

DOES YOUR ONLINE ADVERTISING WORK FOR EVERY CONSUMER? MEASURING AGE-RELATED ADVERTISING EFFECTIVENESS IN AN INTERNET COMPANY

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ABSTRACT

With the emergence of the internet and its growing importance as an advertising medium, online advertising effectiveness became a topic in academic research (Ha 2008, Jianan et al. 2005). A June 2008 worldwide McKinsey digital-advertising survey shows that 91 percent out of 340 companies are advertising online. Yet 80 percent of the companies allocate media budgets by simply making subjective judgments and have none or only inappropriate methods in place to track advertising effectiveness (Bughin et al. 2009). Accordingly, the need for accountability in praxis increased significantly. The current method of tracking online advertising effects in the marketplace is by using direct tracking techniques via cookies (Lavin 2006). However via direct tracking it is not possible to measure all advertising effects because 30 percent of internet users reject or delete cookies needed for tracking (Lipsman 2007).

Advertising activities aiming on specific target segments appear to be more efficient than others. Accordingly, age is a generally acknowledged segmentation criterion in academia which is furthermore widely used in the marketplace. The present study attempts to explore age-specific sales effects of different online advertising activities. The respective theoretical foundation is the information processing theory which implies different processing strategies of advertising information between young and old consumers. The theory is concerned with the processing of information in order to understand consumers' choices (Bettman 1979). Along the information processing chain we find numerous suggestions for differences between young and old consumers. For instance, the processing capacity is limited for older people compared to younger ones. Likewise the perception and information acquisition ability is likely to be on a lower level for old consumers. Furthermore empirical research shows, that older people act according to strict decision rules, follow patterns learnt, and choose heuristics to cope with complex situations (Bettman 1979). These differences along the information processing chain also suggest a distinct processing of advertising information and thus different buying behavior of young and old consumers.

The data set used for the present analysis is high-quality field data obtained from a leading online insurance platform. It contains longitudinal data and provides indicators on advertising activity and sales on a day-by-day basis. Furthermore specific customer data such as age and individual purchase volumes were provided on a per-purchase basis. The data processed includes records from 821 days and 175,859 transactions were recorded. We applied reflective constructs in a two-stage structural equation model (Bagozzi 1994; Chin 1998). Dealing with stable causal relations, facing interaction effects, and chronological order of events described through the variables (Jarvis et al. 2003; Fornell and Larcker 1981) we decided to apply Partial Least Squares (PLS) as a variance-based structural equation modeling (SEM) technique for the data analysis (Chin 1998; Chin and Newsted 1999). All hypothesized relations can be supported. That shows that also in an online world young consumers are search-affine, want to discover new and do not act according to patterns learnt. Therefore they prefer search engines before deciding to purchase (H1). Young consumers also prefer information-rich media such as email newsletters before making their purchase decision (H2). On the other hand the empirical results show that also in an online world old consumers act according to patterns learnt and prefer environments they already know. Therefore for older consumers the sales effect of direct website type-ins is much greater (H3).

Overall the study expands the existing research from an offline to an online perspective. So it does for the information processing theory. It furthermore contributes to the not yet fully scientifically explained sales effect of advertising. So, it raises the understanding of the functional relation between advertising exposure and respective buying behavior of distinct age groups. The unique high-quality sample with more than 175 thousand online transactions and 821 records permits the creation of a model with strong explanatory power. There was no other research found using a comparably high-quality data base. With the PLS method an applicable variance-based technique is firstly applied for such research questions. Literature shows that the prediction and explanation power of the PLS method is superior to other simpler statistical approaches (Chin and Newsted 1999; Fornell and Bookstein 1982) as well as the direct tracking via cookies used in praxis (Lipsman 2007). Thus the question "Does your Online Advertising work for every Consumer?" can be answered. Due to specific information processing strategies of young and old consumers, both segments should be targeted individually through appropriate media.

References Available on Request.