ELSEVIER

Contents lists available at ScienceDirect

Expert Systems with Applications

journal homepage: www.elsevier.com/locate/eswa



A locality analysis on purchasing helper at e-commerce webpage – The example in TW, CN, MO and HK

Jenn Tang*

Department of Information Management, National Taipei College of Business, Taiwan

ARTICLE INFO

Keywords: E-commerce Webpage layout Shopping sites Female

ABSTRACT

The webpage is often one of the key factors that determine whether or not the browsers will stay. Limited webpage space should be utilized to design the optimal structure of layout in order to offer the important message, increase the surfing, and, furthermore, fully stimulate the click-through rate. Based on content analysis method, this study took female shopping websites as examples to categorize the major purchasing helper from most websites and further obtains the common principles of layout at e-commerce webpage; the layout of purchasing helper as well as the correlation analysis between purchasing helper and product categories are also analyzed. These common principles actually provide position-oriented characteristics that could offer guidelines for planning e-commerce webpage.

© 2010 Elsevier Ltd. All rights reserved.

1. Introduction

Thanks to the popularization of World Wide Web, people now-adays gradually rely on the Internet to learn, work and even do the shopping. Above all, on-line shopping has become a hot market in recent years. However, the design of current shopping websites has a tendency towards merchandise-oriented. The misunderstanding of the idea that "the more merchandise, the better" takes the browser a great deal of time to surf on the complicated hyperlinks between webpage. When an e-commerce webpage is built, not only the content design but also the structure design has to be focused. The structure design refers to how the position of related functions should be adjusted during the webpage layout after the information of merchandise is decided, i.e. the so-called "common principles of purchasing helper's layout" in this study.

Webpage designers normally think that the web pages should be variable; therefore, they try to manage different heading, background or layout and so forth for each page. Unfortunately, the results often run counter to their desire and the supposed basic requirement is lost. Many designers usually make the same mistakes unwittingly. Although the web pages are similar, they are not dull or monotonous. After the basic functions are fulfilled, individual features are further enhanced. The shopping portal sites with high browsing rate, such as Yahoo, eBay and Amazon, are good examples.

The facade, or layout, of a website is the first impression of the browsers. How could it stand out above other websites and show its own style? How is a small common website turned into an

* Tel.: +886 963006563; fax: +886 289122601. E-mail address: bestmails@gmail.com easy-to-use and information-rich hot site and how is the trade volume of on-line shopping enormously increased? In layout planning, where should the heading of the website be located? How should the product list be presented? Should the scroll be applied? How to make browsers rapidly obtain the necessary information? Among these topics, the layout of position will be explored in this study.

In physical stores, the proprietors always display the latest and hottest commodities in the most prominent place so that the consumers can find them effortlessly. The same situation happens to the webpage. In order to make use of the limited space and to achieve the maximum marketing benefits, the proprietors of web stores also put the commodities at the most appropriate location. In fact, the marketing strategies of the proprietors could also be perceived from the layout of webpage. Therefore, this research takes the webpage of shopping websites for females as examples to investigate major purchasing helper used by most webpage currently, such as searching bar, banner, shopping cart, and keyword searching. Through content analysis method, the generalization of webpage layout is explored and, meanwhile, the common principle is obtained after further effectiveness discussion. The purpose of this study could be summarized as follows: to collect the main purchasing helper on the webpage of general e-commerce websites; based on these purchasing helpers, to take female shopping websites as examples to analyze the principles of webpage layout.

2. Related works

Web stores possess more advantageous characteristics for marketing than many physical stores (Coyle & Thorson, 2001);

however, the success mostly depends on the webpage designs that have great impact especially on the willingness of the users (Huang & Yang, 2005). Shneiderman (2005) also proposed eight user friendly design principles in order to increase the satisfaction of users and allow the multitude to obtain the most interactive, most immediate and most considerate user interface. Compared with the visual sensation offered to the consumers by physical stores, whether or not the designs of virtual stores possess both friendliness and usability has long been paid attention to by the academia and the proprietors.

The appearance presented by the webpage of a website is the projection of physical stores for web users who visit for the first time. However, a research (Nielsen & Norman, 2000) pointed out that only 10% of the websites have achieved both friendliness and usability. Pragmatically, the content planning of webpage corresponds to the display planning of commodities in physical channels. Since the webpage of a website is considered as the virtual shop of e-commerce, the content planning of webpage should certainly be careful and discreet (Angelides, 1997; Beier & Vaughan, 2003).

For webpage design, a successful website must possess its own distinguishing characteristics (Huizingh, 2000; Wang & Chu, 2005). The webpage is the spiritual window of the entire operation of the website and the main "facade" of the communication and trades between the enterprises and consumers. How to enable the consumers to accommodate this "facade" and be willing to stay is of great importance. Especially, the attractive webpages of commercial websites (Huang & Yang, 2005) are the main reasons for the webpage browsers to stay. Other factors such as unobstructed webpage design norm, visual design, webpage color matching are important links of the layout for webpage contents (Paciello, 2000).

Yang and Wang (1999) brought out eleven principles for the interface design of World Wide Web and those related to webpage layout are: succinct and beautiful images; explicitness and simplicity of paragraphs and contents; information presented in hierarchical way; the adoption of precise item names. Most of the ecommerce aims at making profits. The layout of different elements for web advertisements gives the browsers diverse visual sensation that leads to the double-headed influences. Wong (2004) studied the different positions of webpage menu and found that the best location of the menu is on the top or left which gives people the feelings of "clear", "neat" and "cordial". Besides, it approximately divides the webpage into two groups that make an obvious distinction for the users. This conclusion compared with the subject of webpage layout position concentrated by our study has shown the legitimacy of this study. Jou (1997) adopted the experimental method to conduct the study on the impacts of webpage design method and the values of webpage advertisement. The result showed that the oversized webpage elements greatly influenced the bandwidth transmission and indirectly affected the cognition of the browsers toward webpage, but lacked the discussion of the relative positions of webpage elements. There was even research (Aladwani & Palvia, 2002) into the measurement of user's cognition toward webpage quality through equipment. It is thus evident that the layout of webpage content is very important. The experimental method was also applied by Huang and Yang (2005) in the research of correlation between webpage and using willingness. It appears that in terms of the studies of e-commerce webpage contents, the scholars are used to adopting the qualitative research method which corresponds to the content analysis method in this study.

Each element on the page will affect the browser's interpretation of the information on the page. Hence, while making the layout, it is important to keep an eye on the equilibrium and proportion of the page and the entire space should be disposed in the most efficient way. Schaik and Ling (2001) have pointed out in their research that the different layout of webpage frame and background contrast would influence the effect and efficiency of web content searching. However, not all of the studies have the coherent answer (Chen & Huang, 2006; Huang & Yang, 2005; Lee & Benbasat, 2003; Li, 2001; Paciello, 2000). However, the research on the subject of position orientation like this study could not be found. In other words, most of the conclusions of webpage design lay particular stress on the discussion of technical aspect or statement of principles. For example, Nielsen (1999) as well as Nielsen and Norman (2000) believed that the friendliness and usability should be considered in webpage design, such as: background color, object size or the issues of symmetry and asymmetry. Nevertheless, there seems to be a lack of the integral research results of position arrangement. The phenomenon of polarization even exists in the principles of webpage design (layout mode), such as the density of webpage. Some prefer high information volume while others hold opposite opinions. Another example of controversy is the dynamic effect. Lee and Benbasat (2003) thought that the dynamic effects should be increased to draw the attention of the users. Until today, the e-commerce has been developed for 10 years and there are millions of websites on the Internet. Individual webpage designs have developed corresponding methodology. Therefore, this study is expected to complement the research aspect by extracting the design principles from most websites and further conducting the uniformity of webpage elements.

3. Research design

3.1. Content analysis method

Content analysis method was initiated from Sweden in the 18th century (Berelson, 1952) and was firstly applied in the content research of newspapers. Kerlinger (1986) defined the content analysis as one type of systematic and objective quantitative research method that had been widely utilized in communication, academia and other social sciences following the progress of technological tools, and had become one of the important research methods. Holsi (1969) also emphasized that although the content analysis method had multiple goals, it was particularly suitable for the investigation of the communication contents ("What", "How", "To whom") to be the basis of ratiocination. There is also no lack of related researches of e-commerce, such as web advertisement (Chien & Wang, 2005), traveling website (Countryman, 1999), the website assessment (Tseng & Chang, 1998) and so on. Other researches include the study of Bodkin (2002) on the websites of 500 top manufacturers listed by Fortune Magazine and the function analysis of personal webpage proceeded by Papacharissi (2002). Neuman (1997) opined that "the content analysis is a technology that collects and analyzes the text of content. The content indicated words, significance, picture, symbols, subjects, or any message for communication. The text refers to any written, readable and oral medium assistant to communication, such as books, newspapers, magazines, advertisements, photos or artworks." This explanation, which coincides with our research that targets in webpage contents, has proven the correctness of adopting content analysis in this study.

The outcome of content analysis must highly respect the reliability coefficient. Wang (1989) set the index of reliability coefficient at 0.80. The conclusion of a research appears to be unreliable if the reliability coefficient is below 0.67. In order to increase the reliability of content analysis and obtain accurate and significant research results, this study requests to examine the inter-coder agreement of webpage according to reproducibility during the process of data analysis. During the process of analysis, five research assistants participated in this research were trained by

Download English Version:

https://daneshyari.com/en/article/386340

Download Persian Version:

https://daneshyari.com/article/386340

<u>Daneshyari.com</u>