

Analyzing The Most Efficient Way Of Advertisement To Aware People About The Adverse Impact Of It On Environment

Dr. Sarita Rathi, Kavita Rathi

Abstract : Advertisement is the most important part of the promotion mix. It plays a vibrant role in spreading awareness about product or service. Growing competition has made advertisement very important to place the product in customers mind. It is the most significant, easy and well-known way to make customers aware of the products or services. It affects and influence the buying behavior of a customer to a great extent and makes the customer to buy the product even if it is not immediately required or needed. This study aims to examine the most efficient way of advertisement to make the consumers aware about the adverse impact of IT on environment in order to increase their concern for health and environment protection. One way ANOVA test has been used with occupation and age of the respondents to test the hypothesis that "Is there any statistically significant difference between demographic profile of a user and way of advertisement preferred by the user". The result of the test shows that there is a significant relationship between occupation and age of user and advertisement mode the user get influenced with.

Index Terms: Advertisement, Communication, Environment, Information Technology

1. INTRODUCTION

What is advertisement and how it affects people?

The advertisement is a way to promote a product or service in the market to invite customers for buying a particular product or service. An advertisement is a paid and non-personal form of communication between company and customer, with the help of which, a company tries to give a message to persuade the customers to buy the product or service. In this era, it is very important to place a product or service in front of the customers in such a way that forces or lures the customers to get attracted towards the product and spend money on it. To attract customers, an advertisement should be creative, clear, informative and well executed. [1] The main purpose of the advertisement is to encourage the buyers to buy the product or service. Advertisements target on customers mental, emotional and physical activities to influence, enthuse and inspire them for buying the product or service. The appeal of advertisement should be positive and unbiased. [2] A positive, impartial and emotional appeal builds a strong image of product or service in the customer's mind. [3]

2. IMPORTANCE OF ADVERTISEMENT

People normally get influenced by what they see and think; advertisements drive their thinking. When a customer sees any advertisement, he gets influenced by it and starts thinking about it. Not only human buying habits, but an advertisement also influences the culture, living standard and social status of a person. [3] There are thousands of similar products available in the market. A customer buys the product which is being advertised more, as he only remembers the product which he repeatedly sees.

Customers get convinced easily to buy a product if they have heard about it earlier. [4] To sell a product or service, it is important to promote it and to communicate customers its uses, advantages, effects and benefits. The advertisement is a way to communicate with the mass audience. It is fast, easy, effective, and standard way to promote the sale, attract customers, and to build a market for the product. [5] Advertisements in newspapers, magazines, Televisions, radio, street banners are the traditional ways of advertisements. [6] Now a day's online display of advertisement is in trend, as the internet is being used by most of the people. On websites, advertisements are displayed in various forms such as banner ads, pop-up ads, text ads etc. advertisements using the internet is the most popular way of promoting things these days. [7]

3. HOW ADVERTISEMENTS AFFECTS BUYING PATTERN

Advertisements are used by the companies to influence buyer's decision or to persuade them to buy the product or service with the help of eye-catching, inventive and inspiring ideas. [1] An advertisement is a marketing tool which is used to promote a product or service among the customers. Before designing an advertisement, a marketer analyzes the customer's requirements and needs, so that advertisement can touch and appeal to the customer's emotions and allures him to pay for the product, as the advertisement will project the product according to the customer's requirement. So, a detailed market research is required before designing and launching the advertisement. [8] Involvements of celebrities in the advertisements make the product more popular among the audience as the buyers start connecting the feature of the product with the personality of the celebrity. Effective, artistic, ingenious and creative advertisements help to increase the sale of the product. [9] While watching any movie, serial, news etc. we see advertisements on television for various products or services. These advertisements repeat in every break and viewers gets inclined and influenced by these ads. To make advertisements effective and attractive, famous models are used in the ads so that people can relate that personality to that product and sales of product gets high. [10] An advertisement is not only used to increase sales and

- Dr. Sarita Rathi, Ph.D, Department of Management Studies, Amity University, Noida, India. E-mail: rathisarita@gmail.com
- Kavita Rathi, Faculty, Department of Computer Science Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Haryana, India. E-mail: kavita1217@gmail.com

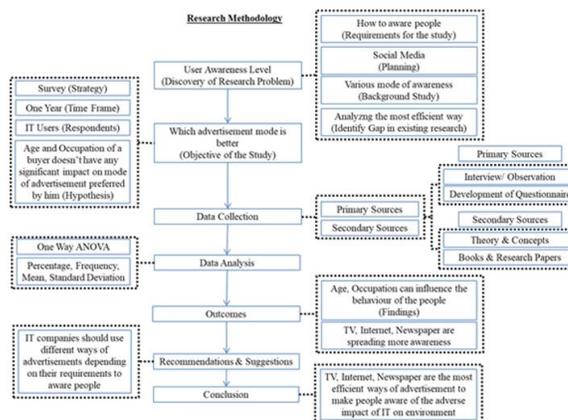
encourage customers to buy the product or service, however, it is also used to build market value and reputation of a firm. It makes customers to purchase the goods or service again in future and spread positive words of mouth about the firm. [11]

4. ADVERSE IMPACT OF IT ON ENVIRONMENT

India is a demographic country and it is developing very fast. Urbanization, globalization, and liberalization are making Indian economy strong. Information technology plays a vital role in this achievement and development. IT has made the lives of a human being simple and more productive. Apart from several successes in growth, it is also facing many problems such as increasing pollution, global warming, climate change, ozone layer depletion, resource scarcity etc. Growth in information and communication technology is also one of the reasons for these problems. Industrialization, urbanism, automation, transportation are responsible for this increasing pollution. To maintain sustainable economic growth, this increasing pollution should be controlled. [12] To control the adverse effects of technological changes; control over the operations is not sufficient as IT products are polluting the environment and affecting human health during its whole lifecycle. Even at disposal stage, it creates e-waste, which is harmful to the environment. [13] To reduce this harmful effect, awareness regarding environmental education should be spread from primary stages such as schools, colleges, and universities. Main sources to spread awareness among students are TV, radio, newspaper, internet and social media sites. These discussions show how advertisements can help in making people aware regarding environmental policies, importance and need to save environment from the adverse impact of IT and the effects of growing technology on environment. [14]

5. RESEARCH METHODOLOGY

Data from both primary and secondary sources have been collected. To collect primary data a structured questionnaire has been designed. Sample size of the study is 2000 IT users of NCR (Delhi, Gurgaon, Noida, and Faridabad). To analyze the data SPSS software is used and many other statistical computations have been used such as one-way ANOVA, mean, standard deviation, percentage etc. To give a better understanding of the data histogram and clustered bar charts have also been included. During the survey, multiple choice questions were asked from respondent's about their preferences in advertisement modes such as TV, internet, newspaper, magazine, friends, and family. In all questions, five choices were given and responses of all questions were recorded and analyzed with respect to the demographics of the respondents.

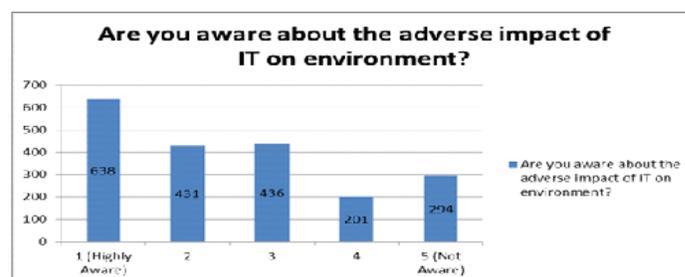


6. DATA ANALYSIS AND INTERPRETATION

6.1 Are you aware of the adverse impact of IT on the environment?

Results-

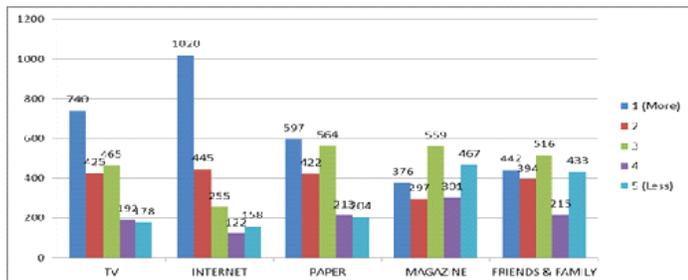
	Frequency	Percent	Valid Percent	Cumulative Percent
Highly aware	638	31.9	31.9	31.9
2	431	21.6	21.6	53.5
3	436	21.8	21.8	75.3
4	201	10.1	10.1	85.3
Not aware	294	14.7	14.7	100.0
Total	2000	100.0	100.0	



The table above shows that 31.9 percent i.e. 638 respondents out of 2000 respondents said that they are highly aware of the adverse impact of IT on the environment. 21.6 percent i.e. 431 respondents said that they are just aware of the adverse impact of IT on the environment. 21.8 percent i.e. 436 respondents gave moderate response and 10.1 i.e. 201 respondents said that they hardly know about the adverse impact of IT on the environment. 14.7 percent i.e. 294 respondents said that they are not at all aware of the adverse impact of IT on environment.

6.2 From where did you get the awareness about adverse impact of IT on the environment?

Results-



Most of the respondents replied that they get awareness about the adverse impact of IT on the environment from the internet most and then followed by TV, new papers, friends & family, and magazines. All the above-mentioned sources provide awareness but the awareness sources preferences of every individual are

different. Their preferences differ according to their demographic profile, society, attitude, knowledge, the importance of the product to the user etc.

7. HYPOTHESIS

7.1 Hypothesis 1

Null Hypothesis-

Occupation of a buyer doesn't have any significant impact on mode of advertisement preferred by him.

Alternative Hypothesis-

Occupation of a buyer has a significant impact on mode of advertisement preferred by him. 2000 IT users are asked that from which mode they get more awareness about the adverse impact of IT on the environment. To compare the means between groups analysis of variance (one-way ANOVA) is used.

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
From where did you get this awareness? [TV]	Between Groups	38.090	3	12.697	7.610	.000
	Within Groups	3330.186	1996	1.668		
	Total	3368.275	1999			
From where did you get this awareness? [Internet]	Between Groups	5.270	3	1.757	1.103	.347
	Within Groups	3178.625	1996	1.592		
	Total	3183.896	1999			
From where did you get this awareness? [Newspaper]	Between Groups	55.373	3	18.458	11.203	.000
	Within Groups	3288.614	1996	1.648		
	Total	3343.987	1999			
From where did you get this awareness? [Magazine]	Between Groups	60.662	3	20.221	10.370	.000
	Within Groups	3892.040	1996	1.950		
	Total	3952.702	1999			
From where did you get this awareness? [Friends & Family]	Between Groups	75.589	3	25.196	12.529	.000
	Within Groups	4014.007	1996	2.011		
	Total	4089.595	1999			

A one-way ANOVA is used to determine the relationship between various occupation groups i.e. students, teachers, professors, IT employees, and other IT users (other IT users includes non-teaching staff, home user, doctor, lawyer, banker) and most preferred mode of advertisement by them. ANOVA table shows that p-value is .001 in most of the cases, which is less than the alpha value (.05). So it concludes that there is a significant difference between occupation of a user and mode of advertisement preferred by him.

From where did you get the awareness about the adverse impact of IT on the environment?

Statistics of occupation and TV
 $F(3,1996)=7.610, p=.001$

Statistics of occupation and internet
 $F(3,1996)=1.103, p=.347$

Statistics of occupation and newspaper
 $F(3,1996)=11.203, p=.001$

Statistics of occupation and magazine
 $F(3,1996)=10.370, p=.001$

Statistics of occupation and friends and family
 $F(3,1996)=12.529, p=.001$

The result shows that occupation of a user has a significant impact on mode of advertisement preferred by him to get awareness about the adverse effect of IT on the environment.

7.2 Hypothesis 2

Null Hypothesis-

Age of a buyer doesn't have any significant impact on mode of advertisement preferred by him.

Alternative Hypothesis-

Age of a buyer has a significant impact on mode of advertisement preferred by him.

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
From where did you get this awareness? [TV]	Between Groups	26.401	3	8.800	5.256	.001
	Within Groups	3341.875	1996	1.674		
	Total	3368.275	1999			
From where did you get this awareness? [Internet]	Between Groups	29.313	3	9.771	6.182	.000
	Within Groups	3154.583	1996	1.580		
	Total	3183.896	1999			
From where did you get this awareness? [Newspaper]	Between Groups	32.106	3	10.702	6.450	.000
	Within Groups	3311.881	1996	1.659		
	Total	3343.987	1999			
From where did you get this awareness? [Magazine]	Between Groups	31.913	3	10.638	5.415	.001
	Within Groups	3920.789	1996	1.964		
	Total	3952.702	1999			
From where did you get this awareness? [Friends & Family]	Between Groups	59.667	3	19.889	9.851	.000
	Within Groups	4029.929	1996	2.019		
	Total	4089.595	1999			

A one-way ANOVA is used to determine the relationship between various age groups i.e. 20 years & below, 21-35 years, 36-50 years, and 50 years & above and mode of advertisement preferred by them. ANOVA table shows that p-value is .001 in all cases, which is less than the alpha value (.05). So it concludes that there is a significant difference between the age of a user and mode of advertisement preferred by him.

From where did you get the awareness about the adverse impact of IT on the environment?

Statistics of age and TV
F(3,1996)=5.256, p=.001

Statistics of age and internet
F(3,1996)=6.182, p=.001

Statistics of age and newspaper
F(3,1996)=6.450, p=.001

Statistics of age and magazine
F(3,1996)=5.415, p=.001

Statistics of age and friends and family
F(3,1996)=9.851, p=.001

The result shows that age has a significant impact on mode of advertisement preferred by the users to get awareness about the adverse effect of IT on the environment.

8. DISCUSSION AND CONCLUSION

This research is conducted to find out the most efficient way of advertisement to make people aware of the adverse impact of IT on environment. The study reveals that there are two main factors i.e. occupation and age, which can influence the behavior of the people but these two factors are not the only reason which can influence the behaviors of the people. The

research is conducted in NCR (Delhi, Noida, Gurgaon, Faridabad) and 2000 respondents (IT Users) are targeted. The result of the survey shows that which advertisement medium is most suitable to make people aware of the adverse impact of IT on the environment. The result of the above survey shows that most of the respondents said that they get awareness about the adverse effects of IT on the environment through TV, the internet, and newspaper followed by magazines and friends & family. According to the age and occupation of the user's, TV, internet, and newspaper are the most preferred way of advertisement. Some respondents mentioned that they get awareness from other sources also, like books, their teachers, posters, and hoardings. With respect to occupation, more than 1100 respondents gave internet as their first choice in the most preferred way of advertisement and more than 750 respondents gave TV as their first choice in the most preferred way of advertisement. According to various age groups also TV, the internet, and newspaper are the most preferred way of advertisement. With respect to age, more than 1000 respondents gave internet as their first choice in the most preferred way of advertisement and more than 750 respondents gave TV as their first choice in the most preferred way of advertisement. In the end, the paper concludes that advertisement is the best way to make the people aware about adverse effects of IT on the environment. So, IT companies should use different ways of advertisements depending on their requirements to aware people about their products, usage, and maintenance of the products, their impact on environment and the ways to handle these negative effects in an environmental friendly way like modified process, reuse, disposal, and repair etc. According to the respondents of the study, internet, TV, and newspaper are the most efficient way of advertisement. So this can be of great help for the companies to spread awareness to the people at large.

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