

## Research Talk Series on Digitalization

### Measuring the Effectiveness of Location-Based Advertising: A Randomized Field Experiment

Prof. Dr. Martin Spann  
Ludwig-Maximilians-Universität München (LMU München)

#### Abstract

Offline retailers increasingly use location-based advertising applications such as coupons to target consumers in their vicinity in real time. The rationale for the use of location-based coupons is that geographic proximity increases the relevance for consumers and thus the effectiveness of these campaigns. Two key interface-specific aspects of location-based coupon applications that influence its effectiveness are i) the provision of distance information and ii) the distance-based ranking of coupons. Therefore, the interface design is often referred to as the choice architecture. The aim of this paper is to study and quantify the impact of the choice architecture—via these two interface-specific aspects—on the effectiveness of location-based coupons. We conduct a randomized field experiment with 633,729 observations, including 3,644 different coupon promotions offered by 3,152 different stores located in 2,589 cities in a large Western European country. Overall, we can show that the most effective interface design for coupons is based on a distance-based ranking. Moreover, we observe negative distance and ranking effects in all treatment groups: coupons from stores that are i) geographically closer and ii) appear higher on the devices' displays are preferred. However, we find significant heterogeneity in the impact of distance and display rank based on the interface design, the actual geographic location of users, as well as the product category. Specifically, users are more sensitive to increased distances if coupons are not sorted by distance as well as if coupons are for goods instead of services.

#### Short CV

Martin Spann ist Direktor des Instituts für Electronic Commerce und Digitale Märkte an der Ludwig-Maximilians-Universität München. Darüber hinaus ist er Forschungsdekan der Fakultät für Betriebswirtschaft, Direktor des LMU Center for Advanced Management Studies (LMU CAMS) sowie Board Member des Center for Digital Technology and Management (CDTM). Zu seinen Forschungsgebieten gehören Preisgestaltung und Auktionen, Electronic Commerce & Mobile Commerce, Informationsmärkte, Soziale Netzwerkanalyse & Social Media. Seine Forschungsergebnisse wurden u.a. in Management Science, Information Systems Research, MIS Quarterly, Marketing Science und Journal of Marketing publiziert.

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Host(s) of this Talk: Prof. Dr. Ali Sunyaev (AIFB)

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