Trust in E-Commerce: Consideration of Interface Design Factors

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EXECUTIVE SUMMARY

The design of the interface for e-commerce transactions is one source of influence that can affect an online shopper’s trust in the merchant. This paper undertook a confirmatory factor analysis involving 14 trust-inducing interface design features that populated a conceptual framework proposed in our previous study. The factor analysis of self-reported ratings of the features, which were illustrated on a synthetic e-commerce interface by 181 survey respondents, revealed the following three underlying dimensions: (1) visual, (2) content, and (3) social-cue design dimensions. All 14 features were found to contribute to the composition of the three dimensions. The social-cue dimension was rated as less important than the other two dimensions, and shoppers who had been cheated by an online merchant showed lower overall trust ratings in comparison to the remaining shoppers. Qualitative reports by the survey respondents yielded additional insights about the importance of the interface. The results of this study may contribute to an appreciation of interface design features that may influence a user’s perception of the trustworthiness of an online merchant’s Web site.

Keywords: e-commerce; factor analysis; interface design features; online trust

INTRODUCTION AND BACKGROUND

Derived from the general definition of trust (Rousseau, Sitkin, Burt, & Camerer, 1998), online trust can be defined as an Internet user’s psychological state of risk acceptance, based upon the positive expectations of the intentions or behaviors of an online merchant. Research has repeatedly identified online trust as a crucial factor for consumers’ purchase decisions online (Ang & Lee, 2000; Jarvenpaa, Tractinsky & Saarinen, 1999; Teo, 2002). If consumers trust online merchants and have confidence in the reliability and integrity of merchants, they will likely feel more at ease making purchases and disclosing sensitive information online. Therefore, the success of online merchants and the future of e-commerce may depend heavily on online trust.
Gaining trust from consumers, however, is a challenging task. According to Ang and Lee (2000), “If the web site does not lead the consumer to believe that the merchant is trustworthy, no purchase decision will result” (p. 3). In other words, one key consideration in fostering online trust is to build a trust-inducing e-commerce interface. In that regard, several studies have reported evaluations of a list of design features that potentially could appear on an interface to impact trust (Fogg et al., 2001; Lee, Kim, & Moon, 2000). Related studies have reported evaluations of existing e-commerce Web sites, such as Amazon.com, as a method for determining trust-inducing features (Cheskin/Sapient, 1999; Gefen, 2002; Jarvenpaa, Tractinsky & Saarinen, 1999). However, the trust-inducing features of those sites could not always be measured accurately or generalized to other e-commerce Web sites, due to a lack of a standardized interface for evaluation.

Against that background, the authors developed a synthetic e-commerce interface that reflects 14 trust-inducing features reported in our previous study (Wang & Emurian, 2005). The trust-inducing features were presented together as a conceptual framework in an effort to synthesize existing literature on enhancing online trust by Web interface design. The interface, which was aimed to represent an online merchant’s Web home page, was used in the current study to show examples of the design features that were identified and to assist subjects in completing a survey that evaluated the trust-inducing importance of each feature. Using a synthetic e-commerce interface enabled us to address the following objectives: (1) to continue our previous study by undertaking a factor analysis in order to confirm and evaluate the underlying dimensions of the conceptual framework and (2) to obtain insights into practical trust-building issues by collecting qualitative data directly from Internet users.

There are almost certainly many potential sources of influence that promote or hinder online trust. However, the present study focuses on investigating interface design features and seeking indicative support for the importance of the interface design aspect in inducing online trust. Nevertheless, the intent of the study is not to compare the presence or absence of these features on trust ratings or to manipulate the features themselves in an experimental analysis. We chose first to develop a standardized synthetic interface to assure the presence of all 14 features rather than to attempt to find an existing e-commerce interface that might exhibit all 14 features in the manner that we intended to assess. Although the Saks Fifth Avenue2 e-commerce Web site, which is given in a figure in Wang and Emurian (2005), closely approximates a coverage of the 14 features, the dynamic nature of electronic storefronts, together with our intent to assure the presence of all 14 features, motivated the development of a standardized interface for this research.

The remainder of this paper describes the proposed conceptual framework, the research methodology, the results of the survey, the synthesis of respondents’ feedback, and, finally, our conclusions.

**PROPOSED CONCEPTUAL FRAMEWORK OF TRUST-INDUCING FEATURES**

The outcome of our previous study (Wang & Emurian, 2005) was a conceptual framework of trust-inducing features that were identified from the literature on
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