

Frequently and Infrequently Presented Ads: Do They Influence Product Trial Intentions Differently?

Nyitor A. Shenge

*Department of Psychology, Faculty of the Social Sciences, University of Ibadan,
UI P.O. Box 9599, Ibadan, Oyo State, Nigeria
Telephone: 234-805-4750-711, E-mail: alex71851@yahoo.com*

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ABSTRACT This present study investigated the effects of ad presentation frequency on product trial intentions of ad viewers. The study, which has an independent group design, involved 480 undergraduates of a Nigerian university aged between 16 and 34 years. Participants were made up of 240 males and 240 females equally distributed among two independent groups, namely, frequently presented and infrequently presented ad groups. Participants in both groups watched a 24-minute video which contained ad slots for a new insecticide. Frequent presentation had 8 slots of ad while infrequent presentation had 3 slots. It was found, following an independent t-test analysis, that frequently presented ads more significantly influenced product trial intentions of participants.

INTRODUCTION

Advertising is one important element of the marketing function and forms part of an overall promotional strategy. Advertising is a process while advertisement, or ad for short, is the message, which an advertiser passes or seeks to pass across to his target audience. With the message that it contains, advertising modifies or changes attitudes or behaviour of the recipients. While conditioning people to buy the advertised goods and services, advertising creates new markets by multiplying the need for products (Shenge, 2001). These attitude-changing and behaviour-modifying functions of advertising sustain many businesses. This is because advertising increases competition by providing a wide range of products and enables buyers or consumers to choose the best.

Although it is reasonable to assume that the benefits of advertising repetition are pervasive, there is evidence that these benefits are limited to a very specific set of circumstances (Burke and Srull, 1988; Hayden, 2006). Advertising repetition can be used to achieve two related goals, namely, increasing the likelihood that a brand name is remembered (Penchmann and Stewart, 1989) and strengthening an association between a brand and a product benefit (Hayden, 2006).

The greater the memory for a brand name or its product benefits, the greater the likelihood the brand will enter into a consumer's consideration set (Hutchinson, Raman, and

Mantrala, 1994). Burke and Srull (1988) found that when people view two ads for the same brand, the first ad inhibits memory for the product attribute information in the second ad, and the second ad inhibits memory for the product attribute information in the first. Furthermore, competing ads for products of the same type can also create interference (Keller, 1987).

Advertising effects may be present but may be difficult to measure. Much of the relevant research on advertising to date has approached ad effects from an information-processing viewpoint; that is, the advertising is seen as providing information about products, which people then incorporate in making purchase intentions. The idea that advertising does something to consumers remains the underlying assumption for the measurement of advertising effectiveness (Appel, 1994). Advertising effectiveness refers to the extent to which the advertiser or message contents' objectives are met. These objectives may be measured via an aggregate score on attitude, intention, liking, recall or some other parameters of interest (Shenge, 2001). This study dwells majorly on frequency of ad presentation and how it influences product trial intentions.

Creative messages or ads lie at the centre of successful advertising campaigns. However, advertisers seem to face at least three challenges in their bid to communicate their messages to target audience. The first level of challenge has to do with which medium or media should an advertiser choose for a particular audience. The

second is what frequency of presentation should the message enjoy while the third challenge is on what criterion should the assessment of the impact or success of the message be based.

In addressing the medium or media challenge, advertisers choose from a number of advertising media options. These include radio, television, newspaper, magazine, billboard, handbills, telephone and, more recently, the Internet among other media.

Pertaining to the issue of ad frequency, advertisers have, broadly speaking, at least the regular and the irregular or frequent and infrequent options to choose from. Apart from discretely choosing either of the options, advertisers may also strike a balance between the two. This may well pass for the middle of the road presentation frequency option. It is important, however, to observe that advertisers and ad researchers do not have a rigid rule governing the number of times an ad should be presented. Therefore, the issue of how frequent an ad should be presented as well as the margins in between ad slots depend on the advertiser and such other factors as ad campaign resource availability, the nature of the market competition, product stage and general nature of the advertising campaign among other considerations.

In evaluating commercial effects on the audience, advertisers employ overt and covert measures. Overt measures as identified by economist Nelson (1974) include choice and actual purchase while covert measures as earlier stressed by psychologists Ray, Sawyer and Strong (1971) involve attitude, intention, liking and recall. Both covert and overt measures are fundamental to understanding ad efficacy.

The decision to show ads frequently or infrequently (to repeat or not to repeat) is not an easy one for advertisers either. Early research on the effects of frequent ad presentation was motivated by the need to estimate the parameters of a repetition function to be incorporated into advertising media models (Ray, Sawyer and Strong, 1971).

Several theories - response competition, optimal arousal, and two-factor theories have been proposed to explain frequent ad presentation or repetition effects. Of these, the two-factor theory seems to have a degree of face validity and has been considered a potentially worthwhile approach within more natural communication-processing environments (Belch, 1982; Sawyer, 1981).

The two-factor theory suggests that two opposing factors determine attitude toward a frequently viewed stimulus. This may hold true for advertised product trial intention as well. First, during initial exposures an increasing net positive affect is observed which is postulated to be due to (1) a reduction in uncertainty and conflict toward the initially novel stimulus or (2) an increasing opportunity to learn more about the stimulus. Next, at higher levels of exposure, a negative response begins to dominate which leads to a decrease in affect toward the stimulus. This negative response is posited to be due to boredom, decreased incremental learning, satiation, reactance, and/or tedium.

Taking a two-factor perspective, Cacioppo and Petty (1980) propose that repeated or frequent exposure through moderate levels of repetition acts primarily to provide additional opportunity for attending to, thinking about, and elaborating upon the message arguments. This additional processing facilitates message recipient to realize the cogency of the message and enhances persuasion.

The two-factor theory suggests that frequent presentation of a stimulus provide an opportunity for learning, which invariably connects to trial intention as well. Further, it postulates that at higher levels of presentation frequency, reactance or tedium influences attitude toward the stimulus negatively. Cacioppo and Petty (1979) hypothesized that at higher levels of re-exposure, tedium or reactance motivates a recipient to attack the now-offensive message and thus results in renewed argumentation and decreasing agreement with the message. Tedium has been conceptualised by researchers as an increasingly negative feeling and reaction toward experiencing the stimulus again.

Although most ads have audience's trial or purchase actions as their ultimate goal, not all ads lead to audience's purchase actions instantly. In a marketing research domain, consumers are often asked questions about their intentions to try or purchase products (Moritz and Fitzsimons, 2004). Consumers may not retrieve a preexisting intention but rather may construct a response only once an intentions question is asked (Schwartz and Sudman 1996). Measuring general attitude intentions increases attitude accessibility and in turn affects choice (Morwitz and Fitzsimons, 2004).

In a study by Sherman (1980), it was reported that participants were more likely to actually engage in the specific behaviour for which they reported their behavioural intent. Fitzsimons and Morwitz (1996) suggest four explanations for why asking general intentions questions affects the general behaviour and the specific choices people make. The first is that measuring general intentions increases the salience of thoughts about engaging in the general behaviour, which in turn increases the salience of thoughts about the names or labels of specific options in the choice set. Subsequent changes may be caused by this enhanced accessibility. The second explanation is that measuring general intentions increases the accessibility of both attitudes toward the general behaviour and attitudes toward the most salient specific options in the choice set. Changes in subsequent behaviour might therefore be a function of this increased attitude accessibility. The third explanation is that measuring general intentions leads to recall and subsequent polarization of attitudes toward the general behaviour and attitudes toward the most salient specific options in the choice set. The fourth explanation is that people have performed intentions to engage in the general behaviour and to select specific options in the choice set that are recalled and become more accessible when they are asked general intentions questions. Choice behaviour may be influenced through the increased intention accessibility.

Advertisers and advertising researchers mostly focus on overt measures in the course of evaluating their advertising campaigns. But covert measures, which include consumers' intentions are no less important in helping advertisers and marketers understand the behaviour of consumers of their products. It is based on this understanding that this present study has employed frequent and infrequent ad presentation modalities to assess their impact on product trial intentions, which is covert ad evaluation method.

Although ads are presented frequently or infrequently depending on an advertiser's preferences and needs, it is debatable which of frequent ad presentation and infrequent ad presentation works better with product trial intentions. But considering the increasingly high costs of producing and showing ads, there is need for advertising practitioners and researchers to understand the impact of frequency of presentation on an audience.

Two general response function shapes have been described in relation to frequent ad repetition. The first and probably the most frequently discussed, with Rao and Miller (1975) as proponents, is called the "S" curve. The "S" curve proponents are of the view that advertising is less efficient below certain threshold levels and that a critical mass of advertising weight is necessary for marketers to obtain optimal returns from advertising.

A second curve in this theory represents continuously decreasing sales returns to advertising inputs. This sales decrease is preceded by consumer attitudes and intentions. According to this view, each successive amount of money spent on advertising yields less than the former one in terms of cognitive dispositions and sales revenues realized. It is perhaps for this reason that advertisers and advertising practitioners stress the importance of continually refreshing the creative work, else some of it pass into the limbo.

METHOD

Participants: This study employed independent group laboratory experimental design. The study involved 480 1st, 2nd and 3rd year undergraduate students of the faculty of the social sciences at the University of Ibadan, Nigeria. Participants consisted of 240 males and 240 females aged between 16 and 34 years and with a combined mean age of 23.02 years. Standard deviation of the mean was 3.2. Participants were selected through stratified sampling. However, the selected female and male participants were equally assigned to two experimental groupings, frequent and infrequent ads that make up the study. Participants were informed beforehand that they were going to participate in an experiment which involved watching a popular local Nigerian movie that contained some ad slots.

The choice of the local home video as the most popular in Nigeria was earlier made in a pilot study involving 3 male and 2 female undergraduate students in the faculty of education at the University of Ibadan. The undergraduate students were instructed to rank-order a list of 12 Nigerian local home videos based on the videos' actual or perceived popularity. The rank-ordering of the videos led to the emergence of a most popular Nigerian local home

video which was then procured for use in the study. No monetary or material incentives were given to participants or the students that rank-ordered the videos.

MATERIALS

Materials used in this study include a stop-watch, video player, a television set, a tin of a new brand of insecticide named Antisect, Antisect visual ads and intention to try advertised product scale. Some of the materials are explained in details below.

Antisect: A computer colour design and printed label of Antisect was created by the author in collaboration with a paid brand creation and management professional. The designed and printed label was cut to size and neatly glued to the body of an existing insecticide named Mobil. The glued label superimposed the branded portion of the Mobil insecticide there by showing Antisect brand as intended in the study.

Antisect Ads: The Antisect ads were written by this researcher, assessed and scrutinized by a paid professional television ad script writer. The ads for the two experimental groupings were same in product information content and background, differing only in the number of times that the ads appeared in the watched videos for the different experimental groupings. This difference in ad frequency shown in the two groups was the hallmark of the study's independent variable manipulation.

The Antisect ad was 45 seconds long and was presented 8 times to the frequently presented ad grouping while the 24 minute movie within which the ad slots were interspersed lasted. To the infrequently presented ad grouping, however, the 45 second ad was presented only 3 times while the 24 minute movie within which the ad slots were interspersed lasted.

The Antisect ad was set in a hospital where a male doctor, spotting his lab coat and stethoscope, is seen conversing with his female patient. Having diagnosed the patient with malaria and prescribed medication for her, the doctor is also seen in the advert introducing a tin of Antisect to the patient with the assurance that the insecticide would help the latter fight mosquitoes and consequently prevent her from future malarial attacks. The patient is seen beaming with smiles in appreciation of the doctor's introduction of Antisect to her. Prior to

the production of the ad, the "doctor" who would feature in the study ad participated in series of purposely organized rehearsals bordering on the ad. During the rehearsal session, the "doctor" received useful comments and criticisms from invited observers, including ad production experts and two physicians. The noting and observance of the rehearsal comments and criticisms during the actual production of the ad helped minimize personal and situational biases. Shortly before they watched the ads, study participants were also encouraged to receive information in the ads with an open mind to avoid biases.

Advertised Product Trial Intention Scale: Intention to try advertised product measures consisted of a set of ten bipolar evaluative factor adjectives. The scoring of some items on the bipolar evaluative adjectives was reversed to minimize participants' bias. With the positive adjectives lying either on the low or high end of the 1 - 7 continuum in the product trial intention measure, participants were instructed to circle one of the seven numbers in each pair of the words. Adding the responses on all the items in the intention measure and reversing (items 1,3,4,6,7,8,9 and 10, which had positive responses at the low end -that is, scoring "7" as "1" and "6" as "2" etc.) gave an overall assessment score of a participant on ad intention measure.

The product trial intention measure had standardized coefficient alpha of 0.75, split-half of 0.62 and overall Spearman-Brown reliability coefficient of 0.77. The coefficient alpha for part 1 split-half was 0.61 while that for part 2 was 0.57. It similarly had a least corrected item-total correlation of 0.33 and a highest corrected item-total correlation of 0.48.

Procedure: Participants in the two experimental groupings separately watched the 24-minute videos and the ad slots contained in both. Immediately after participants were done with watching the video and the ad slots, they were given a questionnaire to indicate their intention to try the advertised product (Antisect). By way of definition, intention to try the advertised product refers to a participant's willingness to try the advertised product, not really minding any probable or possible consequences for trying the product. Once the questionnaires were completed, participants were thanked, debriefed and asked to leave. No promise was, however, made to supply Antisect to interested participants to try.

Questionnaire Scoring Format and Statistical Analysis: The minimum score a participant could earn on the advertised product trial intention scale was 10 while the maximum score was 70. In both experimental groupings, each participant's scores on the trial intention scale were aggregated. Following the aggregation, an independent t-test statistical analysis was done with the scores.

RESULTS

The result of the independent t-test as shown in Table 1 indicates that there was a significant difference in intention to try advertised product between participants' who watched the Antisect ad slots frequently and participants who watched the product's ad slots infrequently ($t=1.23$; $df=378$; $p<.02$). A look at the means for the two experimental groupings indicate that frequently presented ads lead to significantly higher intentions to try advertised product than infrequently presented ad.

Table 1: t-test summary table showing the difference between frequent and infrequent ad presentations

Ad Presentation	N	X	SD	df	T	P
Frequent	240	34.56	7.59	378	1.23	<.02
Infrequent	240	32.81	6.12			

DISCUSSION

It has been demonstrated in this study that frequent ad presentation stimulates viewers' intentions to try advertised product. This point seems to lend credence to the amount of resources that advertisers invest in their advertising campaigns. Although product trial intentions and other purchase-relevant cognitive dispositions of ad viewers (such as attitude towards and liking a product, and recall) alone do not directly translate into purchase behaviour, they still very much aid an advertiser to understand and predict consumer actions better.

Just as Cacioppo and Petty (1980) and Hayden (2006) have observed, frequent ad exposure acts primarily to provide for viewers additional opportunity for attending to, thinking about, and elaborating upon the message arguments. The outcome of this evaluative process, when positive is expected to translate to positive attitude and intention as well.

Participants in the study showed significantly high intentions to try advertised product. This shows that reactance or tedium effect did not take place. Findings of this study are also in line with the "S" curve hypothesis which posits that advertising is less efficient below certain threshold levels and that a critical mass of advertising weight is necessary for marketers to obtain optimal returns from advertising. Further research is indicated in such other important purchase-relevant precursors like attitude, likeness and recall as they relate to ad presentation frequency. Further study is also suggested for ad presentation interval and ad meaning as they affect viewers' product trial intention and probable purchase.

CONCLUSION

This study investigates the effect which ad frequency has on advertised product trial intentions. It suggests that since actual purchase is not possible all the time and sometimes not immediately, advertisers should equally begin to place high premium on other cognitive elements that point to ad viewers' prospects of purchasing product at a later time. Such elements include attitude, likeness and product trial intention. It is important for marketers and advertisers to recognize the presence and extent of purchase-relevant elements or precursors and take good advantage of them. Only through such recognition and knowledge would advertisers have more value for their ads while better understanding and predicting the behaviour of their consumers and would-be consumers or prospects.

REFERENCES

- Appel, K. 1994. *Advertising Dynamics*. Columbus: New Idea Publishers.
- Belch, G.E. 1981b. "The Effects of TV Commercial Repetition on Cognitive Response and Message Acceptance." *Journal of Consumer Research*, 9: 56-66.
- Burke, R.R., and T. K. Srull. 1988. "Competitive interference and consumer memory for advertising." *Journal of Consumer Research*, 15(1): 55-68.
- Cacioppo, J.T. and R. E. Petty. 1979. "The Effects of Message Repetition and Position on Cognitive Response, Recall and Persuasion." *Journal of Personality and Social Psychology*, 37: 97-109.
- Cacioppo, J.T. and R. E. Petty. 1980. "Persuasiveness of Communications is Affected by Exposure Frequency and Message Quality: A Theoretical and

- Empirical Analysis of Persisting Attitude Change", (Pp. 97-122) in J.H. Leigh and C. R. Martin (eds.), *Current Issues and Research in Advertising*. Michigan: An Arbor.
- Fitzsimons, G.J. and V. G. Morwitz. 1996. "The effect of measuring intent on brand-level purchase behaviour." *Journal of Consumer Research*, 23: 1-11.
- Hayden, N. 2006. The spacing effect: Enhancing memory for repeated marketing stimuli. *Journal of consumer psychology*, 16(3): 306-320.
- Hutchinson, J.W., K. Raman and M. K. Mantrala. 1994. "Finding choice alternatives in memory: Probability models of brand name recall." *Journal of Marketing Research*, 31: 441-461.
- Keller, K.L. 1987. "Memory factors in advertising: The effect of advertising retrieval cues on brand evaluations." *Journal of Marketing Research*, 14(3): 316-333.
- Morwitz, V.G. and G. J. Fitzsimons. 2004. "The mere-measurement effect: Why does measuring intentions change actual behaviour?" *Journal of Consumer Psychology*, 14(1-2): 64-74.
- Nelson, P. 1974. "Advertising as Information." *Journal of Political Economy*, 82: 729-54.
- Penchmann, C., and D. W. Stewart. 1989. "Advertising repetition: A critical review of wearin and wearout", (Vol. 11(2); pp. 285-330) in J.H. Leigh and C.R. Martin (eds.), *Current Issues and Research in Advertising*. Ann Arbor: University of Michigan.
- Petty, R. E., R. Unnava and A. Stratham. 1991. "Theories of Attitude Change", (Pp. 241-280) in Thomas S. Robertson and Harold H. Kassarian (eds.), *Handbook of Consumer Behaviour*. New York: Prentice Hall.
- Rao, A.G. and P. B. Miller. 1975. "Advertising Sales Responses Functions." *Journal of Advertising Research*, 15: 7-9.
- Ray, M.L., A. G. Sawyer and E. C. Strong. 1971. "Frequency Effects Revisited." *Journal of Advertising Research*, 11: 14-20.
- Sawyer, A.G. 1981. "Repetition and Cognitive Response", (pp. 237-62), in R.E. Petty, T. Ostrum and T.C. Brock (eds.), *Cognitive Responses in Persuasion*. Hillsdale, New Jersey: Carlbau.
- Schwartz, N. and S. Sudman. 1996. *Answering Questions: Methodology for Determining Cognitive and Communicative Processes in Survey Research*. San Francisco: Jossey-Bass.
- Shapiro, S. and H. S. Krishnan. 2001. "Memory-based Measures for Advertising Effects: A Comparison of Explicit and Implicit Memory Effects." *Journal of Advertising*, 30: 1-13.
- Shenge, N.A. 2001. *Pressure-Response and Active Learning Advertising Theories: An Experimental Evaluation of Television Commercials*. Unpublished Ph.D Dissertation, University of Ibadan.
- Sherman, S.J. 1980. "On the self-erasing nature of errors of prediction." *Journal of Personality and Social Psychology*, 39: 211-221.