

The Effects of Animation in TV Commercials on Information Recall

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ABSTRACT

The technological developments have increased the importance of consumers and their choice towards television commercials. Therefore now it is even more important for advertisers to develop TV advertising in such a way that it attracts and keeps consumers' attention. They found new ways of doing it like many started adopting animation in advertising as animation can explain anything the mind of man can imagine. Therefore, this experimental research was conducted to investigate the effects of animation in TV Commercials on information recall. The finding suggest that animation do have positive effects on recalling but it was partially animated television commercials which reported greater recalling, however still fully animated television commercials reported significantly better recalling than video commercials.

Keywords: Animation, Advertising, Effects, Television, Video, Marketing, Media

INTRODUCTION

Industry has grown rapidly in recent years, increasing both the number of competitors and the needs of marketing on Television as well. It is very much surprising to see the number of commercials running on Television nowadays. If the task is to distinguish between animated and non-animated advertisements that would be challenging one as one can find hardly any which is free of some kind of animated effect in it.

Animations have a remarkable ability to show nearly everything including people flying, animals talking, objects dancing around and many others amazing effects which one cannot see otherwise. Due to this and other reasons such as its attention-grabbing appeal, comparatively low cost and deep flair pool, animation have become a preferred way to advertise on television in no time, resulting in more and more demand for employing graphic and animations designers in advertising industry.

Animations and television have been associated from the very beginning. It has been said that the first image ever put on air was a picture of Felix - a Cat. During the dawn period of television advancement with the aim to acquire the finest description, it was found crucial to observe and alter the worth of the broadcasted image. This was done with the help of this cat which was put under constant burning studio lights while the engineers touched and sharpened the image, and Felix match the demand totally.¹

In 1941, when television was in its very early phase of launch and very few people had Television across the country, there on aired the first animated commercial was shown on TV. Television broadcasting industry has been dependent upon animated commercials from

¹ <http://www.felixthecat.com/history.htm> Retrieved 2009-04-20.

the very beginning so it should be rightly said that animations should not be considered a bolt from the blue as far as its use in advertising on television is concerned.²

With the continuous growth of television, the popularity of using animations and cartoons as an advertising form also increased. The format became very successful, dominant and influential resulting in its popularity and use on a wider scale around the world. Such a popularity and use is also very apparent in Pakistani Television commercials. Though, regardless of the apparent popularity of animation in Pakistani television commercials, there has been a very little empirical research on the topic in Pakistan. Observing the advertising objectives and keeping animation effects from revealing to effects in mind, the study is about considering whether or not animation effects recalling and does this recalling have any relationship with audiences of different ages. It's a more focused study related to not only effect of animation but also with effects and its relationship with fluctuation of age and effects of amount of animation employed in a television commercial.

Television advertising is a desirable and favorable portrayal of product which provides awareness to consumers, customers and ordinary people about the very brand. It allows the possible purchaser, ordinary people and end users to become attentive of and familiar with the goods/services they are offering. Product and services promotions through the Television commercials are most popular way of marketing to the masses. One can cover a wide range of audiences of all ages, color and gender by using this medium. With the advancement of new trends and in the techniques in television advertising, animation is getting more and more popular in recent years. This study will contribute to mass communication research and will help to gather background information of animation effects on commercials. Consequently helping television industry and advertising companies in decision making towards the profitable use of animation in television commercials.

LITERATURE REVIEW

The technological developments have increased consumers' control over every moment in a TV program or commercial. Therefore it is even more important for advertisers to develop TV advertising in such a way that it captures and retains consumers' attention at every key moment during commercial exposure. As a result, understanding is necessary of consumers' moment-to-moment attention to and processing of commercials (Woltman, 2003).

In 1983 a research article inspects the influence of computer plots of 3D graphics on the recall of information and concludes that the 3D graphics do not result in better recall of information than do a tabular presentation for the sample task assigned as experiment. But these findings should not be construed as a general condemnation of the use of graphics, because many forms of graphics are different from the one engaged in the experiment (Watson & Driver, 1983).

During the past few years, it appears that more and more advertisers are employing animation in their advertisements. To explore the usage of animation in television advertising, Alan and others conduct a content analysis. The areas of study are major networks and three cable networks. Over a seven-day period, a total of 2,454 advertisements are analyzed. Overall sixty student viewers are chosen and specifically educated as to the methodology to follow as investigating the content of the TV commercials. Each advertisement is been examined separately by two observers. Each advertisement is content analyzed two times for the purpose of assessing the trustworthiness of the observations. Findings suggest that advertisers

²<http://www.digitalmediafx.com/Features/animatedadvertising01.html> Retrieved 2009-04-20.

are using animation as a method of execution in their TV advertisements directed at adults as well as children (Alan et al., 1983).

According to White and others, broadcast advertisers have become concerned with the tendency of video cassette recorder (VCR) owners to "zap"--fast forward delete--commercials. However, research has shown that viewers retain some recall of commercials, even with fast forward zapping, and it is to the benefit of advertisers to discover ways of increasing that recall through video production techniques. To determine whether certain production elements affected recall, a study was conducted to examine six elements on a variety of viewer responses. The elements studied were camera angle, shot size, cutting rate, background clutter, subject movement, and camera movement. Results show that camera angle affects commercial recall, with normal camera angles or those with extreme degrees of vertical/skew resulting in greater recall (White et al., 1986).

It's broadly suggested that a viewer's feedback to a TV commercial, depends on the individual's encouragement and aptitude to deal with the message (Schumann, Petty & Clemons 1990).

The advertisers' first objective for a commercial is to postpone the consumers' decision to stop watching a commercial during exposure and thus first to design a commercial that enables and motivates consumers to pay attention to, and process, every key commercial moment. For a TV commercial to capture and to retain consumers' attention, advertisers may either use a creative message strategy, a media planning strategy or a combination of both (Aaker et al. 1992).

In a content analysis animation and animated characters are examined in television advertising. Most of the characters are product depictions, animal depictions or humans. In more than half cases characters are doing both speaking for product and providing visual demonstrations. Majority of characters are male and more non celebrity characters. Depending on on-air time, program types, product type and categories, there found significant differences in usage of animation. Before the completion of this study, no evidence is there for the increase of use of animation and with this study there comes an evidence to propose the role of animation and its change in the previous decade. This study concludes that to present high association products to adult audiences, animated characters are being used (Callcott et al., 1994).

Addition of sound and motion in TV commercials not only affect the executional features of ads but these elements also increase its nature. TV commercial is also can be defined as an unbroken flow of sounds, video and graphical effects. As a result, television commercials have a spontaneous attention grabbing aspect (Shimp, 1997).

Commercials are based on what viewers need and perceive, which make them unavoidable for them to be exposed and affected. The consumer's decision to stop watching a commercial is based on behavioral measures which are directly linked with motivation level of consumers. As the motivation level of the consumer gets lower the probability to stop watching it gets higher too (Siddarth & Chattopadhyay, 1998).

There is consent of different advertising models that the first pre requisite of any ad process is its need to be exposed to its target audience and have the potential to develop interests, at second stage it can effect on consumer's memory and purchase behavior due to consumer's cognitive action and response (Vakratsas & Ambler, 1999).

Blankenship and Dansereau (2000) explore the attention effects of animation on the processing of information from maps and text. While conducting this research, college students were categorized in four sections and each section was given a different set of

presentation; animated map presentation, static map presentation, static text presentation or an animated text presentation. Time period to recall the information was 48 hours. It was interesting to observe that the central and key part of the information was remembered by most of the participants as compared to animated maps or texts. While in other categorized sections no prominent difference was found.

Altwitt (2002) argue that dynamic nature of advertisements have the potential to effect on the level of attention paid by its consumers at different stages of its process

Baylor, Ryu and Shen (2003) examine the effects of voice and animation on learning and motivation. The findings of the research reveal that people tend to learn more notably when the agent is animated. Another interesting fact found in this study is that although animation helps in learning still it reduces the motivation level of participants about the topic. Effects of voice on motivation also found that participants tend to feel more motivated when human voice is used on agents as compared to machine generated voice.

Schwartz (2003) investigates influence of animation and sound. He studies attention and memory processes and how they get influence by animation and sound effects and concludes that existence of animation obtained both long terms controlled and short term automatic attention and this further increase encoding, storage and retrieval of animated information. On the other hand sound effects have a major effect on retrieval but it doesn't considerably affect encoding storage.

Fangfang and Sundar (2004) examine how pop-up windows and online animated ads can influence memory and favorable response on those who work online. Four online portals websites are selected for study and experimental research. Each websites contain a banner ad and it's either animated or static and a pop up that falls under the same criteria. The response of participants is recorded through a post exposure paper and a paper based questionnaire. They report that pop up adds bring out orienting responses, and compared to banner ads, the pop up ads resulted in lower ad recognition but higher recall.

If animation is employed in an electronic presentation then it may result in better recalling as compared to no animation use (Park, 2006). Further he argued that continuous display of animation might have a better effect on students recall than no display of animation graphics. But there observed no positive effect on student's recall after a simultaneous display of animated graphics as matched up to no display of animated graphics, although it did contain animation.

Yoo and Patricia (2008), attempt to examine, the effects of animated banner ads through an online experiment. The findings bring quite expected results as it was observed that banners ads which used animations are more effective on consumers as compared to the static ones. Similarly they are capable of catching more attention and are remembered by consumers at a higher level when compared to static category. Moreover, an individual's product involvement moderates the effects of animated banner advertising on recall, and click-through intention.

The use of animation in websites has been multiplied over a few years by a substantial number of firms. Although the expenditure spent on animated sites are far more as compared to what it costs in the making of static web sites, still its usage in online media is at its peak at present. Animation effects in changing consumers' behavior and action towards a particular product was studied by Kai Lung, findings revealed that usage of animation in ads make it easy to recall, however still it does not guarantee that consumers will change their production loyalty which they found more "utilitarian" in nature (Kai Lung HUI et al., 2009).

Although the technology determinism theory is the main concern of the study, but the Elaboration likelihood model also correlate with this study. Because animation is related to technological advancement in media and it is considered as a tool of persuasion in advertisement so the whole study rotates around these theories.

HYPOTHESES

H₁: The animated commercials have positive effects on recalling than other types of commercials

H₂: The recall of fully animated television commercials is higher in children than adults

H₃: Recalling of partially animated commercials is higher in adults than children

METHODOLOGY

The researcher's aim to look at the effect of animation on information recalling was carried out by an experimental research. Experimental setting was adopted to hold all conditions constant except the independent variable. Research was quantitative in nature and involved the participants of twin cities of Pakistan (Rawalpindi and Islamabad). The researcher aimed to calculate their responses through self-designed questionnaire, filled out after an experiment to collect primary data. Grouped experiments were conducted at various locations and with different age groups to show the participants selected television commercials and then get the questionnaire filled from them based on the recalling of the information shown in television commercials. . In this study a simple convenient sample of 300 respondents is drawn. The sample is divided in three wide groups, children, adults and elders.

Total 12 television advertisements were selected and shown to respondents in the experiment. Out of these 4 were animated, 4 were semi video and 4 were video. The complete duration of these advertisements was of 10 minutes and 6 seconds. After showing the television commercials in a series the respondents were given questionnaire to be filled. The participants took almost 10 -15 minutes to fill in the questionnaire. For children and old age participants who could not fill the questionnaire themselves, special arrangements were made and they were provided a helper who read for them the questions and then did record their responses. In total the whole experiment was not more than 25-30 minutes. The researcher also arranged light refreshment to keep the participants engaged in the experiment.

The researcher calculated the effects of animation on information recalling in television commercials via questionnaire. Demographics of the sample were collected using age, gender and education level. 24 questions of questionnaire were developed to record the recalling effect. The researcher further categorized them according to 3 main variables i.e. animated, semi, and video. Each variable response was limited to 8 questions based on 4 television advertisements.

SPSS 17.0 was employed to analyse the overall value of responses for each variable. A code sheet of questionnaire was prepared and then coded values were entered separately; subsequently a sum of the indicators was calculated to get the mean value for each dimension. A total response rate was figured out by adding the score of three main variables i.e animated, semi animated and video, and then also there percentages were computed for further tests.

To check the reliability of the instrument, Cronbach alpha coefficient was calculated after pre-test for 15 items by SPSS 17.0 and 0.714 values showed internal consistency in the instrument.

Variables

To look at the research issue raised the researcher identified three main types in television commercials: animated, semi video and video. Researcher conceptualized these sub variables for the intention of understanding in this research in the following portions.

Information

Conceptual Definition: Knowledge of specific and timely events or situations that has been assembled by communication; aptitude or news. (The American Heritage® Dictionary of the English Language, 2009)

Operational Definition: Knowledge about a product provided via television commercial.

Recall

Conceptual Definition: To bring back to mind. The aptitude to retain information (Collins English Dictionary, 2003)

Operational Definition: Retain information provided via television commercial

Television Commercial

Conceptual Definition: It is a span of television programming created and paid for by an organization that communicates a message. (Television Advertisement)

Operational Definition: Sponsored advertisement on television in the form of animated or semi animated or video.

Animated Commercial

Conceptual Definition: A commercial made up completely of a series of illustration including no real life situations (Alan, Joseph & Robert, 1983).

Operational Definition: A commercial completely made up of animation.

Semi Animated Commercial

Conceptual Definition: A commercial including an amalgam of real life situations and line illustration (Alan, Joseph & Robert, 1983).

Operational Definition: A commercial made up of animation and video both.

Video Commercial

Conceptual Definition: A commercial having no line drawings and entirely real life situations (Alan, Joseph & Robert, 1983).

Operational Definition: A commercial completely made up of video.

FINDINGS & ANALYSIS

Finding 1

H₁: The animated commercials have positive effects on recalling than other types of commercials

A Chi Square Test was conducted to compare the recalling score of all selected types of television commercials and later to calculate the degree of relationship Contingency Coefficient is calculated.

Table 1. Relationship between Recalling of All 3 Types of Television Commercials

<i>Chi-Square Test Statistics</i>			
	<i>Semi Animated</i>	<i>Animated</i>	<i>Video</i>
Chi-Square	106.347 ^a	73.333 ^b	25.973 ^a
Df	7	6	7
Asymp. Sig.	.000	.000	.001

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 37.5.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 42.9.

$S = \chi^2(7) = 106.347, p < .05$; $A = \chi^2(6) = 73.333, p < .05$; and $V = \chi^2(7) = 25.973, p < .05$
 $n=300$ (where a= Animated Recalling Score, s=Semi Animated Recalling Score, v=Video Recalling Score)

The Chi Square values are therefore highly significant. Contingency Coefficient is applied to measure of the degree of relationship.

$C_V = 0.282$; $C_A = 0.443$; and $C_S = 0.512$

Degree of relationship of recalling with commercial type $C_S > C_A > C_V$

Hence the result statistics does not fail to prove H_1 “The animated commercials have positive effects on recalling than other types of commercials” and the null hypothesis has also not been fully accepted. From the statistics it has been evaluated that the recalling of Semi Animated Television Commercials is higher than all other types of commercials i.e., Video and Animated. After Semi Animated retention of fully animated commercial is higher than video commercial recalling. Animation does have on recalling but partially animated commercials resulted in better scores than fully animated commercials.

Finding 2

H_2 : *The recall of fully animated television commercials is higher in children than adults.*

An independent-samples t-test was conducted to compare the recalling score of animated commercials in adults and children.

Table 2. Mean Differences - Children, Adults & Animated Recalling

<i>Independent Samples Test</i>						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Animated	Equal Variances Assumed	.006	.938	-4.359	298	.000

There was a significant difference in the scores of children ($M=46.3816, SD=19.91453$) and adults ($M=56.0811, SD=18.58553$); $t(298) = -4.359, p < .05$ ”.

But the t value falls in critical area and also the mean values suggest that first prediction of the above hypothesis (H₂) “The recall of fully animated television commercials is higher in children than adults” has been significantly disapproved and rejected.

Finding 3

H₃: Recalling of partially animated commercials is higher in adults than children

An independent-samples t-test was conducted to compare the recalling score of partially animated commercials in adults and children.

Table 3. Mean Differences - Adults, Children & Semi Animated Recalling

		<i>Independent Samples Test</i>				
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Semi Animated	Equal Variances Not Assumed	4.804	.029	-8.256	288.719	.000

There was a significant difference in the score of adults (M=73.7331, SD=18.19559) and children (M=59.2105, SD=22.41323); $t(298) = 6.169, p < .05$. Test statistics falls outside critical area.

The result suggests that the first prediction of the above hypothesis (H₃) “Recalling of partially animated commercial is higher in adults than children” has been significantly approved.

CONCLUSION

Based on the research conducted, some generalizations may be presented regarding the effect of animation on recalling in TV commercials:

1. Animation do have a positive effect on recalling but it was partially animated television commercials which reported greater recalling, but still fully animated television commercials reported significantly better recalling than video commercials. Thus partially animated commercials have more positive effects on information recalling of television commercials;
2. A higher recall of fully animated television commercials in adults than children has been recorded, although children were excited for animated commercials but it didn't result in better recall;
3. Recalling of partially animated commercial has been found higher in adults than children;
4. Other than animation there noticed a relationship between recalling and some variables like age, gender and level of education.

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