

**INFLUENCE OF ADVERTISEMENT BY CELLULAR SERVICES PROVIDER
COMPANIES ON CUSTOMERS PURCHASE BEHAVIOR IN GSM, PREPAID
SEGMENT**

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Abstract

After the privatization in the telecommunication, as the private companies enter the mobile services, that result into very strong competition between the cellular companies. These companies are providing almost same sort of services, pioneered by one of them, to the customers. So in order to differentiate one's services companies are investing huge amounts on the sale promotions activities of their product and services. Advertisements are the most prominent part of these sales promotion activities. A big part of the companies total budget are used for the sale promotion activities out of which a large chunk is used only for the advertisement. Also the advertisement in all its stages requires great deal of efforts and various companies resources are tied up with it. Also the advertisements are targeted not only to attract the customers but to persuade them to buy companies product and services.

This can be done if the advertisements are able show them the benefits over competitors. Companies like VODAFONE, AIRTEL , IDEA, BSNL, RELIANCE INFOCOMM, TATA INDICOM are using different types of advertisement medias like Electronics (Televisions, Radio, Internet), Print (Newspapers, Magazines, Pamphlets), and Outdoors(Hoardings, Wall paintings) to advertise their product and services (In this study we are dealing with the GSM, PREPAID services providers only) Advertisement is indeed the only direct method which helps to reach the masses of potential buyers in cost effective manner.

Companies are using the advertisement most prominently for their benefits, spending huge amounts on the advertisements. Also advertisements are targeted to change the customers attitude towards the companies it is very important for the companies to keep a check on the advertisements performance I.e. are able to bring a positive attitude towards a company and to measure what impact the advertisement are having on the Customers purchase behaviours and it

is insecure to know its impact.

Keywords: Advertisement, Impact, Product, Services, Telecommunication.

PROBLEM STATEMENT

The advertisers' keen interest in evaluating the impact of advertisement seems logical, but many people have raised doubts about its validity. They argue that for the most part, advertisement is an art and which can't be measured with a mathematical formula. Whatever the reasons are against testing, two things as considered earlier are certain- one that it has become a potent tool for increasing sales and second is that a large sum of money is being spent. Since separate funds are allocated to promotions, now advertisers demand an evidence that advertisements, they are doing are really paying.

This project is a small step in this direction. In the study subject revolves around the response of the customers to the advertisements, which they depict in their purchase behavior.

OBJECTIVES OF THE STUDY

Objective is the pre-requisite of any research. All the researches are carried out with an objective in mind, which give direction to the research. As my project is related to study of influence of advertisements by cellular companies on customer purchase behaviour, the various objectives of the study are:-

- To find out whether the advertisements are able to build awareness about the brands.
- To know whether these advertisements are able to persuade the customers to purchase the particular services.
- To know whether advertisements are able to create loyalty i.e. reinforcement of purchase behaviour.
- To analyse the relation between the advertisements and the customers purchase behaviour.
- To know whether advertisements affect equally to all the age groups.

RESEARCH DESIGN

This study is Analytical in nature. Analytical study means we have to analyze the things, which already exist. We have to analyze the things and interpret the result. It is an attempt to obtain a complete and accurate description of a situation. Precise statement of the problem indicates what

information is required.

THE HYPOTHESIS

H₀: The study assumes that there is a positive correlation between advertisement and the purchase behaviour.

H₁: The study assumes that there is no positive correlation between advertisement and the purchase behaviour.

SCOPE OF STUDY

The scope of study covers all the advertisements that are launched by cellular companies in India. The study covers the following cities Karnal, Panipat and Sonapat in Haryana. This study will be beneficial for the cellular companies and also the customers.

DATA COLLECTION

There are several ways of collecting the appropriate data, which may differ considerably in context of money costs, time and other resources at the disposed of the researcher. Broadly data collection methods can be divided in two categories:

- Primary Source
- Secondary Source

Primary Data: For collecting primary data a questionnaire for the customers is being prepared, and that is being used to collect the data from every individual. Customers are being intertwined with the help of the questionnaire and it provides very important information for the study.

Secondary Data:

- Books
- Journals
- Internet
- Magazines
- Newspapers
- Reports and previous Studies

The Sample: Customer's survey has been conducted. The sample size for the customers is 150 and the study is being conducted in following cities Karnal, Panipat and Sonapat. Customers are contacted personally and data is being collected with the help of structured questionnaires.

TOOLS FOR ANALYSIS

The data that is being collected is being analysed to obtain certain results out of it by using

various tolls like CHI-SQUARE Test, to ascertain the significance of the argument that advertisements influence different age group differently.

The formula used here for CHI-SQUARE is:-

$$\text{Chi-Square} = \frac{(O-E)^2}{E}$$

Where O – Observed Frequency

And E – Expected Frequency

Also in order to find out the correlation between advertisements and the various factors like awareness, liking, interest, persuasion and reinforcement, the Group Correlation has been used.

The formula to find out Group Correlation is:

$$r = \frac{N \sum f_x f_y - \sum f_x \sum f_y}{\sqrt{N \sum f_x^2 - (\sum f_x)^2} \sqrt{N \sum f_y^2 - (\sum f_y)^2}}$$

N = Total Number of respondents

- And to find out the significance of the results that is being found out by the Group Correlation t-test is being used.

The formula for t:-

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where r = Value observed in group correlation and n = number of respondents

CONSTRAINTS OF THE STUDY

Customers may not always follow what they have stated in their response. Thus the degree of reliability of response can't always be taken as accurate and sound. The study can be constrained with limitations.

1. The sample size of the respondents is 150 which was very small.
2. The study was limited to the selected cities of Haryana means to very small geographical area.
3. The period of study was limited.
4. As the data is being collected with the help of questionnaire, which consists of certain questions, that was used to intertwined customers, they may be biased in their response.

5. The chances of human error can't be neglected.

DATA ANALYSIS

The research project has been done to evaluate the impact of advertising on the customer purchase behaviour. To evaluate the advertisements impact the customers are served with the help of a questionnaire, which tends to observe the customers behaviour. The data is being collected by personal interview with the respondents through this questionnaire.

The data, which is being collected, tends to show that:

The total numbers of the respondents are- 150

TABLE: 1

Services Providers	No. of users
AIRTEL	48
BSNL	36
IDEA	24
VODAFONE	42

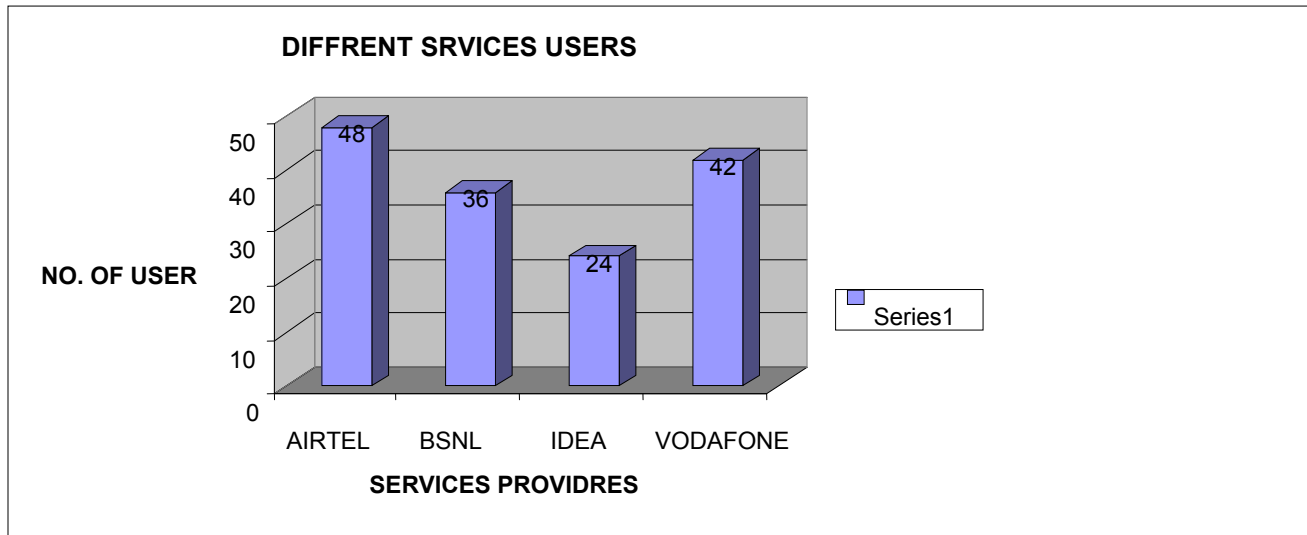


FIGURE 1: Graph showing number of user of different services providers

Customers provides their views on the 5 point likert scale that is

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

TABLE: 2 showing customers response towards advertisements on Likert Scale

Scaling Factors	No. of Respondents
Strongly Agree	38
Agree	52
Neutral	39
Disagree	12
Strongly Disagree	9

Age wise response of the respondents:-

TABLE: 3(a) Age wise response of the respondents

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
<20	8	9	5	1	1	24
20-25	12	16	8	2	1	39
25-30	9	12	10	3	1	35
30-35	5	8	7	3	3	26
>35	4	7	9	3	3	26
Total	38	52	39	12	9	150

NOTE: - Table above state that, out of total 150 respondents 24 respondents are below 20 years age, 39 are within 20-25, 35 are within 25-30, 26 are within 30-35 and 26 are above the age of 35 years. Out of which 38 strongly agree that they consider advertisements while purchasing, 52 are Agree, 39 are neutral ion this case, 12 are Disagree and 9 respondents are Strongly Disagree. So, it clearly depict that the different age group customers have different response towards advertisements. So, this concludes that advertisements influence differently to different age groups. To prove this we can use CHI-SQUARE Test, to test the truthfulness of this statement.

So, using CHI-SQUARE Test on the data of TABLE: 3

CHI-SQUARE TEST

Hypothesis: - Advertisements does not influence equally to different age groups.

Step:-1- To find the expected frequency from the available data.

TABLE: 3(b) Expected Frequency Table

6.08	8.32	6.24	1.92	1.44	24
9.88	13.52	10.14	3.12	2.34	39
8.86	12.13	9.1	2.8	2.1	34.99
6.58	9.01	6.76	2.08	1.56	25.99
6.58	9.01	6.76	2.08	1.56	25.99
37.98	51.99	39	12	9	150 (apx)

Expected Frequency = Row Total * Column Total / Total frequency

For Example:-

$$R_{11} = 24 * 37.98 / 150 = 6.08$$

R- Row , C-Column

Step:-2 Calculating Value of Chi-Square.

For this we have to calculate:-

1. value of O-E
2. Value of $(O-E)^2$
3. Value of $(O-E)^2/E$

TABLE: 3(c)- Showing calculated value of Chi-Square

Original Frequency(O)	Expected Frequency(E)	O-E	$(O-E)^2$	$(O-E)^2/E$
5	6.1	-1.10	1.21	0.20
4	3.89	-0.11	0.12	0.03
6	5.0	1.0	1.0	0.20
7	5.83	1.17	1.37	0.34
3	4.16	-1.16	2.56	0.62
6	6.1	-0.01	0.01	0.01
5	3.89	1.11	1.23	0.32
4	5.0	-1.0	1.0	0.20
6	5.83	0.17	0.03	0.01
4	4.16	-0.16	0.03	0.01
2	2.44	-0.44	0.19	0.08
1	1.56	-0.56	0.31	0.20
3	2.0	1.0	1.0	0.50
2	2.33	-0.33	0.11	0.05
2	1.67	0.33	0.11	0.07
3	3.67	-0.67	0.45	0.12
2	2.30	-0.30	0.09	0.04
4	3.0	1.0	1.0	0.33
3	3.50	-0.50	0.25	0.07
3	2.50	0.50	0.25	0.10
6	3.67	2.33	5.43	1.48
2	2.30	-0.30	0.09	0.04
1	3.0	-2.0	4.0	1.33
3	3.5	-0.50	0.25	0.07
3	2.5	0.50	0.25	0.10

TOTAL				6.52
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	Airtel	Bsnl	Idea	Vodafone	Total
Awareness only	14	7	3	10	34
Interest	18	10	6	12	46
Liking over others	10	8	9	6	33
Persuade To Purchase	3	10	4	12	29
Reinforcement	3	1	2	2	8
Total	48	36	24	42	150

Calculated Value= 6.52

For Table Value:

Here r = 5 and c = 5

V= (5-1)* (5-1) = 16

V= (r-1)*(c-1)

Table Value (at V=16 at 0.05 significant levels) = 26.3

Since, Table Value > Calculated Value, Hypothesis is true.

Hence it can be said that, Advertising influence differently to different age groups.

Q:-3 Advertisements are able to create

(a) Awareness Only (b) Interest (c) Liking over others (d) Persuade to Purchase (e) Reinforcement

The tables below show that the different user of different services providers have different point of views towards advertisements. As it is proved in last section that advertisements influence different users differently, the table below tends to depict that different services providers ads have different degree of influence on customers.

TABLE: 4(a) showing the company wise data of influence of advertisements, according to customer's point of view.

So, it can be said that there is a correlation between all these factors and the advertisements by the companies. So, we will use **Group correlation** on the data to check the significance of the relation.

TABLE: 4(b)

		Aitel	Bsnl	Idea	Vodafone	Others				
		2	1	0	-1	-2	f	fdy	fdy	fdxdy
Awarenes	2	14(56)	7	3	10 (-20)	0 (0)	34	68	136	50

s			(14	(0							
Interest	1	18(36	10 (10	6 (0	12 (-12	0 (0	46	46	46	34	
Liking	0	10 (0	8 (0	9 (0	6 (0	0 (0	33	0	0	0	
Persuasio n	-1	3 (- 6	10 (-10	4 (0	12 (12	0 (0	29	-29	29	-4	
Reinforce ment	-2	3 (- 12	1 (-2	2 (0	2 (4	0 (0	8	-16	32	-10	
	f	48	36	24	42	0	f=15 0	fdy= 69	fdy=2 43	fdxdy =70	
	fdx	96	36	0	-42	0	fdx= 90				
	fdx	192	36	0	42	0	fdx= 270				
	fdx dy	74	12	0	-16	0	fdxdy=70				

Here N=150, fdxdy = 70, fdx = 90, fdx =270 fdy = 69, fdy = 243

r = 0.134

Since the value of $r > 0$, it means that there is a positive correlation between all the factors and the advertisements. But the level of significance may be low. So to check the level of significance of value of r , we can use **t-test**.

t = 1.66

Since $t > 0$, it means value of r is very significant. Hence, there is a positive correlation between all the factors and the advertisements.

What attributes of advertisement influence the customers?

Ans: Total Respondents = 150

TABLE: 5 showing customers liking for advertisements attributes.

Attributes of Advertisements	No. of Respondents
Celebrity	36
Appeals	18
Information	69
Presentation	21
Others	6
Total	150

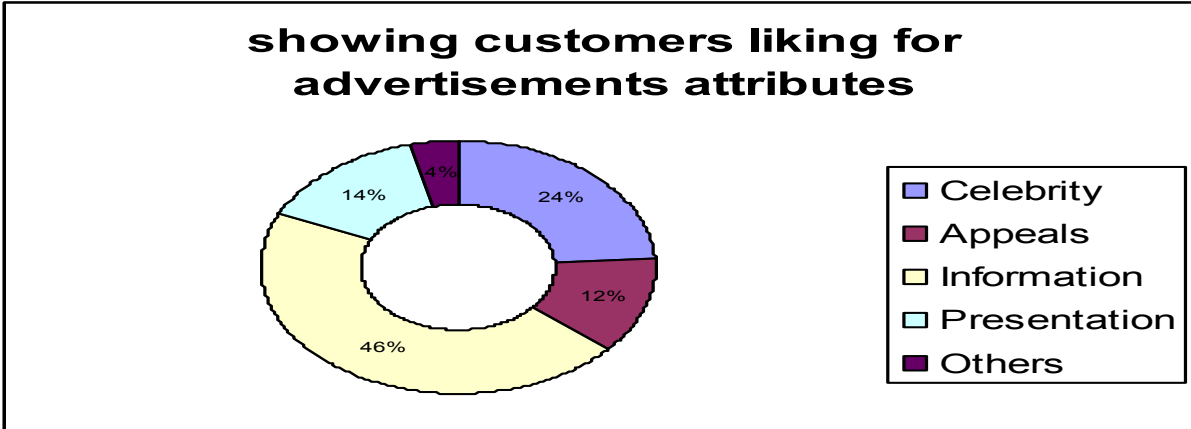


Chart (a) showing customers liking for advertisements attributes

It's clear from the above chart that people are more interested in receiving important information from the advertisements. As 46% of total respondents like the kind of information provided to them by advertisements, followed by 24% by celebrity and 14%, 12% by presentation of ads and the kinds of appeals used in the advertisements. So the advertisements which are able to provide a lot of information to the customer can prove to be very effective in converting the customer for the brand.

The effective advertisement media?

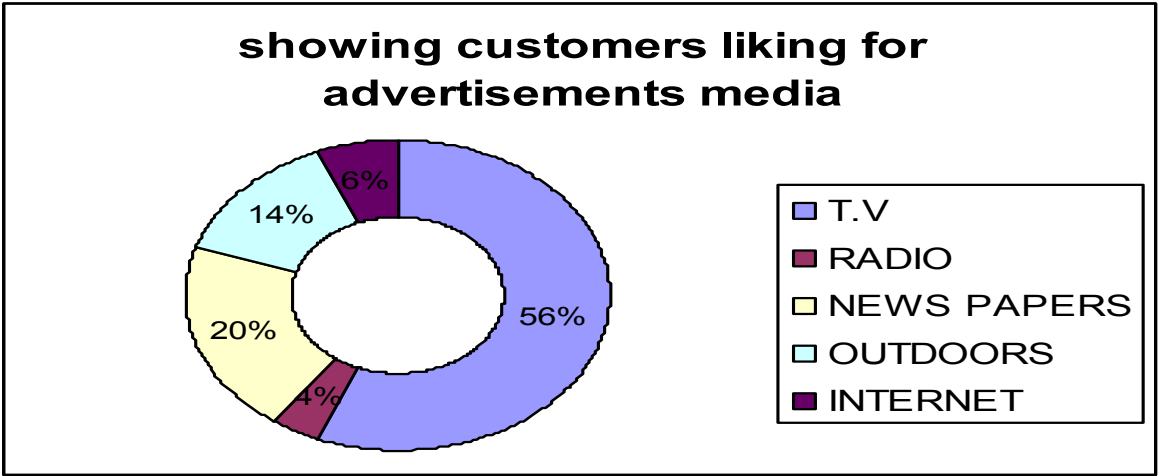
Total Respondents = 150

TABLE: 6 showing customers liking for advertisements Media.

Media	No. of Respondents
T.V	84
RADIO	6
NEWS PAPERS	30
OUTDOORS	21
INTERNET	9
Total	150

The above table suggest that out of total 150 respondents most of them think that T.V is the most effective media for the advertisements for the cellular companies. This can be shown with the help of pie-chart.

Pie-Chart (b) showing customers liking for advertisements MEDIA



It's clear from the above chart that most of the people think that T.V is the most effective media for the advertisements. As 56% of total respondents think that they like to see T.V commercial, followed by Newspapers with 20% of total population, 14% like outdoor advertisements by the companies, 6% think internet, and Radio is perceived to be least effective media in case of cellular companies with 4% out of total population. So, a good combination of all these media can enhance the effectiveness of the advertisement.

FINDINGS & INTERPERTATION

As the research project has been done with certain objectives, it helps in evaluating the influence of the advertising on the customer's behaviour. As To evaluate the advertisements impact the customers are served with the help of a questionnaire, which provides a lot of information , on the basis of which it is found that:-

- Results from the TABLE: 3(a), (b) & (c) clearly depicts that out of total 150 respondent which are divided on the basis of their age ranging from <20, 20-25, 25-30, 30-35 and >35, 38 respondents state that they are strongly agree that they consider advertisements while purchasing, 52 respondent state Agree, 39 state Neutral, 12 are Disagree and 9 are strongly disagree with it. It means different age group are affected differently by advertisements. Also, the CHI-SQUARE test in table 3(c) proves it that the advertising done by the cellular companies are not equally perceived i.e. perceived differently by different age group users.
- TABLE: 4(a), (b) show that out of total 150 respondents 48 are AIRTEL subscriber, 36 are BSNL's, 24 of IDEA and 42 are of VODAFONE and out of which 34 state that advertisements are able to create awareness only, 46 state interest, 33 said it carets liking

over others, 29 are of views that it persuade to purchase and 8 respondents state that advertisements are able to reinforce the purchase decision. It means advertisements are effective in one of, but degree of influence varies individual to individual. Also the group correlation in table 4(b) , proves that there is a positive correlation between the advertisings and the factors like:

- Awareness
 - Interest
 - Likings
 - Persuasion
 - Reinforcement
- Hence, TABLE: 4(a), (b) show that the different user of different service providers are having different views regarding advertisements as stated in last point but they accept that advertisements are able to influence individuals to some or more extent. So it proved that advertisements are able to create:
- Awareness among the population.
 - It Gain Interest of the customers.
 - Induce Liking over others.
 - Persuade to purchase.
 - Reinforcement of the decisions by customers.

TABLE: 5 and Chart (a), tends to show that out of 150 respondents a big group of them think that information that is being provided by the advertisements are the most important attribute and they looked for the more and more information in the advertisements as 46% of respondent think so, followed by 24% think for celebrity as the most influencer attribute of the advertisement, 14% are of view that presentation is most attractive and influencer, whereas 12% of the respondents are of view that it is the appeals in advertisements which led them buy something .

TABLE: 6 and Chart (b), tends to show that out of total 150 respondents more then the half population are of view that **TV is the most effective advertising media** out of all other traditional mass advertising media. Table suggest that out of total 150 , 56% of the respondents think that TV is most effective media in delivering the advertisements, whereas it is followed by Newspapers with 20%, Outdoor advertisements which includes hoardings, wall paintings etc

with 14%, Internet as a advertising media for cellular services providers with 6% and the least effective is Radio with 4% of people in favour of it..

So, these are the certain findings of the research project, which are in line with the research objectives, mentioned earlier in the study. These finding are based on the data that is being collected from the various respondents with the help of a questionnaire, in the cities Karnal, Panipat and Sonapat, Haryana

CONCLUSION

Privatisation in the telecom industry way back in India marked the new era of development of the industry. As it opened the doors to the industry for the various private players, leads to cut-throat competition in the market for all the players. The various from the private sector came into existence in the cellular industry. Big names like Bharti group's AIRTEL, govt's BSNL, VODAFONE, IDEA and many more are now very important part of the cellular industry in India.

The cellular service providers are providing a number of services to the customers. The customers are informed about the brand and the product or services by the means of advertisements. As the market is very competitive every company is spending a bib chunk of its total budget on the development and execution of the advertisements. These advertisements are targeted to the geographically scattered population, to attract them.

As all the GSM service providers working in the India are providing almost similar kind of services, they need to differentiate themselves from others, so that they can attract more and more people. So, they are spending a lot on the development of different kinds of advertisements and are using different combination of Mass Medias to reach the target audience.

As it is found by this study that there is a positive relation between advertisements and the factors like awareness, interest, likings, persuasion and the reinforcement, the advertisements are very helpful in changing the attitude of the individual and hence their purchase behaviour. The advertisements are able to create a positive impression about the brands if are developed on the basis of the customers need. So the advertisements should be developed by understanding that what the people are looking for in the advertisements.

On the one hand as advertisements are able to affect the purchase behaviour of the individual and are proved to be effective, other side with the growth of the telecom as well as advertisements

industry, time demand the companies to use the new ways of advertising their brands instead of using the same traditional medias of communication like TV, Radio, News Papers etc. The effectiveness of traditional Medias is decreasing as the industry is growing. So the companies are now moving towards the innovative means of advertising like through SMS, E-mails etc. Also as the study show that people are more interested in having the information from the advertisements. So companies need to be focused on the means to provide lot of important information. The companies need to change their advertisements with the changing requirements of the audience.

So the research concludes that:

- As it has been seen that there are various private players in the cellular industry in India and as none of them is having a strong lead or any kind of monopoly in the market, each of them are facing very strong cut-throat competition from each other. So in order to attract the customers to one's services they are trying to advertise their services effectively by various means and media. Companies are investing huge amount on the advertisements.
- All the cellular companies are providing almost similar kind of services to their customers. So in order to differentiate their services from others, advertisements are being used as a very effective medium.
- It can be concluded that advertisements are able to influence every individual but the degree of influence varies individual to individual. To some people it affect a lot and they consider the advertisements every time when they think of purchasing, to others it may be only a source of getting aware and information.
- Advertisements are having a positive correlation with the attitude change. The advertisements are able to create awareness to the reinforcement of purchase decision.
- Now a day's, companies are looking for the new innovative media of advertisements. The most used Medias these days are the TV and the outdoor media.
- It can be concluded from the study that people are more interested in having all the information about the services from the advertisements. This can be a very important consideration for the companies while developing new advertisements.

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