The Importance of Trust for Personalized Online Advertising

Alexander Bleier [a,1], Maik Eisenbeiss [b,*]

[a] *Marketing Department, Carroll School of Management, Boston College, 140 Commonwealth Avenue, Fulton Hall 448, Chestnut Hill, MA 02467, United States*
[b] *Department of Marketing, University of Bremen, Hochschulring 4, 28359 Bremen, Germany*

Abstract

With the amount of online advertising on a steady rise, generic ads noticeably lose effectiveness. In order to break through the clutter, retailers employ a method called retargeting to tailor their advertisements to individual consumers based on inferred interests and preferences. However, while personalization should generally make ads more appealing, the authors use field data to show that the effectiveness of retargeting considerably hinges on consumers' trust in a respective retailer. To uncover the underlying mechanisms of this phenomenon, they investigate how trust moderates the impact of ad personalization on consumers' internal and external responses in the lab. They propose a two-dimensional conceptualization of ad personalization: First, a banner's personalization *depth* defines how *closely* the ad reflects a consumer's interests. Second, its personalization *breadth* determines how *completely* the banner reflects these interests. The lab results show that more trusted retailers can increase the perceived usefulness of their ads through a combination of high depth and narrow breadth of personalization without eliciting increased reactance or privacy concerns. On the other hand, for less trusted retailers, banners with higher depth are not perceived more useful, but instead trigger increased reactance and privacy concerns, regardless of their personalization breadth. These effects directly translate into consumers' click-through intentions so that retailers should adjust their personalization strategies accordingly in order to increase the effectiveness of their online advertising.
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Introduction

The retail industry constantly intensifies its online advertising efforts (eMarketer 2014b), so that standard display banners increasingly struggle to gain consumers' attention (Cho and Cheon 2004). As a result, their click-through rates have come down to as low as .08% (Sizmek 2014). In order to achieve greater effectiveness, many retailers now tailor their online ads to individual consumers with an instrument called retargeting (Helft and Vega 2010; Peterson 2013; Sengupta 2013).

Retargeting banners typically feature product images that match consumers' interests, inferred from their most recent shopping behavior in the advertising retailer's online store. Interestingly, while retargeting, as a special form of personalization, should make an ad more relevant and appealing (Ansari and Mela 2003; Chen, Pavlov, and Canny 2009), ad personalization can also cause unfavorable responses. For example, consumers oftentimes feel manipulated, or deprived of their freedom of choice when perceiving a personalized advertisement inappropriately close to their preferences (King and Jessen 2010; Tucker 2012b; White et al. 2008). Personalized ads may also elicit privacy concerns (Goldfarb and Tucker 2011; Okazaki, Li, and Hirose 2009; Turow et al. 2009), especially since every personalized ad signals that the retailer has tracked and analyzed detailed information about the consumer's browsing activities and is willing to exploit this knowledge (Anand and Shachar 2009). It is therefore not surprising that a large majority of consumers still do not want retailers to adjust advertisements to their online behaviors across websites (Guild 2013; Turow et al. 2009).

Correspondingly, results concerning the ability of retargeting to increase ad effectiveness are mixed. While a number of industry studies proclaim its merits (Criteo 2015; eMarketer 2014a; Hunter et al. 2010), academic research finds retargeting to be only under certain circumstances superior to generic advertising (Lambrecht and Tucker 2013). While extant research has uncovered a number of favorable and unfavorable consumer responses to ad personalization (e.g., Van Doorn and Hoekstra 2013; White

* Corresponding author. Tel.: +49 421 218 66740; fax: +49 421 218 66741.
  E-mail addresses: bleiera@bc.edu (A. Bleier), eisenbeiss@uni-bremen.de (M. Eisenbeiss).
[1] Tel.: +1 617 552 1870; fax: +1 617 552 6677.

et al. 2008), insight on moderating factors that strengthen or weaken these effects is still largely missing.

To fill this void, we examine trust in the retailer as a key moderator of the impact that retargeting exerts on favorable and unfavorable consumer responses. Trust is a major success factor in the online domain. In fact, on the Web trust often serves as the sole foundation on which consumers base their research and purchase decisions in lack of further information about firms (McStay 2011; Urban, Amyx, and Lorenzon 2009; Urban, Sultan, and Qualls 2000). At first glance, trust might seem to be a rather obvious means to enhance the performance of retargeting. For example, trust in a retailer may make consumers believe their personal data to be in safe hands and thus alleviate possible privacy concerns. Yet, its influence on other responses is less obvious. It is, for instance, not clear whether trust leads consumers to perceive a personalized ad as more useful or make them feel less manipulated by its appearance.

Moreover, retargeting is a complex and largely unexplored method of ad personalization. To derive meaningful insights about its impact on consumers we propose a new generalized perspective. Specifically, we suggest that ad personalization with retargeting can be described along the two dimensions of a banner's depth and breadth of personalization. Personalization depth, defined as the primary dimension of ad personalization, determines how *closely* a banner reflects a consumer's inferred interests. For example, an ad that features products a consumer previously placed in his or her virtual shopping cart reflects that person's interests closer than an ad that features products the consumer merely inspected without any further purchase-related actions. This dimension has been shown to significantly influence a banner's effectiveness (Bleier and Eisenbeiss 2015; Lambrecht and Tucker 2013). In addition, we introduce personalization breadth as a secondary dimension of ad personalization. Personalization breadth describes how *completely*, or exhaustively, a banner with a given personalization depth reflects a consumer's interests. Accordingly, a banner with wide breadth might show all products that the consumer placed in the shopping cart, while a banner with narrow breadth might only feature a subset of these items. So far this dimension has not been empirically studied. The moderating influence of trust in the retailer on consumers' responses to retargeting banners with different combinations of personalization depth and breadth is therefore even less obvious. With these aspects in mind, our study primarily contributes to the existent literature in three ways.

First, we empirically investigate whether and to which extent trust in the retailer moderates the effect of ad personalization through retargeting on consumers. To this end we use data from a quasi-experimental field study and a lab experiment. The field data reveal that a higher depth of personalization increases banners' click-through rates only for the more trusted retailer, but actually decreases click-through rates for the less trusted retailer. Second, we introduce personalization breadth as a second key dimension of ad personalization. We demonstrate its relevance in the lab and show how the effectiveness of banners' with specific depth/breadth combinations depends on consumers' trust in the advertising retailer. Third, and especially important from a theory perspective, we shed further

light on the internal mechanisms through which personalized online advertising influences consumers. In particular, we explicitly distinguish between perceived usefulness, reactance, and privacy concerns as internal responses that previous studies have not dissected and either examined in isolation or with certain ambiguity (e.g., Tucker 2014; Van Doorn and Hoekstra 2013; White et al. 2008). We then link these responses to consumers' click-through intentions. Altogether, our work helps explain the existent mixed findings about the impact of personalized online advertising on consumers.

The remainder of this article is organized as follows. We first report the results of a quasi-experimental field study. The purpose of this field study is to explore in a real-world retargeting context how trust in the retailer moderates the effectiveness of personalized banners with high and low depth as the primary dimension of ad personalization. Next, we introduce our conceptual framework that is grounded on the stimulus-organism-response paradigm. We introduce personalization breadth as the secondary dimension of ad personalization and link a retargeting banner stimulus with a given combination of personalization depth and breadth to internal and external consumer responses. We then propose how trust in the advertiser moderates these effects and derive corresponding hypotheses. We test the conceptual framework and our hypotheses based on the results from a lab experiment. Last, we interpret our findings, provide concrete managerial interpretations, and indicate possibilities for future research.

Pilot Study: The Moderating Role of Trust in the Retailer

Objective

We begin our research with a pilot study, using quasi-experimental field data on retargeting to explore whether, how, and to which extent consumers' trust in a retailer influences the effectiveness of its personalized online advertising in a real-world setting.

Data Description

We cooperated with an advertising agency that specializes in retargeting to obtain data on click-through responses to personalized display banner ads. As is common industry practice, the agency creates these banners and delivers them to consumers on behalf of its client retailers while the agency itself remains invisible to consumers. In retargeting, an ad agency tailors banner ads to individual consumers based on their most recent shopping behavior at a retailer's online store. At each visit, consumers' interactions with products are recorded in individual profiles through clickstream data (Bucklin and Sismeiro 2009). The ad agency then applies certain algorithms, so called assembly rules, to create banners based on these interactions. Assembly rules typically differ in their depth of personalization, i.e., how closely they reflect consumers' interests and preferences, inferred from their behavior in the retailer's online store.

In order to investigate whether trust in the retailer influences the effectiveness of retargeting, we selected two firms from our