</td>
<td></td>
</tr>
<tr>
<td>on groups</td>
<td>from groups</td>
<td></td>
</tr>
<tr>
<td><strong>High PDI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tall structure</td>
<td>Shallow structure</td>
<td></td>
</tr>
<tr>
<td>Few categories</td>
<td>More categories</td>
<td></td>
</tr>
<tr>
<td>on each level</td>
<td>on each level</td>
<td></td>
</tr>
<tr>
<td><strong>High LTO</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerance for long</td>
<td>Demand for quick-results</td>
<td></td>
</tr>
<tr>
<td>paths</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 43. DanDan Burger – Homepage navigation

Figure 44. DanDan Burger – Secondary page navigation
Figure 45. TW KFC – Homepage navigation

Figure 46. TW KFC – Secondary page navigation
Figure 47. U.S. McDonald’s – Homepage navigation

Figure 48. U.S. McDonald’s – Secondary page navigation
Figure 49. U.S. Burger King – Homepage navigation

Figure 50. U.S. Burger King – Secondary page navigation
Figure 51. U.S. McDonald's (Homepage) – Sub-menu

Figure 52. TW McDonald's (Homepage) – Sub-menu
3.5.3 Multimedia attributes

Elaborate animation effects, which play an important role in websites of HC cultures, focus on drawing the attention of users (Würtz, 2005). All of the examined Taiwanese and U.S. fast food chains’ websites contain multimedia, such as animation or stream video, on the homepage, except for the website for U.S. Burger King. Animations are used on the loading page/splash screens, screen/wall or navigation bars. Most use static images, with others using moving illustrations, or they use fade-in effects, as in Taiwanese fast food websites, or stream videos, as in U.S. fast food chains’ websites.

**Animation on the loading page/splash screens**

The animation in TKK Fried Chicken’s website loading pages is the longest sequence in all the examined websites. The animation is meant to show the company’s main idea of having closer relationships (the text literally refers to enjoyable relationships between friends and family members). There are five steps to entering the homepage. The animation shows a hand pulling a rope, then two traditional Chinese characters sitting together appear on the front row, then icons that represent relationships, followed by images and text, and finally the homepage pops up (Figure 53). TW Burger King’s website has animation that shows up when the homepage is loaded. All elements (such as the navigation bar, ads or location searcher) on the homepages are presented as frames that fly in and are fastened to the wall. In contrast, no animation is used for page loading in U.S. fast food websites.

**Animation on the homepage**

Five of the seven examined Taiwanese fast food chains’ websites have animation on the homepage. Each animation has one static image with other moving or flashing elements. TW McDonald’s website has one static background of a beach with two servings of ice
cream surfing the waves, dolphins playing ball, and other moving elements (Figure 5). In TW Burger King’s website logo, frames fly onto the wall, and after every element is in position, flames flicker (Figure 27). The mascot of GOGO Chan randomly shows up at the top of the 21 Century website (Figure 29). DanDan Burger uses scrolling blue text (Figure 43).

**Animations in other applications**

The websites of Taiwan Burger King and Mos Burger use animation effects on navigation bars; when a user hovers over the navigation bar, the dropdown menu slowly floats in and quickly fades in. TKK Fried Chicken’s website has complex movement for the advertising window, with attached tabs for different advertisements. When one of the tabs is clicked, an image pops up, then an icon flashes around it, with the advertising using bouncing images and text as well. The bouncing images and text present a story. In Figure 53, step 5, a couple is dating, and the boy has a surprise plan to bring the girl somewhere for her favorite food and drink. Other tabs set up other circumstances/stories for dating couples, friends, family and colleagues.

**Anthropomorphism in animation**

Personified objects, mascots and emoticons are used frequently in Taiwan’s fast food chains’ websites. TW McDonald’s website shows two cups dating (Figure 4) and servings of ice cream surfing (Figure 5). 21 Century’s website has mascot GOGO Chan seemingly playing hide and seek with the users (Figure 29). Targeting of adult audiences with such cartoon characters is absent from U.S. fast food chains’ websites.
Multimedia in U.S. fast food chains’ websites

The tendency toward use of multimedia with static images combined with moving illustrations cannot be found in U.S. fast food chains’ websites, which are static, with little movement such as would be seen in automatic image changing galleries and short videos (Figure 38).

- **In terms of the HC/LC cultural dimension**

  Würtz (2005) indicated that HC culture websites tend to use many animated effects, which are used much less frequently in LC culture websites, because in HC cultures, nontextual forms of communication are preferred. Hermekeing (2005) pointed out that high integrating animations are commonly used on websites in HC cultures.

  Much of the animation in HC cultures is related to humans (Würtz, 2005), either humanized objects or actual humans. Individuals’ identities are rooted in family, workspace and relationships. The content of TKK Fried Chicken’s animation arises from real life conversation, and TW McDonald’s website has daily life themes in the animation as well.

- **In terms of MAS**

  According to Marcus and Gould (2000), high MAS culture websites adopt graphics, animation or video only for utilitarian purposes rather than aesthetic purposes, while high femininity cultures are more likely to accept “cuteness.” N. Singh and Matsuo (2004) stated that high MAS culture websites use less fantasy and are more to the point, as seen in U.S. fast food chains’ websites, which tend to use stream video and a realistic style to show direct and decisive features.
• **In terms of PDI**

Marcus and Gould (2000) and N. Singh and Matsuo (2004) believed that high PDI websites tend to adopt authority figures; however, Taiwan’s fast food chains’ websites are inclined to use “cartoony” characters and “cute” style illustrations. This might be because the cultural values and fashions have been deeply influenced by Japanese anime and manga as well as by a high level of femininity. Collecting toys, magnets or cups with cartoons and comic characters on them is common in Taiwan. Many fast food chains, convenient stores and doughnut stores use this type of promotion.

• **In terms of LTO**

Marcus and Gould (2000) stated that in high LTO cultures, websites adopt a soft focus, while those of low LTO cultures use sharply focused images. Stream videos on U.S. fast food chains’ websites present clear claims for products, while the animation on Taiwanese fast food chains’ websites do not really focus on products, but instead are used primarily for aesthetic purposes.

<table>
<thead>
<tr>
<th>Table 20. TW and U.S. animation in terms of HC/LC, MAS and LTO cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TW</strong></td>
</tr>
<tr>
<td><strong>HC culture</strong></td>
</tr>
<tr>
<td>Nontextual forms</td>
</tr>
<tr>
<td>Polychronic</td>
</tr>
<tr>
<td>Human presence or humanized</td>
</tr>
<tr>
<td>Emotional</td>
</tr>
<tr>
<td><strong>Low MAS</strong></td>
</tr>
<tr>
<td>Accepts &quot;cuteness&quot;</td>
</tr>
<tr>
<td>Exchange and support</td>
</tr>
<tr>
<td><strong>High LTO</strong></td>
</tr>
<tr>
<td>Soft focus</td>
</tr>
</tbody>
</table>
Figure 53. TKK Fried Chicken (Loading page) – Loading animation
CHAPTER 4
INFOGRAPHICS DESIGN:
EXPLANATION OF CULTURAL DIFFERENCES

4.1 Design Concept

Relying entirely on designers’ personal experience or intuition to deal with cultural diversity and design culturally appropriate websites is impractical because of intercultural differences. This study may serve as a resource of cultural markers-based guidelines for fast food chains’ websites in Taiwan and the United States. Findings of this research show marked cultural differences between Taiwan and the United States in specific variables. To give a brief and understandable guide for the multinational fast food industry and designers, the infographics style is used as the means of comparing fast-food chain websites in Taiwan and the United States with regard to cultural markers.

4.2 Design Development

Infographics focus on visuals to convey information by use of generalized, minimized and iconized graphical representations and keywords. Therefore, symbolic graphics and text-limited messages are used for indicating the cultural differences in fast-food chain websites of Taiwan and the United States.

A series of sets is categorized by cultural markers (verbal attributes, visual attributes and multimedia attributes), with each set showing a comparison in a cultural marker with regard to a specific item. The format is an easily disseminated electronic file in a horizontal layout split into two columns, with a brief explanation indicating the features of Taiwanese
fast-food chain websites. The left column represents the characteristics of Taiwanese fast-food chain websites (TW) and the right column is for those of the United States (US). A title shows the cultural marker category, with a subtitle explaining the features of Taiwan’s fast food chains’ websites (Figure 54). Neutral colors (black, gray and white) are used to avoid the use of other colors in the explanation bias.

Figure 54. Layout of infographic design explanation
4.3 Infographic Design

Verbal attributes: Slogans
Extensive use of metaphor and indirect meanings

![Infographic design 1. Verbal attribute in slogan](image)

**Decode the symbolic graphics**

Left (TW): An abstract depiction of a slogan requires more time for viewers to understand it and might have more than one coded meaning.

Right (U.S.): A concrete concept of a slogan shows the literal meanings of actual words used and viewers can easily receive the plainly coded messages.
Infographic design 2. Verbal attribute of terms and conditions of purchase

**Verbal attribute: Terms and conditions of purchase**
Highly descriptive terms and conditions of purchase

Left (TW): Relatively more detailed terms and conditions of purchase are listed under the advertisement or product introduction.

Right (U.S.): Relatively fewer or no terms and conditions of purchase are listed under the advertisement or product introduction.

**Decode the symbolic graphics**

Left (TW): Relatively more detailed terms and conditions of purchase are listed under the advertisement or product introduction.

Right (U.S.): Relatively fewer or no terms and conditions of purchase are listed under the advertisement or product introduction.
Infographic design 3. Visual attribute in image with human

**Decode the symbolic graphics**

**Left (TW):** When individuals are shown in the image, they are relatively likely to be shown with product.

**Right (U.S.):** When individuals are shown in the image, they are usually shown without product.
**Visual attribute: Theme of images**

Family theme

**Infographic design 4.** Visual attribute in theme of images

---

**Decode the symbolic graphics**

Left (TW): Images tend to have themes related to family.

Right (U.S.): Images focus on products.
**Visual attribute: Images**

Number of products in promotion advertisement

---

**Infographic design 5.** Visual attribute in the number of products used in advertisement

---

**Decode the symbolic graphics**

Left (TW): More than one product is shown in one advertisement.

Right (U.S.): One product is focused on in one advertisement.
**Visual attribute: Images**
Lack of sense of depth

**Infographic design 6.** Visual attribute in sense of depth of image

**Decode the symbolic graphics**

Left (TW): When more than one product is shown, all of them have the same volume in one advertisement, without a sense of depth.

Right (U.S.): When more than one product is shown, the image tends to deal with focused dominant objects and unfocused secondary objects, producing the sense of depth.
Infographic design 7. Visual attribute in 3D effects

Decode the symbolic graphics

Left (TW): Realistic or three-dimensional effect is preferred.

Right (U.S.): Flat design is preferred.
**Visual attribute: Symbol, icon, and index**
Heavy use of symbols

**Infographic design 8.** Visual attribute in symbol, icon and index

**Decode the symbolic graphics**

Left (TW): Symbols, icons and indices are heavily used in place of text.

Right (U.S.): Symbols, icons and indices are not heavily used.
**Visual attribute: Symbol, icon, and index**
Symbolic presentation on navigation bars and buttons

![Infographic design 9](image)

**Infographic design 9.** Visual attribute in symbol, icon and index used on buttons

**Decode the symbolic graphics**

Left (TW): Tends to have graphics on the navigation bars, sidebars and clickable items.

Right (U.S.): Tends to have text only on the navigation bars and sub-menu.
**Visual attribute: Symbol, icon, and index**

Prominence of price

---

**Infographic design 10.** Visual attribute in highlighting of price

---

**Decode the symbolic graphics**

Left (TW): It is important to show prices of the products, promotions and policy on fill-ups.

Right (U.S.): It is uncommon to show prices on the website.
**Visual attribute: Color**
A relatively large number of colors are used.

**Infographic design 11.** Visual attribute in color usage

**Decode the symbolic graphics**

Left (TW): More colors are used in the color palette.

Right (U.S.): Fewer colors are used in the color palette.
Infographic design 12. Visual attribute in hero image on homepage

Decode the symbolic graphics

Left (TW): Relative smaller gallery is used.

Right (U.S.): Very large hero image is used across the screen.
Visual attribute: Layout

Fixed website layouts

Decode the symbolic graphics

Left (TW): A fixed website layout has fixed widths, and website elements are set and do not move with the user’s screen resolution.

Right (U.S.): A fluid layout has website components that adjusts according to the user’s screen resolution.
**Visual attribute: Navigation**

Heavy use of sidebars or clickable items

---

**Infographic design 14.** Visual attribute in navigation system

---

**Decode the symbolic graphics**

Left (TW): Tends to add more sidebars or clickable items.

Right (U.S.): Sub-menu or dropdown menu are preferred.
**Visual attribute: Homepage alignment**

Center aligned, with abundant white space

---

**Infographic design 15.** Visual attribute in homepage layout

---

**Decode the symbolic graphics**

Left (TW): The homepage is center aligned and has white space on both the right and left side.

Right (U.S.): The homepage is center aligned and uses the entire width of the screen.
**Visual attribute: Secondary page alignment**
Two-column aligned to left

**Infographic design 16.** Visual attribute in secondary page layout

**Decode the symbolic graphics**

Left (TW): The layout of the secondary page tends to be two columns aligned to left.

Right (U.S.): The layout of the secondary page is center aligned.
Decode the symbolic graphics

Left (TW): The layout is different for the homepage and the secondary pages; consistency is lacking.

Right (U.S.): The homepage and secondary pages have the same layout, which maintains consistency.
Visual attribute: Navigation
Fewer product categories with same numbers of products

Infographic design 18. Visual attribute in numbers of options on navigation

Decode the symbolic graphics

Left (TW): Under one particular item on the navigation bar (i.e., product menu), relatively little content and relatively few choices are provided on the navigation bars.

Right (U.S.): Under one particular item on the navigation bar (i.e., product menu), large amount of content and large numbers of choices are provided.
Infographic design 19. Visual attribute in memberships

**Decode the symbolic graphics**

Left (TW): Services and discounts are commonly limited to club or memberships.

Right (U.S.): Services and discounts are open to all customers.
Decode the symbolic graphics

Left (TW): Any type of animation is acceptable.

Right (U.S.): Stream videos are preferred.
Infographic design 21. Visual and multimedia attribute in anthropomorphism

**Decode the symbolic graphics**

Left (TW): Anthropomorphized animal characters or inanimate objects are preferred.

Right (U.S.): Objects are presented as objects.
Infographic design 22. Different purpose of the website

Decode the symbolic graphics

Left (TW): Customers can call for ordering and delivery services.

Right (U.S.): Customers must visit the store and pick up orders themselves.
5.1 Discussion

5.1.1 Remarkable culture markers

One of the purposes of this study is to identify website elements that can be regarded as cultural markers specific to fast-food chain websites. The results show that many noticeable cultural markers are presented differently in fast-food chain websites in Taiwan and the U.S. The most remarkable cultural marker differences are seen in text, images, symbols, icons, indices, color, navigation and animation.

Much of the text in Taiwan’s fast food chain’s websites tend to be indirect messages that require the reader to spend more time to decode the messages. The themes of the images and advertisements are highly related to family and relationships, and the concept of sharing with people is prominent in Taiwan’s fast food chains’ websites. Taiwan’s websites use a large number of diverse and colorful graphics (such as photos and symbols) on navigation bars, on clickable buttons and in webpage content. Taiwan’s fast food chain’s websites do not show consistency throughout because their navigation systems are relatively unstructured and rely highly on sidebars or clickable items instead of on use of sub-menus. Taiwan’s fast food chains’ websites frequently use animated illustrations, cartoon mascots and anthropomorphism.
Table 21. Remarkable cultural markers and features in Taiwan’s fast food chains’ websites

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Features of Cultural Markers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal</td>
<td>Indirect messages</td>
</tr>
<tr>
<td></td>
<td>Interpersonal relationships themes of images’ content</td>
</tr>
<tr>
<td>Visual</td>
<td>Diverse and colorful graphics</td>
</tr>
<tr>
<td></td>
<td>Relatively unstructured navigation system</td>
</tr>
<tr>
<td>Multimedia</td>
<td>High use of animation and anthropomorphism</td>
</tr>
</tbody>
</table>

5.1.2 Cultural markers and cultural dimensions

The purposes of this study is to identify the relationships between cultural markers and cultural dimensions of fast-food chain websites of Taiwan and the U.S. The cultural dimensions of HC, IDV and UAI account for the main features of interface elements in fast-food chains’ websites.

Hall’s two-dimension model (1976) explained a great many of the features of the cultural markers shown on Taiwanese fast food chains’ websites, which appear HC cultural-oriented features more frequently than those of the U.S. in all verbal, visual and multimedia attributes. In Hofstede’s five-dimension model (1991), although Taiwan and the U.S. have distinguishing differences in IDV and LOT index (Table 1), the results show that IDV and UAI index affect features shown in fast food chains’ website in Taiwan and the U.S., especially in verbal and visual attributes (Table 22). Verbal and visual attributes are affected differently by different cultural dimensions. Multimedia attributes are affected mainly by the HC cultural dimension.
Table 22. Cultural dimensions and features in Taiwan’s fast food chain’s websites

<table>
<thead>
<tr>
<th>Cultural Dimensions</th>
<th>Attributes</th>
<th>Main features of cultural markers in Taiwan’s fast food chains’ website</th>
</tr>
</thead>
<tbody>
<tr>
<td>High PDI</td>
<td>Visual</td>
<td>Tall Navigation structure</td>
</tr>
<tr>
<td></td>
<td>Verbal</td>
<td>Concept of slogans tends to connect with customers</td>
</tr>
<tr>
<td></td>
<td>Visual</td>
<td>Theme of images, photography method and categorized information in advertisements</td>
</tr>
<tr>
<td>Low IDV</td>
<td>Verbal</td>
<td>Detailed and accurate descriptions of terms and conditions of purchase</td>
</tr>
<tr>
<td></td>
<td>Visual</td>
<td>Theme of images, photography method and categorized information in advertisements</td>
</tr>
<tr>
<td>Low MAS</td>
<td>Verbal</td>
<td>Detailed and accurate descriptions of terms and conditions of purchase</td>
</tr>
<tr>
<td></td>
<td>Multimedia</td>
<td>“Cartoon” characters and “cute” style illustration</td>
</tr>
<tr>
<td>High UAI</td>
<td>Verbal</td>
<td>Prefer clear instructions and forecast possible problems of terms and conditions of purchase</td>
</tr>
<tr>
<td></td>
<td>Visual</td>
<td>Use limited choices on navigation bar and categorized information in advertisements</td>
</tr>
<tr>
<td>High LTO</td>
<td>Verbal</td>
<td>Purposes of terms and conditions of purchase are for practical purposes and building relationships and credibility</td>
</tr>
<tr>
<td></td>
<td>Visual</td>
<td>Tolerance for long paths of navigation</td>
</tr>
<tr>
<td>HC Culture</td>
<td>Verbal</td>
<td>Indirect message of slogans and soft-sell approach</td>
</tr>
<tr>
<td></td>
<td>Visual</td>
<td>Diverse theme and graphics</td>
</tr>
<tr>
<td></td>
<td>Multimedia</td>
<td>Tends to use sidebars and decorations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Many animated effects, human presence or humanized, and text-limited content</td>
</tr>
</tbody>
</table>

H1. High PDI features appear more frequently in fast food chains’ websites of Taiwan than in those of the U.S. with regard to visual attributes.

The results support the hypothesis that high PDI features are more conspicuous in fast food chains’ websites of Taiwan than in those of the U.S. with regard to visual attributes.

According to Marcus and Gould (2000) and Reinecke and Bernstein (2011), cultures with high PDI tend to have tall hierarchies in navigation structure, while low PDI cultures tend to have shallow hierarchies in website design. Taiwan’s fast food chains’ menu bars have few categories at each level, and these categories tend to be relatively generic, making it possible that some categories could be buried under multiple intervening layers in a deep site hierarchy.
H2. Low IDV features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual attributes.

The results support the hypothesis that low IDV features are more conspicuous in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal and visual attributes.

Nisbett (2004) indicated that Easterners pay more attention to the environment and relationships, while Westerners focus more on objects. In verbal attributes, Taiwan’s fast food online advertisements tend to use slogans that emotionally connect with customers rather than directly attempting to persuade customers to buy the products.

With regard to visual attributes, Taiwan’s fast food online advertisements tend to feature more than one product, which emphasizes extra-value products and sharing of meals. This is consistent with the lower IDV ranked culture, regarded as collectivism, in which people are highly integrated into the group (Hofstede, 2005).

H3. Low MAS features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/multimedia attributes.

The results support the hypothesis that low MAS features are more conspicuous in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal and multimedia attributes.

N. Singh and Matsuo (2004) pointed out that high MAS culture websites heavily stress advantages of the product itself. In verbal attributes, the terms and conditions of purchase emphasize effectiveness of quality control of the food in U.S. fast food chains’ websites, which is lacking in Taiwanese fast food chains’ websites.
In multimedia attributes, N. Singh and Matsuo (2004) stated that low MAS culture websites accept “cuteness” and fantasy. Taiwan is a relatively femininity-oriented society, and Taiwanese fast food chains’ websites use many animated illustrations, cartoon mascots and anthropomorphism, all of which tend to “cuteness” and fantasy.

H4. High UAI features appear more frequently in fast food chains’ websites of Taiwan than in those of the U.S. with regard to verbal/visual attributes.

The results support the hypothesis that high UAI features are more conspicuous in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal and visual attributes.

Marcus and Gould (2000) indicated that high UAI cultures tend to plan for unforeseen circumstances and potential remedies. In verbal attributes, the content of the terms and conditions of purchase in Taiwanese fast food chains’ websites constitutes clear instructions that try to avoid arguments that might occur during the purchase process. TW KFC has an extremely long list of terms and conditions of purchase, and five or more items are listed on the terms and conditions of purchase at the bottom of the advertisement in other Taiwanese fast food chains’ websites, while there might be one item listed or no terms and conditions of purchase at the bottom of the advertisement in fast food chains’ websites in the U.S.

With regard to visual attributes, Marcus and Gould (2000) pointed out that high UAI members prefer a simple navigation system but still seek sufficient information. In Taiwanese fast food chains’ websites, fewer product categories are on the navigation bars, but there are too simple to provide enough information, so more sidebars and clickable
buttons are added to supplement the insufficient information. The UAI cultural dimension is also reflected in the type of advertisements. Kralisch et al. (2005) and Sanduijav (2008) stated that high UAI cultures prefer extensive explanation and structure of advertising messages. In Taiwanese fast food chains’ websites, the content of the advertisement is inclined to classify and group the information about products.

**H5. High LTO features appear more frequently in fast food chains’ websites of Taiwan than in those of the U.S. with regard to verbal/visual attributes.**

The results support the hypothesis that high LTO features are more conspicuous in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal and visual attributes.

In long-term oriented cultures, the content is focused on practical values (Marcus & Gould, 2000). In verbal attributes, Taiwan’s fast food chains’ websites use relative long lists of terms and conditions of purchase, which are helpful in reducing misunderstandings and beneficial for building long-term relationships and credibility with customers.

The UAI cultural dimension affects visual attributes in the cultural marker of the navigation bar. According to Kralisch et al. (2005), high UAI members tend to “explore all available options in order to minimize the number of unknown situations and locations,” so they are willing to spend more time exploring websites. In Taiwanese fast food chains’ websites, the tall navigation structure and repeat functions (e.g., the same item shows on the main navigation bar and the sidebar simultaneously) ignore time aspects and require a long for accessing websites.
H6. HC features appear more frequently in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal/visual/multimedia attributes.

The results support the hypothesis that HC features are more conspicuous in fast food chains' websites of Taiwan than in those of the U.S. with regard to verbal, visual, and multimedia attributes.

In HC cultures, much information is implicit, while in LC cultures, most of it is explicit (Hall, 1976). The communication style has a great influence on fast food chains' websites design. In verbal attributes, HC cultures emphasize a soft and more emotion-based appeal, while low-context cultures focus on a hard sell (N. Singh & Matsuo, 2004). Taiwanese fast food chain's websites tend to use indirect messages, while the U.S. uses direct messages.

HC cultures tend to use indirect approaches, such as the use of symbols that need to be decoded (Okazaki, 2005), and to use graphics for aesthetic purposes (N. Singh & Matsuo, 2004). These greatly affect the features of visual attributes. In Taiwanese fast food chains’ websites, it is common to see diverse images, heavy use of graphics and various color combinations.

HC cultures have adopted a higher rate of animation than those in LC cultures (Ahmed et al., 2009; Würtz, 2005) and, as Hsieh et al. (2013) have pointed out, Taiwan’s websites tend to use a great deal of animation. In this study, elaborate animation effects play an important role in Taiwanese fast food chain’s websites as well.
5.1.3 Diminishing effects of cultural markers

Genre of industry

Results of this study reveal that particular cultural markers have a high relationship with cultural dimensions. However, some remarkable features identified in other research are not seen in fast food chains’ websites. As seen in Table 22, the PDI dimension is not conspicuous in Taiwanese fast food chains’ websites. According to Marcus and Gould (2000), websites of high PDI cultures tend to use images of the CEO or the hierarchy figure of the company. The high MAS dimension also does not show marked effects on images in this study. In a high masculinity society, achievement, personal values, and male domination are emphasized by having games, or images with themes related to males (N. Singh, 2003). This is might be because of different genres of industry; such information is unimportant compared with information on products in fast food chains’ websites. We could therefore conclude that remarkable features on government, university, and e-commerce websites studied in previous research are not expected to be shown on fast food industry websites.

Synergistic effects, additive effects, and antagonistic effects

Hofstede (2005) stated that the effects of MAS and UAI can be cancelled out by LTO. It is reasonable to speculate that other synergistic effects, additive effects, and antagonistic effects may exist among cultural dimensions.

In this study, we found that the HC/LC cultural effects were cancelled out by other cultural dimensions. According to Cho et al. (1999) and N. Singh (2003), LC cultures tend to have detailed terms and conditions of purchase lists because such cultures tend to use clear and direct messages. However, the result of this study shows that Taiwan, a HC cultural country, tends to have detailed terms and conditions of purchase lists in its fast food chains’
websites, which is opposite to the results of previous studies. A probable reason is that Taiwan has a high LTO, a high UAI, and a low MAS score, which tend to focus on details and relationship building. The sum of the effects of these three cultural dimensions is greater than the effect of the HC/LC cultural dimension.

Marcus and Gould (2000) indicated that people of high UAI cultures prefer simple navigation system. However, the navigation and layout in Taiwanese fast food chains’ websites are not presented in a simple and logic way. This might represent the net effect of a tall navigation system of a high PDI culture and a preference for using redundant cues and sidebars of a HC culture. In the research of Würtz (2005), similar results were obtained; the navigation systems of HC culture websites are relatively complex, while those of LC culture websites are relatively transparent.

5.1.4 Unexpected findings

Uncontrollable factor

According to Cateora’s marketing environment model (2008), a country-specific influential factor is an “uncontrollable” factor in website design. The “uncontrollable” factors in Taiwanese fast food chains’ websites found in this research are limitations of present ways for typographic hierarchy of text, new trends of website design adopting, marketing strategy and website designers’ preferences.

The typographic hierarchy is represented differently in fast food chains’ websites in Taiwan and the U.S. The features of typographic hierarchy in Taiwanese fast food chains’ websites might be related to the HC cultural dimension, in which use of many colors is preferred, or to the femininity cultural dimension, which accepts fantasy and decorations.
However, in this study, we assume that the main reason for the difference of typographic hierarchy present is that the characteristics of the written text differ so much. Traditional Chinese characters do not have uppercase and lowercase forms, which limits several ways of presenting the hierarchy of text.

Moreover, fewer typefaces are designed for Traditional Chinese characters. The strokes, spaces and baseline of Traditional Chinese glyph is complex, and each individual character requires individual design and modification.

Fluid layout and hero images have recently become popular in website design. Few Taiwanese fast food chains’ websites have adopted the trend, and some old fashioned features, such as shadows, three-dimensional effects and 90’s-looking elements are still shown in Taiwanese fast food chains’ websites. Those might be explained by the HC cultural dimension, in which diverse design and style are preferred. However, it is more likely that those Taiwanese fast food companies entered the market early, and they do not want to change their marketing strategies on their websites, or they pay more attention to marketing media other than websites, because many newer brands and food industries other than those in the fast food sector tend to have modern websites design.

5.2 Contribution

The specific effects of cultural markers on website characteristics found in this study provide a starting point for culturally appropriate adoption for Taiwanese markets. The results can not only be applied in new fast-food companies entering Taiwan’s market, modifying guidelines for existing websites of small companies, but also serve as a valuable
source of information for companies entering similar Asian markets, such as those in China, Hong Kong, Japan, or Korea.

Few studies focus on fast-food chains’ websites, and this study might not only confirm some previous research but also be a source of information for future research. Website design related to culture-bound products is complex; this study may refer not only to the fast-food industry but also to other sectors of the food industry or to other industries.

The infographics design explanation of cultural differences serves as a quick guideline for website design for international businesses and designers.

5.3 Recommendations

Modifying guidelines according to industries

Aspects of website elements guidelines from Marcus and Gould (2000) based on cultural dimensions need verification by different industries. Some remarkable features, such as leaders’ images or the hierarchy chart of the organization, although commonly seen in government, e-commerce or bank websites, are absent in the fast-food industry.

Potential improvement in current Taiwanese websites

The main inadequacy of Taiwanese fast food chains’ websites is lack of consistency. Websites of recent new global restaurants in Taiwan have clean, structural and consistent designs. This indicates that there are designers and programmers who have the ability to build this kind of website, and such designs can be implemented in fast food chains’ websites as well.
Another suggestion is with regard to online advertisements, in which the number of products shown on one advertisement can be reduced or the whole advertisement can be made larger. This change will help customers read it easily.

5.4 Limitations of the Study

Outliers

Trend in website design continuously change, and each website may have already adopted certain features of other cultures, such as TW McDonald’s website in this study. Using TW McDonald’s website as one of the samples might create bias, as this website is not a typical Taiwanese style website. Its design is very similar to that of U.S. McDonald’s, which might be because it is a direct store and it follows the U.S. company design style, adopting minor cultural features for the Taiwanese market.

Uncontrollable factor

Some country-specific uncontrollable factors (e.g., limitation of typographic hierarchy in Traditional Chinese characters) are unpredictable and greatly affect Taiwanese fast food chains’ websites, such as typographic hierarchy. It is difficult to determine whether such uncontrollable factors were affected by any particular cultural dimensions in this study.

Inevitable cultural bias

Cultural bias on the part of the author is inevitable. Although the author followed several previous studies in conducting the analysis, the background, knowledge and experiences of the author may have affected the interpretation of the findings in some ways.
5.5 Suggestions for Further Research

Cultural differences researchers in website design need to conduct further research to ascertain the cultural markers and cultural dimensions that contribute to features of website design. First, researchers should examine other countries’ fast food chains’ websites, which will help improve the interpretation of relationships between cultural markers and cultural dimensions. Second, a quantitative survey should be conducted to test the reliability of cultural markers, such as using an existing website by comparing its original design and the design of its modified version that incorporates the features of remarkable cultural markers. Third, researchers should examine other sectors of the food industry to determine whether the cultural markers found to be influential in this study are also remarkable and if the relationships between cultural markers and cultural dimensions are similar to those for the fast-food industry. Finally, longitudinal research should be conducted to determine whether uncontrollable factors such as trend and fashion of website design are dependent or independent variables from the cultural dimensions.

5.6 Conclusion

Glocalization is the trend of website design. However, less research has been performed on identifying cultural markers and the influences on nondurable consumer goods’ websites. This thesis describes an exploratory study of web design across the cultures of Taiwan and the United States specific to the fast food industry. The results identify remarkable cultural markers that differ between fast food chains’ websites of Taiwan and the U.S. Properly adopting animation, use of diverse types of graphics, and indirect messages
conveying text, based on features of a HC culture, collectivism and uncertainty avoidance, are important to Taiwanese fast food chains’ website design.
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