THE VALUE OF ONLINE TRUST SEALS FOR ONLINE ENTREPRENEURS: AN EMPIRICAL INVESTIGATION

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Online trust issues have frequently been cited as the main reason why people hesitate to shop online. Although the share of e-commerce in total US retail sales has steadily increased recently, online retailers are yet to fully reap the benefits of online commerce. Unlike brick-and-mortar stores that have physical existence and are normally located nearby, customers shopping online might be dealing with small unknown retailers. Uncertainty about the quality of the products on the website, the security of payment process, the reliability of shipping, the protection of customers’ privacy, among others, add to the risks perceived by online shoppers.

Online retailers address these perceived risks in different ways. Advertisement, branding, feedback mechanisms etc. may help retailers gain shopper confidence. However, these measures are very costly and also take some time to work. Online entrepreneurs need economical and faster solutions to convey their trustworthiness which comes in the form of third party trust seals.

Online startups and small retailers can signal their reliability to the potential customers through their affiliations with reputable exchange partners. Among the various mechanisms, trust seals have been the most long-standing and the most pervasively used one. Trust seals are typically offered by a third-party, also known as seal providers. To obtain a trust seal, an online retailer typically goes through a certification process administrated by the seal provider. Upon qualification, the retailer is offered the right to display the trust seal on its website.

Despite their popularity, the impact of trust seals on online transaction outcomes has been inconclusive. Kimery and McCord (2002) find that some trust seals related to privacy protection can enhance customer trust, while other studies (McKnight et al. 2004) do not find any
significant impact. There are similar mixed findings in Hu et al. (2003). One possible explanation of the discrepancy is that the above studies use either controlled experiments in lab settings, or surveys. Limitations relating to the design of the experiments and the survey instruments could be some reasons for the inconclusive findings.

In this study, we exploit a unique dataset to examine the impact of trust seals on transactions. Provided by one of the major companies offering trust seals, the dataset includes 288,169 transactions from 493 different online retail websites in the January - October 2007 period. A key aspect of our dataset that enhances its empirical value is the presence of random seal tests. The seal provider, in agreement with the retailers, conducts “A/B Tests” to measure the impact of its trust seal on key site metrics. In this test, the participating retailers allow the seal provider to display the seal with 50 percent of the visitors to their web sites – so called A’s, while not displaying the seal with the other 50 percent – called B’s. The visitors were selected randomly to be either an A or B, ensuring that it is only the presence of the seal that varies systematically between the two sets of visitors. Thus, these “A/B tests” allow us to establish causality and identify the impact of the presence of the trust seal on shopper behavior.

Using this dataset, we examine the impact of trust seals on the likelihood of consumers completing their purchase in online transactions. This rich dataset allows us to not only quantify the impacts of trust seals on cart completion rate, but also to identify moderating factors that influence the seal’s effectiveness. Next, we provide our hypothesis and the research framework.

**H1.** Presence of the online trust seal at a retailer’s website increases the propensity of completion of shopping carts created by online shoppers.

**H2.** Online retailers with smaller sales volume benefit more from the presence of the online trust seal than larger online retailers.

**H3.** The online trust seal is more effective towards completion of higher value shopping carts than lower value shopping carts.
H4. The effect of the online trust seal diminishes for more frequent shoppers at a retailer’s website.  
H5. As the number of trust seals at an online store increases, the marginal impact of an additional trust seal on the completion likelihood of shopping carts diminishes.

Figure 1: Theoretical frame work of our model

Our findings provide empirical evidence that the presence of third party trust seals at online retailers’ websites increases the completion likelihood of shopping carts, thus resulting in increased sales for retailers displaying the seal - particularly the small sized retailers. The risk that originates from information asymmetry perceived by consumers when shopping from an unknown retailer is partially mitigated when a trusted third party endorses the quality claims of the online retailer through a trust seal. The seal acts as an additional quality signal for the online retailer and reduces the amount of information asymmetry faced by the shoppers, thereby easing the purchasing decision of the shoppers.

Not surprisingly, large online retailers such as Amazon.com do not display any trust seals on their websites. Online retailers with larger sales volume are likely to have built a good reputation and be known by more consumers. Our results complete the puzzle by finding that the presence of the seal at startups and smaller retailers’ websites is likely to bridge the reputation gap suffered by these retailers. The additional risk perceived by shoppers due to small retailer size is partially mitigated by the presence of the trust seal. Our study thus, is among the first to provide evidence of the value of third party trust seals for online startups and small retailers.
Our analysis also sheds light on how the trust seal interacts with some e-commerce variables. Our expectations that the seal would be more effective towards completion of high value carts, was not supported. This finding suggests that shoppers could be considering the additional risk brought by higher value purchases before adding items to the cart, perhaps simultaneously considering it with the retailer’s reputation, quality of the web site, or initial viewing of the trust seals. Thus, our results point to the need for additional research in investigating the relationship between shopping stages and price related risk perception in online shopping.

Similar to conventional environments, a shopper’s trust in an online retailer is likely to increase after a few successful online transactions. Thus, experienced shoppers are less likely to pay attention to quality signals but focus on details of the transaction. However, shoppers who have not yet interacted sufficiently with a particular retailer - novice shoppers - have more difficulty in making a purchase decision. Our research finds that these novice shoppers feel more comfortable when the online retailer displays the seal on its website. The additional risk faced by a shopper due to lack of enough experience with a particular online retailer is mitigated significantly by the presence of a trust seal. Therefore, we find evidence that the online trust seal partially substitutes for both shopper experience, as well as seller size/sales-volume.

Since online retailers’ web sites could display more than one trust seal, our findings also provide insights on the dynamic interactions among multiple seals. Our analysis indicates that there is an inverted “U” shape relationship between the total number of other seals and cart completion likelihood. This could be attributed to several reasons. Firstly, it is possible that some shoppers may not be aware of the function of the different trust seals and could be confused by the presence of many seals which would then lead to an abandoning of carts. Secondly, shoppers may suffer from “feature fatigue”, where addition of new features increases product complexity
and consumer anxiety and stress (Thompson et al. 2005). Thirdly, it is possible that the presence of a large number of trust seals could signal the “desperation” of a less reputable seller to attract consumers, leading to the endogeneity of the total number of other Seals displayed on a website.

**Implications:** This research offers several implications for different stakeholders in e-commerce. First of all, our findings can help resolve the discrepancy between the academia and industry regarding the effectiveness of trust seals in influencing shopper behavior. Second, our findings suggest that smaller online retailers benefit more from the presence of the trust seal compared to larger online retailers. Web entrepreneurs, mostly lacking significant financial resources, can boost their sales by displaying a well known third party trust seal on their web sites. The trust seal also could help small retailers avoid deep discounts while competing with larger, more reputable online retailers. Third, our results also provide some useful guidelines for the design of online retailers’ operations. For example, based on our findings that the seal is more effective in converting novice shoppers, online retailers can make the seal more visible and salient during sessions initiated by first time visitors. Also, given that more is not necessarily better with trust seals, online retailers would do better by being selective about displaying only the most effective seals. Finally, our findings are of importance to policy makers and regulatory authorities. Given that online trust seals are valued by consumers, it is important that the third party trust seal providers act as independent entities and held to high standards by regulator oversight.

**REFERENCES**


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