

The science behind consumer trust and security signals



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INTRODUCTION: TRUST AND TRADE

Trust is one of the most important factors of trade. Whether business-to-consumer, business-to-business, or consumer-to-consumer, trust is essential for a successful exchange to occur between two parties. Economic scholars around the world have characterized 'trust' as having three distinct features: uncertainty, vulnerability and dependence.¹

Concerns around these features are substantially elevated for consumers in online shopping; if the perceived potential risks outweigh the perceived benefit, they may just opt for the physical shop instead. Add to this equation the notion of shopping cross-border, and the perceived risks increase significantly in the minds of consumers.

Marketing experts agree, consumer intention to purchase online is strongly correlated, and therefore a reflection of trust intentions.² Countless studies exploring factors positively and negatively correlated with conversion (incl. first-time purchasing and repurchasing) consistently reveal consumer trust as one of the main contributors to purchasing intention.^{3 4 5 6} Moreover, the theme of trust is woven throughout all facets of online shopping concerns amongst consumers, even tangentially.⁷

The solution for webshops desiring to sell more is scientifically clear: increase consumer trust, increase conversion (Table 1 below). Armed with this information, the next question arises for SMEs in ecommerce: how do webshops instill a sense of trust amongst webshoppers?



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- ⁶ P. Rantnasingham, K. Kumar. Trading partner trust in electronic commerce participation. Proceedings of the Twenty-first International Conference on Information Systems. Brisbane, Australia, 2000.
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“PERCEIVED” SECURITY vs ACTUAL SECURITY

It is no secret that ecommerce is advancing at breakneck speed, and academic experts are researching to understand consumer behaviors, company practices and technological innovations influencing the world of online buying. No matter the discipline, trust is a recurring theme in relation to ecommerce, and understanding how and why consumers trust one webshop over another has been and will continue to be explored through multiple lenses.

It is undeniable, even for seasoned webshoppers, that purchasing online comes with higher risks. In traditional brick-and-mortar stores, consumers see the seller, physically touch products and take the purchases home immediately. However, online purchases require consumers to trust a webshop is honest, transparent and capable of delivering the products/services they claim to sell. Moreover, consumers are required to trust that their data and personal information is stored securely and that their privacy is protected.

Interestingly, the battle for businesses is not only taking the necessary steps to ensure consumers' data and privacy are actually secure, but in getting consumers to perceive the webshop as secure and private.⁸ In the realm of online shopping, looks really are everything.

One of the leading reasons webshoppers choose not to buy from a webshop is their *perception of* low/no trust. Most are worried about webshops engaging in 'harmful opportunistic behaviors', including unfair pricing, conveying inaccurate information, violations of privacy, unauthorized use of payment information and unauthorized tracking of transactions.⁹ These very specific worries are puzzle pieces of the larger image of webshop trust concerns.

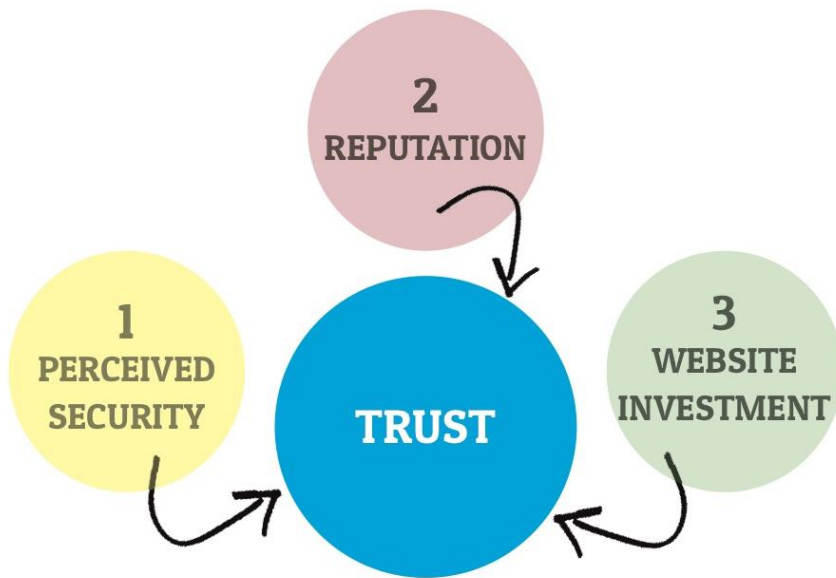


Table 1

Consumer trust is composed of three specific constructs: perceived security control (also referred to in this report as perceived security), reputation and website investment, with perceived security having the most influence on consumer trust (see table 1).¹⁰ For further definition, Security control encompasses five sub-factors: authentication control, nonrepudiation control, privacy control, confidentiality control, and data-integrity control.¹¹ Perceived security control has, surprisingly, nothing to do with a webshop's actual level of security control, but instead how consumers perceive the security control of a webshop.¹²

CITED SOURCES

⁸ Corbitt, et al. 2003.

⁹ Gefen, D. et al. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, 27(2003), 51-90.

¹⁰ Ray, S., Ow, T., Kim, S. (2011). Security Assurance: How Online Service Providers Can Influence Security Control Perceptions and Gain Trust. *Decision Sciences Journal*, 42(2011), 391-412.

¹¹ Ibid.

¹² Ibid.



Summarizing the information gleaned thus far: webshops desiring an increase in conversion must increase consumer trust; the most impactful way to increase consumer trust is to increase the level of perceived security control of the webshop, which can be realized in many ways. Although changing perceived security may seem daunting, experts have proven security signals to be a solution, which should assuage some fears. Companies can invest in and display multiple different security signals – they just have to know which to invest in.

There are some specific security signals consumers look for when considering the trustworthiness of a shop, including trustmarks (security seals), reviews (consumer/webshop/etc.), clear privacy policies and clearly authenticated payment methods. Some of these security signals are statistically proven to have more of an impact on consumer trust than others, however the main takeaway is that webshops should utilize security signals originating from a third-party, also referred to in academic literature as a 'third-party structural assurance'.¹³ As Gefen et al. notably determined, 'Structural assurances and situational normality are both indicative of fair play, the first through outside guarantors, and the second through lack of suspicious elements'.¹⁴ To be sure, structural assurances will pack the hardest punch on consumers' perception of security *control*, and therefore have the strongest impact on consumer trust.

TRUSTMARKS (SECURITY SEALS)

Several studies have examined the relationship between trustmarks and consumer perceptions of security control, as well as consumer trust in general. The results repeatedly show that trustmarks have an enormous impact in changing consumer perceptions of security control, as well as trust. Kerkhof and van Noort (2010) explain third-party Internet seals to be 'signals sent to consumers to inform them that the firm adheres to certain standards regarding security and/or privacy, and that there will be adverse consequences of not adhering to these standards'.¹⁵ Additionally, as purchasing online is considered a higher risk, verification by a trusted third-party becomes increasingly powerful in assuaging consumer concerns.¹⁶



TRUSTMARKS

Consumers rarely look closely or for very long at a webshop, therefore displaying an easily recognizable logo indicating the assurance of a third-party that the webshop is safe and secure is one of the easier and more effective ways to inspire consumer trust. Moreover, displaying a trustmark can actually act as a substitute for clearly stated privacy policies on a website.

A logo indicating compliance with privacy policies is significantly easier to see and offers the 'structural assurances from a third-party' consumers trust most.¹⁷ Harkening back to Kerkhof and van Noort (2010), having an Internet seal displayed on a webshop page generated 'more favorable attitudes' towards the privacy policies of webshops; it was also shown in this study that this fact made consumers 'more willing' to give personal information to the webshop.¹⁸

For further proof that trustmarks are one of the best investments your webshop can make, University professors Aiken and Boush were able to validate the claim that trustmarks 'have the greatest effect on perceived trustworthiness, influencing respondents' beliefs about security and privacy, general beliefs about firm trustworthiness, and willingness to provide personal information' (see table 2).¹⁹

Moreover, the researchers were quite astonished with the results that a trustmark outperformed objective-source ratings (consumer reviews), as 85% of the respondents had never seen the seal before, and 97% had never dealt with the issuing corporation.²⁰

That said, it stands to reason that consumers do not need to have seen the trustmark before, nor are they very concerned with recognition of the issuing corporation. In conclusion, trustmarks undeniably have a positive impact on consumer perception of webshop security, privacy and overall trustworthiness.

TRUSTMARKS

Table 2

SITE VIEW	cognitive trust	affective trust	behavioral trust	average trust
Trustmark TM	5.36	5.26	4.77	5.14
Objective - Source Rating (OSR)	4.92	4.45	3.77	4.39
Implied investment in ADV (IIA)	4.86	4.77	4.05	4.47
TM and IIA	5.07	4.90	4.30	4.74
IIA and OSR	5.39	5.03	4.71	5.04
TM and OSR	5.08	5.09	4.22	4.80
All three signals	5.35	5.19	4.69	5.11
Total	5.12	4.90	4.34	4.79

*Scale is 1-9 (1= strongly disagree, 9= strongly agree)



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¹⁴ Gefen, D. et al. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, 27(2003), 51-90.

¹⁵ Kerkhof, P., van Noort, G. (2010). Third Party internet seals: Reviewing the effects on online consumer trust. *Encyclopedia of E-Business Development and Management in the Global Economy*, 2(2010).

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¹⁷ Rifon, N.J., LaRose, R., Choi, S.M. (2005). Your Privacy is Sealed: Effects of Web Privacy Seals on Trust and Personal Disclosures. *The Journal of Consumer Affairs*, 39(2005), 339-362.

¹⁸ Kerkhof, P., van Noort, G. (2010). Third Party internet seals: Reviewing the effects on online consumer trust. *Encyclopedia of E-Business Development and Management in the Global Economy*, 2(2010).

¹⁹ Aiken, K., Boush, D. (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(2006), 308-323.

²⁰ Ibid.

CONSUMER REVIEWS

Consumer reviews of webshops act as a third-party assurance from an objective reviewer who, in theory, corroborates the security controls of a webshop with personal first-hand experience (as well as product quality, service, etc.). Consumers, however, need to know where to look to get this information. Depending on the target audience for the webshop, consumer reviews may be a beneficial investment for increasing trust as well.

The level of tech-savviness of an online shopper has a strong impact on the level of trust they have as they browse around. Referred to in studies as, 'technological innovativeness' and 'technical ability', researchers have identified this predisposition correlates with the type of information shoppers seek regarding security control.²¹ Although this may seem irrelevant in assessing whether a webshop should invest in hosting the website features facilitating consumer reviews, it is surprisingly worth consideration.

The lower level of technical ability of a consumer, the higher the level of perceived risk. This combination of low-technical ability paired with a high-perceived risk can cause a consumer to either choose not to shop and purchase online, or the consumer will tend to be more aware of easily recognizable security signals on a website (as they may be unaware of how/where to search for verification of security controls).²² However, those with a high-technical ability tend to also have a high-perceived risk, as they are aware of the privacy and security downfalls found on the Internet.²³ This is the target audience for consumer reviews, as they are the tech-savvy group that will be more likely to research a webshop and its security controls via multiple third-party assurances.

CONSUMER REVIEWS

As explained in Table 2 above, reviews are useful for cognitive trust of consumers, however they are most effective when paired with an additional security signal, such as a trustmark and/or implied investment in advertising.²⁴



PRIVACY/ SECURITY POLICIES

Most legitimate webshops will have their own privacy policies and they will display them in an easily accessible way for shoppers. However, privacy and security policies are lengthy and full of legal jargon. Additionally, online shoppers looking for privacy/security policies are likely found in the high-technical ability category of shoppers, which is in most cases a smaller portion of the population when compared to low- and mid-technical ability category shoppers. To be sure, having these policies be easily accessible to consumers is important, however most will not be in a webshop long enough to find and read these policies.

Moreover, in comparison to other security cues, 'although signals sent by privacy and security policies have a strong and significant effect on perceived security control, policy artifacts do not directly influence trust'.²⁵ Keeping in mind that perceived security controls increase consumer trust, it stands to reason that the actual existence and compliance of said controls is ineffective on trust if consumers are unable to clearly and easily observe them.

CITED SOURCES

²¹ Ray, S., Ow, T., Kim, S. (2011). Security Assurance: How Online Service Providers Can Influence Security Control Perceptions and Gain Trust. *Decision Sciences Journal*, 42(2011), 391-412.

²² Ibid.

²³ Ibid.

²⁴ Aiken, K., Boush, D. (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(2006), 308-323.

²⁵ Ibid.

PAYMENT METHODS

There are several different payment methods available for webshops to offer their consumers. Depending on consumer preferences, as well as country-specific regulations, webshops are forced to offer payment methods that are both secure and preferred by consumers. Consumers generally prefer one payment method over another because they perceive it to be more trustworthy. Potentially the highest risk factor in purchasing a product online is paying for something in the moment and hoping to receive it in the future, which requires a significant amount of trust.

Exploring the relationship between purchasing intention and e-payment trust, studies have shown that trust in a payment method is actually gained from the perceived trust in the webshop itself.²⁶

This perceived trust in the webshop was shown to have a positive effect on actual purchases using PayPal, cash-on delivery and credit cards.²⁷ Moreover, similarly to other security signals, Kniberg (2002) concluded that with e-payments, the perceived trust of a consumer is more important than actual e-payment security in conversion.²⁸ To be sure, it is not recommended to utilize payment methods that are insecure, however the effect payment method security has on perceived webshop security, and therefore overall trust of the webshop, appears to be quite insignificant.



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²⁷ Ibid.

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For webshops to compete with brick-and-mortar stores, the focus must be shifted towards inducing a feeling of trust amongst consumers, which will increase overall conversion. Traditional marketing tactics have proven to be no longer sufficient, as consumers are less interested in the look-and-feel of a website, but more interested in securely protecting their data and privacy. Moreover, the persisting belief that brand loyalty, or reputation alone will inspire conversion is outdated with online shoppers; consumer perception of security control, as supported thoroughly above, is everything for consumer trust.

After examining four common webshop security signals, the argument for investing in trustmarks and consumer reviews are some of the most effective ways of increasing overall consumer trust in webshops. Consumers are constantly becoming more tech-savvy, requiring more security assurances in a visible and easily recognizable medium; strategically displaying security signals and assurances will positively benefit any webshop hoping to convert webshoppers to ebuyers.

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Sara Lone moved to the Netherlands in 2016 after graduating with her Master's degree in Public Policy from the University of California, Irvine.

She works for the Ecommerce Foundation with a background in economic research and policy analysis, having previously worked as a researcher in a California firm and interning as a policy analyst for a non-profit organization.

