

Cross-cultural Examination of Chinese Cross-border E-commerce Web Sites Design and Contents

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Abstract—Cross-border e-commerce is an international activity, which relies almost exclusively on web site to deliver information and interact with consumers. However, many cross-border e-commerce firms work with web sites interfaces that provide only poor information and manifest many problems concerned with cross-cultural factors. Therefore, web site design and content related to cultural factors can affect consumers' purchasing decisions. However, in spite of the rapid growth of cross-border e-commerce business in China, the study concerning how to establish culturally customized web site for Chinese firms remain scarce. This study aims to address this gap by exploring cultural preference for design features of web site. Based on the previous studies on the relationship between cultural dimension theory and web site designing criteria, this study is aimed at summarizing the cultural preference for design criteria of Chinese web site, conducting a survey to investigate the status quo of Chinese cross-border e-commerce web site, identifying the current problems of Chinese firm site from the perspective of cross-cultural theory, and putting forward a comprehensive list of improving measures to enhance consumer perceived satisfaction from the perspective of cultural design, information design, visual design, and navigation design.

Keywords—Cultural dimension; Cross-border e-commerce; Web site; Design; Content

I. INTRODUCTION

China's cross-border e-commerce trade increased rapidly in the past few years. China's General Administration of Customs reported that China's cross-border e-commerce trade totaled 90.24 billion yuan in 2017, with an increase of 80.6% compared last year. And the average annual growth rate of China's cross-border e-commerce trade has been over 50% for the past three year [1].

In 2018, China's annual import and export value set a new record with the total value of 30.51 trillion yuan, and 9.7% growth when compared to 2017. Among them, exports were 16.42 trillion yuan, an increase of 7.1% [2].

Commerce industry has experienced huge prosperity, however, many cross-border e-commerce firms work with web sites interfaces that provide only poor information and manifest many problems concerned with cross-cultural factors, which also greatly hindered its benign development.

It is known that web site is a major instrument for companies to transmit information to customers and conduct transactions in business markets. However, Chinese cross-

border e-commerce companies usually design their web sites and contents based on their own cultural background, which cater to the needs of the consumer demand in China but not in other foreign countries. In view of this, conducting intercultural investigation of web sites interfaces and make cultural adaptation in the design of web sites are highly necessary.

II. CULTURAL CONTEXT

Web site design such as visual, color, paper layout and navigation reflect local cultural values which in turn will impact consumer perceived satisfaction. When consumers browse the web site, they may inevitably use their localized cultural preference to evaluate the design and content of web site. Thus, cultural preference can shape user's shopping behavior and therefore influence their purchase decision.

A. Cultural Framework

Edward Hall proposed a popular cultural framework and distinguished culture into high context culture and low context culture [3]. Hofstede proposed cultural dimension theory, which mainly includes individualism and collectivism, power distance, and uncertainty avoidance [4].

1) High-Low Context Communication

Hall described the High-Low Context Communication theory as a message that is transmitted through physical and social context than explicit code, while in Low-context(LC) communication, information is mainly found in the explicit part of the message. Therefore LC communication cultures prefer context-free messages, while HC communication cultures prefer implicit and contextual messages. For example, in China, a high-context culture, people prefer more indirect and ambiguous messages and additional contents, like colorful pictures are favored. Conversely, in the United States, which is considered a low-context culture, people favor more transparent, logical and informative messages. And such a conclusion is supported by much empirical evidence.

2) Individualism\Collectivism

In individualism cultures, people tend to act on their individual thoughts and feelings and are less likely to be influenced by the feelings and decisions of others. On the contrary, in collectivism cultures, people tend to define themselves as part of a group, and are usually more attractive and sensitive to others than the individualists. And empirical evidence shows that individualists feel more comfortable with digital communication while collectivists don't favor digital

communication through Internet so much as the individualists do.

3) *Power distance*

Power distance is defined as “the extent to which less powerful members of organizations and institutions accept and expect that power is distributed unequally” [4].

In large power distance cultures, it is popular that privilege and respect are given to those in higher positions and there are big differences between those at the top and those at the bottom. On the contrary, in small power distance cultures, people don’t seem to care much about statue and class symbols, and the less powerful people are also respected and valued. Therefore, scholars believe that communication is vertical in large power distance cultures while horizontal in small power distance cultures.

4) *Uncertainty Avoidance*

Uncertainty avoidance refers to that in high uncertainty avoidance cultures, people tend to avoid taking risk or to reduce risk at its minimum level when making decisions. Conversely, people in low uncertainty avoidance cultures tend to perceive an acceptable level of risk as delightfully challenging.

B. *The Previous Studies on Web Site Design and Content from the Perspective of Cultural Dimension*

There are many scholars who have conducted empirical research to provide evidence that Web sites require cultural adaptation when site designer and site user share different cultural background [5]. And cultural adaptation has played a significant role in improving on-line trust in global e-commerce.

Usunier conducted a content analysis of 600 B2B web sites in 87 countries and found that some cultural orientations, especially high-context communication, may have negative effects in the design of web sites as those cultural orientations tend to shape less attractive, less clear and less interactive web site designs and contents [6]. Therefore, cross-border e-commerce firms characterized by either power distance, collectivism or HC communication should conduct cultural adaptation in designing web sites.

Daward and Pornpitakpan found that people of high uncertainty avoidance level are more likely to seek opinions from others when making a purchasing decision. Moreover, people of high uncertainty level avoidance may dislike ambiguous and implicit web site contents. They also found that Americans, with higher uncertainty avoidance level than their Chinese counterparts, are more likely to consult others before making purchase [7].

Zhang found that people with collective nature are more likely to make online group purchase together with their friends and family members [8].

III. SURVEY DEVELOPMENT

In China, there are more than 5000 cross-border e-commerce firms, most of them have their own corporate web sites in English version, and some e-commerce giants even have established dozens of branch offices around the world and they need to localize their website. In order to investigate the status quo of Chinese cross-border e-commerce web sites design and contents, 100 business English majored students in Foreign Language Department ant Hengyang Normal University took part in the data collection as part of class assignment during Cross-border E-commerce Practice course. The specific investigation procedure goes like this: the teachers selected 100 Chinese cross-border e-commerce web sites, which include Aliexpress, Lightin the box, Milanoo and Dalong net, etc. Then a list of items concerning the status quo of corporate web sites design and contents was designed. All items are constructed as satisfied\dissatisfied statement on 5-point Likert scales or as Yes\No answers. The following attached the survey list.

TABLE I. A SURVEY LIST OF DESIGN FEATURES OF SITE

	<i>Targeted investigation items category</i>	<i>Specific questions</i>	<i>Standard of evaluation</i>
Web site design	Web site accessibility	Ease of access to web site with search engine	5 points
		Access to company site with “company name.com”	Yes\no
	Web site language	Number of languages except native language available	5 points
	Web site interface	Web site is interesting and appealing	5 points
	Web site search engine	Presence and efficacy of web site search engine	5 points
	Web site update	Frequency of web site update	5 points
	Web site logical structure	Web site is logically structured	5 points
Web site is easily readable		5 points	
Web site content	Company information	Company information about suppliers	5 points
	Contact information	Information about distributors and their locations	5 points
	Product information	Amount and accuracy of product information	5 points
		Degree of price information online	5 points
		Level of information about stocks and product availability	5 points
	FAQ	Presence of frequently asked questions	5 points
	Consulting assistance	Tips for product use	5 points
Tips for right product choice		5 points	

IV. PROBLEMS IDENTIFIED AND CORRESPONDING SOLUTIONS

After the survey, the following three problems are identified: (1) China, as a large power distance country, its web sites design tends to have less site attractiveness; (2) China, as a collectivism country, its cross-border e-commerce firms web sites design tends to have less site clarity, and less personalization; and it tends to hold the dominant value that family and friend should be in good physical shape and should enjoy the time spent together, and thus ideas and images of people gathering together, enjoying harmonious group activities are prominent. However, they ignore the fact that in countries with individualism culture, people emphasize the value of freedom and personal time, and images of individual activities are well accepted. (3) China, as a country of low uncertainty avoidance, tend to offer less sufficient information online to help consumers to make a wise purchasing decision, in spite of the fact that people of high uncertainty level may not favor on-line shopping unless sufficient consulting advice is provided to help make wise purchase choices. And thus it is highly advisable for e-commerce firms in China to provide adequate product information, company information, consulting assistance, and particularly, frequently asked questions answered by experts or real buyers online may effectively improve purchasing desire. In view of this, it's necessary for Chinese cross-border firms to gain growing cross-cultural awareness and create appealing and efficient web sites. To create culturally customized web sites, it is not just a matter of setting varied language versions. Instead, it requires dealing with design and content that include culture-specific color connotations, preference in sound, animation, layout, etc, which requires the web designer to compare and study the design style and content of the target group of web site. Therefore, improving measures are put forward through the following aspects.

A. Cultural Design

There is evidence shows that customers are more likely to visit and remain at culturally customized web site [9]. Therefore, it is highly advisable for Chinese firms to take cultural factors into consideration when choosing symbols, graphics, colors, language and specific contents. For example, McDonald's web site displays pictures of a person enjoy herself with music and relaxation. And it conveyed the message that you are immediately at the center of attention, you can enjoy yourself and behave as you like, which is positively perceived by people with individualistic culture. However, in the countries with collectivism culture, such individual images are not prominent in the market. In view of this, McDonald choose another image of a man running with a boy in a shopping cart, which reflect the fun of being together with family members.

B. Information Design

There is evidence shows that customers are more likely to visit and remain at culturally customized web site. Therefore, it is highly advisable for Chinese firms to take cultural factors into consideration when choosing symbols, graphics, colors, language and specific contents.

To convey accurate and detailed information for consumers is usually considered an important factor in improving

consumer perceived satisfaction in online shopping. Conversely, if consumers are dissatisfied with the information provided in the web site, they will leave the web site without purchasing any products, just as Hofstede mentioned in his uncertainty avoidance theory, people of high level or moderate level of uncertainty avoidance are more likely to avoid risk when insufficient information is provided when making a purchasing decision [10].

Besides that, people of different background would prefer different online interaction, such as online contact, e-mail, telephone, etc. For instance, High-context culture would prefer more personal forms of communication such as telephone, while Low-context culture would prefer more impersonal styles, such as e-mail. Therefore, designers should consider which form of contact information is more important based on users' cultural preference.

C. Visual Design

There is evidence shows that customers are more likely to visit and remain at culturally customized web site. Therefore, it is highly advisable for Chinese firms to take cultural factors into consideration when choosing symbols, graphics, colors, language and specific contents.

Visual design determined the aesthetic beauty of a web site and it involved all the following factors like balance, aesthetics, uniformity, emotional appeal, colors, pictures, shapes and even font. A high level of web site aesthetic effects can help to improve overall enjoyable experience of consumers. However, consumers with differed culture background may have different aesthetic standard. Therefore, it is advisable to investigate the targeted consumer groups' aesthetic standards.

For example, layout and menu design are very important in web page designing as appropriate layout and menu design make it easier for web site users to understand and access information. However, it deserves particular attention that preference for specific orientations and page placement vary by culture. For instance, France would prefer a centered orientation, Germany would prefer a structured and logical layout, while Chinese have a strong preference for visuals. Therefore, in designing web page, designers should consider different design preference for web site layout in different cultures. Moreover, color preference would also vary by culture. For example, Chinese people prefer less bright color, while Europeans and Americans prefer lighter\ brighter color, especially when there are many bright colored pictures to make the web page seem more "fashionable".

D. Navigation Design

Navigation design refers to the search engine or the navigational scheme that are designed to help customers to get access into different sections of a web site. No matter how well a web site is designed, a consumer who finds it difficult to search and get the required information is very likely to leave the site quickly. Therefore, it is advisable for firms to design effective navigation system for their web sites. For example, people usually favor web site home page with a detailed overview of all the optional sites in a clever and logic manner. To be more specific, Chinese firms should create site home page with a complete list of links, each clearly describe what

lies behind them by using some headlines, subtitles, and illustration, which make it much easier for consumers to find the necessary information immediately. There are also evidence shows that the preference for the form of navigational scheme are varied by different culture, therefore it is necessary to design culturally customized navigation system for Chinese firms.

V. CONCLUSION

The limitations of the study are as following, firstly, it didn't involve a large number of cross-border e-commerce companies in China. Secondly, there wasn't an explicit classification of the samples companies into the large, the medium sized or small enterprises based on their operation scale, which resulted in the lack of pertinence of the research results. Nevertheless, the sample involves all the well-known and typical e-commerce firms in China, and those companies account for a major part of online trade in China. Therefore, the findings may not represent the real situation for each e-commerce firm in China.

Despite the limitations mentioned above, this study serves the following implications as well. Firstly, it testified the need for culturally customized web site adaptation which was emphasized by previous research. Moreover, a data analysis was conducted to investigate the status quo of Chinese e-commerce web sites design and contents, and corresponding suggestions are offered to improve overseas trade online.

In conclusion, people with different cultural background may perceive different customer satisfaction level from a web site's design and content, making establishing culturally customized web sites for consumers with differed cultural

background a first priority for e-commerce companies in China to expand overseas business and maintain competitive advantages in the global market.

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