

Interactive TV Ad Impact Relative to Repeat Message Exposure¹

Executive Summary

Interactive TV (iTV) ads providing additional clickable content beyond the traditional 30-second ad are evolving as a new model for television advertising. This extra length provides space for additional claims and repetition of brand associations, which should increase overall advertising effectiveness. This study found that one exposure to a transformational iTV ad is more effective than one exposure to a 30-second ad, and just as effective as three exposures in terms of attitude towards the ad, attitude towards the brand, and behavioral intentions. We also found that the iTV ad generated more cognitive elaboration than either one or three exposures to a 30-second ad. For day-after recall, the iTV ad was more effective than one exposure to a 30-second ad. However, in comparison with three exposures, the evidence was not conclusive. For one brand, day-after recall was higher after three exposures, but this argues against self-selection or novelty effects as explanations for our findings. When a high frequency is required (as it is for transformational ads), but repeat exposure is difficult to generate (as audiences get more fragmented), iTV ads offer media planners a solution, and may rewrite the rules of media planning.

Introduction

The digitization of television introduces a wide range of new capabilities to the television viewing experience, including new interactive models for advertising. In the UK, the use of interactive TV (iTV) advertising is increasing, with 40% of marketers agreeing in a recent survey that it should be a significant part of their marketing mix ("Genre Driven Ads," 2004). Among the new advertising models which have evolved are television 'microsites', web-style content embedded in television programming which can be accessed during ad spots by pressing the red teletext button on the remote control. The transition to digital must be explored relative to wider challenges associated with media planning. Audience fragmentation makes it increasingly difficult to implement TV campaigns requiring a minimum effective frequency greater than one. Media planners have adopted the "impact" schedule in which three insertions are viewed in one day (Roberts, 1999), and even within the same program.

Interactive TV ads are generally placed to maximize response rates (Danaher & Green, 1997), but we consider here their use to increase awareness and favorable attitudes. Although there is no single “magic number” for minimum effective frequency, we compared one exposure to an iTV ad to a well-known rule-of-thumb: “three is enough” (Krugman, 1972). Furthermore, we pitted this single iTV exposure against a very high impact schedule, a triple-spot insertion within a single 30-minute TV program. We used unfamiliar ads, as familiar messages do not need a high frequency campaign (Tellis, 1997). Also, we used transformational ads, since informational ads do not require three exposures to be effective (Singh & Cole, 1993). This study found that one exposure to an iTV ad was equivalent to three exposures to a traditional 30-second ad.

Previous Research

Ad effectiveness depends on attention, and longer ads are more likely to be attended to (Rossiter & Bellman, 2005). The iTV ads we tested consisted of 30-second TV ads embedded with clickable content ‘microsites’ featuring individual still screens providing additional advertising material. This extra length should give space for more repetition of brand associations, and generate more contextual material for episodic memory of the commercial, increasing day-after recall (Singh & Cole, 1993). Longer ads can also include additional persuasive claims, and repetition, within a longer ad, of positive brand associations should also generate a stronger conditioning effect on attitudes and intentions (Rossiter & Bellman, 2005). In addition to the effects of repetition and additional claims, longer ads give viewers more opportunity to realize the purpose of the ad and cognitively elaborate on its message (Rethans, Swasy, & Marks, 1986). This extra elaboration should increase memory for the ad and strengthen already favorable attitudes toward the ad and the brand, especially for transformational ads (Singh & Cole, 1993). For these reasons, we expected that one exposure to an iTV ad would be more effective than one exposure to a 30-second TV commercial.

However, whether one extended exposure to an iTV ad would be more effective than three exposures to a 30-second ad is unclear. Repeated exposure to a shorter ad may generate equivalent recall and conditioning effects compared to one exposure to a longer, iTV ad (Singh & Cole, 1993). Repeat exposure to the shorter ad may even be superior: psychological research has generally demonstrated a superior effect for spaced as opposed to massed learning (Donovan & Radosevich, 1999). Also, after initial exposures to shorter ads in which the ad’s message is learned, viewers have time during later exposures to cognitively elaborate on this message and the length advantage of interactive ads may be eliminated (Singh & Cole, 1993).

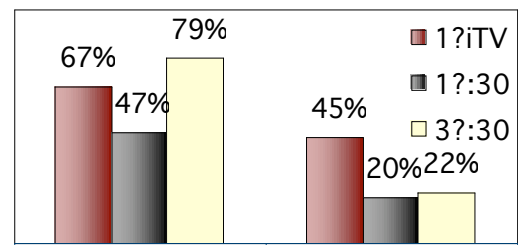
The Design of the Study

The iTV ads were created from 30-second TV ads by superimposing a banner on the final frames of the ad, inviting participants to press a button on their remote control to view an additional 'microsite' ad. To minimize the possibility of introducing extraneous variables, these microsites maintained the same advertising message and appeal as the TV ad. Participants were able to exit the microsite at any time and return to the program. We used brands from two categories (1) high involvement², air travel (Singapore Airlines), and (2) low involvement, cookies (Oreo®). We used unfamiliar ads since effective frequency depends on consumer's awareness and preference for the brand (Rossiter & Bellman, 2005). The two test ads, and the filler ads from 12 categories in total, were all finished ads from a worldwide ad agency's reel, and were all equally unfamiliar to the sample, either overseas ads or ads aired a long time ago (Chattopadhyay & Nedungadi, 1992). Using two ads also controlled for the effects of ad execution. We limited the effect of novelty by evaluating responses to the second and third (i.e., less novel) interactive ads seen by our participants.

Participants were randomly allocated to one of three groups: (1) 1×exposure to 30-second TV ads ($n = 33$), (2) 3×exposure to 30-second ads ($n = 30$), or (3) 1×exposure to iTV ads ($n = 31$). Participants in the iTV ads cell were not forced to interact with the test iTV ads, and data were collected until at least 30 participants had interacted with both iTV ads. The final sample consisted of 94 students (57% females, 43% males, 87% aged 18-25)³. The test ads were embedded within a 30-minute episode of *The Simpsons*, divided by three ad breaks, each consisting of five ads. The iTV ad was always the first ad in an ad break,⁴ to allow time for interactivity before the program re-commenced⁵. For the 3×exposure group, one of the filler ads was also shown three times, once in each ad break, to minimize highlighting of the test ads. After viewing the program, participants completed a questionnaire (reliability for all scales was between .84 and .94). One day later, participants were contacted by telephone to measure their day-after recall of the test ads.

Results

Figure 1 shows the results for the non-continuous dependent variables, day-after recall and cognitive elaboration, and Figure 2 shows the results for the continuous dependent variables, attitude



Day-After Recall Cognitive Elaboration

Figure 1 : Differences in day-after recall and percentage of participants generating cognitive elaboration, across ad models

toward the ad, brand attitude, and behavioral intentions. One exposure to an iTV ad generated, compared to one exposure to a standard 30-second TV ad, more *cognitive elaboration*⁶ (mean = .73 vs. .34, $p < .05$; see Figure 1, which also lists the percentage listing at least one thought), more *day-after recall*⁷ ($p = .0006$), and more favorable *attitude toward the ad*⁸, *brand attitude*⁹, and *behavioral intentions*¹⁰ (see Figure 2, all $p < .05$, Tukey test)¹¹. Compared to three exposures to a standard 30-second TV ad, one exposure to an iTV ad generated more cognitive elaboration (mean = .73 vs. .30, $p < .05$), but less day-after recall ($p = .0011$)¹². There were no significant differences for any of the other dependent variables.

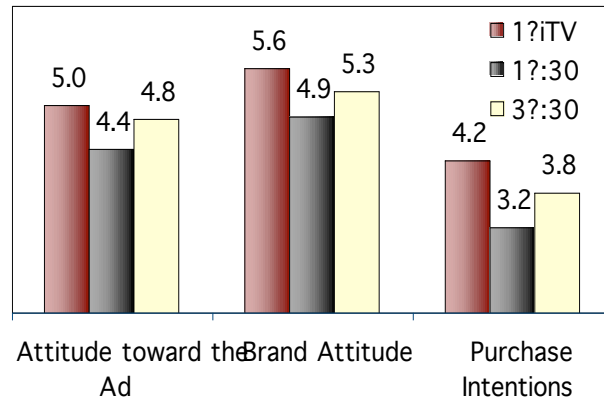


Figure 2 : Differences in participant attitudes and intentions (1-7 scale) across ad models.

Discussion

Overall, our results provided clear support for our expectation that one exposure to an iTV ad would be more effective than one exposure to a 30-second TV ad, provided that an individual interacted with the iTV ad. However, the results are somewhat mixed for our second expectation, that one iTV ad exposure would equal three exposures to a 30-second TV ad. On measures of persuasiveness—attitudes toward the ad and the brand, and behavioral intentions—there was no difference, but for one of the two brands, day-after recall was superior after three exposures. Future research is needed, using non-student samples, and a wider sample of products, brands, and executions, to determine whether repeated exposures to a shorter-format ad will always, on average, be more beneficial for recall. We also found that one exposure to an interactive ad will generate more cognitive elaboration than three exposures to a 30-second TV commercial. This suggests that interactive advertising generates more involvement than shorter ads, even after three repetitions¹³.

Our use of a semi-forced procedure to encourage interaction means that many of our interactors may not have been that interested in the advertised products. Day-after recall for highly-motivated interactors is likely to be higher than we observed and even closer to day-after recall following three 30-second exposures. Our results suggest that instead of applying

a frequency rule to minimize audience loss across the repeat insertions usually necessary for minimum effectiveness, media planners can now concentrate on building up, one interaction at a time, a highly favorable target audience for the advertised brand.

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Endnotes

¹ This research brief is based on research by Grace Pribudi, supervised by Duane Varan.

² Product category involvement was measured in a pretest using participants from the same subject pool. Thirty-four students, none of whom participated in the final study, rated their involvement with nine product categories using a five-item scale (Mittal, 1995). Airline travel (mean = 4.28) was rated highest and biscuits (mean = 2.45) was rated the lowest.

³ No differences in demographics or TV usage were found between groups, so these variables were not included as covariates.

⁴ The non-iTV test ads were generally not the first in the pod, which may have reduced the attention paid to them (1 × exposure: Oreo® = 3, Singapore Airlines = 2; 3 × exposure: Oreo® = 5, 3, 1, Singapore Airlines = 3, 2, 5).

⁵ This is somewhat different from industry practice where the iTV ad usually appears last in the ad pod so as not to compete with other ad sales.

⁶ *Cognitive elaboration* was measured by asking participants to list all the thoughts, reactions and ideas they had whilst viewing the test advertisements, within a three-minute time limit (Buchholz & Smith, 1991).

⁷ *Day-after recall* was measured asking participants to describe the ads for the two target brands. Correct recall was coded as 1, incorrect as 0.

⁸ *Attitude toward the ad* was measured by the mean of eight 7-point semantic differential scales, developed by Perrien, Dussart and Paul (1985): informative/uninformative, clear/imprecise, complete/incomplete, well structured/badly structured, attractive/not attractive, pleasant/unpleasant, interesting/boring, and agreeable/disagreeable (coefficient alpha = .84 [Oreo® cookies] and .89 [Singapore Airlines]).

⁹ *Attitude toward the brand* was measured by the mean of four 7-point semantic differential items (Gardner, 1985): bad / good, dislike quite a lot / like quite a lot, unpleasant / pleasant, poor quality / good quality (alpha = .88 [Oreo®] and .94 [Singapore Airlines]).

¹⁰ *Behavioral intentions* were measured by the mean of five 7-point semantic differential items: “What is the probability that you will purchase the advertised brand? (extremely unlikely / extremely likely)”, “What’s the likelihood of you purchasing the advertised brand the next time you buy [the product category]? (extremely unlikely / extremely likely)”, and “The next time I purchase [the product category], I will buy the advertised brand (strongly disagree / strongly agree)” (Bone & Ellen, 1992), and “Would you like to receive more information about [the advertised brand]? (no, definitely not / yes, definitely)”, “Would you recommend [the advertised brand] to a friend? (no, definitely not / yes, definitely)” (alpha = .89 [(Oreo®)] and .88 [Singapore Airlines]).

¹¹ The overall result for all three variables was also significant (Wilk’s $\Lambda = .84$, $F_{6,176} = 2.74$, $p = .014$).

¹² The reason for the difference in recall appeared to be the higher level of recall for the Oreo® brand (76% vs. Singapore Airlines 53%, $p = .0005$). The interaction effects between exposure and brand were not significant for any of the dependent variables.

¹³ Initial involvement with the category cannot explain the increase in elaboration for the low involvement category. Also, we did not observe a general iTV ad superiority (or technological novelty) effect, which rules out this alternative explanation for our findings.