

The Effectiveness of Online Advertising on Consumers' Mind – An Empirical Study

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Abstract

This paper helps to investigate the effectiveness of online advertisement on consumers' mind. The data, which has been obtained from the respondents of Hyderabad, showed an impact on the consumers' perception about the online advertising. A survey was conducted through structured questionnaire to obtain the data from the respondents of University of Hyderabad (UoH) and Maulana Azad National Urdu University (MANUU) situated in Hyderabad. A sample of 200 respondents were gathered with in a time frame of one month and their responses were analyzed with the help of Statistical Package for Social Science (SPSS) by using different statistical techniques in order to know the effectiveness of online advertisement on consumer mind. The outcome shows a positive impact of advertising on consumer's mind.

Keywords: Internet; Online Advertising; Mass Communication; Customer Perception.

1. Introduction

Internet is the hottest medium of exchange of information in today's world. In the entire history of human race there are five major mass communication media – the newspaper, the magazine, the book, the radio and television. Now there is a sixth medium called the internet which is believed to be the greatest of all the media. In today's era, online advertising is very popular because of its ability of reaching to the masses without any geographical boundaries.

Internet advertising is an advertising strategy which includes the application of internet as a means to get hold of website traffic and aim to deliver the marketing messages to the right set of customers. Online advertising emphasis upon defining the market with the help of internet unique and useful applications.

The success of any business entirely depends upon when they are capable of attracting or retaining their customers with profit and this objective can be achieved only when company can build a strong consumer perception for its products and services. Consumer perception is a complex phenomenon. It is very helpful in knowing the attitude and behavior of customers. A well design persuasive advertisement and a positive frame of mind of a consumer perception always tempted the individual in influencing his/her buying behaviour [1].

The selection of a good advertising strategy solely depends upon what kind of perception an organization wants to develop in the mind of consumer and when a positive frame of mind developed, customers are more inclined towards products and services. It is very difficult to survive in this fast moving technological competitive world as because organization needs to build quality advertising strategy and positive perception in the mind of customers. Then only the purpose of above discussed strategy can be served to retain the existing customers and increase the sales volume and

profit margin [2]. In the light of above discussion, one may believe that the online advertising and consumer perception have a significant relationship.

2. Review of Literature

As stated by the Bausch and Han [3], with the introduction of widely held web destinations for example Facebook and MySpace, a new type of internet user's group has now reached at a distinct position in the electronic commerce, called online advertising community. A research report by Tencent [4] advocates that the Google which is one of the largest network site in the world is visited by more than 20,000 million users per month. This enormous base of community users helped Google to earn US\$120.9 billion in online advertising in the year 2008. Hart [5] confirms that by seeing the exponential growth of online advertising, the marketers hope to find new means to harness these online users for fulfilling their purpose of advertisement. Mesure and Griggs [6] established that the marketers willingness to reap long-term and sustainable advertising profit, they realized the unadorned threat that the users of online sites will sense a kind of exploitation if the sites over-run with ads.

Nutely [7] states that the burgeoning online advertising industry is under amassed public threat who is putting pressure in order to maintain a balance between the users' demand for incessant social experiences and the need to earn advertising profits. DeKay [8], Gangadharbatla [9] and Bagozzi and Dholakia [1] tries to speak about the concerns that is being held by community organizers regarding the methods to persuade the users to be engaged in online users group.

In particularly, though a number of electronic commerce research explores the online communities, but a very few study has been conducted the acceptance and perception of members about adver-

tising in online network communities. To get a better insight into this vital sphere of research and application, this study look into the literature on advertising to inspect how the group norms and social identity of online users group may affect the perception and behavioral responses to advertising.

In [10] authors suggested in the internet perspective, customer acquisition and retention through online advertising rests both on the internet penetration growth and application and in what manner the internet effects the adoption and diffusion of products and services [11]. In [12] authors stated that to communicate the information about the product and services, advertisers were usually keen to use the web, they were mostly fretful about the security, privacy issues and uncertain about how the impact of online advertising be measured.

According to [13] managers of website perceived that the web is one of the most popular and economical means of advertising. It is widely used in transforming information, triggering action, generating information about products, brand image etc. Schlosser and Kanfer [14] found extensive difference in attitudes among internet users' towards the advertising on the internet. Pleasure of viewing at web adverts contribute more than the information or application of the web advertising regarding consumer behavior. It shows that the reported perception about the internet adverts were not just a reflection of the demographics of the users of internet.

Ghose & Dou [15] found that the popularity of website depends upon the greater degree of interactivity on the web. However, according to [16], the effectiveness of advertising does not always enhanced by the interactivity but sometimes it can cause an interruption in the process of persuading, particularly when ads are focused.

3. Objectives

- To know the perception of consumer's about the online advertising.
- To determine the factors that is influential in determining the perception regarding the online advertising.
- To understand the role of demographics on the perception of consumer's about the online advertising.

4. Research Hypothesis

H1: Demographic variables (like gender, age, education, income etc.) influence the consumers' perception about online advertising.

H1.a: Gender of the respondent has a positive impact on the consumer's mind about online advertising.

H1.b: Age of the respondent has a positive impact on the consumer's mind about online advertising.

H1.c: Income of the respondent has a positive impact on the consumer's mind about online advertising.

H1.d: Education of the respondent has a positive impact on the consumer's mind about online advertising.

5. Research Methodology

A survey has been conducted to achieve the objectives of the study. To conduct the survey, a structured questionnaire has been prepared. Jones [17] and Missouri S & T [18] found in their study that college students are mostly active on internet, so for the study under consideration students from the universities have been selected to conduct the survey. A purposive sampling method used to gather data from two universities located in the Hyderabad, Telangana. Since the current study is based on online advertisement so the sample for the study has been drawn from the students of two central universities i.e. UoH and MANUU situated in Hyderabad. Gallagher et al [19] found in their study that most of the internet users are students so choosing student as sample is more effective to study the online consumer behavior. In academic research, using students' as sample are widespread practice. Using students as sampling are having advantages such as availability,

cooperation, low-cost and ease of following instructions [20]. After preparation of questionnaire, it has been made available both online and offline to the respondents. A total of 300 questionnaires have been distributed out of which 218 has been received from the respondents that constitute 72.67 percent response rate. A sample size should be at least five times the number of items or indicators [21]-[22] or ten times the number of items [2], [23]. For this study, a sample size of 200 has been selected deemed fit for the analysis after discarding few questionnaire because of incomplete responses. The responses obtained from the respondents have been analysed with the help of suitable statistical tools.

6. Data Analysis and Inferences

6.1. Factor Analysis – In order to know the factors that is influential in determining consumer's mind regarding online advertising, factor analysis has been conducted in order to identify important factors of respondent's perception about online advertising. Factor analysis denotes a class of programmes mainly used for data summarization and reduction by identifying the latent variables. A factor always explains the correlation among a set of variables. To capture the significant factors regarding the perception of respondents about online advertising, Principal Component Analysis (PCA) with Varimax Rotation (VR) has been applied. Moreover, to examine the aptness of factor analysis, KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) is used. The KMO for the study amounts to 0.736 which is considered relevant [24].

Table 1. Total Variance Explained for the Factor Analysis

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.656	33.237	33.237	3.66	33.237	33.237	2.404	21.852	21.852
2	1.481	13.461	46.698	1.48	13.461	46.698	2.308	20.985	42.838
3	1.29	11.724	58.422	1.29	11.724	58.422	1.55	14.094	56.932
4	1.092	9.927	68.349	1.09	9.927	68.349	1.256	11.417	68.349
5	0.802	7.288	75.637						
6	0.638	5.797	81.434						
7	0.52	4.725	86.159						
8	0.491	4.461	90.62						
9	0.427	3.879	94.499						
10	0.415	3.776	98.276						
11	0.19	1.724	100						

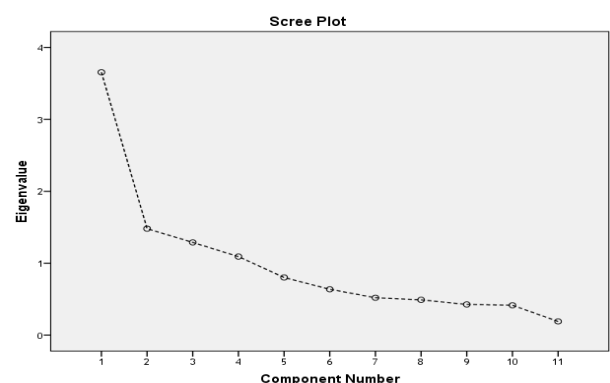


Fig. 1. Scree Plot of the Component

A scree plot (Figure 1) has been employed to supplement the selection of factors. From the scree plot, a distinct break occurs from the fourth to fifth factor. This signifies that four factors shall be obtained as experimental evidence that indicates the point where the scree begins denotes the true number of factors. The principal components are sorted in decreasing order of variance, so the most important principal component is always listed first. The principal components method using varimax rotation reduced the eleven explanatory variables to four factors. The cumulative percentage of variance accounted for 68.34% which has been shown in Table 1. After conducting the factor analysis by applying the PCA and

the VR method with Kaiser Normalization, four factors came in light. These four factors constitute the basis for understanding of the respondents' perception about the online advertising. After conducting the factor analysis by applying the PCA and the VR

method with Kaiser Normalization, four factors came in light. These four factors constitute the basis for understanding of the respondents' perception about the online advertising.

Table 2. Rotated Component Matrix of the Factor Analysis

	Factors			
	F1-Economical and Beneficial	F2-Negative Attitude	F3-Product Information	F4-Brand Image
Online advertising plays an essential role in economy	.701	.021	.338	.103
Online Advertising is valuable source of information	.729	.104	.059	-.039
Online advertising is sometime misleading	.204	.891	.046	.122
Online advertising does not provide the true picture of the products/services advertised	.254	.738	.095	.299
Online advertising keeps me upto date about products/services available in the market place	.242	.148	.794	-.105
Online advertising promotes competition which lowers prices and ultimately benefits the consumers	.645	.008	.067	.425
Online advertising helps to raise the standard of our living	.699	.246	-.061	.114
Online advertising of some products have negative effects on our society	-.032	.814	.124	-.097
Online advertising creates brand image	.209	.227	.089	.827
Online advertising provides information about the products/services	-.014	.071	.851	.151
Online advertising is valuable source of information about the local sales	.516	.398	.190	-.467

The respondents that shaped the first factor have been called economical and beneficial. They think that the online advertising is a valuable source of information and plays a vital role in economy. It provides information about the local sales also. The respondents believe that online advertising promotes competition, which lowers prices and ultimately benefiting customers and raising their standard of life.

The second factor has been entitled as negative attitude because the respondents' sometime feels online advertising misleading and do not provide the actual picture of the product or services advertised. The respondents also sense a negative kind of effect on the society due to some of the online advertising.

The third factor has been entitled as product information because respondents perceive that online ads provides information about the products or services and keeps them up to date about the products or services that are being offered to them through the online advertising. The fourth factor has been named as brand image because online advertising creates a brand image on the minds of the respondents.

5.2. *Chi-square Test* - To understand the role of demographics on the perception of consumer's about the online advertising.

Chi-square test has been performed to test the hypotheses regarding the influence of demographics on the perception of the respondents about the online advertising. The summary of the test has been shown in the below table – 3.

Table 3. Role of Demographic on the Perception of Respondents' regarding Online Advertising

Hypotheses	Demographic Variable	Chi-square Value	Sig. Value	Null hypothesis Status (at $\alpha=0.05$)	Hy- (at $\alpha=0.05$)
H1.a	Gender	1.382	.847	Not	Reject-
H1.b	Age	16.307	.432	Not	Reject-
H1.c	Income	9.415	.667	Not	Reject-
H1.d	Education	28.733	.093	Not	Reject-

From the above summarized table, the asymptotic significance of the Chi-square statistic is more than 0.05 for all the hypotheses (i.e. H1.a, H1.b, H1.c & H1.d); hence there is no significance relationship between demographic (i.e. Gender, Age, Income & Education) of the respondents and their perception about the online advertising. Therefore, H1 (a, b, c & d) is rejected on the ground of data interpretation and cause result, hence H0 is accepted.

7. Conclusion

The interconnectivity of the consumers and marketers are facilitated by technology and especially internet plays a vital role in this technological advanced era of e-commerce. The dissemination of information through the online advertisement about the products/services to the target consumers' have an impact on the perception of the consumer as it is inconsistent with the earlier study carried out by Schlosser and Kanfer. The outcome of the data analysis showed that respondents have a perception of intrusion/incursion regarding online advertising. The respondent generally perceives online advertising as beneficial and economic, yet they dislike online advertising. This may be because of their beliefs towards advertising on traditional media like newspaper, radio and television. The contribution of this research paper is to highlight the role of online advertising and its effectiveness on consumers' perception.

Limitations and Scope for Future Research

The research study is confined up to Hyderabad city only due to shortage of time and financial constraints. Apart from this, other metropolitan city may be considered in forthcoming research in order to get better insight. The sample have been collected from a single city but with the help of large sample size much better and comprehensive result can be obtained

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