

# Audience Behaviour towards Digital Advertisements in E-Commerce Websites

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76

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## Abstract:

Every year the expenditure on digital advertising is increasing worldwide and in India. It is essential to evaluate the effectiveness of in order to make the necessary changes in the advertising strategy. This research attempts to study the audience behaviour towards digital advertisements in E-commerce websites. It further aims to highlight the preferences and browsing patterns of audience towards online advertising, perception of audience towards the familiar e-commerce websites and the advertisement factors that engage them. A sample size of 450 respondents is considered for the study. The analysis will enable the marketers to get a better return on investment on online advertisements. The researcher felt that a study to understand the audience engagement factors appearing in familiar websites is significant and it will further strengthen the approach of online advertisers especially who are focusing to sell the products in online market.

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## INTRODUCTION

Successful companies depend on customer satisfaction and encourage them for repeated purchase and long-term customer relationship. The modern marketing concepts are very broad in marketing. Involving customers and getting their views in the process of manufacturing is the current trend that help in customer engagement as well as creating a product based on their requirements (Rangaswamy and G.H. Van Bruggen, 2005). Continuous research on consumer needs, wants, preference, likes, dislikes, response to promotion, feedback regarding the product helps the company to sustain their position in the market.

Various websites and various formats of advertisements are chasing the audience to sell products. To know what type of advertisements displayed in familiar websites attract the attention of the audience and engage them is studied (Chen, Q., Clifford, S.J. and Wells, W., 2000). Huge investments are made on online advertisements by

companies and marketers expect good return on investment for the amount spent. Therefore, research on online advertisements and its impact is essential (Rao., Rama, 2017). Knowing the opinion of audience on online ads, especially on the engaging factors gives clarity and better understanding about online audience (Richard, Allen Charlesworth, and Rita Esen, 2007). This study attempts to study the audience behaviour towards digital advertisements. There is a need to understand the audience behavior towards the ads appearing online and this research study aims to highlight the preferences and browsing patterns of audience towards online advertising, perception of audiences towards the familiar e-commerce websites and the advertisement factors that influence them (Biocca et al., 2007).

## LITERATURE REVIEW

Sankaran, Sudha (2011), recognized that online shopping specifically keeps on ascending, as appropriation and infiltration levels of Internet

innovation ceaselessly ascend. By 2007, European Internet perforation remained at 44% of the populace with a 230% utilization improvement year on year. In North America, infiltration was at 72% of the populace with 121% development (Internet World Stats 2007). This is likewise confirmed by expanding levels on online deals, which in the US achieved US\$128.1bn in 2007 and were anticipated to achieve US\$165.9bn by 2009 (source: US Census Bureau 2009).

Pheng, L. S., & Yuquan, S., (2002), characterised buying expectation as the enthusiasm of obtaining the item. In web based shopping, it is normal that customers will probably relate cost effectiveness, quality and efficiency with their expectation to shop, while in offline shopping, purchasers are more prone to relate substance, high intelligence and pleasure with their aim to shop. Subsequently, online advertisers or retailers ought to know about the issues faced by the buyers and their apparent risks to build their goal to shop over the web. Originators must observe customers' needs on the grounds that the ease of use is the beginning stage to get the certainty and support of the purchasers.

Delleart, Monsuwe, and Ruyter (2004), elucidates that product specification is additionally another factor that will impact the buyer's aim to buy over web. Item trademark can be substantial or impalpable; institutionalized or altered. In an online setting, lower substantial quality of an item is caused by the absence of physical contact and help with the shopping procedure; shopper's goal to shop on the web will be decreased when there is a need to look for exhortation from a businessperson in regards to the thought about product. Goods such as, automobiles, PCs, scent, aroma or moisturizer has the lower potential to be obtained by the customer online since it requires more individual information and experience.

As indicated by Bernroider W N Edward, Hampel Alexander (2004), customers with a shopping objective are more responsive towards attractive banners like, 'pay less' & 'discounts' while buyers without shopping objective are responsive towards

special messages, for example, 'save more' & 'unconditional presents'. They referred to from that cost advancement have a few advantages, for example, to build request, change variances in free market activity, and keep the audience engaged on websites for a longer time.

## STATEMENT OF THE PROBLEM

Different types of advertisements are created with creativity and follow the audience 24x7. In this clutter, knowing what type ads attract the attention of audience is important and how they react to the advertisements is also important. Internet advertising has lot of potential to expose the products to audience. Therefore, advertisers should have a better understanding of audience to communicate the messages effectively by understanding their likes and dislikes on advertisement factors. Audiences respond differently based on their education status, awareness, exposure, preferences, etc. By understanding the differences in audience, creativity should be applied in advertisements that engage the audience for the expected response.

## OBJECTIVES OF THE STUDY

1. To study the likeable & annoying advertising elements appearing in familiar e-commerce websites.
2. To understand the buying behavior of online buyers towards digital advertisements in interactive e-commerce websites.

## HYPOTHESIS

- a) There is no significant association between online advertising activities and audience engagement
- b) There is no significant difference between gender and online advertising activities that engage the audience when they use internet
- c) There is no significant difference between age and opinion on annoying elements of appearing in ecommerce sites

### SCOPE OF THE STUDY

Increased investment in online advertisements by marketers has enhanced the importance of conducting research to understand the effects of online advertisements and audience reactions better. This reason increased the curiosity for many media researchers to focus on online advertisements and understanding the response of audience and their perception towards online ads.

### SAMPLING FRAMEWORK

Data was collected from the online audience for this research work using field survey technique through a structured questionnaire. Audience watching online advertisements appearing in e-commerce websites was involved in the study to render their opinion on online advertisements.

The samples were chosen from the population of above 18 years from Bangalore urban district for the study. The researcher applied convenience sampling method to record the perception of the respondents who are willing to render their opinion on online ads. A sample size of 450 respondents was considered for the study.

### DATA ANALYSIS AND INTERPRETATION

The ten websites were taken into consideration and respondents were asked to rank them according to their preferences. The popular websites considered by the audiences are Flipkart, Amazon, Jabong, Snapdeal, Myntra, Ebay, Infibeam, Paytm, Bookmyshow and Rediff. Among all the online portals, respondents have ranked Amazon as most preferred portal to shop online.

**Table 1: Websites Frequently Visited by Audience to Shop Online**

Sl. No.	Attributes	Garret Score	Mean Score	Rank
1	Flipkart	4200	62.00	2
2	Amazon	4896	66.13	1
3	Jabong	3100	42.13	6
4	Snapdeal	3720	48.67	5
5	Myntra	2980	40.12	7
6	Ebay	2500	38.24	8
7	Infibeam	2310	35.12	10
8	Paytm	4112	57.42	3
9	Bookmyshow	3800	53.42	4
10	Rediff.com	2400	35.64	9

Source: Primary Data

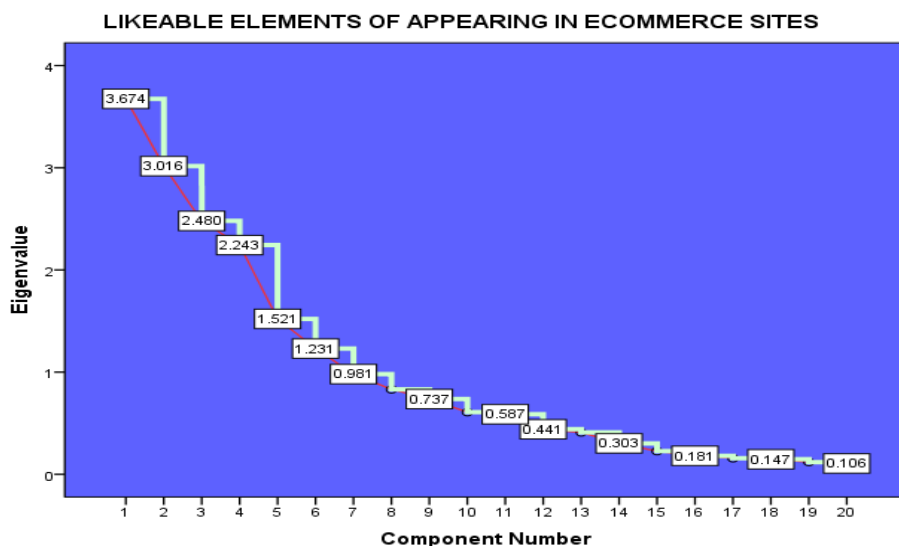
### LIKEABLE ELEMENTS APPEARING IN ECOMMERCE SITES

**Table 2: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Ads by familiar actors & celebrities	3.674	18.372	18.372	3.674	18.372	18.372	2.774	13.868	13.868
Ads with fun and humour	3.016	15.078	33.451	3.016	15.078	33.451	2.724	13.619	27.487

Creative	2.480	12.398	45.849	2.480	12.398	45.849	2.595	12.973	40.460
Ads of products new to the market	2.243	11.216	57.065	2.243	11.216	57.065	2.360	11.801	52.262
Animation & Graphics	1.521	7.605	64.670	1.521	7.605	64.670	2.078	10.392	62.654
Good background music	1.231	6.153	70.823	1.231	6.153	70.823	1.634	8.169	70.823
Eye catching banners	.981	4.903	75.726						
Optimized landing page	.832	4.158	79.884						
Valuable mix of content	.737	3.684	83.568						
Realistic information and visuals	.608	3.042	86.610						
Empathetic & persuasive	.587	2.937	89.547						
Inviting discussion	.441	2.205	91.752						
Website layout	.410	2.048	93.800						
Sex Appeals	.303	1.514	95.314						
Visual Story telling	.227	1.133	96.447						
Attractive sports personalities	.181	.905	97.352						
Rich content	.157	.786	98.138						
Attractive product placement	.147	.735	98.873						
Multiple versions of same ad	.120	.598	99.470						
Attractive outdoor environment	.106	.530	100.000						

Extraction Method: Principal Component Analysis.



The above graph depicts the Screen plot with Eigen values against the component number. A Screen Plot represents Eigen values plotted against the number of elements in the order of extraction. In this study the major factors identified are six and they are depicted in the screen plot.

**TABLE 3: Rotated Component Matrix<sup>a</sup>**

Variables	Component					
	1	2	3	4	5	6
Animation & Graphics	.834	.038	.047	.179	-.129	.005
Multiple versions of same ad	.787	-.164	-.151	.207	-.252	-.042
Website layout	.720	-.125	-.188	.036	-.110	.048
Ads of products new to the market	-.631	.909	-.321	.225	-.006	-.335
Rich content	.066	.888	-.004	.020	-.039	.091
Empathetic & persuasive	-.012	.844	-.042	-.083	.024	.098
Attractive product placement	-.085	.773	-.208	-.083	.095	.363
Inviting discussion	-.157	.624	-.195	-.098	.074	.435
Optimized landing page	.023	-.005	.865	.205	-.005	-.101
Attractive sports personalities	-.093	-.092	.841	.265	.029	-.074
Ads with fun and humour	.143	.181	.727	.376	.174	.105
Visual Story telling	.152	-.003	.097	.853	.004	.160
Eye catching banners	.232	.064	.242	.800	.027	-.104
Ads by familiar actors & celebrities	.501	.208	.111	.520	.017	-.035
Creative	.247	.095	.482	.501	-.153	.172
Attractive outdoor environment	-.209	.065	.002	.085	.904	-.043
Sex Appeals	-.115	.060	-.091	-.053	.860	.035
Realistic information and visuals	.057	.092	-.196	.183	.104	.781
Good background music	-.157	.165	-.003	.145	.408	.493
Valuable mix of content	-.026	-.200	-.066	.041	.425	.478

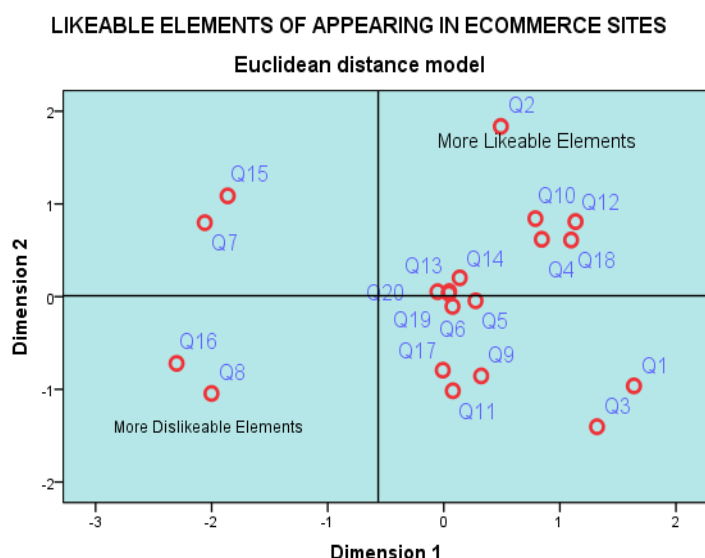
Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

To inspect the strength of association among variables used for the study, Kaiser-Mayer-Olkin (KMO) method of sampling adequacy was applied. The KMO measure of sampling adequacy was worked out to determine the appropriateness by means of factor analysis. It confirms whether data are suitable to perform factor analysis. KMO score is above 0.60 and is acceptable for testing. Factor analysis is done to extract the most important factors influencing audience. Table 3 shows that the factors extracted with Eigen values more than one are five and it has an explanatory power of 70.823percent. Therefore, the six factors that are considered as major *likeable elements appearing in ecommerce sites* (70 percent). These factors are identified from the rotated component matrix and the major factors are named as: **Display, Attractive Content, Appealing ads, Creative, Informative, Content.**

*PERCEPTUAL MAPPING OF LIKEABLE ELEMENTS OF ADVERTISEMENTS IN ECOMMERCE SITES*



To check the perception of the audience towards likeability of digital advertisement factors appearing in E-Commerce website, Euclidian model was used and the factors are depicted in the format of perceptual map. The factors considered are Ads by familiar actors & celebrities, Ads with fun and humor, Creative, Ads of products new to the market, Animation & Graphics, Good background music, Eye catching banners, Optimized landing page, Valuable mix of content, Realistic information and visuals, Empathetic & persuasive, Inviting discussion, Website layout, Sex Appeals, Visual Storytelling, Attractive sports personalities, Rich content, Attractive product placement, Multiple versions of same ad and Attractive outdoor environment.

The audience who participated as respondents in the study are having a high degree of likeability towards the following factors of ads in ecommerce websites. Ads with fun and humor, Ads of products new to the market, Realistic information and visuals, Inviting discussion, Website layout and Sex Appeals and Attractive product placement.

The audience participated as respondents in the study are having a low degree of likeability towards the following factors of ads in ecommerce websites. The factor are Optimized landing page and Attractive sports personalities.

**ANNOYING ADVERTISING ELEMENTS APPEARING IN ECOMMERCE SITES**

**TABLE 4:T- TEST**

Variables	Test Value = 0		
	t	df	Sig. (2-tailed)
Too many advertisements (Clutter)	62.959	449	.000
Boring	61.690	449	.000
Misleading	74.756	449	.000
Sudden emergence of voice (noise)	84.619	449	.000

Disturbing when working on something else	62.959	449	.000
Poor message strategy	61.690	449	.000
Can't skip the ad	74.756	449	.000
Ads are not professional & polished	84.619	449	.000
Privacy / Security concerns	62.959	449	.000
Offensive and inappropriate ad content	61.690	449	.000
Interruption	74.756	449	.000
Video starts automatically	84.619	449	.000
Audio starts automatically	62.959	449	.000
Length of advertisements	61.690	449	.000
Pre-video Ads without skip option	74.756	449	.000
Deceptive links	84.619	449	.000
In-content ads	62.959	449	.000
Ads that slow down web browsing	61.690	449	.000
Obscene ads	74.756	449	.000
Reduces data usage	84.619	449	.000

Table 4 indicates the degree of significance of the annoying elements perceived by the audience when they see/ watch advertisements in E-commerce sites. One-sample T-test was used to examine the significance of annoying elements in E-commerce websites. Eight activities are considered for the

study. Audience felt all the above said elements are annoying when they appear in the ecommerce websites.

### MODE OF AVOIDING ONLINE ADVERTISEMENTS

**TABLE 5: Actions taken to avoid Digital Advertisements**

S. No.	Attributes	Garret Score	Mean Score	Rank
1	Skip the ads (ignore)	5200	72.23	2
2	Close the ad	5896	76.33	1
3	Block the ad using options in the browser	4100	52.43	6
4	Closing the site that has too many ads	4720	58.23	5
5	Mute the volume of the ad	3980	50.24	7
6	By installing ad blocking software	3500	48.32	8
7	By preferring Incognito browsing	3310	45.12	10
8	Preferring paid subscription services without ads (Netflix, Amazon, Hot star)	5112	67.43	3
9	Using browsers with built in ad blocker	4800	63.34	4
10	By using paid ad blocking	3400	45.23	9

Table 5 indicates the mode of avoiding online advertisements. The first way of avoiding the adds is closing the advertisement by the audience with mean score value of 76.33. The second mode of avoidance

is skipping the ads, preferring paid subscription services without ads (Netflix, Amazon, Hotstar) was ranked as third, followed by using browsers with built in ad blocker, closing the site that has too many

ads, block the ads using options in the browser, mute the volume of the ad, by installing ad blocking software, using paid ad blocking and by preferring Incognito browsing respectively to avoid the advertisements.

### OPINION OF RESPONDENTS ACROSS DIFFERENT AGE GROUPS

Analysis of Variance statistical tool has been used to test the following hypothesis;  $H_0$ : There is no significant difference between age and the annoying elements of digital advertisements in E-commerce sites

**TABLE 6: ANOVA (AGE)**

		SS	df	MS	F	Sig.
Too many advertisements (Clutter)	Between Groups	2.223	3	.741	.849	.048
	Within Groups	389.201	446	.873		
	Total	391.424	449			
Boring	Between Groups	6.077	3	2.026	2.220	.025
	Within Groups	406.868	446	.912		
	Total	412.944	449			
Misleading	Between Groups	.960	3	.320	.492	.688
	Within Groups	290.198	446	.651		
	Total	291.158	449			
Sudden emergence of voice (noise)	Between Groups	.213	3	.071	.142	.935
	Within Groups	223.478	446	.501		
	Total	223.691	449			
Disturbing when working on something else	Between Groups	2.223	3	.741	.849	.468
	Within Groups	389.201	446	.873		
	Total	391.424	449			
Poor message strategy	Between Groups	6.077	3	2.026	2.220	.085
	Within Groups	406.868	446	.912		
	Total	412.944	449			
Can't skip the ad	Between Groups	.960	3	.320	.492	.038
	Within Groups	290.198	446	.651		
	Total	291.158	449			
Ads are not professional & polished	Between Groups	.213	3	.071	.142	.035
	Within Groups	223.478	446	.501		
	Total	223.691	449			
Privacy / Security concerns	Between Groups	2.223	3	.741	.849	.048
	Within Groups	389.201	446	.873		
	Total	391.424	449			

Offensive and inappropriate ad content	Between Groups	6.077	3	2.026	2.220	.085
	Within Groups	406.868	446	.912		
	Total	412.944	449			
Interruption	Between Groups	.960	3	.320	.492	.688
	Within Groups	290.198	446	.651		
	Total	291.158	449			
Video starts automatically	Between Groups	.213	3	.071	.142	.935
	Within Groups	223.478	446	.501		
	Total	223.691	449			
Audio starts automatically	Between Groups	2.223	3	.741	.849	.048
	Within Groups	389.201	446	.873		
	Total	391.424	449			
Length of advertisements	Between Groups	6.077	3	2.026	2.220	.035
	Within Groups	406.868	446	.912		
	Total	412.944	449			
Pre-video Ads without skip option	Between Groups	.960	3	.320	.492	.688
	Within Groups	290.198	446	.651		
	Total	291.158	449			
Deceptive links	Between Groups	.213	3	.071	.142	.935
	Within Groups	223.478	446	.501		
	Total	223.691	449			
In-content ads	Between Groups	2.223	3	.741	.849	.038
	Within Groups	389.201	446	.873		
	Total	391.424	449			
Ads that slow down web browsing	Between Groups	6.077	3	2.026	2.220	.025
	Within Groups	406.868	446	.912		
	Total	412.944	449			
Obscene ads	Between Groups	.960	3	.320	.492	.01
	Within Groups	290.198	446	.651		
	Total	291.158	449			
Reduces data usage	Between Groups	.213	3	.071	.142	.035
	Within Groups	223.478	446	.501		
	Total	223.691	449			

Table 6 indicates that there is a significant difference in the opinion of the respondents across different age group regarding the elements of ads in E-commerce sites. The factors that have significant difference are,

too many advertisements (Clutter) with significant value of 0.048, Boring with significant value of 0.025, Poor message strategy with significant value of 0.085, Can't skip the ad with significant value of 0.038, Ads are not professional & polished with significant value of 0.035, Privacy / Security concerns with significant value of 0.048, Offensive and inappropriate ad content with significant value of 0.085, Audio starts automatically with significant value of 0.048, Length of advertisements with significant value of 0.035, In-content ads with significant value of 0.038, Ads that slow down web browsing with significant value of 0.025, Obscene ads with significant value of 0.01 and Reduces data usage with significant value of 0.035.

There is no significant difference in the opinion of the respondents of different age group regarding the elements of ads in E-commerce sites. The factors that have no significant difference are Misleading with significant value of 0.688, Sudden emergence of voice (noise) with significant value of 0.935, Disturbing when working on something else with significant value of 0.468, Interruption with significant value of 0.688, video starts automatically with significant value of 0.935, Pre-video Ads without skip option with significant value of 0.688 and Deceptive links with significant value of 0.935.

## GENDER VS BEHAVIOUR OF ONLINE BUYERS TOWARDS INTERACTIVE E-COMMERCE WEBSITES

**Table 7: Gender wise Audience Behaviour Towards Interactive E-Commerce Websites**

Variable	Value	DF	Chi-Square Test
Engage in Internet most of the time	0.564	2	0.040
Benefits of Online Advertisements	0.926	2	0.030
Customer Opinion on the factors that engages on E-commerce websites	1.346	3	0.018

Customer Experience on ecommerce sites visit	1.349	2	<b>0.509</b>
Acceptable Online content	4.569	3	<b>0.206</b>
Annoying elements appearing Online	4.269	2	0.018

Table 7 represents the gender and behavior of online buyers towards interactive e-commerce websites. There is no significant difference across gender for variables, Customer Experience on ecommerce sites and Acceptable Online content. Both male and female respondents who participated in the study felt the same for the above mentioned variables. There is significant differences between the opinion of male and female customers regarding the variables engaging in internet most of the time, Benefits of Online Advertisements, Customer Opinion on the factors that engages on E-commerce websites and Annoying elements appearing Online.

## SUGGESTIONS

- On-line shopping, On-line research, reading news, watching movies, listening songs, online banking, download required stuff, play games and social Networking (Facebook, LinkedIn) are the activities that keep the online audience engaged when they are into internet. Advertisements can be more customized according to their browsing patterns and interests.
- In the perception of male and female audience on the activities that engage them there is a significant difference in on-line research, reading news, social networking (Facebook, LinkedIn) and to get educated regarding. Understanding the demographic differences in demographic factors can improve the strategies of audience engagement.
- Websites can be designed in such a way to provide awareness on latest arrivals, visible links to compare prices of various brands, reduce the steps in the process of shopping,

helping them to find best and suitable products, making the features of the product visually appealing instead of textual messages, helping customers to purchase the goods online as per their budget, reminders without irritation, helping them to know about new arrivals, and providing information on offers and discount.

- Presenting information in a likeable way engages the audience, noticeable placement of ads makes the audience to like the ads it will encourage them to buy products as well as creates interest to share the ads with others.
- Visually appealing, interactive, attractive, colorful, informative, entertaining relevant, animated, aesthetically pleasing advertisements also engages the audience. When ads are created these should be kept in mind to attract the attention of the digital audience.
- Advertisements with fun and humor, provides realistic information & visuals, inviting discussions, attractive website layout and attractive product placement have high degree of influence and these attributes should be used frequently in ads.
- Audience are irritated with too many advertisements, boring, misleading ads, therefore they should be avoided.

Advertisements with sudden emergence of voice, interrupting ads, ads with are also irritable. Ads with poor message strategy, audience unable to skip the ad, unprofessional ads should also be avoided.

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