# Measuring Attitudes towards Web Sites with StudyResponse Panelists

# Sally J. McMillan Jang-Sun Hwang Guiohk Lee

## **University of Tennessee**

#### STUDYRESPONSE TECHNICAL REPORT NUMBER 13003

#### Abstract

This study examined effects of structural and perceptual variables on attitudes toward Web sites. Consumers reviewed four sites that had varying feature levels and differing creative strategies. Data were collected about attitude, involvement, and perceived interactivity from 311 respondents. In general, perceptual variables predicted attitude better than structural variables. In particular, involvement with the subject of a site and the sub-dimension of perceived interactivity that measured level of engagement were the best predictors of attitude.

### Method

To test the hypotheses, a field experiment was conducted. Existing Web sites were selected based on a 2 (high/low features) X 2 (informational/transformational strategy) design. Sites selected were drawn from an earlier study of 160 corporate Web sites (Hwang, McMillan, and Lee 2002). That study identified eight product categories listed in *Ward's Business Directory* that represent a range of consumer products. Twenty Web sites (in most cases the top-10 and bottom-10 ranked by revenue) were reviewed in each category and were coded for both site features and creative strategy. In that study, the coding sheet identified 16 kinds of site features that were coded in four primary categories: relationship building, brand image, corporate image, and sales. To determine creative strategy, coders examined the first page of the Web site to identify whether it used transformational and/or informational creative strategies.

To select sites for the current study, the authors sorted all 160 of the previously selected sites based on both product features and creative strategies to identify a product category that offered the most variance in site characteristics. The hotel and motel category was selected because it had representative sites that met the following criteria: two sites that scored in the lowest quartile on site features (one informational and one transformational) and two sites that scored in the highest quartile on site features (one informational and one transformational). Three expert coders independently agreed on both the strategy and the number of features at each of these four sites. The organizations responsible for creating and maintaining these sites did not participate in the study in any way. The following table describes the selected sites.

URL	Features	Strategy	Brief Description
http://www.sterlinghotel.com/	Low	Informational	Simple opening page with pictures of two hotels and menu items that lead to more detail on each hotel, a virtual tour, information on catering services, and a reservation request form.
http://treasurebay.com	Low	Transformational	Opening page presented in black and sepia looks like a pirate map and promises "a shipload of fantastic adventures." Links lead to the "legend" of pirate-themed casino, more information, and a reservation form.
http://marriott.com	High	Informational	The top portion of the screen resembles a banner ad in size and format and displays mountains and an option to view one of 13 lodging brands. Reservations and special offers are available from the front page.
http://www.hilton.com	High	Transformational	The top portion of this opening page also resembles a banner ad, but it includes a montage of people and places and a message "Exciting. Distinctive. Hilton." Reservations and specials are available from the front page.

Variance in the sites was used as the basis for examining hypothesized effects of site features and creative strategies. An online questionnaire was used to gather additional measures. Attitude toward the Web site, the primary dependent variable, was measured using the Chen and Wells (1999) A<sub>ST</sub> scale. Involvement was measured using Zaichkowsky's (1985) PII. Perceived interactivity was measured using the MPI developed by McMillan and Hwang (2002).

Respondents were recruited from the StudyResponse project panelist service, which maintains a panel of more than 10,000 people who have agreed to participate in academic research. A snowball approach was used to recruit panelists and they represent a nationwide convenience sample of adults who use the Web and who have agreed to participate in online research. The panel is hosted at the School of Information Studies at Syracuse University. StudyResponse administrators drew the sample and sent the recruiting e-mail messages.

Participants were selected randomly and were randomly assigned to review one of four Web sites and then complete the online survey. As an incentive, respondents were entered into a drawing for Amazon.com gift certificates. Four days after the initial recruiting message, a follow-up message encouraged participation. Data collection ended one week after it began.

### Response

A total of 720 e-mail recruitment messages were sent (180 for each of the four Web sites listed in Table 1). Forty-five of those e-mail messages could not be delivered (because of bad e-mail addresses, full e-mail boxes, etc.) reducing the sample to 675. The total number of responses to the survey was 368 resulting in a response rate of 54.5%. However, 57 respondents did not provide a valid User ID and thus could not be linked to the site that they reviewed. These respondents were eliminated from final analysis reducing the number of valid responses to 311 for a valid response rate of 46.1%. Responses were fairly evenly distributed across the four Web sites with the average number of respondents per site ranging from 71 to 79.

To test how well respondents represented the panel, gender and age were compared for the two groups. The panel was 78.0% female and 74.2% of respondents were female. This difference in gender distribution was not significant ( $\chi^2 = 1.805$ , df 1, p > .05). The mean age of the panel members was 34.7 and the mean age of the respondents was 36.5 (range = 18-80). This difference in means was marginally significant (F = 5.072, df 1, p < .05). Thus, respondents were slightly older than the panel at large. This slight difference in age may reflect nothing more than the fact that older, retired panel members might have more time to complete surveys than do younger members (only about 2% of the panel was age 60 or older, but about 4% of respondents were in this age group). However, respondents did have a wide spectrum of occupations from accountant to veterinary technician.

### References

- Chen, Q., & Wells, W. D. (1999). Attitude toward the site. *Journal of Advertising Research*, 39(5), 27-37.
- Hwang, J.S., & McMillan, S. J. (2002, March). *The role of interactivity and involvement in attitude toward the Web site*. Paper presented at the American Academy of Advertising, Jacksonville, FL.
- McMillan, S. J., & Hwang, J.S. (2002). Measures of perceived interactivity: An exploration of communication, user control, and time in shaping perceptions of interactivity. *Journal of Advertising*, 31(3), 41-54.
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12(December), 341-352