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The Exposure Effect of Static Banner Advertising on Purpose-oriented Users

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Abstract: The investment of advertising companies in online advertising is increasing day by day. The purpose is to hope that their advertising will get the attention and preference of consumers. However, some purpose oriented users will focus on finding information and ignore web ads. Will web ads work for these users? Based on this background, this paper studies the influence of the position and color of static banner advertising on the purpose oriented users. This can not only enable advertisers to understand whether their advertisements play a role, but also enable them to understand how to place and design advertisements to get better results.

Keywords: Exposure effect, Banner advertisement, Purpose oriented users.

1. Introduction

Due to the increasingly developed network society, more and more people begin to use the Internet. Web advertising has also been paid more and more attention[1]. Due to the advantages of strong interaction, wide communication range and pertinence, web advertising has brought more users to many online advertisers. At the same time, online advertising also provides advertisers with a platform with large audience, large amount of information and low cost. Online advertising can not only display different advertising campaigns for different audiences, but also combine words, sounds and images to transmit multiple information and increase the amount of information available to the audience.

2. Literature Review

Banner advertising, also known as web advertising, is an image file established in GIF, JPG and other formats. It is located in the web page, and most of it is used to express the advertising content. Banner advertising is not only an online advertising form, but also the most commonly used advertising form on the Internet. Because the production is simple and accepted by all websites, it is a common way of web advertising in the early years[1]. In daily reading, people usually start from top to bottom. The study found that the reader's reading style is different whether it is written materials or graphic materials. Regardless of the amount of information in advertising content, readers' cognitive effect of advertising is affected by the presentation position. The ads at the top of the page get more attention, while the ads at the bottom of the page get less attention[2]. Color has a strong visual effect. Web ads can attract users' attention in web pages. One of the elements is color. Color has a strong visual impact, and can cause people's emotional changes. Bright and bright colors will produce better attraction, while dim colors will make people feel depressed[3]. When users browse the Internet, their browsing modes will be divided into two types: goal-directed and exploratory. When consumers are goal-directed users, they will pay more attention to the information they want to get, rather than the advertisements around the web page. If consumers are exploratory, they are more likely to browse more web pages and more advertisements around web pages. Some studies have proved that different browsing modes will have a great impact on the memory of web advertising. Target oriented users have lower memory and cognition of advertising than exploratory users[4]. Exposure effect is a psychological phenomenon. It describes that people tend to prefer things just because they are familiar with them. In the 1960s, the psychologist Robert Zajonc conducted a series of laboratory experiments to prove that as long as subjects were allowed to see unfamiliar stimulus many times, their evaluation of the stimulus was higher than that of similar stimuli that they had not seen[5]. This paper mainly studies whether static banner advertising will have exposure effect on purpose oriented users. This paper will use the experimental method to simulate the browsing mode of purpose oriented users, and investigate whether they have preferences for specific advertisements in the form of questionnaire.

3. Hypothesis

Hypothesis 1: Within a certain number of repetitions, static banner ads placed at the top were more likely to make subjects have memory and preferences.

Hypothesis2: Color ads were more likely to be remembered by the subject than black-and-white ads.

4. Research Method

Publish recruitment advertisements through new media platforms (wechat, QQ). Due to time and place constraints, 60 subjects were selected to participate in the study. The subjects were 18-22 years old, with an average age of 19.6 years, including 30 men and 30 women. The computer with Windows system was used in the experiment. The web interface was modified by Baidu interface to ensure the same familiarity with the subjects. The independent variables of this experiment are the position and color of static banner advertising. Collect 4 groups of static banner advertisements with similar brands, products and advertising creativity on the Internet[6]. 41 passers-by randomly intercepted at the gate of large shopping malls conducted a preference test on the advertisements selected by 4 groups, and Likert scored 7. The closer the score is to 4, the higher the similarity of

advertising[7]. According to the literature review, previous studies have shown that when the number of advertising displays is three, it can produce the greatest positive feedback to people. In order to avoid the influence of layout design other than the upper, middle and lower positions of advertisements, the static pictures were uniformly placed on the left. The number of words in each ad text and web page text is the same, and the font size, font and line spacing are also strictly consistent.

5. Result

The final available data of the test is 60 samples, which are divided into four groups of ABCD. Two advertisements are a and b.

5.1. Independence between groups

In general, the four groups of data have passed the independence test, indicating that the four groups of data: group A with group B, and group C with group D are independent of each other.

5.2. The effect of position

The chart is about the test of preference of Group A and B.

Table 1. Chi-Square Tests of Group A and Group B

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.041			.062
	Cramer's V	.601			.062
Interval by Interval	Pearson's R	-.316	.172	-1.203	.250[c]
Ordinal by Ordinal	Spearman Correlation	-.390	.181	-1.525	.151[c]
N of Valid Cases		15			

The chart is about the test of memorize of Group A and B.

Table 2. Chi-Square Tests of Group A and Group B

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.571			.012
	Cramer's V	.785			.012
Interval by Interval	Pearson's R	.940	.020	9.935	.000[c]
Ordinal by Ordinal	Spearman Correlation	.942	.027	10.118	.000[c]
N of Valid Cases		15			

The chart is about the test of preference of Group C and D.

Table 3. Chi-Square Tests of Group C and Group D

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.236			.006
	Cramer's V	.714			.006
Interval by Interval	Pearson's R	.240	.280	.891	.389[c]
Ordinal by Ordinal	Spearman Correlation	.239	.348	.889	.390[c]
N of Valid Cases		15			

The chart is about the test of preference of Group C and D.

Table 4. Chi-Square Tests of Group C and Group D

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.260			.001
	Cramer's V	.891			.001
Interval by Interval	Pearson's R	.911	.038	7.953	.000[c]
Ordinal by Ordinal	Spearman Correlation	.887	.064	6.926	.000[c]
N of Valid Cases		15			

In general, group A and group B, group C and group D, these two groups of experiments proved that the degree of preference and memory were related to the location of Party a.

5.3. The effect of color

The chart is about the test of preference of Group A and C.

Table 5. Chi-Square Tests of Group A and Group C

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	.918			.179
	Cramer's V	.530			.179
Interval by Interval	Pearson's R	-.410	.179	-1.623	.129[c]
Ordinal by Ordinal	Spearman Correlation	-.402	.168	-1.581	.138[c]
N of Valid Cases		15			

The chart is about the test of memorize of Group A and C.

Table 6. Chi-Square Tests of Group A and Group C

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.227			.004
	Cramer's V	.867			.004
Interval by Interval	Pearson's R	.929	.033	9.019	.000[c]
Ordinal by Ordinal	Spearman Correlation	.920	.038	8.460	.000[c]

The chart is about the test of preference of Group B and D.

Table 7. Chi-Square Tests of Group B and Group D

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.225			.007
	Cramer's V	.707			.007
Interval by Interval	Pearson's R	.612	.256	2.788	.015[c]
Ordinal by Ordinal	Spearman Correlation	.621	.268	2.857	.013[c]

The chart is about the test of memorize of Group B and D.

Table 8. Chi-Square Tests of Group B and Group D

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	1.365			.022
	Cramer's V	.788			.022
Interval by Interval	Pearson's R	.905	.035	7.682	.000[c]
Ordinal by Ordinal	Spearman Correlation	.933	.027	9.357	.000[c]

In general, group A and group C, group B and group D controlled the location variables, which proved that the degree of preference and memory was related to the color of Party A.

6. Discussion

In this experiment, the results show that the advertising effect above the search bar is better than that below the search bar, regardless of memory or preference. This result shows that, compared with the ads below the search bar, the subjects have a deeper level of processing the ads above the search bar. Some studies have shown that in the same type of advertising, there is a high degree of correlation between users' memory of advertising and purchase behavior, that is, the deeper users' memory of advertising, the greater the possibility of purchase. Thus, the ads above the search bar can achieve better results than the ads below the search bar[6]. In this experiment, black-and-white advertising and color advertising are used for comparison. It can be seen that the color effect is significant regardless of the degree of memory or preference. Specifically, the subjects have a high degree of memory and preference for color advertising, but a low degree of memory and preference for black-and-white advertising. This result shows that, compared with black-and-white advertising, the subjects' processing level of color advertising is deeper. The higher the degree of memory and preference, the greater the possibility of purchase. Therefore, color advertising can

achieve the purpose of following the trend[8].

7. Conclusion

Under the experimental conditions, the following conclusions can be drawn: When banner ads are located above the search bar, the preference and memory of purpose oriented users are higher than when banner ads are located below the search bar. Objective oriented users' preference and memory of color banner ads are higher than that of black-and-white banner ads.

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