



CUSTOMER PERCEPTION ON ONLINE BEHAVIORAL TARGETING

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ABSTRACT

Online behavioral targeting (OBT) is a technique of online marketing that aims to provide customized online advertisements to the consumers according to their interests. It is a special form of targeted advertising. It is a technique used in online advertising and publishing, where data from visitor browsing habits (e.g., search terms, sites visited, purchases made etc.) is used to display relevant ads and offers and improve campaign effectiveness. Behavioral targeting allows advertisers and publishers to target customers based on their behaviors across different websites, so that they can display customized advertisements. The aim of this study is to find out the impact of individual level characteristics namely promotion focus and security risk on advertising value, advertising attitudes and behavioral outcomes. An online survey was conducted using a structured questionnaire on a five point Likert scale among 195 respondents. The statistical tools used were weighted mean, correlation and regression analysis. Results revealed that people with promotion focused characteristics tend to get attracted by the online customized ads and this positive attitude makes them to have a positive behavior towards customized online ads.

Keywords: Online Behavioral Targeting (OBT), Customized online advertising, Ad Value, Attitudinal outcome, Behavioral outcome.

1.1 INTRODUCTION

Online Behavioral Targeting refers to the technique of tracking consumer's behavior when they visit any website. It is a popular form of online marketing. The searches made by them are stored by the websites with the help of cookies and it helps the advertisers to display advertisements related to their searches. Such advertisements are customized according to the customer's area of interest based on their search history. Since the customers are offered advertisements that are customized according to their interests, it may be attractive and influential for them. For example, if someone browses Amazon for a branded mobile phone without making a purchase, Amazon's advertising network can show this visitor more ads relevant to the brand searched by the user on other websites, increasing the eventual likelihood of a purchase. The technique of OBT offers a wide range of advantages to the marketers such as easy data collection, analysis, segmentation and reduced costs. Customized ads are more likely to influence the customers because it serves them with the information and offers related to their interest area. The effectiveness of behavioral targeting depends on how well the advertising companies know their target audience. Else it may end up in causing irritation to the customers.

1.2 PROMOTION FOCUS

Promotion focus refers to an individual's character of being positive in nature. Promotion focused people tend to look for positive outcomes and they always have an optimistic attitude. In the field of marketing, promotion focused people always look for information and offers that may be useful to them. So we may assume that such people hold positive attitude towards the technique of customized online ads as it serves them with abundant information and offers relevant to them.

1.3 PERCEIVED SECURITY RISK

Security risks on the Internet give rise to concerns about sharing financial and personal information in an online environment. Risk concerned people tend to ignore the positivity of such online customized ads as they are concerned about privacy issues. Thus, perceived security risks associated with online behavioral tracking and data-based customization of ads still continue to be a critical issue for brands and advertisers. Since customized online ads use personal behavioral data, perceived security risks associated with clicking such ads may influence consumers' perceptions about customized online ads.

1.4 ADVERTISING VALUE

Ducoffe (1995, 1996) defines advertising value as a subjective overall evaluation of an advertisement. Ad values like information, entertainment and irritation are considered as important factors having effect on attitudes and behaviors of customers. Informativeness and entertainment are both critical to an advertisement's value (Aaker et al., 1992; Ducoffe, 1996). Extant research has shown that entertainment and informativeness are positively related to attitude toward ads across a variety of digital media forms, whereas irritation is negatively related to it. Irritation occurs when ads interrupt the flow of the editorial content, resulting from annoying or manipulating techniques used in advertising.

1.5 ATTITUDINAL OUTCOME

Attitude towards an advertisement can be defined as the way in which the customers react to it in a favorable or unfavorable manner. The attitude towards an advertisement is very important because only if the customers hold a positive attitude it will influence them to make purchase decisions. If the attitude towards the advertisement is negative, then the consumers will certainly ignore such products or services without any consideration about its actual quality. It is the attitude towards the advertisement that leads to a positive or negative attitude towards the brand. Brand attitude can be defined as the way in which the customers perceive the brand be it positively or negatively.

1.6 BEHAVIORAL OUTCOME

Consumer's behaviors towards online ads are very diverse, some have a positive response and some have negative response. Good advertising can increase the sense of consumer curiosity of the product and can ultimately lead to consumer buying interest to buy and try to use the product. Behaviors can be differentiated by their directions and intensities. Approach and avoidance are two directions of behavioral responses when consumers encounter online advertisements. Active and passive behaviors reflect the levels of intensity of behavioral efforts consumers put when dealing with online advertisements. Active behavioral responses mean that consumers act upon online ads, either approaching or avoiding them. Passive behavioral responses indicate that consumers make little effort or avoid online ads in a passive way.

1.7 REVIEW OF LITERATURE

- **Consumer perceptions of online behavioral advertising” (2019)** was analyzed by “**Tobias Deling and et.al.,**” which had its objective of finding how consumers perceived online behavioral advertising. For this purpose a semi-structured interview was conducted between the age group of 23 and 41 years old. The findings were summarized in a COBAP model, which showed that consumer's perceptions on online

behavioral targeting are not stable instead, they constantly evolve, triggered by confrontations with online behavioral advertising.

- Research on “**Consumer attitudes toward relevant online behavioral advertising: crucial evidence in the data privacy debates**” (2019) was done by “**Mark Sabelman, Heather Shoenberger and Esther Thorson**”. The aim of the study was to identify if consumers prefer advertising that are relevant to their interests or not relevant to their interests. An online survey was conducted among 150 respondents and the data obtained were analyzed with the help of t-test. The findings revealed that the customers strongly prefer advertisements that are relevant to them than those which are not relevant to their interests.
- **Sanne Dahlgren and Beatrice Tabell**" conducted a study on “**Personalized advertising online and its difficulties with customer privacy**” (2018). The study intended to explain and create an understanding if personalized advertising online creates values for the customers. A qualitative study of 14 semi-structured interviews was conducted and the responses were recorded. The study found that personalized advertising to be seen as value co-creation in some cases, but privacy concern exists and affects the perception of advertising, it can in many cases lead to value co-destruction instead.

1.8 CONCEPTUAL FRAMEWORK OF THE STUDY

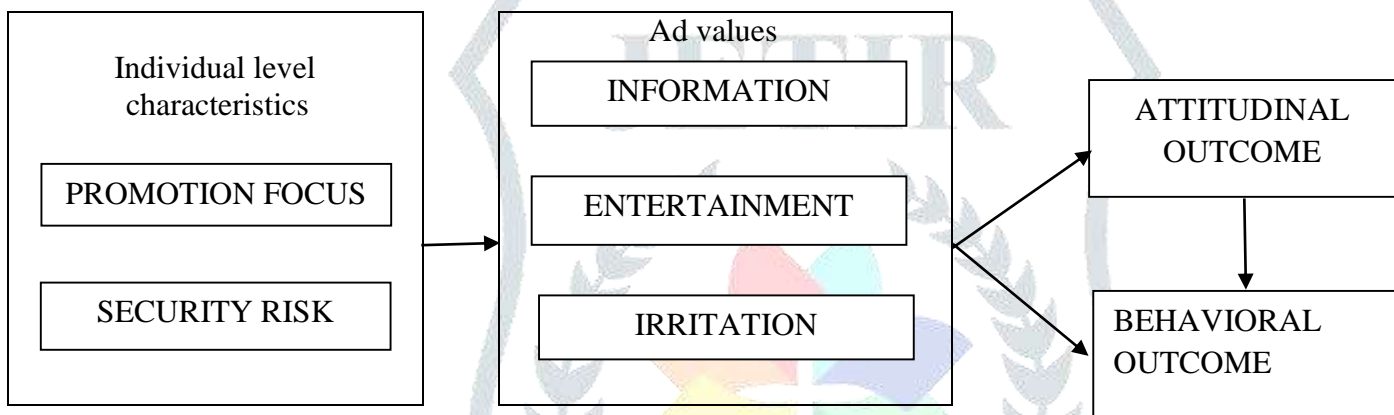


Fig No. 1 Conceptual Framework of the study

1.9 OBJECTIVES OF THE STUDY

- To examine the factors of the conceptual model
- To examine the nature and direction of relationship between
 - i. Individual level characteristics and ad values.
 - ii. Ad values and attitudinal outcomes.
 - iii. Ad values and behavioral outcome.
- To analyze the cause and impact relationship between
 - i. Individual level characteristics and ad values.
 - ii. Ad values and attitudinal outcomes.
 - iii. Ad values and behavioral outcome.
 - iv. Attitudinal outcomes and behavioral outcome.

1.10 RESEARCH METHODOLOGY

Primary data was collected through a structured and standardized five point Likert scale questionnaire by adopting convenience sampling technique covering 195 respondents of Chennai city. The statistical tools used were Weighted mean, Correlation and Regression Analysis.

1.11 HYPOTHESIS OF THE STUDY

Null Hypothesis 1: There exists no significant relationship between the individual level characteristics (Promotion Focus and Security Risk) and ad values.

Null Hypothesis 2: There exists no significant effect of individual level characteristics (Promotion Focus and Security Risk) on ad values.

Null Hypothesis 3: There exists no significant relationship between ad values and attitudinal outcomes.

Null Hypothesis 4: There exists no significant effect of ad values on attitudinal outcomes.

Null Hypothesis 5: There exists no significant relationship between ad values and behavioral outcomes.

Null Hypothesis 6: There exists no significant effect of ad values on behavioral outcomes.

Null Hypothesis 7: There exists no significant effect of attitudinal outcomes on behavioral outcomes.

1.12 LIMITATIONS OF THE STUDY

The study comprises of data collected from 195 respondents of Chennai City which is not widely conducted. The advertising values measured are Information, Entertainment and Irritation .Other values of advertising are not considered for this study. The individual level characteristics are based only on promotion focus and security risk, the other characteristics not being considered. Attitude towards online customized advertisements can be measured with several other factors such as awareness, preference of the customers, their intentions etc. The sample size can be increased with a wide survey.

1.13 RESULTS AND DISCUSSIONS

Demographic Profile of the respondents revealed that,

Majority of the respondents are students (60%) being female (65.60%) pursuing their Under Graduation (62.05%) belonging to the age group of 18-22 years (76.92%). Majority of them often use Instagram (55.90%) and come across majority of the customized online advertisements, in YouTube (39.49%) compared to other social media.

The next part of the analysis deals with the factors of the study in which their average weighted mean scores are depicted in Table No 3.1

1.14 Factors of Online Behavioral Targeting

Table No. 1 Factors of the study – Weighted mean

S.No	Factors	Average Weighted Mean
1.	Promotion Focus	3.88
2.	Security Risk	3.82
3.	Information	3.31
4.	Entertainment	2.87
5.	Irritation	3.43

Source: Primary Data

It can be inferred from the above Table No.1 that Promotion Focus factor has got greater weighted mean. This indicates that most of the respondents are promotion focused in their life in relation to their work, hobbies and activities they do.

The next part of the analysis deals with the inferential analysis to examine the cause and effect relationship using various statistical tools like Correlation and Regression.

1.15 ‘Individual level characteristics’ and ‘Ad values’ – Correlation analysis and Regression analysis.

Null hypothesis 1: There exists no significant relationship between the individual level characteristics (Promotion Focus and Security Risk) and ad values.

Table No. 2 ‘Individual level characteristics’ and ‘Ad values’ – Correlation analysis

S.No	Factors of Individual level characteristics	Ad values (r value)
1.	Promotion Focus	0.293**
2.	Security Risk	0.112

Source: Primary Data

Note: 1. ** denotes significance at 1% level.

It is inferred from the Table No.2 that out of the two factors of individual level characteristics, promotion focus level of the customers has a significant positive relationship with the advertising values at 1% level.

Null hypothesis 2: There exists no significant effect of individual level characteristics (Promotion Focus and Security Risk) on ad values.

Table No.3 ‘Individual level characteristics’ and ‘Ad values’ –Regression analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.311	0.097	0.087	0.441

Source: Primary Data

Table No.4 ‘Individual level characteristics’ and ‘Ad values’ –Regression analysis

S.No	Individual level characteristics	Ad values				
		Unstandardized coefficients		Standardized coefficients	t value	P value
		Beta Value	Std. Error	Beta		
	(Constant)	1.955	0.291		6.710	0.000
1.	X1	0.270	0.064	0.290	4.225	0.000
2.	X2	0.063	0.041	0.104	1.517	0.131

Source: Primary Data

The predicted values of individual level characteristics ‘Promotion focus’(X1), ‘Security risk’(X2).The multiple R value of 0.311 measures the degree of relationship between the Individual Level Characteristics and Ad Values.

R square value is 0.097 which indicates that 9.7 % of the variation in the ad values of the respondents is explained by the estimated Individual Level Characteristics comprising of two independent variables. The multiple regression equation is

$$\text{Ad values} = 0.311(\text{constant}) + 0.270(X1) + 0.063(X2)$$

It can be inferred that the individual level character namely, ‘promotion focus’ has got a major impact on ad values when compared to the character, ‘security risk’.

The next part of the analysis attempts to establish the relationship between ‘Individual level characteristics’ and ‘Attitudinal outcome’, which are depicted in the following tables.

1.16 ‘Ad values’ and ‘Attitudinal outcome’- Correlation Analysis and Regression analysis

Null Hypothesis 3: There exists no significant relationship between ad value and attitudinal outcomes.

Table No.5 Ad values and Attitudinal outcome- Correlation Analysis

S.No.	Ad values	Attitudinal Outcome
1.	Information	0.573**
2.	Entertainment	0.680**
3.	Irritation	-0.301**

Source: Primary Data

Note: ** denotes significance at 1% level.

From the above Table No.4 it is inferred that out of the three factors of ad values, the factor namely, ‘Entertainment’ has a positive attitudinal outcome among the customers followed by ‘Information’. Whereas the ad value ‘Irritation’ has a negative attitudinal outcome.

Null Hypothesis 4: There exists no significant effect of ad values on attitudinal outcomes.

Table No.6 Ad values on Attitudinal outcome – Regression

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.704	0.495	0.487	0.515

Source: Primary Data

Table No.7 Ad values on Attitudinal outcome – Regression

S.No	Ad values	Attitudinal Outcome				
		Unstandardized coefficients		Standardized coefficients	t value	P value
		Beta Value	Std. Error	Beta		
	(Constant)	1.276	0.274		4.663	0.000
1.	X1	0.232	0.066	0.234	3.491	0.001
2.	X2	0.403	0.054	0.518	7.426	0.000
3.	X3	-0.30	0.049	-0.34	-0.624	0.533

Source: Primary Data

The predicted values of ad values are ‘Information’(X1), ‘Entertainment’(X2), and ‘Irritation’(X3). The multiple R value of 0.704 measures the degree of relationship between the attitudinal outcome and predicted values of ad values.

R square is 0.495 which indicates that 49.5% of the variation in the attitudinal outcome of the respondents is explained by the estimated ad values comprising of three independent variables.

The multiple regression equation is

Attitudinal Outcome = 1.276(constant) + 0.232X1 + 0.403X2 + (-0.030 X3).

From the above Table it is inferred that the predicted value 'Entertainment' has a major impact on the attitudinal outcomes (0.403) followed by 'Information' (0.232) and the ad value 'Irritation' has got a negative impact on the attitudinal outcomes of the respondents.

The next part of the analysis attempts to establish the relationship between 'Ad values' and 'Behavioral Outcome' which are depicted in the following tables.

1.17 'Ad values' and 'Behavioral Outcome' – Correlation analysis and Regression analysis

Null hypothesis 5: There exists no significant relationship between ad value and behavioral outcomes.

Table No.8 Ad values and Behavioral Outcome – Correlation

S.No	Ad values	Behavioral Outcome
1	Information	0.540**
2	Entertainment	0.598**
3	Irritation	-0.193**

Source: Primary Data

Note: **denotes significance at 1% level.

From the above Table it is inferred that out of the three factors of ad values, the factor namely, 'Entertainment' has a positive behavioral outcome among the customers followed by 'Information'. Whereas the ad value 'Irritation' has a negative behavioral outcome.

Null hypothesis 6: There exists no significant effect of ad values on behavioral outcomes.

Table No.9 Ad value on Behavioral Outcome – Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.633	0.401	0.391	0.631

Source: Primary Data

Table No.10 Ad value on Behavioral Outcome – Regression Analysis

S.No	Ad values	Behavioral Outcome				
		Unstandardized coefficients		Standardized coefficients	t value	P value
		Beta Value	Std. Error	Beta		
	(Constant)	0.747	0.335		2.229	0.027
1.	X1	0.298	0.081	0.267	3.661	0.000
2.	X2	0.383	0.066	0.439	5.774	0.000
3.	X3	0.030	0.060	0.030	0.501	0.617

Source: Primary Data

The predicted values of ad values are 'Information'(X1), 'Entertainment'(X2), and 'Irritation'(X3).The multiple R value of 0.633 measures the degree of relationship between the Behavioral Outcome and predicted values of and Ad Values.

R square value is 0.401 which indicates that 40.1% of the variation in the Behavioral Outcome of the respondents is explained by the estimated Ad Values comprising of three independent variables.

The multiple regression equation is

$$\text{Behavioral Outcome} = 0.747(\text{constant}) + 0.298X1 + 0.383X2 + 0.030X3.$$

From the above Table it is inferred that the ad value namely, 'Entertainment' has more impact on the Behavioral Outcome (0.383) followed by 'Information' (0.298). The ad value, 'Irritation' has got the least impact on Behavioral Outcomes (0.030).

Null hypothesis 7: There exists no significant effect of attitudinal outcomes on behavioral outcomes.

Table No.11 Attitudinal outcome on Behavioral Outcome – Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.769	0.591	0.589	0.46089

Source: Primary Data

Table No.12 Attitudinal outcome on Behavioral Outcome – Regression Analysis

S.No	Ad values	Behavioral Outcome				
		Unstandardized coefficients		Standardized coefficients	t value	P value
		Beta Value	Std. Error	Beta		
	(Constant)	1.088	0.125		8.730	0.000
1.	X1	0.684	0.041	0.769	16.716	0.000

Source: Primary Data

The predicted value is 'Attitudinal Outcome'(X1). The multiple R value of 0.769 measures the degree of relationship between the Behavioral Outcome and predicted values of attitudinal outcomes.

R square value is 0.591 which indicates that 59.1% of the variation in the Behavioral Outcome of the respondents is explained by the estimated attitudinal outcomes.

The multiple regression equation is

$$\text{Behavioral Outcome} = 0.684(\text{Constant}) + 0.041X1.$$

It can be inferred from the above table that the attitude of the respondents towards the customized online advertisements and the brand using such advertisements has a significant impact on their behavior.

1.18 FINDINGS

- It is found that out of the two factors of individual level characteristics, promotion focus level of the customers has a significant positive relationship with the advertising values.
- It is found that there exists a positive relationship between Attitudinal Outcome and Entertainment followed by Information. The ad value, 'Irritation' has a negative relationship with attitudinal outcome.
- It is found that the ad value 'Entertainment' has more impact on Attitudinal Outcomes of the respondents followed by 'Information'. The ad value 'Irritation' has got a negative impact on the attitudinal outcomes of the respondents.
- It is found that there exists a positive relationship between Behavioral Outcome and Entertainment followed by Information. The ad value, Irritation has a negative relationship with Behavioral outcome.
- It is found that the ad value 'Entertainment' has more impact on Behavioral Outcome of respondents followed by 'Information'.

- It is found that the attitude of the respondents towards the customized online advertisements and the brand using such advertisements has a significant impact on their behavior.

1.19 CONCLUSION

It can be concluded that the promotion focused people perceive online customized advertisements displayed using the technique of 'Online Behavioral Targeting', positively. Whereas the security risk concerned people perceive such online customized ads negatively as they are concerned about privacy factor. The ad values namely, 'Information' and 'Entertainment' give a positive attitude and behavior towards customized online ads whereas the ad value 'Irritation' gives a negative attitude and behavior. Promotion focused people tend to get attracted by the information and entertainment provided by the online customized ads whereas the risk concerned people tend to get irritated by such ads. Their Attitude in turn has got a significant impact on their behavior towards such online ads.

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