Association for Information Systems AIS Electronic Library (AISeL)

SIGHCI 2015 Proceedings

Special Interest Group on Human-Computer
Interaction

12-13-2015

Exploring Attractive Experiential Strategies for Website Design – A Website Design Project for a Department Store

Pei-Hsuan Hsieh
National Cheng Kung University, Tainan,, peihsuan@mail.ncku.edu.tw

Antonio Maude
National Cheng Kung University, antoniomaude@hotmail.com

Follow this and additional works at: http://aisel.aisnet.org/sighci2015

Recommended Citation

Hsieh, Pei-Hsuan and Maude, Antonio, "Exploring Attractive Experiential Strategies for Website Design – A Website Design Project for a Department Store" (2015). SIGHCI 2015 Proceedings. 11. http://aisel.aisnet.org/sighci2015/11

This material is brought to you by the Special Interest Group on Human-Computer Interaction at AIS Electronic Library (AISeL). It has been accepted for inclusion in SIGHCI 2015 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Exploring Attractive Experiential Strategies for Website Design – A Website Design Project for a Department Store

Pei-Hsuan Hsieh

Institution of Information Management National Cheng Kung University peihsuan@mail.ncku.edu.tw

ABSTRACT

Website design features are considered to be factors affecting customer selection, use, patronage, and purchasing decisions. Experiential strategies on website design can have significant impacts on customers' perceptions and emotions. However, it is uncertain which one or more experiential strategies applied in website design are more attractive to customers and which create impressive experiences when they view a website. Thus, the purpose of this study is to explore experiential strategies by adopting a survey approach followed by an eye-tracking experiment in a website design project for a department store. As a result, it is found that customers show more enthusiasm for viewing a website with experiential strategies involving smell, taste and think features. Specifically, the think features attracted the most customer eye attention in the experiment. These features result in longer fixation duration and more fixation counts than other content and visual design features.

Keywords

Experiential strategies, eye-tracking experiment, emotion, perception, survey, website design, department store

INTRODUCTION

In the past decade, customer "experience design" has become a dominant concept used by both academics and practitioners (Gross & Pullman, 2012). Experiential design cannot only be defined as creating a business concept through a physical environment, e.g., a department store, but can also be defined as an electronic environment, e.g., a website. Experiential design can be seen as important strategy that can create a memorable customer experience by encouraging a certain emotional connection with the business brand and can further induce the desired results of loyalty and increases in business revenue (Gross & Pullman, 2012). However, it is uncertain which one or more experiential strategies applied in website design are more attractive to customers and which create impressive experiences when they view a website. Thus, the purpose of this study is to explore experiential strategies by adopting a survey approach

Antonio Maude

Institution of Information Management National Cheng Kung University antoniomaude@hotmail.com

followed by an eye-tracking experiment in a website design project for a department store.

LITERATURE REVIEW

Experiential design emphasizes the pleasure orientation of customers, and the concept is that they continuously seek fantasies, feelings, and fun (Keller, 1993; Schmitt, 1999). There are five experiential modules to be managed in experiential design or experiential marketing (Schmitt, 1999): Sense, Feel, Think, Act, and Relate. All have their own inherent structures and principles.

According to the stimulus (S)-organism (O)-response (R) paradigm (S-O-R paradigm), various environmental stimuli (e.g. color, music, light, and scent) induce emotions (e.g. pleasure, arousal, and dominance), which approach-avoidance influence behavior (Mehrabian & Russell, 1974). Researchers in prior studies have applied the S-O-R paradigm to empirically show how traditional or online store environmental stimuli can have effect on emotional reactions that in turn influence response behaviors such as purchasing and revisiting (Fiore et al., 2005; Ha & Lennon, 2010). Moreover, researchers have extended the S-O-R paradigm by considering consumers' cognitive responses toward a store environment (Mehrabian & Russell, 1974; Fiore et al., 2005).

- H1. Experiential design has an impact on customers' emotional responses.
- H2. Experiential design has an impact on customers' cognitive responses.

Website design is evidently a multidimensional construct (Kim & Stoel, 2004). In prior studies, scholars from IS and related fields have classified website design characteristics into different categories (Tan et al. 2009; Tarafdar & Zhang 2005). These characteristics are useful to develop managerial implications and guidelines for website design. In addition, they can be broadly categorized into three dimensions: Visual design, social cue design, and content design. Referring to the three broad categories of website design characteristics, it can be concluded that website design features certainly have effect on customers' emotional and cognitive responses (Wang, Minor & Wei, 2011).

Previous researchers also demonstrated the effects of various website design factors (e.g. background color, content information) on customer pleasure and arousal, increasing consumer satisfaction and evoking positive perceptions about a store and its products (Ha & Lennon, 2010; Zhang et al., 2007).

H3. Website features have a significant impact on customers' emotional responses.

H4. Website features have a significant impact on customers' cognitive responses.

H5. Website features have a significant impact on experiential design concepts.

METODOLOGY

Based on the purposes of the current research, and after carefully reviewing the literature, the research model is developed as shown in Figure 1. The white boxes refer to the survey approach, which is intended to examine the effect of website features on customer's emotional and cognitive reseponses. The mediating effect of experiential design strategies on customer responses is also examined. Notably, three website features refer to the official website of a department store. The gray boxes refer to the eye-tracking experiment.

Based on the research model and the operational definition of each sub-construct, the 52 measurement items were developed as the draft version of the survey using a seven-point Likert scale ranging from "strongly disagree" to "strongly agree." Five MIS scholars were invited to modify the descriptions of all survey measurement items. Finally, 33 people (30 valid) who had previously visited the department store were invited to participate in the pilot study by filling out the modified version of the survey (Chiu, 2010). After the pilot study, the formal survey containing 40 measurement items was distributed near the site of the department store.

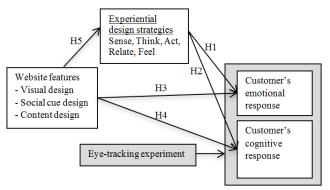


Figure 1. Research Model

After analyzing the data from the survey, the eye-tracking experiment was carried out. The materials used in the experiment were websites presenting different experiential design strategies. The overall website design was validated by two professional designers, and the overall experimental design was confirmed by two

scholars from the field of psychology. At the site of the experiment, each participant was examined separately and was informed that the experiment is a non-invasive test before they signed a consent form to show their agreement to record data by tracking their eye pupils. As soon as the eye tracker completed the calibration and validation, the experiment started.

RESULTS

The formal survey was distributed to respondents who had previously visited the department store at least once. As a result, 231 questionnaires were found to be valid for this research, resulting in a valid response rate of 92.4%. According to the analysis results of the survey, two website features, i.e., content and visual design, and three experiential design strategies, i.e., taste and smell from the Sense sub-construct and the Think sub-construct, were retained to further develop to become the components of the experimental materials for verifying which one or more strategies evoked the customers' visual attention. Others were deleted from the WF (Website Features) and EDS (Experiential Design Strategies) constructs. This implies that the customer did not expect the website of the department store to have these features since Facebook has already provided a social cues design which is seen as unique and irreplaceable. In addition, a website containing visual displays, content objects, sense (taste and smell) and think representation features is regarded as having a good design that can ensure an increase in the emotional responses of customers.

As shown in Figure 2, there were ten AOIs (Area of Interests) recognized within the website. The participants' eye movement data, i.e., fixation duration and fixation count, were obtained as time spent by each participant. A 2 (WF: visual design or content design) × 2 (EDS: Sense or Think) analysis of variance (ANOVA) was conducted to analyze the participants' eye movement data.



Figure 2. Example of AOIs

A total of 30 participants of both genders (Male: 50%, Female: 50%) were recruited to enter the eye-tracking experiemnt. By using the Data Viewer software, it was found that eight AOIs seemed to be neglected by the participants during the experiment, with the average of fixation duration and fixation count of all participants less than 75 ms. As a result, it is found that customers show

more enthusiasm for viewing a website with experiential strategies involving smell, taste and think features. Specifically, the think features attracted the most customer eye attention in the experiment. These features result in longer fixation duration and more fixation counts than other content and visual design features.

CONCLUSION

It was found in this research that website features (WF) had a positive impact on customers' emotional and cognitive responses. This finding is in agreement with the finding of previous research (Eroglu et al., 2003; Liang & Lai, 2002; Mummalaneni, 2005; Wang, Minor & Wei, 2011). This implies that for the purpose of increasing customers' perceptions of a website, website designers need to improve the visual and content design features of the webpages they are designing. The findings also indicate that website quality has a direct and positive impact on customers' emotional and cognitive responses, and this positive impact will result in greater purchase intentions, more frequent visits to the online environment, and the desire to visit the physical store.

This research also validated the significant effect of experiential design strategies (EDS), especially in regard to the Sense and Think components (S and T), on customers' emotional responses (CER). This implies that the EDS can be a form of encouragement for customers to express their feelings, thoughts and motivations. The customers viewing the online store may also be motivated to visit the real store or to purchase products online. This finding is in line with that of prior studies (Eroglu et al., 2003; de Farias, Aguiar, & Melo, 2014). Nowadays, by offering Sense components on a website, companies expect to attract more customers to visit their online platform, so the customers' curiosity will be triggered, leading to their later purchasing items on the platform.

ACKNOWLEDGEMENTS

We thank Mind Research and Imaging Center (MRIC) at National Cheng Kung University for consultation and instrument availability. MRIC is supported by the Ministry of Science and Technology.

REFERENCES

- 1. Chiu, H. J. (2010) Quantitative Research and Statistical Analysis (Fifth ed.), Wu-Nan.
- de Farias, S. A., Aguiar, E. C. And Melo, F. V. S. (2014) Store atmospherics and experiential marketing: A conceptual framework and research propositions for an extraordinary customer experience, *International Business Research*, 7, 2, 87-99.
- 3. Eroglu, S. A., Machleit, K. A., and Davis, L. M. (2003) Empirical testing of a model of online store

- atmospherics and shopper responses, *Psychology & Marketing*, 20(2), 139-150.
- 4. Fiore, A.M., Jin, H. and Kim, J. (2005) For fun and profit: hedonic value from image interactivity and responses toward an online store, *Psychology & Marketing*, 22, 669-94.
- 5. Gross, M. A. and Pullman, M. (2011) Playing their roles: Experiential design concepts applied in complex services, *Journal of Management Inquiry*, 21, 1, 43-59.
- 6. Ha, Y. and Lennon, S.J. (2010) Effects of site design on consumer emotions: role of product involvement, *Journal of Research in Interactive Marketing*, 4, 2, 80-96
- 7. Keller, K. L. (1993) Conceptualizing, measuring, and managing customer-based brand equity, *The Journal of Marketing*, 57, 1, 1-22.
- 8. Kim, H. and Niehm, L.S. (2009) The impact of website quality on information quality, value, and loyalty intentions in apparel retailing, *Journal of Interactive Marketing*, 23, 3, 221-233.
- 9. Liang, T. P. and Lai, H. J. (2002) Effect of store design on consumer purchases: An empirical study of on-line bookstores, *Information & Management*, 39, 6, 431-444.
- 10. Mehrabian, A. and Russell, J.A. (1974) An Approach to Environmental Psychology, MIT Press.
- 11. Mummalaneni, V. (2005) An empirical investigation of web site characteristics, consumer emotional states and on-line shopping behaviors, *Journal of Business Research*, 58, 4, 526-532.
- 12. Schmitt, B. H. (1999) Experiential marketing, *Journal of marketing management*, 15, 1-3, 53-67.
- 13. Tan, F. B., Tung, L. L. and Xu, Y. (2009) A study of web-designers' criteria for effective business-to-consumer (B2C) websites using the repertory grid technique, *Journal of Electronic Commerce Research*, 10, 3, 155-177.
- 14. Tarafdar, M. and Zhang, J. J. (2005) Analysis of critical website characteristics: A cross category study of successful websites, *Journal of Computer Information Systems*, 46, 2, 14-24.
- 15. Wang, Y. J., Minor, M. S. and Wei, J. (2011) Aesthetics and the online shopping environment: Understanding consumer responses, *Journal of Retailing*, 87, 1, 46-58.
- Zhou, L., Dai, L. and Zhang, D. (2007) Online shopping acceptance model-A critical survey of customer factors in online shopping, *Journal of Electric Commerce Research*, 8, 1, 41-62.

The columns on the last page should be of approximately equal length.