

Over-Paid Search: When Bricks-and-Mortar Retailers Should Not Use Paid Search

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Abstract. Current research on paid search highlights its ability to enhance online as well as offline sales but is limited to pure online players and multi-channel firms. This paper presents a controlled field experiment which investigates whether paid search can increase sales for bricks-and-mortar retailers who solely sell their products via local stores and rely on informational websites to reach their customers. Results suggest that paid search increases the number of potential customers by enhancing the reach of online marketing initiatives. Yet, using a difference-in-differences analysis, our findings show that paid search fails to increase offline sales. Local store customers primarily use paid search as a navigational shortcut to the chain's website which they would have reached even without being exposed to paid search. Consequently, bricks-and-mortar retailers should approach paid search cautiously: whilst it can enhance the reach of marketing initiatives, it seems to have little effect on improving offline purchases.

Keywords: paid search, cross-channel behavior, substitution effects, field experiment, bricks-and-mortar

1 Motivation and Research Question

In this paper we investigate the question of whether paid searches are able to increase sales in local stores. Today, paid search – the mechanism of placing online ads in response to user search queries on search engine result pages (SERP) – is already the main source of Internet advertising revenue and expected to grow by 10% annually over the next four years [1].

As an emerging technology, paid search has spawned numerous new avenues for research especially in the fields of Information Systems and Marketing [2]. The current literature comprises, on the one hand, analytical studies, which focus on the paid search market as a whole and, on the other, empirical studies, which address the benefits of paid search for advertisers [3]. In the empirical stream of literature scholars either studied long-term effects of paid search such as brand perception [4] or short-term effects such as click-behavior of paid search users [5]. Investigating short-term effects, several studies focus on whether paid search has been able to increase online sales, so-called *own-channel effects*. The current body of literature suggests that paid search can be seen as a well suited mechanism to increase the reach of marketing campaigns [6]

13th International Conference on Wirtschaftsinformatik,
February 12-15, 2017, St. Gallen, Switzerland

Schlangenotto, D.; Kundisch, D. (2017): Over-Paid Search: When Bricks-and-Mortar Retailers Should Not Use Paid Search, in Leimeister, J.M.; Brenner, W. (Hrsg.): Proceedings der 13. Internationalen Tagung Wirtschaftsinformatik (WI 2017), St. Gallen, S. 1267-1270

and enhance online sales [7]. Up to now only a few studies [8] investigated the impact of paid search on offline sales, or so-called *cross-channel effects*. Early results suggest that paid search has the potential of enhancing offline purchases due to consumers' tendency to undertake online research prior to shopping in stores, so-called *research-shopping* [9]. However, current research on the cross-channel effects of paid search has so far only investigated the case of multi-channel firms that offer both online and offline shopping. In contrast, we are interested in finding out whether paid search initiatives could also benefit bricks-and-mortar chains that solely sell in-store and rely on their websites to promote their offerings. If paid search could be shown to have a positive effect on local store purchases, then bricks-and-mortar firms ought to consider investing in paid search in order to increase the reach of their marketing campaigns. With our study we intend to contribute to the current body of literature on paid search by analyzing the benefits of paid search for bricks-and-mortar firms. Hence, we pose the research question: *Do paid search campaigns pay off for bricks-and-mortar retailers?*

2 Methodology

To answer our research question we teamed up with a well-known bricks-and-mortar business-to-consumer (B2C) furniture retailer operating in Germany. The chain's website is primarily used to advertise the products sold in their six local stores. To quantify the cross-channel effect induced by paid search, one needs to address the endogeneity of marketing campaigns [10] as well as limited tracking possibilities between the online and the offline environment. To cope with both problems, in 2015 we conducted a field experiment applying a matched subject design while isolating the cross-channel effect of paid search using a trackable coupon. To identify the causal impact of paid search, we crafted an advertising campaign with Google AdWords in combination with geo-targeting [11] to ensure an appropriate experimental design setting. Throughout the experiment customers in the treatment regions were exposed to paid ads as opposed to customers belonging to the control regions who were not exposed to any paid ads. Based on 85,649 website visits we performed difference-in-differences analyses [12] to estimate paid search impact on user behavior in the online as well as the offline environment.

3 Results

Experimental results suggest that consumers tend to perform research-shopping by using the Internet as a search channel and the local store as a purchase channel. Yet, contrary to current literature [8], [13], our experiment reveals that at least in our case paid search fails to increase the number of cross-channel shoppers. In line with Blake et al. [6] who performed a similar experiment in a pure online environment, we argue that for a well-known bricks-and-mortar chain paid search is partly used by consumers as a navigational shortcut to the advertisers' website, and that cross-channel shopping is primarily performed by these customers. In our study, a paid search campaign is shown to increase the reach of online marketing initiatives, exposing additional

customers to the offers, but these additional customers do not engage in cross-channel shopping. In other words, cross-channel shopping is primarily performed by customers who would have been exposed to the offers anyhow, without the firm's investment in paid search. With paid search shown as failing to increase sales, we are able to provide first evidence that it might have no direct sales impact for pure offline retailers.

For managers of bricks-and-mortar firms our study offers various practical implications. First, consumers do perform research-shopping and show cross-channel behavior by using an online coupon for offline purchases. This suggests that online offers might indeed increase local store sales. Second, paid search is able to broaden the reach of marketing campaigns as additional potential customers become aware of the chain's offerings. However, our results suggest that managers who mainly want to increase offline sales should approach an investment in paid search carefully. At least in our case paid search only serves as a costly substitute used by customers who would have performed cross-channel shopping even without being exposed to those ads.

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