

USING ONLINE DATA COLLECTION TO INVESTIGATE CONSUMER PERCEPTIONS OF WEB SITE SECURITY

Subasree Cidambi (graduate student) and Robert W. Schaffer, both of the International Business and Marketing Department, California State Polytechnic University, 3801 W. Temple Ave., Pomona, CA 91768; rwschaffer@csupomona.edu; 909-869-2441.

ABSTRACT

The purpose of this paper is twofold: (1) to demonstrate a data collection methodology, and (2) to examine consumer perceptions of web site security and in particular to experimentally investigate the effect that third party assurance seals have on making consumers feel more comfortable with electronic commerce transactions.

In this paper, E-Commerce is defined as: "The use of electronic transmission media (telecommunications) to engage in the exchange, including buying and selling of products and services, involving transportation, either physically or digitally, from location to location" (Marilyn Greenstein and Todd Feinman)

GROWTH OF E-COMMERCE

Electronic commerce actually began in the 1970s when larger corporations started creating private networks to share information with business partners and suppliers. This process, called Electronic Data Interchange (EDI), transmitted standardized data that streamlined the procurement process between businesses, so that paperwork and human intervention were nearly eliminated. E-Commerce is broader than traditional EDI as it caters to a broader commerce environment.

CONSUMER CONCERNS

The threats and concerns that consumer's face can be broadly summed up in the following categories: Security of Data, Business Policies, Transaction Processing Integrity, and Privacy of Data.

THIRD PARTY ASSURANCE

There are a considerable number of third party security programs that attempt to assuage potential security concerns. Some of the better known third party programs are: BBB online, TrustE, Veri-sign, Inc, ICSA, Web Trust, WebWatchdog, BizRate, Web Assurance Bureau, Netcheck Commerce Bureau, MasterCard, PublicEye, and Multicheck. Each program provides a seal of approval that can be displayed on the web site. These seals of assurance are

similar to those issued by other industries such as the carpet industry, health industry, Good Housekeeping seal or the Parent TV seal of approval.

METHODOLOGY

Subject subjects were recruited to evaluate a hypothetical web commerce site and asked to answer questions about the site's graphics, ease of navigation, presentation clarity, and so on. Buried within these questions were questions about perceived security and privacy issues. Each subject evaluated the identical site except that the presence and number of third party assurance seals was experimentally manipulated. The hypothetical site and the online instrument is available at: <http://216.156.234.71/suba/>.

RESULTS

A total of 260 subjects participated in the experiment, about 55% male, most were evening graduate students. Most of the subjects were in their mid-to-late-twenties. ANOVA was used to test for the significance of relationships between the variables.

DISCUSSION

This paper had two goals: to demonstrate a methodology and to investigate consumer perceptions of web site security with respect to third party assurance trust emblems. There were several very interesting findings with respect to gender, privacy statements, and the number of trust emblems displayed.

As a demonstration of a data collection methodology, this paper has clearly been successful. It is often very difficult for individuals to explain their behavior and frequently they are not even aware of it; as a result researchers often employ experimentation in such situations.

One advantage that academic researchers have is a large pool of potential subjects. Some care must be taken during recruitment so that the demographics of the sample matches that of the target population. This matching is most easily accomplished when the student pool includes evening graduate students.