

## Chapter V

# Inducing Online Trust in E-Commerce: Empirical Investigations on Web Design Factors

Ye Diana Wang, George Mason University, USA

Henry H. Emurian, University of Maryland,  
Baltimore County (UMBC), USA

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## Abstract

*Two studies were undertaken to investigate interface design features that might impact customers' trust in an e-commerce vendor's Web site. In a first quantitative survey study, experienced Internet users rated 14 features of a synthetic e-commerce interface for their trust-inducing effectiveness. A factor analysis of the ratings partially confirmed a proposed conceptual model of trust-inducing features and yielded the following three factors: (1) visual design, (2) content design, and (3) social-cue design. The comparatively lower ratings on the social-cue design factor motivated a second qualitative analysis of a different group of users' observations regarding the importance of virtual re-embedding strategies as they may impact trust in an online vendor's Web site. Users' reports from interviews generally supported the importance of socially rich Web sites in promoting online trust, and they deepened our understanding of the functionalities and suitability of various communication media for the adoption of virtual re-embedding strategies. The complementary outcomes from both quantitative and qualitative sources of information are anticipated*

*to contribute to future applications and research in e-commerce interface design considerations affecting online trust.*

## **Introduction and Background**

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Online trust, defined as an Internet user's psychological state of risk acceptance (Rousseau, Sitkin, Burt, & Camerer, 1998), is essential for the proliferation of e-commerce. If consumers trust online vendors and have confidence in the reliability and integrity of vendors, they will likely feel more at ease in making purchase decisions (e.g., Ang & Lee, 2000; McKnight & Chervany, 2002; Teo, 2002). Consumer trust, which conventional vendors work tirelessly to achieve in off-line situations, is even more difficult to build in online environments. This is due to at least two reasons or disadvantageous characteristics of e-commerce. First, completions of e-commerce transactions are typically separated in space and time, with the exception of the delivery of downloadable digital products, and this situation requires consumers often to disclose personal information and to make a purchase even before seeing a product (Riegelsberger & Sasse, 2000). Second, a Web site, rather than a face-to-face interaction with a sales person, is the primary and direct "contact point" relied upon by online vendors to interact and communicate with their customers (Gefen & Straub, 2003). An important question, then, is how can online vendors attract potential consumers and induce their trust in an online environment?

The answers to this challenge may reside in the online vendors' primary and direct "contact point"—the electronic storefront. According to Ang and Lee (2000), "If the web site does not lead the consumer to believe that the vendor 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 could potentially appear on an interface to impact trust (e.g., Fogg et al., 2001; Lee, Kim, & Moon, 2000; Nielsen, 1999). Related studies have reported evaluations of existing e-commerce Web sites, such as Amazon.com, as a method for determining trust-inducing features (e.g., Cheskin/Sapient, 1999; Gefen & Straub, 2004; Jarvenpaa, Tractinsky, & Saarinen, 1999). However, the trust-inducing features of those sites could not always be accurately measured or generalized to other e-commerce Web sites due to a lack of a standardized interface for evaluation.

This chapter first presents an investigation to identify features, suggested by a conceptual framework as shown in Table 1, of a synthetic e-commerce interface that are evaluated for their trust-inducing influence. A quantitative factor analytic approach was used. Based upon the outcome of that evaluation, a second investigation was undertaken to shed additional light on social cues or interaction opportunities that

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