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Evaluation of Entertainment Advertisement Using Different Techniques – Review

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A B S T R A C T

Advertising is the process of facilitating the industrial trade of a given products or services by attracting the customer to purchase it. The effect of advertisement can have an impact on adoption of particular product. It is important for the marketing industry to better understand the role of the unconscious and emotions in advertising communication and shopping behavior. Every advertisement promotes the merits their products through intrinsic factors such as the presence of action sequences, different genres of music, celebrity endorsements and humor to gather the attention of the customers. The basic goal of marketers is to guide the design and presentation of products in such a way that they are highly compatible with consumer preferences. To understand consumers' preferences, several standard research tools are commonly used by marketers, such as personal interviews, brain imaging tools. This article provides a brief overview of currently available techniques to evaluate the better advertisement related consumer decision.

Introduction

The basic goal of marketers is to guide the design and presentation of products in such a way that they are highly compatible with consumer preferences. Advertising can be narrowed down to garnering the attention of people and turning them into potential. In the competitive field of advertising an advertisement should garner the attention of the clients by standing out from others.

The potential consumer has glanced over a particular advertisements, it must be so well-designed that people take the time to interpret its message.

Every advertisement promotes the merits their products through intrinsic factors such as the presence of action sequences, different genres of music, celebrity

endorsements and humor to gather the attention of the customers. To understand consumers' preferences, several standard research tools are commonly used by marketers, such as personal interviews with the consumers, scoring questionnaires gathered from consumers. People cannot (or do not want to) fully explain their preference when explicitly asked, so traditional consumer research is not enough identify better advertisement.

However, marketing science has remained largely unaware of advances in neuro imaging and their huge potential. The application of neuro imaging to market research has caused considerable controversy within neuroscience circles in recent times. Researchers use advance technologies such as functional magnetic resonance imaging (fMRI), electroencephalography (EEG) and Steady state topography (SST), heart rate and respiratory rate, galvanic skin response (GSR) to measure changes in one's physiological state use to learn how consumers make the decisions about the advertisement.

This article provides a brief overview of currently available psychology, signal processing and imaging techniques to study the influence of different TV advertisements consumer-centric view of effectiveness. Also identify the main theoretical debates concerning emotion to provide a comprehensive overview of the issues surrounding the capture of emotional responses in the analysis of TV advertisements.

Materials and Methods

Self Assessment Questionnaire

Norris and Colman (1993) used self assessment questionnaire to evaluate TV

advertisements. Ninety (90) subjects (45 men and 45 women) participated in this study with the age of 16 years. Subjects were allocated randomly to three experimental conditions; one advertisement break containing six advertisements appeared within each television program. These advertisements were selected from a total sample of 41 advertisements from Australian and South African television channels. Several questionnaires were used to measure the subjects' perceptions (involvement) of the programs and advertisements using set of 14 seven-point rating scales. Subjects were presented with brief summaries of the six advertisements and were asked to respond to a set of question to measuring the attitude towards advertisement, attitude towards the brand, intention to buy the product.

The advertising effectiveness has prioritized the dynamic nature of the relationships between audiences and the advertising information (Aitken et al., 2008). This study provides an overview of the literature concerned with key developments in reception and audience theory; examines the research undertaken into advertising effectiveness and reader-response theory. This study explores how individuals respond to media texts and drawing on the concept of users and gratifications. Also analysis the relationships exist between advertisements and consumers.

Psychological Technique

In most of previous study the consumers' attitudes and purchase intentions have focused mostly on the relationship of source credibility and consumers' purchase intentions. They neglecting the external factors such as rumors, which may pose influence on the relationship. There is a lack of emphasis on communicating ways

to affect the relationship between consumers' motivations and their purchase intentions. A theoretical model of endorser credibility and purchase intention was analyzed by Liang and Yang. This research reviews the prevailing research on the relationships between endorser credibility, consumers' Elaboration Likelihood Model (ELM), and their purchase intentions focusing on rumor as a moderator.

Pine and Nash (2002) published an article about the effects of television advertising on young children. A correlation design was used to examine the relationship between the time spend to watch particular commercial television and the proportion of branded products requested by children. Another correlation analysis considered the relationship between children's requests and products advertised on children's television (ITV) during the 6-week period. It was predicted that there would be a relationship between the frequency of television advertisements and the branded products requested. There would be significant differences between the amount of branded products requested by the UK children and the Swedish children.

In Greek TV, the effects of culture and product type on the use of humor were analyzed (Leonidas et al. 2009). An overall sample of 447 television advertisements was selected (the total number of commercials, screened for the first time in Greek television in March 2005). Initially, the research teams watched each advertisement at least 3 times in order to determine if the ads contained a certain type of humor. Humor was classified five types based on Speck (1991) study. All 447 advertisements were classified by product types according to the brand attitude grid. This study finally to (a) validate that advertisements were indeed humorous and to (b) determine the: humor process, humor

type, semantic relatedness, intentional relatedness, and structural relatedness.

Harris et al., (2009) study explained the different techniques use to analyze priming effects of television food advertising on Eating Behavior. Children were randomly assigned to watch a cartoon (included either food advertising or other types of advertising) and provide a snack food while watching. Parents completed a short questionnaire with information about their children. In total, 118 children with ages ranged from 7 to 11 years participated (56 girls and 62 boys) in this study. Fifty nine children perform each in the food (a high-sugar cereal, waffle sticks with syrup, fruit roll-ups, and potato chips) and nonfood (games and entertainment products) advertising conditions. The two conditions did not differ significantly on any of the child characteristics measured, including age, weight status, and ethnicity. Observer returned after the cartoon was finished asked the children when they had last eaten prior to the experiment. After the children left, the experimenter weighed the remaining food and recorded the amount consumed.

Physiological Technique

Consumer neuroscience is a field of study concerning the application of neuroscience methods to analyze and understand human behavior related to advertisements (Babiloni, 2012). Presently neuroscience methodology includes powerful brain imaging tools based on the gathering of hemodynamic or electromagnetic signals related to the human brain activity during the performance of a relevant task for marketing objectives.

Ohme et al. (2010) study analyzes the neuro physiological reaction to advertising stimuli using EEG and Galvanic Skin Response (GSR) signals. Forty five (45)

female subjects participated in this study with age range of 25–35 year. Subjects were asked to watch a series of advertisements and physiological signal (EEG and GSR) was recorded during viewing advertisement. In experimental procedure each participant was presented with two versions of the tested advertisements and 10 distracter advertisements, with a 15-s black screen in between. During exposition of the advertisements stimuli, EEG, GSR signal were recorded and their behavior was monitored continuously using video camera. On completion of the test, participants give their feedback about the experiment.

To identify the elements of the advertisements such as animation, music, narrative speech and image/picture for which the people are attracted to watch Advertisements interestingly using neuroelectric brain signal (Balasubramanian et al., 2013). The advertisements of five different genres: only speech, message (documentary), only music, humor and animation with music were categorized as five groups. Each group was intermingled into a 2-hr English movie instead of just showing the advertisements. EEG signal were recorded at (F3, F4) frontal, (T3, T4) temporal, (Cz) central and (O1, O2) occipital lobes of the brain during 2 hr watching movie.

The emotion while viewing advertisements were analyzed using steady state visually evoked potential signal (SSVEP) (Silberstein and Nield, 2012). Total number of subjects participated in this study was 110 (53 females and 57 males) with age range 19–45 years. Subjects were instructed to watch the television program with an advertising break comprising four advertisements. The SSVEP was obtaining from the smoothed EEG Fourier

coefficients derived from EEG data recorded while participants viewed the video material. For this study, brain activity at left (Fp1 and F3) and right (Fp2 and F4) prefrontal sites was used to assess motivational valence (MV).

Ohme and Matukin report (2012) how neurophysiological measures can be applied to test marketing communication and the effectiveness of creative idea execution. The recording of psycho physiological signals is synchronized with the stimulus exposure time. At regular intervals, the examiner enters the room to conduct special distracting tasks. Their goal is to over- load the subject's memory and to prevent rumination that could lead to the consolidation of memories associated with the presented stimuli. The left pre-frontal cortex (PFC) is involved in a system facilitating approach behavior, whereas the right PFC is involved in a system facilitating withdrawal behavior from aversive stimuli.

Sands and Sands (2012) introduce an interesting technology used to recording brain waves at the supermarket. Participants are asked to do their normal shopping routines. EEG signal were recorded while shopping using 64- channel EEG cap is placed upon a participant's head. Arrington Eye- Tracking System is fitted to the participant to estimate the convergence of the eyes that translates into the depth of focus. More activity is seen in the left frontal area of the brain than in the right frontal area of the brain.

The consumer choice of product was examined using EEG and self reports (Brown et al., 2012). The 12 subjects (8 female, 4 male) volunteers participated in this research with age range between 21 – 50 years. After completing brand loyalty survey both the manufacturer and the

private-label brand drink were tasted. Each drink was sipped intermittently cued by an arrow appearing on the participant's monitor over a period of two minutes while recording EEGs. Finally, the EEG sensors were removed and the participants answered demographic questions before concluding the study.

Result

Self Assessment Questionnaire

Norris and Colman (1993) result shows the correlation between effects on memory for television advertisement with subjects' ratings of the programs. The recall, product recognition, brand recognition, global recall, global recognition, and global memory parameters were scores for the each advertisement. Ratings of the interesting programs are correlated positively and boring correlated negatively with attitudes towards the advertisements. Aitken et. al. (2008) result suggests adopting a reader-response approach and also looks at advertising effectiveness in the context of the service dominant logic. It assesses how advertising effectiveness can be measured in terms of the pleasure or fulfillment that audiences derive from their interaction with advertising. This adopts a more consumer-centric view of advertising effectiveness.

Psychological Technique

A theoretical model of endorser credibility and purchase intention analyzed result show that the positive rumors for endorser credibility will moderate the relationship between consumers' motivation routes and their purchase intentions. The consumers' central processing will be moderated to greater purchase intentions via the positive rumors (Liang and Yang). The song lyrics should be viewed as those derived from

songs that were best received by a broad audience. Which type of lyrics and music effects make the advertisements more customers friendly. This holds the advice for global advertisers looking for ways to standardize international advertisement messages (Henard and Rossetti, 2014).

In Pine and Nash et al., (2002) study about the effects of television advertising on young children, the results of this study are divided into four parts. The first section considers an analysis of the questionnaire data and the second examines the relationship between television viewing and the proportion of branded products requested. The third section looks at the relationship between those branded items requested and those advertised on television and the fourth section compares requests made by UK school children with those made by a contrast group of Swedish nursery children.

The Greek advertisers focus especially on humor dominant, structurally and thematically related advertisements. Regarding the relationship between humorous message taxonomy and nature of products, it appears that the use of humor does not vary significantly across product types (Leonidas et al, 2009).

Physiological Technique

Harris et al., (2009) in the nutrition advertising condition, food advertising with a nutrition message appeared to inhibit automatic consumption. Snack advertising also increased consumption of healthier snack options, including vegetables, further supporting the automatic nature of the advertising effects. The bio- medical signal processing is a very intensive process the recording of brain activity from clean academic laboratories into the real world. It suggests that the area of consumer neuroscience is rapidly moving from the

analysis of TV commercials to the evaluation of the brain activity of the consumers inside the point of sale (Babiloni, 2012).

Ohme et al., (2009) results, were comparing both versions of the advertisement in time (second by second) with results for the whole differentiating scene. No significant differences were founded between the physiological signal Electroencephalography (EEG), electromyography (EMG), and skin conductance (SC) with advertisement. Reactions time for differentiating scenes were analyzed using Student's tests and Pearson's linear correlation analysis. The results concluded that the brain can response even small differences between the advertisement and it can be measure using biomedical devices.

Balasubramanian et al., (2013) report on EEG-based evaluation of viewer's response towards TV commercials and this study results show that people are more attentive towards the special audiovisual effects rather than message/documentary type of advertisements. Animated advertisement has higher impact on people compared to other genre.

The research on measuring emotions while viewing advertisements performed by Silberstein and Nield (2012) reported that compared to the male group, the female group showed greater left frontal activity at the appearance of the semi naked window cleaner in the advertisement. The results suggest that steady-state topography (SST) can make a useful contribution to the study of the MV dimension of emotional responses to advertise or any form of communication.

Ohme and Matukin (2012) study test the marketing communication and the effectiveness of creative idea execution

using neurophysiological. The comparisons between the conditions indicated no statistically significant differences between the left hemispheric dominance in response to the scenes presenting benefit, product and brand. EEG, EMG, analysis should be used as sources of complimentary information to estimate a continuous impact of key elements (branding exposure, product scenes, demo animations or voice over), as well as to optimize formal artistic solutions (sound tracks, sound effects, various creative ideas, etc) in ads copy-testing.

Sands and Sands (2012) study recording brain waves at the supermarket. This study found that there was correlation between the brain response to the first eye fixations on an item and the decision to buy. More activity is seen in the left frontal area of the brain than in the right frontal area of the brain. This asymmetry in frontal lobe responses is not unique to food selection.

The Story of taste using EEGs and Self-Reports to Understand Consumer Choice was examined by Brown et al., (2012). The categorization of "like" or "dislike" was based on the calculated EEG asymmetry of the frontal lobe for each beverage tasted. The results of this study indicate that individuals are willing to switch to a less expensive, less familiar brand if the price is less expensive and the taste is perceived to be the same. Tests should include more than one stimulus and include products that participants currently use in order to gauge their willingness to switch. The recorded EEGs were averaged across each two-minute segment to show overall activations for each of the eight electrode channels. In particular, activations were analyzed over the frontal lobe area of the brain, which were recorded by three channels labeled F3, FZ, and F4 according to the standard international 10-20 schema for head maps.

Discussion

Our review articles demonstrate how neurophysiological measures can be applied to marketing communication and the effectiveness of a creative idea execution. Conventional methods provide conscious and holistic evaluations of advertisement effectiveness, whereas neurophysiological methods enable unconscious and analytic evaluation with time. The low involvement program indicate the higher the memory scores for the advertisements. To understand consumers' preferences, several standard research tools are commonly used by marketers, such as personal interviews, scoring questionnaires etc.

The reason for marketing researchers are interested in using brain imaging tools, the assumption that people cannot fully explain their performance about the advertisements. Analyze the brain signal to specific advertisements use to predict the performance in terms of attention and emotion. Advance in technology such as fMRI, PET etc have aided observation measurement of emotions and created prolific avenues for research in the psychology. To analysis the cortical signal (brain signal) using wavelet technology which allows distinguishing the brain function for different stimuli of TV commercials. EEG signal is a better tool for evaluating the TV commercials because it can provide cortical arousal in response to an audio visual stimulus.

Using brain signal to predict the better ad is better approach when compare to self assessments and video base techniques i.e. gesture analysis. Subjects with high cognitive performance showed faster and nonlinear brain change. However, the motivation underlying the product decision

seems to affect the choice among humor, information, and image dominant advertisements. The application of the advance neuroscience techniques toward advertisements stimuli can be of help for many areas of marketing. It the present neurophysiological research may offer much greater control over the creative advertising process, and eventually may promote unconventional and more innovative creative solutions.

Conclusion

This review article illustrates how neuro-marketing tools are utilized to better understand consumers' involvement in conjunction with their other senses, such as taste, are involved in their decisions. This article will be shift attention to creativeness and proactively managing TV advertising sales impact variability through cost-cutting. It promoted by the media buyers and corporate purchasing agents. It will spur industry investment in development of reasonably valid, relatively quick, copy evaluation methodologies that firms will use to increase their profitability.

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