

INTERNET ADVERTISING AND THE HIERARCHY OF EFFECTS

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Abstract: Internet advertising has been considered by many advertisers as a medium of direct response. Though this classification was appropriate in the early years of internet advertising when consumers were expected to click on 468x60 banners, current technology and high bandwidths now allow much greater creative flexibility. Nevertheless, search engine advertising continues to take the largest share of online advertising budgets. The challenge for internet advertising is to be able to take on additional roles in the hierarchy of effects model of communications besides the call to action. This study examines data collected in two cases that document the role of online display ads on consumer behavior. Online advertising can take on a variety of roles: brand building, creating consumer interest, as well as calling for a direct response. The results of this analysis are exploratory but point to the need of considering different forms of internet advertising as serving a variety of functions in hierarchy of effects models of communications.

1 INTRODUCTION

2005 was a banner year for internet advertising. The Interactive Advertising Bureau (IAB) in cooperation with PricewaterhouseCoopers estimates that internet advertising revenues exceeded \$12.5 billion in 2005 (IAB, 2006). This represents over a 30% increase from the previous record of \$9.6 billion in internet advertising revenues in 2004. Almost three quarters of U.S. consumers now have access to the internet, and the proportion with broadband connections is increasing at a rapid pace (Pew, 2006). According to a March 2006 report by the Pew Internet & American Life Project, within 4 years the proportion of adult internet users with broadband connections went from 10% to 37% (Horrihan, 2006). Internet advertising has experienced a similar transformation. According to Nielsen/ NetRatings AdRelevance, traditional 468x60 banner ads have experienced a decline of 50% from the first quarter of 2001 to the fourth quarter of 2004, while leader boards (larger banners that allow more creative flexibility) have increased by 552% (Burke, 2005). However, in

spite of increased creative content, internet advertising continues to be evaluated using some of the standards that were developed ten years ago when all online ads were viewed as a medium of direct response and click through rates were seen the primary indicator of effectiveness.

It is understandable why, as a new advertising medium in the 1990s, internet advertising needed to prove its effectiveness. Internet advertising agencies prided themselves in providing more accountability than traditional advertising, so click-through rates (CTR) and conversions were seen as the most appropriate indicators of effectiveness (Hollis, 2005). However, as the novelty of banner advertising wore off, CTR declined (Drèze and Husherr, 2003). The decline in CTR was, in fact, precipitous. In 1996, click through rates averaged about 7%, but by 2002 CTR had dropped to about 0.7% (DoubleClick, 2003). As a result of a growing disenchantment with internet advertising, online advertising revenues declined in 2001 and 2002 (Hollis, 2005). Fortunately for internet content providers and internet advertising agencies, this decline was short lived. However, companies

advertising on the internet continue to demand that every dollar spent on advertising online brings the anticipated result. This can be contrasted to traditional offline advertising which often focuses on brand building and is not expected to produce immediate results. Students of advertising are familiar with the famous John Wannamaker quote, "I know I am wasting 50% of my marketing budget ... my trouble is that I don't know which 50%." Internet advertising is expected to produce immediate and measurable results and is still seen by many as not being conducive to brand building.

This greater demand for accountability is best demonstrated through the popularity of search engine advertising. According to the Interactive Advertising Bureau (IAB), search marketing accounts for 40% of online advertising budgets, compared to only 20% of online budgets spent for display ads (Bruner, 2005). The popularity of Google with advertisers reflects the desire to pay only for demonstrated results. Advertisers determine how much they want to pay when a consumer clicks on a search keyword and bid accordingly (Taylor, 2004). Of course, Google is not the only player in search engine marketing as Yahoo, AOL, and MSN have entered this lucrative field (Acohidio, 2003).

But, are the indicators of advertising effectiveness that were developed for internet advertising ten years ago still the most appropriate measures of effectiveness, or can internet advertising be viewed as providing some of the same influences on consumer attitudes as traditional, offline advertising? In other words, is all internet advertising still a direct response medium, or can different forms of internet advertising provide different effects on the behavior of online consumers? This study examines two case studies that provide preliminary information on how online advertising functions in the context of search engines, as well as in the context of traditional offline media. The first case analyzes the contribution of online display ads for an advertiser on consumers' likelihood to use a search engine to get additional information about the advertiser's service. The second case examines the contribution of online display advertising in an environment where consumers were also exposed to offline media. Results from these two cases will be interpreted using the hierarchy of effects model examining the effect of different media on consumers' purchasing behavior.

2 LITERATURE REVIEW

Advertisers have long known that people generally do not make spontaneous decisions when buying products, but need to be taken through a series of steps that have been called hierarchy of effects. The logic of hierarchy of effects models is simple. Consumers must first become aware of a product or service before they buy. Then they have to get some information about the product or service to develop interest and a desire to buy. Barry (1987) reports that the first complete model of hierarchy of effects was developed by St. Elmo Lewis in the very early years of the 20th century and contained four stages: attention, interest, desire, action (AIDA). Barry cites 38 elaborations of the original hierarchy of effects model developed by Lewis, including the widely cited DAGMAR model (Defining Advertising Goals for Measured Advertising Results) developed by Colley (1961) that aims to measure the effects of advertising as consumers move from awareness, to comprehension, conviction, and action. Hierarchy of effects models are discussed in almost all marketing and advertising textbooks (Belch and Belch, 2006; Clow and Baack, 2004; Kotler and Keller, 2006). Nevertheless, there is no discussion in those textbooks as to how internet advertising fits within such models. And, given the variety of internet advertising options available, do all internet ads function in the same fashion, or do they have different effects in the consumer's decision process?

Most advertising and marketing textbook also discuss the concept of integrated marketing communications (IMC). Integrated marketing communications models work by having different media working simultaneously on consumers to produce the desired effect. For example, television and magazine ads can create an interest in the category, while sales promotions such as coupons can create the call to action by giving consumers an opportunity to "buy now." Interestingly, at that time when IMC models were first generated, consumer search was conducted through telephone directories such as the yellow pages which were viewed as directional media, the kind of media one went to after the decision to purchase a product had been made. For marketers and advertisers in the early part of the 21st century, there is little existing research on how internet advertising complements other advertising media.

It should be noted that hierarchy of effects models are not without their critics. Most criticisms of hierarchy of effects models of advertising focus

on the possibility that consumers can take action without going through a temporal sequence as outlined in the AIDA and DAGMAR models (Vakratsas and Ambler, 1999). A consumer's involvement level with the product category can, in fact, influence how he or she processes advertising information. There are situations where consumers act with only a small amount of information about a product or service and then develop attitudes about their experiences. Behavioral influence and experiential perspectives in consumer behavior articulate different ways that consumers engage in various actions and develop attitudes about the products and services they have consumed (Solomon, 2004). Critics of the model also claim that the concept of integrated marketing communications is antithetical to hierarchy of effects models because all company communications have to be directed to selling one idea (Weilbacher, 2001). However, hierarchy models do not imply that the advertising be used to communicate a different message at different stages, but rather than the message be adapted to a consumer's stage in the decision making process. After the consumer has obtained all the necessary information about the product or service, it may be both unnecessary and counterproductive to continue repeating the same message in the same manner. Thus, realizing the consumers use different modes of information at different stages in the decision process helps advertisers communicate more effectively and efficiently.

3 RESEARCH FINDINGS

The object of this research is to examine how online display ads can work together with other forms of advertising to move consumer along the decision process. Does display advertising providing information about an advertiser's product or service result in a higher proportion of consumers who request additional information through search engines? In other words, does display advertising lift the effectiveness of search engine marketing? Our analysis of data in Case 1 seeks to answer this question. Case 2 focuses on how display advertising interacts with traditional offline media to facilitate conversions (taking action) at the advertiser's site. Both sets of analysis seek to explore the manner in which online display advertising acts as part of an integrated marketing communications plan. Display advertising can act both as an antecedent to information gathering, as well as the call to action.

3.1 Case 1 – Effect of Display Media on Search

One of the most difficult areas in advertising is the ability to attribute buyer behavior on a specific form of advertising. Earlier, we discussed the popularity of search engine advertising through keywords. But, how does a consumer get the idea to search for a specific keyword? We can assume that consumers decide to search for a specific product or service, or for a specific company or brand because of another stimulus. Hierarchy of effects models suggest that another, earlier, stimulus created the awareness and stimulated the desire for action. But, would display advertising on the internet result in greater interest in a specific company or brand? Our analysis of Case 1 seeks to examine how exposure to a retailer's display ad affected consumers' usage of specific search keywords. All data for this analysis were provided by a global online advertising agency.

To test the effect of display ads on consumer's search behavior, we utilized an experimental design whereby a segment of visitors to certain web sites during 2005 were exposed to a display ad for an online retailer (experimental/test group). Another set of visitors were shown a public service ad at a matched set of online websites. Cookie data allowed us to track the behavior of internet users who were exposed to the retailer's ad and to compare their search activities with the behavior of internet users who were exposed to the public service ad (our control group). Only individuals who allowed cookies on their computer were included in our experiment. Once an individual deleted or "crunched" their cookies, he or she was taken out of the study as we could no longer assign him or her to the control or test (experimental) group. The data for this study are presented in Table 1.

In total, 12% of individuals who were exposed to the web media followed up with a search to obtain more information about this retailer's product. This compares to 10% of the individuals in the control group who were not exposed to the online media. Though the difference between 12% and 10% in search activity may appear small, it represents a 23% higher response for those exposed to web media. This analysis demonstrates that it is possible to measure the independent effect of display advertising on consumer behavior. Furthermore, it demonstrates that display advertising on the web had a substantial added effect to all the other media used by that advertiser and that it preceded in the hierarchy of effects the use search engine advertising.

Table 1: Effect of web media on search.

	Saw web media	Did not see web media	Total
Search and no conversion	228,750	2,385,800	2,614,550
Search and converted	32,500	267,800	300,300
Total searches	261,250	2,653,600	2,914,850
Search conversion rate	12%	10%	10%

3.2 Case 2 – Effect of TV Advertising and Display Media on Conversions

Hierarchy of effects models assume that some advertising generates awareness, while other types of advertising generate interest and comprehension, or a call for action. In situations where an advertiser uses broadcast advertising to generate an emotional response, can display ads on the internet increase conversions at the client's website through a call to action?

To test the effectiveness of online media compared to offline media (TV and radio), we examined the effect of exposure to display ads under three conditions: simultaneous exposure to offline media in large metropolitan areas (primary DMAs), smaller metropolitan areas (secondary DMAs), and areas of the country where the client was not using any offline media. The same methodology described in Case 1 was used. A percentage of site visitors were assigned to the experimental group and thus were exposed to the advertiser's display ad. The control group was composed of visitors to the same web sites who were shown a public interest ad. To examine the effect of the online display ads on consumer purchasing behavior, we tracked cookies of those who were exposed to the display ad who ordered the client's product/service at the client's web site. The results of this research analysis are presented in Table 2.

The findings of this study demonstrate a substantial positive effect for online display media. It should be noted that the effect of online media is larger when combined with offline media. In primary DMAs where the client used the heaviest weight for offline media, the effect of online media was largest. The online display media resulted in an increase in conversions at the client's website by 79.9%. In secondary markets where the weight of the offline campaign was lower, the online display media contributed to an increase in sales at the client's website by 48.1%. Where no offline media were used, the lift for the online campaign compared to the test group was 39.3%. These findings support the integrated marketing communications model discussed earlier whereby different elements of the

promotion mix are able to move consumers through the hierarchy of effects leading to a sale.

Table 2: Effect of TV advertising and online display media on conversions.

	Primary DMA Offline and online	Secondary DMA Off line and online	No Offline Ads	Total
Test	14.9%	15.9	13.6	14.8
Control	8.3	10.8	9.7	9.1
Lift	79.9	48.1	39.3	61.6

4 SUMMARY AND DISCUSSION

The two cases discussed in this study indicate that online display ads can have a significant effect on consumers' online search and purchase activities. They also indicate that display advertising online can function differently than what is expected from a simple direct response model. In Case 1, display ads provided a substantial lift to the direct response model of internet search marketing. The display ads function in a manner consistent with the brand building activities of providing interest and comprehension in hierarchy of effects models of consumer communications. In Case 2, the display ads interacted with traditional offline advertising to increase conversions at the retailer's website.

Though the specific mechanism whereby display ads affected consumers' decision processes has not been articulated yet, it is apparent that more research needs to be conducted in this area. As the penetration of broadband access to the internet increases, so will the creative flexibility of internet advertising. Future research needs to examine how different forms of internet advertising can facilitate the movement of consumers from the first stage of the hierarchy of effects to the stage of placing an order. Attention needs to be devoted to research that measures the interactions between exposure to different types of online media and offline media. As advertisers become increasingly concerned with the escalating cost and audience fragmentation of offline media (especially TV advertising), internet advertising will provide the means for maximizing the effectiveness of integrated marketing communications.

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