

Third party Internet seals: Reviewing the effects on online consumer trust

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ABSTRACT

Buying online is still perceived as risky. A key strategy of online marketers to increase consumer trust in online ordering is to display privacy and security seals on their web sites. Although research indicates that these Internet seals do not necessarily mean better safety for online consumers, findings of several other studies demonstrated that these safety cues do influence consumer responses. The goal of this chapter is to provide the reader with an overview of findings regarding the persuasiveness of Internet seals and to reflect upon possible explanatory mechanisms for these effects. Future research directions and managerial implications for e-business are provided.

INTRODUCTION

Consumers perceive buying in online stores as more risky than buying in conventional stores (e.g., Miyazaki & Fernandez, 2001). Third party verification and Internet seals are important means to convey a sense of safety to potential customers. For example, many online sites show their Verisign or Trustwave security seal to convince consumers that transactions can be done safely. Similarly, many online stores proudly show their Bizrate top-ranked store awards on their homepage, or display their membership of the CNET certified store program. All these safety cues serve to persuade customers that the online store is a safe environment to conduct a purchase. The questions at hand are whether these third party security seals are indeed effective in reducing perceived risk, what determines their effectiveness, and whether a lower sense of risk as a result of encountering a third party seal is substantiated by objectively lower risks for websites carrying such a seal.

BACKGROUND

Many web stores display third party Internet seals on their homepage to inform consumers about their adherence to rules regarding privacy and security. Well-known examples include Verisign, Trustwave, BBBOnline, Trust.e, Validated Site, and Trust Guard. Third party Internet seals serve to promote a sense of safety among online consumers. A great body of research has shown that considerations regarding

safety and risk are an impediment for shopping in an online environment (e.g., Jarvenpaa, Tractinsky, & Vitale, 2000; Miyazaki & Fernandez, 2001; Pavlou, 2003; Ranganathan & Ganapathy, 2002). Most of the risks that consumers experience on the Internet can be categorized as privacy risks and security risks. Privacy risks pertain to attempts of the online retailer to collect, use and distribute information about consumers without prior permission or even awareness of the consumer. Security risks refer to either the security of the Internet itself, or to concerns about the competence and integrity of the online retailer (Miyazaki & Fernandez, 2001).

Despite the inherent insecurity of online shopping, consumer spending on the Internet is rapidly growing. Apparently, consumers have established ways to find places that they consider safe. To establish whether a web store is safe, consumers typically do not study the privacy regulations or the conditions of use (Milne & Culnan, 2004). Instead, they rely on online cues that provide information about website privacy and security and that can be processed in a relatively effortless manner. In information economics, cues that inform the other party about characteristics such as quality or safety that cannot easily be observed, and that are relevant to a sale or an agreement are called signals (Spence, 1973). Signaling theory assumes a rational consumer that takes into account that for a firm it would be economically ill-advised to send signals that imply product or service qualities that cannot be substantiated.

Third party Internet seals are signals sent to consumers to inform them that the firm adheres to certain standards regarding security and /or privacy, and that there would be adverse consequences of not adhering to these standards. Aiken and Boush (2006) note several problems in the use of third party Internet seals as signals: most consumers are unfamiliar with the (firms issuing the) seals, and the firms issuing the seals are paid by the firms carrying the seals. Others raise the question whether the most commonly used seals really denote different practices in dealing with Internet security and privacy. The evidence regarding this last question is mixed. Miyazaki and Krishnamurthy (2002) coded the privacy policy compliance of 60 major commercial websites that displayed either a third party privacy seal or no privacy seal. Their main finding was that the actual privacy policy did not differ between seal holders and non-seal holders. More recently, LaRose and Rifon (2006) compared 200 websites that either carried the Trust.e privacy seal, the BBBOnline seal or no privacy seal. The Trust.e and BBBOnline websites provided consumers with more information about their privacy regulations, deposited fewer cookies, reported more often a formal procedure for consumer complaints and provided more assurances for data security. Interestingly, websites displaying privacy seals asked for more personal information (last names, credit card number, email addresses) than websites without privacy seals. Thus, the question remains whether carrying a third party Internet seal is a reliable signal of web store safety and security.

ARE ONLINE SAFETY CUES PERSUASIVE?

Even though an Internet seal does not necessarily mean better safety for online consumers, it might still have the effect of lowering the perception of risk among consumers. Several studies have been published about the question whether consumers perceive websites that display third party Internet seals as safer than websites without such a seal. Most of these studies employ experimental designs. In a typical experimental study, half of the participants are exposed to a website carrying a third party privacy or security seal, the other participants visit a website without such a seal. Several such studies have shown effects, particularly for respondents who think that they are in risk when shopping online. Miyazaki and Krishnamurthy (2002) showed their participants websites with the BBBOnline seal, the Trust.e seal, or no seal at all. The presence of a seal led to more favorable attitudes towards the privacy policy of the web store, and made consumers more willing to disclose personal information. This effect only occurred for the participants who perceived Internet shopping as risky, however this interaction effect could not be replicated in a follow up study.

Using a similar kind of design, LaRose and Rifon (2007) found that people who had been exposed to a warning about their privacy expected more negative outcomes, but only when the warning was not accompanied by a privacy seal. Thus, again only those who perceived risk were affected by the third party seal. The intention to disclose information about oneself on the website was higher on the website carrying a privacy seal, regardless of the privacy warning. In a similar vein, but departing from a different theoretical framework, Van Noort, Kerkhof, and Fennis (2008) demonstrated that the effect of Internet seals depends on the consumer goal. Consumers whose aim is to prevent negative outcomes rather than obtain positive outcomes (as is the case for many online consumers, see Van Noort, Kerkhof, and Fennis, 2007) are affected more strongly by Internet seals and reported lower risk perception, more positive attitudes towards the site, and higher purchase intentions.

Internet seals are not the only signals firms can use to convince consumers that their web store is safe. Firms can also use objective-source ratings like those published in Consumer Reports to lower risk perceptions and enhance trust. Alternatively, firms may try and overcome the impression that a web store comes without the huge investments that a brick-and-mortar store demands. High investments in advertising signal to consumers that a firm is certain about future profits and communicating these investments has been shown to positively affect consumer attitudes towards a brand (Kirmani, 1990). Departing from signaling theory, Aiken and Boush (2006) tested which of these three types of signaling best predicted consumer attitudes, and found that third party seals have the greatest effects on the trustworthiness of the web store, on beliefs about privacy and security and on the willingness to disclose personal information. Peterson, Meinert, Criswell II, and Crossland (2007) compared the effect of seals to the effect of self-reported privacy statements. Compared to a control condition without seal or privacy statement, Internet seal did show a positive effect on the willingness to disclose information, but a strong privacy statement had a stronger effect.

Not all studies report positive effects and some report effects on some dependent variables but not on others. For example, Kim, Ferrin, and Rao (2008) found effects of the presence of a third party seal on perceived risk, but not on consumer trust. They explain the latter by the low level of awareness of the meaning of third party seals among their participants: almost 75% did not know that websites are sometimes endorsed by third parties. McKnight, Kacmar, and Choudhury (2004) studied the effects of privacy assurances and industry endorsement seals on consumer trust in the web store within the context of services (i.e., legal advice). They found no support for the trust enhancing effects of third party Internet seals. Several other studies did not find an effect of third party seals on consumer attitudes and intentions (e.g., Houston and Taylor, 1999; Kimery & McCord, 2002).

A few studies have delved into the question which mechanisms may explain when and why Internet seals are effective in persuading online customers. Yang, Hung, Sung, and Farn (2006) depart from the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986). The ELM states that information may be processed in either a relatively unthinking and automatic way (the peripheral route) and in a more elaborative way (the central route). People tend to reserve elaborative processing for important matters, for matters which they are knowledgeable about, and for situations in which they have the time and knowledge to do so. These conditions are typically not met for consumers shopping online. Instead, these consumers rely on the signals (peripheral cues) sent by the web store. Following this reasoning, Yang et al. (2006) find that third party seals help to build trust especially among consumers who are low in product involvement or high in (trait) anxiety. Consumers high in product involvement rely more on (high quality) product information.

Another limiting condition for the persuasiveness of Internet seals may be that Internet seals work mainly for consumers who feel they are at risk. This may be a risk specific to the purchase they plan to conduct, but this may also be a more general feeling of vulnerability, as is shown in the effect of trait anxiety reported by Yang et al. (2006), and in the effect of being focused on preventing negative outcomes as

reported by Van Noort, Kerkhof, and Fennis (2008). Thus, consumers need not necessarily consciously perceive a web store as unsafe, even when they are generally anxious or in a situation where they are geared towards not making a mistake, Internet seals are more likely to affect consumers' online trust and risk perception.

Issues, Controversies, Problems

The literature so far has been quite unsystematic in the sense that there is a lot of variation in the materials used to test the effectiveness of third party Internet seals in lowering risk perceptions. This may explain why no explanations have been offered (or tested) as to why some studies do find effects of third party Internet seals on consumer attitudes, whereas others do not find such effects. Studies have been conducted among fictitious and real web stores, and among well-known or unknown web stores, Internet seals have been placed on the homepage versus the page where consumers actually make a purchase decision, and different types of products and services have been used to test the effects of Internet seals. A systematic (meta-)analysis of the influence of these differences on seal effectiveness would help to better understand the working of Internet seals and the conditions that mitigate their effects. Moreover, it may help to explain unexpected and contradictory findings.

More attention should be paid particularly to the different types of seals that were tested on their persuasiveness and to how consumers understand these seals. These seals all relate to different kinds of assurances, but it is still unclear how consumers perceive these seals. Houston and Taylor (1999) showed that seals sometimes are perceived incorrectly, and that consumers attribute more assurance to seals than they should. Also, among consumers the awareness of what Internet seals mean is very low (Kim, Steinfield, & Lai, 2008). Thus, consumers are not only unaware of the ins and outs of privacy and security regulations in general and the specific regulations of the stores they attend online, but they are also unaware of what it means to display a third party Internet seal. In fact, most consumers do not even recognize the seals that are used most often on the Internet (Kim, Ferrin, & Rao, 2008).

Aiken and Boush (2006) raise the question whether there is an optimum number of Internet seals on a web page and whether exceeding that number might lead to the perception of more risk and to less web store trust. In their own study, these authors find no effect of the number of signals on a web page, but in no experimental condition were the participants exposed to more than three signals. Yet, another study (Van Noort, 2009) examined a total of four seals commonly used in the context of online auctions and demonstrated a linear relationship between the number of signals and online spending. Future studies should look at the possibility that adding more Internet seals undermines the effectiveness of the Internet seals.

SOLUTIONS, RECOMMENDATIONS, AND FUTURE RESEARCH DIRECTIONS

Third party Internet seals are often not recognized by consumers and may not always reflect a better practice of dealing with privacy and security but have nonetheless been shown to be effective in lowering consumer risk perception in several studies. One can wonder about whether this reflects an ideal practice of consumer dealing with safety on the Internet. Many think it does not and plead for consumer education on these matters. However, one should not be too optimistic about the effects of consumer education. Kim et al. (2008) describe the effects of an educational intervention aimed at increasing consumers' awareness of security and privacy issues. They conclude that education does help to increase awareness and the perceived importance of Internet seals. However, a host of other measures (e.g., web store trustworthiness, perceived web site information quality) did not show a significant association with the presence of Internet seals. Consumer education is needed, but at the same time may require large and enduring efforts to be effective

Several managerial recommendations for enhancing the effectiveness of Internet seals are presented and discussed in academic research, for example by LaRose and Rifon (2006). The presentation of seals on the web site might be standardized and made more salient by banishing advertisements and distracting graphics from places close to the seals. Privacy and security regulations may be standardized and presented in such a way that they are easily accessible and clearly understood by consumers. However, to our knowledge, no attempts are currently made to start a process of standardization. Another suggestion, made by Pollach (2006, 2007) regarding privacy statements, is that businesses could increase consumers' trust if they do not only address what they do with user data, but also what they do *not* do. Uncertainties about privacy risks may be reduced if consumers can learn about what practices a business does not engage in. Also, online privacy policies could reduce more uncertainties if the language used would be more exact and transparent.

Although many studies report positive effects of third party Internet seals, many questions remain unanswered. The empirical findings discussed show evidence for the persuasiveness of Internet seals, but sometimes are contradicting or rather incomparable since effects are studied on different consumer responses, and using different kinds of seals. Future research should focus on examining the relations between these responses (i.e., mediating processes between variables) and on the underlying mechanisms. Moreover, findings considering the persuasiveness of Internet seals are rather limited to self-report measures. Therefore, in studying mediating and moderating processes, persuasiveness should be studied to the full domain of consumer responses, also by using implicit measures.

In studying underlying processes, future research could focus on the information processing style of safety cues. On the one hand, Internet seals are symbols, visual elements of a web site that might serve as a heuristic. Furthermore, during online shopping, consumers are probably mostly involved with their shopping goals and less with informational symbols because they do not directly facilitate the actual product selection and its actual payment. This would imply a heuristic processing style and relatively low levels of elaboration (cf. the findings by Yang et al., 2006). On the other hand, it can also be assumed that consumers are motivated to prevent their online perceived risks and to reduce uncertainties regarding online shopping. Following the ELM (Petty & Cacioppo, 1986) this would then imply higher levels of elaboration. More research is needed to test these assumptions.

CONCLUSION

The goal of this chapter was to provide the reader with an overview of findings regarding the persuasiveness of Internet seals and to reflect upon possible explanatory mechanisms. To reach this goal, we have summarized the effects found in a great number of studies that have been conducted on this topic and looked at whether or not persuasive effects were found, and how these findings are explained. Based on this review, the evidence for possible effects of Internet seals on online consumer trust and risk perception is mixed. Several studies show that consumers perceive less risk and are more trusting web stores that display a third party Internet seal. Third party assurances through Internet seals thus do seem to convey to online consumers a sense of safety. However, other studies show no effect of third party seals and more research is needed to establish which factors determine whether an Internet seal is effective in persuading consumers that a web store is safe. To solve these inconsistencies, future research on Internet seals should focus on the conditions under which Internet seals are effective. An important step would be to conduct a meta-analysis on the studies that already have been conducted to test the effect of Internet seals on online trust.

Fortunately, for consumers there are alternative ways to distinguish between bad and good on the Internet. Social media, like online consumer forums, may be better understood than Internet seals by online consumers. Also, retailer reputation is a powerful signal of quality. Still, Internet seals could help to boost e-commerce. More systematic research on third party seal effectiveness, better consumer education and a

better differentiation by Internet seals between good and bad practices regarding privacy and security on the Internet may all help to create effective Internet seals.

REFERENCES

- Aiken, K. D., & Boush, D. M. (2006). Trustmarks, objective-source ratings, and implied investments in advertising: Investigating online trust and the context-specific nature of Internet signals. *Journal of the Academy of Marketing Science*, 34(3), 308-323.
- Houston, R. W. & Taylor, G. K. (1999). Consumer perceptions of CPA WebtrustSM assurances: Evidence of an expectation gap. *International Journal of Auditing*, 3(2), 889-105
- Jarvenpaa, S., Tractinsky, N. & M. Vitale, M. (2000). Consumer trust in an Internet store. *Information Technology and Management Journal*, 1, 45-71.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544-564.
- Kim, D. J., Steinfield, C. & Ying-Ju Lai, Y-J. (2008). Revisiting the role of Web assurance seals in business-to-consumer electronic commerce. *Decision Support Systems*, 2008, 44(4), 1000-1015
- Kimery, K.M., & McCord, M. (2002). Third-party assurances: mapping the road to trust in e-retailing. *Journal of Information Technology Theory and Application (JITTA)*, 4(2), 63-82.
- Kirmani, A. (1990). The effect of perceived advertising costs on brand perceptions. *Journal of Consumer Research* 17 (September 1990): 160–171.
- LaRose, R., & Rifon, N. J. (2006). Your privacy is assured - of being disturbed: websites with and without privacy seals. *New Media & Society*, 8(6), 1009-1029.
- LaRose, R., & Rifon, N. J. (2007). Promoting i-safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior. *Journal of Consumer Affairs*, 41(1), 127-149.
- McKnight, Kacmar, & Choudhury (2004). Shifting factors and the ineffectiveness of third party assurance seals: A two-stage model of initial trust in a web business. *Electronic Markets*, 14 (3), 252-266
- Milne, G. R., & Culnan, M. J. (2004). Strategies for reducing online privacy risks: Why consumers read (or don't read) online privacy notices. *Journal of Interactive Marketing*, 18(3), 15-29.
- Miyazaki, A. D., & Fernandez, A. (2000). Internet privacy and security: An examination of online retailer disclosures. *Journal of Public Policy & Marketing*, 19(1), 54-61.
- Miyazaki, A. D., & Fernandez, A. (2001). Consumer perceptions of privacy and security risks for online shopping. *Journal of Consumer Affairs*, 35(1), 27-44.
- Miyazaki, A. D., & Krishnamurthy, S. (2002). Internet seals of approval: Effects on online privacy policies and consumer perceptions. *Journal of Consumer Affairs*, 36(1), 28-49.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.
- Peterson, D., Meinert, D., Criswell II, J., & Crossland, M. (2007). Consumer trust: privacy policies and third-party seals. *Journal of Small Business and Enterprise Development*, 14(4), 654-669.
- Petty, R. E., Cacioppo, J. T. (1986). *From Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.
- Pollach, I. (2006). Privacy statements as a means of uncertainty reduction in WWW interactions. *Journal of Organizational and End User Computing*, 18(1), 21-46.
- Pollach, I. (2007). What's wrong with online privacy policies? *Communications of the ACM*, 50(9), 103-108.
- Ranganathan, C. & Ganapathy S. (2002). Key dimensions of business-to-consumer web sites. *Information and Management*, 39, 457- 465.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374
- Van den Poel, D., & Leunis, J. (1999). Consumer acceptance of the Internet as a channel of distribution. *Journal of Business Research*, 45(3), 249-256.
- Van Noort, G. (2009). *Validating the persuasiveness of online safety cues: The effect of multiple cues on*

- online spending* Paper presented at the 8th ICORIA Conference, Klagenfurt, Austria.
- Van Noort, G., Kerkhof, P., & Fennis, B. M. (2007). Online versus conventional shopping: Consumers' risk perception and regulatory focus. *CyberPsychology & Behavior, 10*(5), 731-733.
- Van Noort, G., Kerkhof, P., & Fennis, B. M. (2008). The persuasiveness of online safety cues: the impact of prevention focus compatibility of web content on consumers' risk perceptions, attitudes, and intentions. *Journal of Interactive Marketing, 22*(4), 58-72.
- Yang, S. C., Hung, W. C., Sung, K., & Farn, C. K. (2006). Investigating initial trust toward e-tailers from the elaboration likelihood model perspective. *Psychology & Marketing, 23*(5), 429-445.

ADDITIONAL READING

- Biswas, D., & Biswas, A. (2004). The diagnostic role of signals in the context of perceived risks in online shopping: Do signals matter more on the web? *Journal of Interactive Marketing, 18*(3), 30-45.
- Hu, X., Lin, Z., & Zhang, H. (2003). Myth or reality: effect of trust-promoting seals in electronic market. In Petrovic, O., Posch, R., Marhold, F. (Eds.), *Trust in Network Economy*, Idea Group, Hershey, PA, pp. 143-150.
- Kim, D. J., Sivasailam, N. & Rao, H. R. (2004). Information assurance in B2C websites for information goods/services. *Electronic Markets, 14*(4), 344-359.
- McKnight, D. H. & Chervany, N. L. (2002). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce, 6*(2), 35-59.
- Tan, Y. H., & Thoen, W. (2001). Toward a generic model of trust for electronic commerce. *International Journal of Electronic Commerce, 5*(2), 61-74.

KEY TERMS & DEFINITIONS

- Third party Internet seals: Signals sent to consumers to inform them that the online firm adheres to certain standards regarding security and /or privacy.
- Online consumer trust: The online consumer's general belief or expectancy that a specific online firm and/or third party can be relied upon.
- Security risk: The risk deriving from either the competence or integrity of an online firm or from the Internet itself that the storage or transmission of information about online consumers is not secure.
- Privacy risk: The risk that information about online consumers collected for commercial purposes is not treated in a fair and responsible manner.