Analysis of the advertising effect of cars on the various Internet channels
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Abstract:
With the rapid growth of the Internet, more and more people choose through the network channels to understand all the information of products. In recent years, Internet advertising has become one of the most popular advertising models. Also, the dedicated online platform for automobile trading has become a new marketing mode for car trading. These platforms also need to put advertisement on other websites. However, the current Internet advertising is still lack of accuracy, and resource consumption is relatively large. This paper takes the X car trading platform as example to analyze the effects of external advertising. The main factors influencing the advertising effects are found, and then put forward the corresponding optimization suggestion.

Keywords: Internet advertising; Car trading platform; Precision marketing.

1. Introduction

Traditional auto industry and the Internet industry has become increasingly close, and the Internet has gradually begun to integrate into the automotive industry. The combination of two industries is expected to have a good development in the coming future. In China, a lot internet companies invest and open new business in the areas of "Internet plus". One of largest Internet Company Alibaba also involved this area, and announced a partnership with SAIC Motor. They decided to set up a joint venture of one billion China yuan to create a platform of "cars run on the Internet ". This is the first time that China's domestic Internet giant strategic involves the automotive industry."Internet plus car" mode is currently a large piece of "cake", Internet related companies invariably put more attention into it, and now the automotive industry has been standing on the air. Needless to say, most Internet companies and car companies have taken the Internet car as a new market to compete.

With the rapid development of internet, more and more car companies recognize the necessary of promoting their car brand by Internet advertising platform. They also understand that internet advertising will become one of the main ways for marketing. Compared to the various network marketing mode in developed countries, China automobile network marketing is just in the stage of early development, and still takes the brand notability as the main work.

Internet advertising has brought great impact to traditional advertising, such as advertising through television, radio, newspapers, and magazines. Compared with traditional channels, Internet advertising is fast spread, wide spread range, high efficiency, good influence effect, and so on. More important, Internet advertising is low cost, real-time interaction, and the advertising effect is very easily to evaluate. Now Internet advertising has become the preferred way by advertisers.

This is paper is to analyze the external internet advertising effect of an automobile online trading platform. This platform also put advertisement on other external websites. In this paper, we make this platform as the X car online trade platform. X car online trading platform is one of largest Internet car trading platforms in China. It also provides local service in a lot of cities. This platform offers a seamless service system of car trading from customers, including car inspection, car comparison, and car purchase.
2. Data Source

In this paper, the data are obtained from the X car online trading platform’s external advertising data. The time spread of the data is from November 2015 to March 2016, including car brands, car types, marketing channels, advertising layouts in the webpage, PC/ mobile terminal, click, and click rate.

The external advertisements are put in 6 internet channels, and the simply introduction of these channels are listed below:

1. Baidu SEM: Baidu is the largest search engine in China. When customers use Baidu search some related keywords, Baidu puts the platform promotion page link in the top search list. Baidu charges when customers click the link of platform.

2. Daily headlines: Daily headline is a recommendation engine of news based on data mining products, and it provides and recommends some valuable and meaningful news to users. It is one of the fastest developed mobile products and services. It also provides business services for media, enterprise and me media. The special service is to let information get more exposure and attention, and then to improve the effect of advertising.

3. Xiaomi marketing: Xiaomi a mobile internet company focusing on developing smart products. Xiaomi cellphone has largest sell amounts in China, and a lot of Xiaomi users can get the advertising information as they use Xiaomi phone operating system.

4. UC browser: UC browser is one of largest mobile phone browsers in China. It has amounts of users and these users will be pushed some advertising information.

5. Wide Point: wide point is a subsidiary of Tencent social network advertising platform. Tencent has the largest social network ecosystem in China. Advertisements can be pushed in the QQ space, mobile phone QQ client, WeChat. Wide point applies data mining techniques to push ads to interested customers.

6. WiFi-Key: WiFi key help users to access nearby hot spots, and then get Internet connected. It also has a lot of users in China, and the ads can be pushed to them when they browse some related webpages.

3. Descriptive study

The click rates of advertisements of X platform put in the other external channels are the core index to assess the effects of advertisements. The average click rates of X platform’s advertisements at different channels are shown in Figure 1. The bars are ordered by their click rates, and the color of each bar is also proportional to its click rate. From the figure, the click rate of Baidu SEM is highest, followed by daily headlines, Xiaomi marketing, UC browser, Wide point and WiFi-key. The main reason for the highest rate in Baidu SEM is mainly because when Baidu users search the keywords related to the Xplatform, they often are interested in the contents of Xplatform and many of them will click the proposed advertising link. The channels of daily headlines, Xiaomi marketing and UC browser have median click rate. They offer webpage service, and users are likely to click the related photos in the webpage and then linked to X platform. However, Wide point and WiFi key have lowest click rate, as they are mainly on chat and internet access service. The users may not want to click other links or photos. For the Figure 1, the X platform should put much resource in Baidu SEM, and should decrease the resource in Wide Point and WiFi-key.
Figure 1. The average click rates of X platform’s advertisements at different channels. The bars are ordered by their click rates, and the color of each bar is also proportional to its click rate.

Figure 2 displays the average click rates of X platform’s advertisements at different channels and different terminals. The bars are ordered by their click rates, and the color of each bar is also proportional to its click rate. It can be found that the click rates in the mobile terminals are higher than those in PC terminals, except at the Daily headlines channel. It also notes that for the channels of UC browser, Wifi-key and Xiaomi marketing have no data in PC terminal as they offer no service in PC terminals. For the channel of daily headlines, mobile terminal has a little lower click rate, as it because its mobile app has relative fewer users. For Baidu SEM and Wide point, they have a lot of users in mobile terminals, and users often use these apps during their trip between home and companies. At that time, they often have time for advertisements. In all the X car platform should put much resource on mobile terminals.

Figure 2. The average click rates of X platform’s advertisements at different channels and different terminals. The bars are ordered by their click rates, and the color of each bar is also proportional to its click rate.

The average click rates of X platform’s advertisements for different brands are shown in Figure 3. The bars are ordered
by their click rates, and the color of each bar is also proportional to its click rate. Trumpchi, Geely, and Dongfeng are the Chinese brand, and the remaining brands are from developed countries. From the figure 3, it can be found that the click rates of domestic automobile have few gaps between international brands. It may be because the techniques of domestic brand have improved a lot but with cheaper price. In all, the impact of automobile brand on advertising is insignificant.

![Average Click Rate at Different Brands](image)

Figure 3. The average click rates of X platform’s advertisements for different brands. The bars are ordered by their click rates, and the color of each bar is also proportional to its click rate.

The average click rates of X platform’s advertisements for different brands at different terminals are also shown in Figure 4. The bars are ordered by their click rates, and the color of each bar is also proportional to its click rate. Except for the brand of SUZUKI, the mobile terminal has higher click rate than that PC terminal. For the brands of Geely, Mazda, Dongfeng and Chevrolet, they have much higher click rates from mobile than those from PC terminals. Overall, the X platform should put more resources on mobile terminals for all brands.
4. Conclusions

This paper takes the X car platform as an example to compare different factors on the effects of advertising in external channels. The X car platform put their advertisements in 6 internet channels and in both PC and mobile terminals. It is found that Baidu SEM has the highest click rate. The X car platform should put much resource in Baidu SEM, but decrease the resource in Widi Point and WiFi-key. Also the X platform should put more resource in mobile terminals as mobile advertisement become popular and popular. In the last, comparing China domestic car brands and international brands, the impact of automobile brand on advertising is insignificant. This paper is just a simple descriptive study, and it can give some help to X car platform to better put their resources on their advertisements.

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References


[7] Car S B A N. Looking to buy a new car, or more importantly, make smart decisions when you're purchasing a new car? This continuing series from Kelley Blue Book looks at how you can do it, in ten steps. Read part 1 of this series (steps 1-3) Step 4: Do Your Research Onl[J]. Ho Lin.


