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THE EFFECT OF PRESENTATION FLAWS IN ON-LINE STORES' WEB SITES ON PERCEIVED QUALITY AND CONSUMER TRUST OF THE ON-LINE STORE AND INTENTION TO PURCHASE

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Abstract

This doctoral research in progress will examine the effect of presentation flaws of an on-line store's web site on users' perceived quality of the on-line store, trust in the on-line store and intention to purchase. The theoretical foundation of this research is multi-disciplinary. This study will examine several the factors that are likely to be instrumental in the formation of reputational impressions in an on-line store. A laboratory experiment will be used to empirically test the hypothesized relationships. The results are expected to contribute to both practice and research.

Keywords: Human-computer interaction, presentation flaws, trust, electronic commerce

“We strongly argue for studies to identify those information cues on web sites which consumers use to form reputational impressions of merchants.”

(Jarvenpaa & Tractinsky, 1999)

Introduction

Although on-line purchasing has reached all-time highs, it accounts for a tiny portion of overall sales both in the United States and the world. Several researchers have determined that one problem area involves consumers' trust in on-line stores (Doney & Cannon, 1997; Garbarino & Johnson, 1999; Hoffman, Novak, & Peralta, 1999). Users are aware of occasional breaches of trust, so before divulging any personal or confidential information, they need to judge an on-line store worthy of trust. Unfortunately, without any reliable method for judging trustworthiness of a site, they must rely on outward signs to indicate where caution should be exercised.

One of the outward signs to indicate caution is found in presentation flaws of the site. In this study, we group flaws into three categories: poor style, incompleteness, and errors. Poor style deals with the graphical and visual elements of the web site. In the study this flaw is operationalized by a dark, busy looking wallpaper, inconsistent font sizes, inconsistent word and line spacing, and improperly formatted tables. Incompleteness deals with structural elements. This type of flaw is represented in the study by the book's image not being available, the privacy policy is “to be finalized soon”, the shipping charges table has missing information and the guarantee page is “under construction”. The error type flaw deals with elements of English usage and is operationalized as typographical, grammatical and factual/information errors.

This study will examine the effects of presentation flaws in an on-line store's web site on users' perceived quality of the on-line store. Also of interest is how this perception of quality influences the consumers' trust in the on-line store, which in turn affects their intention to purchase.

Prior Research

Prior research has addressed the issues of impression management and information technology, as well as those of quality, trust and credibility in information systems in general and in electronic commerce in particular. However, to our knowledge there has been no research on the effect of presentation flaws in the context of electronic commerce.

Cassel & Bickmore (2000) explore how computer interfaces can use tactics similar to those employed during face-to-face human interaction to build a sense of trustworthiness when interactions are mediated by technology. Gefen (2000) examined the role of familiarity and trust in the context of on-line transactions. Still other researchers (i.e., Olson & Olson, 2000; Shneiderman, 2000; Sultan & Mooraj, 2001) focus on a variety of methods that can be used to generate trust: ensuring consumer privacy, displaying Trusted Third Party seals of approval, building brand equity, implementing informed consent on-line, providing references from past and current users, and so forth. Lohse and Spiller (1999) looked at how certain characteristics of user interfaces of on-line stores (number of links into the store, number of hours of promotional advertising, number of products, and store navigation features) influence traffic and sales. Jarvenpaa and Tractinsky (1999) examined an Internet consumer trust model in a cross-cultural context. Although no strong cultural effects were found with respect to the antecedents of trust, the two trust antecedents, perceived merchant reputation and merchant size had significant effects on consumers' trust. Furthermore, the authors argue that studies that seek to identify the information cues on web sites that consumers use to form impressions of on-line stores are needed. This study endeavors to respond to the call of Jarvenpaa and Tractinsky (1999), to examine several of the factors that are likely to be instrumental in the formation of reputational impressions in an on-line store, and to explore the effect of presentation flaws on perceptual constructs.

Proposed Study

The major questions of interest are:

1. How is a customer's perception of an on-line store's web site quality influenced by presentation flaws?
2. How does a customer's perception of quality of an on-line store's web site affect the level of trust a customer places in the web site?
3. How does the level of trust a customer places in the on-line store's web site affect a customer's intention to purchase from the on-line store?

Finally, and perhaps most importantly,

4. Do the flaws have independent, cumulative, or interactive effects on a customer's impressions of the on-line store and their intentions to buy?

The theoretical foundation of this research is multi-disciplinary. It stems from various streams of literature that are relevant to the study of the effect of presentation flaws: trust and credibility, impression formation, social influence and persuasion, attribution theory, and screening from the economics literature.

An on-line store's web site serves as the medium through which consumers gather information about the on-line store and develop impressions about the store. Lynch and Horton (2002) recommend that to convey to users that what the firm is offering is accurate and reliable, high editorial and design standards need to be achieved: "a site that looks sloppily built, with poor visual design and low editorial standards, will not inspire confidence" (p.25). A site that does not inspire confidence will not be perceived to exude superior quality. Thus,

H₁: A web site with poor style will result in lower perceived quality of the on-line store than a web site without poor style.

Cotlier (2001) asserts that a firm can establish legitimacy by providing users with a complete product in terms of its web site; this can be achieved by avoiding broken links, "coming soon" pages, and images that do not load.

H₂: A web site that is incomplete will result in lower perceived quality of the on-line store than a web site that is not incomplete.

In computer-mediated communication, communication style can beget impression-relevant information; for example, if messages contain several errors, it may be interpreted that the sender is careless or incompetent (Hancock & Dunham, 2001). Moreover, Goffman (1959) warns "... we must be ready to examine the dissonance created by a misspelled word..." (p.55).

Furthermore, flaws lead to a decrease in users' credibility and trust; "virtually all researchers agree that computer errors damage credibility – at least to some extent" (Fogg & Tseng, 1999, p.82).

H₃: A web site with errors will result in a lower perceived quality of the on-line store than a web site that does not contain errors.

When a web site appears disorganized and messy, a user's attitudes toward the site are expected to be unfavorable. If the disorganized look is compounded by typographical errors, the effects of error will be larger when there is poor style than when there is not poor style.

H₄: There will be an interaction between poor style and error on perceived quality of the on-line web store.

Similarly, if pictures do not load on a web site or there are broken links, the user's attitudes toward the web site are expected to be unfavorable. However, if typographical errors on the web site are combined with incompleteness, the effects of incompleteness will be larger when there are errors than when there are no errors.

H₅: There will be an interaction between error and incompleteness on the perceived quality of the on-line web store.

Taking into account the previously hypothesized interaction effects, it is conceivable to propose a three-way interaction effect among poor style, incompleteness and error. Incomplete web sites of on-line stores will result in lower values of dependent measures than complete web sites. Poor style will intensify these unfavorable values of dependent measures. Moreover, in a web site that contains poor style flaws and is incomplete, errors will further decrease the level of perceived quality of the on-line site.

H₆: There will be an interaction between incompleteness, poor style and error on perceived quality of the on-line firm.

McKnight, et al. (2002) assert that perceived web site quality should positively influence the users' trusting beliefs and trusting intentions as using the web site provides the first experiential feel of the on-line store's presence and confirms first or initial impressions: "if consumers perceive the Web site is of high quality, they will assume that the Web vendor has positive attributes and will form trusting intentions" (p.341). The quality of the web site refers to the quality of the site as perceived by consumers; it is the users' perception of quality that we are interested and therefore do not force a definition of quality on them. Thus,

H₇: Perceived quality of the on-line store will positively influence the user's trust in the on-line store.

Gefen (2000) examined the relationship between familiarity and trust on electronic commerce and found that trust was a good predictor of intention to purchase. Furthermore, Doney & Cannon (1997) regard trust as an *order qualifier* for purchase decisions, that is, for consumers to place an order, they must trust the merchant first.

H₈: Trust in the on-line store will positively influence the user's intention to purchase from the on-line store.

IS research has previously shown that user satisfaction and system quality affect behavioral intention (Davis, 1989). Furthermore, Jeong and Lambert (2001) found that customers' attitudes towards using a web site, the perceived usefulness of the information presented on the web site, and information quality were significant predictors of consumers' purchasing behavior.

H₉: Perceived quality of the on-line store will positively influence the user's intention to purchase from the on-line store.

Proposed Methodology and Analysis

The hypothesized relationships (see Figure 1) will be empirically investigated using a laboratory experiment. Each flaw factor has two levels: style has a "good style" and a "poor style" condition, incompleteness has a "complete" and an "incomplete"

condition, and error has an “error” and a “no error” condition. The manipulated factors of style, incompleteness and error produce a 2x2x2 full factorial design with eight treatments. A between-subjects 3-way factorial design will be used to test for main and interaction effects. The experimental materials will consist of a fictitious web site. The task to be completed by each participant in the experiment will require finding specific information about the product. In order to be able to answer the questions, participants will be asked to browse the web site and thus will be subjected to the treatments. Once the task is completed, the participants will be asked to fill out an on-line questionnaire.

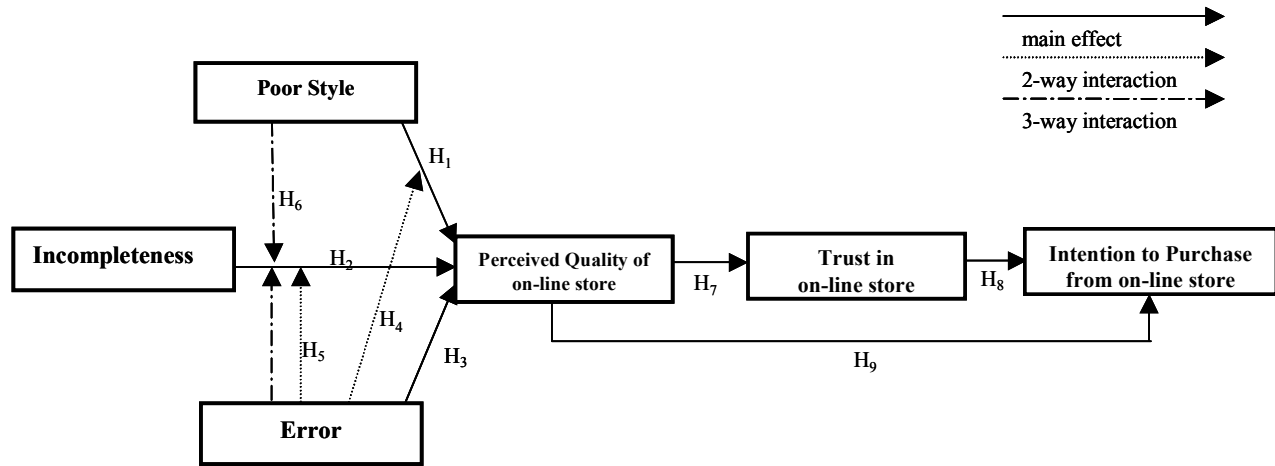


Figure 1. Research Model

Summary and Conclusion

This study is expected to respond to the call of Jarvenpaa and Tractinsky (1999), and examine several of the factors that are likely to be instrumental in the formation of reputational impressions in an on-line store. The results are expected to contribute to both practice and research. Designers and researchers alike will find value in finding answers to the questions raised in this study.

Practitioners currently attempt to minimize problems in the three areas of error, layout, and incompleteness. Of particular interest to practitioners would be the extent to which flaws, arranged for our purposes into the three categories, provide additive or interactive difficulties. If purchase intentions indeed diminish in an interactive manner, perhaps greater scrutiny will be exercised before a site is deployed and released to the public.

The study proposes that flaws are a neglected aspect of current empirical research, and could provide a useful indication of each flaw type’s contribution to variance. Future research would benefit by including the variables with the greatest explanatory power, and perhaps adding a “flaw” construct to current models of on-line shopping behavior, especially where trust is studied.

References

- Cassel, Justine and Bickmore, Timothy (2000) “External manifestations of trustworthiness in the interface,” *Communications of the ACM*, 43:12, 50-56.
- Cotlier, Moira (2001) “Electronic catalogs: Judging a site by its home page,” *Catalog Age*, May 1.
- Davis, F. D. (1989). “Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology,” *MIS Quarterly*, 13:3, September, 319-340.
- Doney, P.M., and Cannon, J.P. (1997) “An examination of the nature of trust in buyer-seller relationships,” *Journal of Marketing*, 61, 35-51.
- Fogg, B.J. and Tseng, Hsiang (1999) “The elements of computer credibility,” *Proceedings of CHI’99* (Pittsburgh, May 15-20), ACM Press, New York, 80-87.
- Friedman Batya, Kahn, Peter H. & Howe, Daniel C. (2000) “Trust online,” *Communications of the ACM*, 43:12, 34-40.

- Garbarino, E. and Johnson, M. S. (1999) "The different roles of satisfaction, trust, and commitment in customer relationships," *Journal of Marketing*, 63:2, 70-87.
- Gefen, David (2000) "E-commerce: the role of familiarity and trust," *Omega*, 28:6, 725-737.
- Goffman, Erving (1959) *The Presentation of Self in Everyday Life*, New York, NY: Doubleday Anchor, 259.
- Hancock, Jeffrey T. & Dunham, Philip, J. (2001) "Impression formation in computer-mediated communication revisited: An analysis of the breadth and intensity of impressions," *Communication Research*, 28:3, 325-347.
- Hoffman, D. L., Novak, T. P. and Peralta, M. (1999). "Building Consumer Trust Online," *Communications of the ACM*, 42:4, 80-85.
- Jarvenpaa, Sirkka L., Tractinsky, Noam (1999) "Consumer trust in an internet store: A cross-cultural validation," *Journal of Computer-Mediated Communication*, 5:2.
- Jeong, M. and Lambert, C.U. (2001) "Adaptation of an information quality framework to measure customers' behavioral intentions to use lodging Web sites," *International Journal of Hospitality Management*, 20, 129, 146.
- Lohse, Gerald L. and Spiller, Peter (1999) "Internet retail store design: How the user interface influences traffic and sales," *Journal of Computer-Mediated Communication*, 5:2.
- Lynch, Patrick J. & Horton, Sarah (2002) Web Style Guide, www.webstyleguide.com.
- McKnight, Harrison, Kacmar, Chuck, and Choudhury, Vivek (2003) "Whoops...Did I use the wrong concept to predict e-commerce trust? Modeling the risk-related effects of trust versus distrust concepts," *Proceedings of the 36th HICSS*.
- Olson, Judith S. and Olson, Gary M. (2000) "i2i trust in e-commerce," *Communications of the ACM*, 43:12, 41-44.
- Shneiderman, Ben (2000) "Designing trust into online experiences," *Communications of the ACM*, 43:12, 57-59.
- Sultan, Fareena and Mooraj, Hussain A. (2001) "Designing a trust-based e-business strategy," *Marketing Management*, December, 40-45.