Chapter 40
Differences Across Device Usage in Search Engine Advertising

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ABSTRACT

For advertisers, search engine advertising represents an attractive opportunity to selectively reach the target group at a point in time when the prospects are already thematically involved and activated. One question that subsequently arises is if users use various devices during different phases of the search process and if this behavior affects the search engine advertising outcome measured by corresponding performance indicators. The present chapter addresses this question. Based on a search engine advertising campaign of a German service provider, the authors examine the development of performance indicators across multiple devices. Specifically, we retrace the development across desktops, tablets, and mobile devices. Thus, the chapter provides insights into device usage in search engine advertising. The chapter concludes with overall trends in search engine advertising.

INTRODUCTION

Multiple devices are becoming more and more widespread in our daily lives. This development also affects online advertising. One dominant form of online advertising is search engine advertising that displays advertisements after users enter a search phrase (e.g., Olbrich & Schultz, 2014). For advertisers, search engine advertising represents an attractive opportunity to selectively reach the target group at a point in time when the prospects are already thematically involved and activated. From the search engine user perspective, this form of advertising is useful because the keywords and the advertising message are matched to the search term entered. According to the Interactive Advertising Bureau (IAB,

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2017), search engine advertising revenue totaled $35.0 billion in the USA in 2016, accounting for 48% of market share. This is a 19% increase from $29.5 billion in 2015. Here, desktop search engine advertising revenue accounted for $17.8 billion (down from $20.5 billion in 2015), whereas mobile search engine advertising revenue amounted to $17.2 billion (up from $9.0 billion in 2015).

The continuous growth of mobile devices' share in search engine advertising follows the general usage trend that results in sequential and simultaneous use of multiple devices (Broeckelmann & Groeppel-Klein, 2008; de Haan et al., 2015; Shankar et al., 2010). In comparison to desktop personal computers, consumers use mobile devices more frequently but for shorter durations (Cui & Roto, 2008). Mobile devices are used location based, for example outdoors for navigation or in stores to compare prices (Broeckelmann & Groeppel-Klein, 2008; Lee et al. 2005). This behavior seems predominantly driven by informational needs. However, it may be the smaller display size that limits the use of mobile devices for transaction purposes (de Haan et al., 2015; Shankar et al. 2010). The following question then arises: Do consumers use various devices for different purposes and during different phases of their decision processes?

The present study is the first to address this question in the domain of search engine advertising. In particular, it aims to answer the question if the use of different devices affects the various performance indicators used in search engine advertising. The study confirms the prevalence of multiple devices in search engine advertising and shows some differences among them. These device differences need to be addressed when deciding on issues such as the advertising budget, bidding amount, and the structure of the search engine advertising campaign.

The remainder of the chapter is organized as follows. The next section provides some background on Internet and mobile usage in Germany. Then, the chapter introduces search engine advertising regarding the process, determining factors, evaluation, and existing research streams. Afterwards, the usage of different devices in search engine advertising is addressed. Here, the hypotheses are derived and the data is presented, analyzed, and discussed. The chapter concludes with overall trends in search engine advertising.

INTERNET AND MOBILE USE IN GERMANY

Germany has a population of just above 82 million. The percentage of households with Internet access is considerable with 90.3%. The usage of mobile devices is similarly high, mobile telephone subscriptions per 100 inhabitants are, for example, 116.71 (ITU, 2017). In congruence with the increased Internet usage, Germans tend to do more and more shopping online. Thus, e-commerce revenue has seen continuing increase in double-digit percentage in recent years. In 2016, the total spent through the Internet for products and services in business-to-consumer (b2c) amounted to 44.2 billion Euro, an increase of 10.8% from 39.9 billion Euro in 2015 (Statista, 2017a). The three biggest product groups measured by revenue in 2016 are (1) apparel (excluding shoes), (2) electronics and telecommunication, and (3) computer hardware and software (BEVH, 2017). Digital services include, for example, downloads of software, audio and video files, tickets for sports events, concerts, and movie theaters, as well as bookings of accommodation and transportation (BVH, 2012).

Search engines are a starting point consumers often use when searching for products and services. In Germany, the search engine market is dominated by Google which accounts for 94.52% of all searches. As displayed in Table 1, Bing has a market share of 4.16% and Yahoo accounts for 0.98% of all search queries served in Germany in 2016.