# Branding and Search Engine Marketing

**Abstract**

The paper investigates the role of paid search advertising in delivering optimal conversion rates in brand-related search engine marketing (SEM) strategies. We specifically examine the impact of the rank of sponsored links, as well as various metrics of "ad creative" that provide a vehicle for advertisers to communicate and measure brand value within the context of paid search advertising. Using a randomized variation of a firm's SEM strategy, we find that ad creatives contain significant brand elements that improve the firm's conversion rate (CR). Among these, brand domain, quality and landing rate specificity have significant positive relationships with CR. These relationships suggest that an advertiser is perceived to be of higher quality among the sponsored search links when branding and brand management are fully emphasized in its SEM.

## 1. Introduction

Branding has an instinctive relationship with search engine optimization. When more people click on an ad it affects its rank as search engines tend to place advertisers with stronger brand identifications in better positions in search result listings. In other words, online advertisers with greater brand equity are likely to receive more clicks, which results in better future ranks. The online advertising market has grown faster than any other form of advertising - from $21.7 billion in 2007 to $34 billion in 2014. Paid search accounts for 40% of ad spend and is nearly double that of Internet display advertising at 21 percent.

In online paid search advertising, user queries lead to ad exposure, wherein firms compete to be listed at the top of the search results on search engines such as Google and Yahoo! These search platforms sell their ad space stock using an auction mechanism whereby advertisers submit bids on specific keywords that are of relevance to them. Their bids reflect companies' willingness to pay for a click from a consumer searching for that keyword. There is thus a great deal of interest in how to select the type of keywords bid on and their performance in search result listing (Ghose & Yang, 2009). In addition, when advertisers bid on keywords they also create a text ad that appears when a user searches for those keywords (Animesh, Viswanathan and Agarwal, 2009). Ad creatives are displayed in the search results page alongside the organic search listing. In this paper, we examine the drivers of conversions that are related specifically to an advertiser's brand and brand equity as highlighted in its "ad creative". As we focus on the ability of firms to differentiate themselves in online search environments, we are concerned with the general marketing context of paid search advertising.

Our data is based on a field experiment performed on an advertiser's Google ad campaigns. Our results show that the advertiser in general gains benefit in terms of branding achieved through viewing and clicking paid search ads, leading to a conversion. More specifically, we find that the brand equity of an online advertiser is an important driver of conversions as measured in terms of return to brand mentions in ad creatives. In addition, quality and landing page specificity are the other determinants of paid ad performance. These findings suggest that consumers pay attention to specific elements of an advertiser's brand and brand management. Moreover, estimated effects of brand on paid search clicks are mediated by its position in search result listing, as brands have more value at lower ranks.

## 2. Search engine marketing

Search engine marketing (SEM) is an advertising mechanism that reaches out to online consumers. In online paid advertising, user queries lead to search results listings on a search engine page. This includes a screenshot that shows the particular avenues for SEM to play its role. On the screenshot there are three different types of links that can drive traffic to a website through a search engine: top ads, side ads, and organic results. The top ads are the highest listed search results, and the organic results are listed below these. On the right-hand side of the screen the side ads appear.

The serving of a text ad or "ad creative" in response to a query for a certain keyword is called an impression. Search engines run real-time auctions to rank paid ad results and once the advertiser gets a position allotted for its ad, it is displayed on the computer screen. The ad is listed in an order in the paid sections, e.g., 1st or 3rd. An advertiser pays the search engine only when the user clicks on the advertiser's ad; this amount is equal to the minimum bid needed to secure that position. Text ads, on the hand, are served for free. The ad typically consists of headline, several words describing the product, and one or more hyperlinks that refer the consumer to the advertiser's website after a click. A click takes the consumer to the "landing page" of the advertiser's website, where he can choose either to purchase a product, register for a service or leave the page. An advertiser can change the bids, ad copies, and landing pages for each keyword in real-time due to the continuous nature of the auction.

*2.1. A conceptual framework for search engine marketing*

Paid ad search has mainly been analyzed in terms of auction design and the impact such mechanisms have on advertisers' placement strategies. Edelman and Ostrovsky (2007) find that since the equilibria of the generalized second price sponsored search auction is not incentive compatible, advertisers will bid strategically in these auctions. A consumer may search for certain product attributes that meets her preferences, which means focusing on a few select advertisers. This suggests that factors other than an ad's rank are as important as the position attained by an advertiser through the bidding process. Chief among them is an advertiser's branding strategies that become important in the context of ad display and its impact on performance. For example, paid advertising may include brand domain, product links and brand-specific landing pages. These and other ad creative elements have greater potential to influence ad performance than merely its rank. There is an extensive literature on branding and brand management suggesting that brands have a significant impact upon consumer behavior (Aaker, 1991; Keller, 1993). At its most general, a brand is the intangible sum of an organization's attributes reflected in its name, reputation, history and advertisement (Keller, 1993). Good brands also tend to have high brand equity levels (Aaker, 1991). Although a polarity of views regarding brand equity have been expressed (Aaker, 1991; Keller, 1993), they are generally consistent with the notion that the brand provides "added value" to a product.

Figure 1 presents our conceptual framework highlighting the linkages between branding, paid search advertising, and consumer search behavior. According to this framework, the firm makes two strategic choices: the rank of its advertisement and the brands it will display in the text message accompanying its advertisement. The text message or ad creative will contain specific branding related elements such as brand domain, product price and landing pages of the advertiser's website. We propose that without adopting a branding perspective in relation to ad creative, we will not be able to fully understand the impact of paid search advertising. In developing our hypotheses, we focus on the four important ad copy characteristics for the firm when it advertises on a search engine: Brand Domain, Quality, Price and Landing Page. We operationalized the performance of the advertising firm

in the sponsored search market as the CR (conversion rate) of its ad. Our specific hypotheses are as follows.

**Hypothesis 1:** a higher rank or position of an ad in search results listing generates more consumers clicking on the paid search advertisement.

**Hypothesis 2:** a brand mention in ad creative results in more consumers clicking on the paid search advertisement.

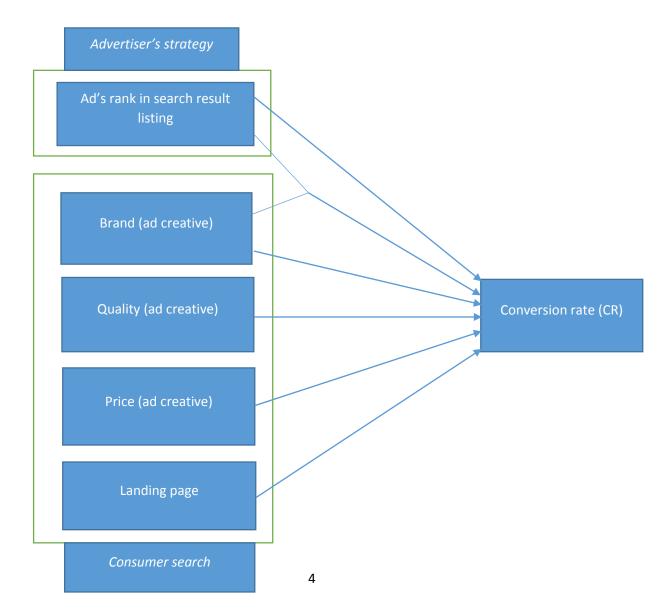**Hypothesis 3:** an ad creative highlighting quality as its branding attribute results in more consumers clicking on the paid search advertisement.

**Hypothesis 4:** an ad creative highlighting price as its branding attribute results in more consumers clicking on the paid search advertisement.

**Hypothesis 5:** an advertiser's specific landing page results in more consumers clicking on the paid search advertisement.

**Hypothesis 6:** the rank at which the advertiser appears in the paid search listing moderates the effect of its brand on CR.

**Figure 1. Conceptual Framework**

## 3. Data description

We generated our dataset through a field experiment involving sponsored search ad campaigns on Google. A large chain retailer for DIY products provided us with all the relevant information: including randomized bids that were submitted for several keywords and consumer responses in terms of clicks on each advertisement with their different positions corresponding to the keywords. Our data consist of the number of impressions, ad creatives, number of clicks and conversions, cost per click and the position assigned by the search engine for a given keyword for the last quarter of 2013. The randomized variation of our subject firm's strategies allows us to find the optimal rank that maximizes its branding strategies for a given keyword. We thus take away the strategic effect of our advertiser, whereas bids also resulted in different positions over time. The firm randomly varies the keywords and associated brands which means that it can also vary bids for ad positions. Table 1 reports the summary statistics and, as shown, the dataset is typical of the information received by advertisers in paid search.

**Table 1 Summary Statistics**

| Variable | Mean | Std. dev. | Min | Max | Obs |
|---|---|---|---|---|---|
| CR | 0.017483 | 0.021652 | 0 | 0.237 | 1,727 |
| Log(rank) | 0.538764 | 0.257364 | 0.069342 | 1.785325 | 1,727 |
| Brand | 0.643821 | 0.536768 | 0 | 1 | 1,727 |
| Quality | 0.617858 | 0.582431 | 0 | 1 | 1,727 |
| Price | 0.489372 | 0.393284 | 0.047326 | 1.269326 | 1,727 |
| Landing Page | 0.513962 | 0.468253 | 0.064934 | 1.583542 | 1,727 |

## 4. Empirical analysis

We model the conversion probability below in terms of the position of the ad on the screen, the three ad creative characteristics, and the landing page specificity score.

$$CR = \alpha_0 + \beta_1 * \log(Rank) + \beta_2 * Brand + \beta_3 * Quality + \beta_4 * Price + \beta_5 * Landing\ Page + \beta_6 \log(Rank) * Brand + Z_{i=2,\ldots j}(\theta_i * Keyword_i) + \varepsilon, \tag{1}$$

where

$j$ = total number of keywords; CR = conversion rate; Rank = position of an advertiser's ad on the listing. Rank represents the rank (daily average) at which the advertisement was shown in the sponsored listing. A lower value of rank implies that the advertisement appeared toward the top of the listing, as top rank equals one, two for the advertisement shown below the top, and so on; Brand = brand is a dummy variable that equals one if the ad creative mentions the brand and zero if no brand is mentioned; Quality = quality is a dummy variable that equals one if the ad creative contains specific quality-related claims (e.g., "customer satisfaction," "reliable and trusted," and "high standard product) and zero if no such claims are made; Price = the lowest price of a branded product is coded as zero, the next-highest price is coded as

one, and so on; and Landing page = landing page is the advertiser's Web page. To reduce user search cost, advertisers present information on their website in a *hierarchical* fashion, such as when presenting information related first to product subcategories, then categories and then products, thus becoming more specific. The closer the landing page is to the product presented in the ad creative, the more likely it is that it will meet the search intent of the consumer. Top level (subcategories) is coded as zero, second level (categories) is coded as one, and so on. To test our hypotheses, moderated multiple regression (MMR) analysis is conducted, which regresses the logarithm of conversions on explanatory variables that account for the impact on conversions of rank, brand, quality, price and landing page specificity as well as keywords.

## Table 2. Regression Results

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|---|---|---|---|---|---|---|
| Log(rank) | −0.056 | −0.048 | −0.057 | −0.044 | −0.053 | −0.041 |
| | (13.27)*** | (13.75)*** | (11.43)*** | (11.66)*** | (13.42)*** | (11.36)*** |
| Brand | | 0.016 | 0.032 | 0.023 | 0.038 | 0.041 |
| | | (3.67)*** | (3.28)*** | (5.42)*** | (3.64)*** | (5.32)*** |
| Quality | | | 0.047 | 0.052 | 0.061 | 0.074 |
| | | | (7.49)*** | (9.68)*** | (7.33)*** | (9.56)*** |
| Price | | | | -0.002 | -0.000 | -0.002 |
| | | | | (1.03) | (0.04) | (1.17) |
| Landing Page | | | | | 0.067 | 0.054 |
| | | | | | (9.37)*** | (8.27)*** |
| Brand x log(rank) | | | | | | 0.078 |
| | | | | | | (9.46)*** |
| Keyword dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Constant | 0.057 | 0.048 | 0.048 | 0.053 | 0.057 | 0.057 |
| | (24.73)*** | (23.58)*** | (17.95)*** | (23.11)*** | (23.38)*** | (24.66)*** |
| Observations | 1,727 | 1,727 | 1,727 | 1,727 | 1,727 | 1,727 |
| R-squared | 0.21 | 0.34 | 0.34 | 0.34 | 0.43 | 0.43 |

Notes. Absolute value of *t* statistics in parentheses.

*Significant at 10%; **significant at 5%; ***significant at 1%.

### 4.1. Results

Table 2 provides the results. In Model 1, we include only rank of the ad as an independent variable. We find a significant positive relationship between Rank and CR, such that the lower the Rank is (i.e., the higher the position of the keyword on the screen), the higher the conversion rate is. Thus, we find support for H1. In Model 2, we include the effect of brand after controlling for the rank of the ad. We find that the coefficient of Brand is positive and significant, indicating that ad creatives containing information specific to a brand (either product specific or manufacturer specific) experience higher conversion rates on an average. Hence, H2 is supported. In Model 3, we introduce the quality variable. Our finding on Quality also suggests that ad creatives focusing on providing quality-related brand

information are associated with a significant increase in conversion rates, supporting our H3. This implies that consumers pay attention to the relative quality perception of the advertiser when it communicates a quality-related branding message to potential consumers. In contrast, the ad creative component Price, as introduced in Model 4, is not statistically significant in its overall effect on conversion rates. Thus, we do not find support for H4. In Model 5, we introduce the Landing Page variable and Model 6 includes the interaction term between Rank and Brand. The coefficient for Landing Page is positive and significant indicating that the conversion performance improves with landing pages links that take consumers directly to specific advertiser information. This also suggests that, overall, consumers are concerned with the ease of navigation and accessibility when deciding on a purchase. H5 is supported. Furthermore, our analysis reveals that there is significant interaction between rank and brand, supporting H6. One might worry that the branding effects documented above stem from the use of keywords by users in search engines. To account for this, we include a control for keywords in all regressions. The coefficients of the dummy keyword are positive but their magnitudes are relatively small and not statistically significant at conventional levels.

## 5. Conclusion

Extant research on paid advertising has almost exclusively focused on the impact of keywords employed in the bidding process for a rank in search query results (Edelman and Ostrovsky, 2007). This narrow focus on keywords masks an important element of an online company's SEM strategy: the extent to which a company's branding strategy affects its paid advertising. An advertiser can include a description of its unique selling points in ad creatives such as brand, quality, and landing page specificity. SEM thus does not merely consist of selecting keywords in order to obtain a position at the top of the search result listing. Our empirical results show that an online advertiser's investments in brand equity result in an increase in the number of consumers making purchases through its websites.

## References

Aaker, D.A. (1991). *Managing Brand Equity*. New York: Free Press.

Animesh, A., Viswanathan, S., & Agarwal, R. (2009). Competing "creatively" in sponsored search markets. *Information Systems Research* 22(1): 153–169.

Edelman, B., & Ostrovsky, M. (2007). Strategic bidder behavior in sponsored search auctions. *Decision Support Systems,* 43(1): 192–198.

Ghose, A. & Yang, S. (2009). An empirical analysis of search engine advertising: Sponsored search in electronic markets, *Management Science*, 55(10): 1605-1622.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity," *Journal of Marketing*, 51(1): 1-22.