

## **How to Compensate for the Lack of Touch in Online Retail Sites**

Donna L. Hoffman and Thomas P. Novak

Sloan Center for Internet Retailing  
University of California, Riverside

Abstract submitted to the Industry Studies Annual Conference, April 26-27, 2007

When shopping online, customers cannot interact directly with physical products. Thus, online retailing presents a unique challenge in satisfying consumers' fundamental need for touch. Surveys have shown (e.g. Evans 2005) that the inability online to touch, feel or see the actual product negatively impacts consumers' willingness to purchase products over the Internet. Although present in many forms, haptic technology – technology that employs the tactile sense – is not yet available for use by online retailers. Nevertheless, many Internet retailers are interested in discovering ways of overcoming this inherent limitation of the Internet.

In this paper, we address this issue through a series of empirical studies using consumer response to interactive technology in use by major Internet retailers. First, we examine the past, current and future uses of haptic technology in the world around us and its implications for online retailing. Next, we develop a conceptual model that examines the stages of the online purchase process that haptics are likely to have the most impact and also what customer preference segments it is most likely to affect. We use this model to test several hypotheses about how the need for touch can be addressed online.

The results suggest that under certain circumstances three-dimensional visual imagery on a Web site can compensate for the missing sense of touch. In one study, for example, which compared participant responses to a static one-dimensional image and a virtual dressing room experience, we found that the three-dimensional, interactive imagery increased consumer confidence, increased sales and decreased returns. Our research also suggests that the type of technologies employed to satisfy a consumer's need for touch may depend on product category.

Keywords: online consumer behavior, Internet retailing, marketing and merchandising strategy, haptic technology

### Contact Information:

Professor Donna L. Hoffman  
Chancellor's Chair  
Department of Management and Marketing  
A. Gary Anderson Graduate School of Management  
University of California, Riverside  
Riverside, CA 92521  
951-827-4848  
[Donna.Hoffman@ucr.edu](mailto:Donna.Hoffman@ucr.edu)  
<http://sloan.ucr.edu/>