

Cutting Through the Clutter? A Field Experiment Measuring Behavioural Responses to an Ambient Form of Advertising

Serrin Abdul-Razzaq, Lucie Ozanne and David Fortin*,
University of Canterbury
david.fortin@canterbury.ac.nz

Abstract

Due to increasingly high levels of advertising clutter, many advertisers have begun to consider other forms of less conventional media to reach their target audiences. A media type which is being more commonly used in the marketplace is Ambient Media (Luxton and Drummond, 2000). In order to test the behavioural response to ambient advertising, this study used a (2 x 2) between subjects factorial design manipulating the type of ambient advertisement (flyer vs. ground) and the method subjects could use to respond to the promotional advertisement (text vs. drop-box). This study is innovative in using a field-based experimental approach within a realistic setting whereas previous research essentially utilised survey-based techniques. Results suggest that participants exposed to the experimental ambient advertisement were more likely to respond to the advertisement when encountered as a flyer within a captive environment as opposed to a randomly unexpected element lying on the ground. Implications of these results are discussed along with proposed directions for future research.

Keywords: ambient advertising experiment behaviour

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Introduction

Advertising is one of the main elements in the promotional mix used by firms to reach their customers. It can be used to inform consumers of the goods and services the firm has to offer, and to persuade the target audience that their product is superior and has more benefits compared to similar products on the market. It may also be used to build brand awareness and reinforce brand imagery. However, as the media becomes more and more fragmented, an increasingly alarming issue for advertisers is the concept of advertising clutter (Rosengren, 2008), a term that describes the number of advertisements present in a medium (Belch and Belch, 2007), or as defined by Riebe and Dawes (2006), a large number of advertisements in a given time period. Advertising clutter is the result of many businesses vying to attract their target audience's attention; however, a highly cluttered media environment potentially reduces the effectiveness of each individual advertisement. In fact, increasing television advertising clutter is a major factor in declining ratings for programmes, as well as decreased attention to advertising messages by remaining audiences (Rotfeld, 2006a). Rotfeld (2006b) further suggests that in all mass media advertising, the increasing advertising to editorial ratio appears to be causing audience inattention and consumer complaints.

Due to high levels of advertising clutter in most media, many advertisers have begun to consider other forms of less conventional media and global firms like Westin Hotels & Resorts have diverted traditional broadcast budgets to ambient advertising (Wasserman, 2008). In addition, advertising clutter can be the driving force in the utilisation of new media through which an advertising message can be communicated to the intended target audience (Ha, 1996). New media forms such as promotional websites and online games are also being used to capture audiences that cannot be reached by traditional media.

A media type which is being increasingly utilised in the marketplace is ambient media. Luxton and Drummond (2000, p.735) define ambient media advertising as "the placement of advertising in unusual and unexpected places (location) often with unconventional methods (execution) and being the first or only ad execution to do so (temporal)." Although ambient advertising is increasingly being utilised by advertising practitioners, there is very little empirical research examining the technique (Bennett, Gabriel, Kottasz, and Koudelova, 2000). Thus, this research attempts to fill a gap by examining the behavioural response to ambient advertising through an experimental approach.

Literature Review

The term "ambient advertising" is today commonly employed to describe attention-grabbing advertisements which appear in unexpected settings, particularly where advertisements have not been seen before (Bainbridge and Curtis 1998; Shankar and Horton 1999). Examples of such attention grabbing executions include – kegs of beer falling from the sky, lollipops containing dead maggots and flies, backseat stickers, giant inflatable banners, beach sand ads, ads at the bottom of golf holes, and talking toilet posters (Anonymous, 2003; Grossman, 2000). The aim of such techniques is to "cut through the clutter" of conventional advertising by interrupting consumers' thoughts and making them take notice (Bainbridge and Curtis 1998). Luxton and Drummond (2000) suggest that ambient advertising is more engaging than other out-of-home advertising as it requires the audience to expend cognitive effort to process the message and thus raises the audience's level of interest.

Barnes (1999) explains that a major feature of ambient advertising is that it aims to surprise the consumer by confronting them with something so incongruous to the background in which it appears that subconscious mental deduction processes have to be invoked to make sense of the situation. This is supported by Waddill and McDaniel (1998) who conclude that unusual stimuli are processed more deeply than those that are perceived as commonplace. Accordingly, an extraordinary stimulus could possibly activate a wider range of background knowledge and "prompt more spontaneous elaboration than material which is mundane" (p. 109). Moreover, the surprise element of ambient advertising might be stronger the more an ambient message fails to fit in with a person's script of where advertisements ought to be located (Bennett et al., 2000). "Critically, unexpected events which are inconsistent with a pre-existing script have been found to attract greater attention; arguably because inconsistent stimuli are surprising, with the result that the observer's cognitive mechanisms work harder to recognize and understand what is seen (Bennett et al., 2000, p. 32)."

In order to explore whether the degree of reaction to an ambient advertisement varies with the degree to which consumers are startled by that ad, Bennett et al. (2000) compared ambient advertising with print advertising. They concluded that the more the audience was surprised by an ambient advertisement, the more positive the audience's reaction was. In addition, they also found that the more involved a person is with a brand the more positive their response towards that ambient advertisement. With the exception of empirical work by Bennett et al. (2000) and descriptive work by Luxton and Drummond (2000) and Shankar and Horton (1999), there is little documented evidence of the effectiveness of ambient advertising approaches. The empirical work by Bennett et al. (2000) only examines the cognitive response to ambient advertising and uses a student sample to test the technique. As ambient forms of advertising are mainly designed to generate an immediate response as opposed to building long-term brand imagery, it may be a suitable medium to support promotional activities that can be tracked via consumer behavioural responses and not only attitudes. Therefore, this research attempts to fill a gap in the literature by studying the behavioural response to ambient advertising through a field experiment conducted under closely monitored conditions.

Research Hypotheses

Because most ambient advertisements are designed to attract attention and build awareness, they may not be the ideal tool for brand building purposes but may be effective to generate an immediate behavioural response, such as participation in a promotional activity. Traditionally, this involved filling out a form and dropping it into a box to be included in a prize draw of some sort. More recent approaches have used instant responses via mobile phone SMS. As ambient ads can be found in either captive (i.e. toilet, public transit etc) or open environments (outdoor, shopping malls etc), the likelihood of behavioural involvement should be higher in captive settings as opposed to open ones. Hence, we proposed the following two hypotheses:

H1: behavioural responses to an ambient form of advertising will be stronger in a captive environment as opposed to an open environment,

and

H2: behavioural responses to an ambient form of advertising will be higher using immediate electronic response as opposed to traditional pencil and paper-based methods.

Method

In order to test the behavioural response to ambient advertising, this study used a (2 x 2) between subjects factorial design manipulating the type of ambient advertisement (flyer vs. ground), and the method subjects could use to respond to the ad (text vs. drop-box), as shown in Table 1. Based on the definition provided by Luxton and Drummond (2000), an unusual execution was needed in order to attract attention and thus elicit a response. Thus, the advertisements used for this experiment were in the shape of a New Zealand five dollar note. The first factor, Type of Ambient Ad, indicates where subjects would encounter the ad, or the *location* of the ambient ad as in the definition by Luxton and Drummond (2000). The flyer advertisements were placed on lecture theatre desks, as this was an unusual place to find a five dollar note. The ground advertisements were randomly distributed on campus to appear like lost money. Flyers were chosen as they have been shown to be an effective medium in generating increased levels of coupon redemption (Burton, Lichtenstein and Netemeyer, 1999). In addition, toilet advertising has been shown to be one of the most effective ambient executions as the audience is captive (Nicholas, 1999), just like students who might encounter a flyer in a classroom setting. The ground technique was used because, as explained by Luxton and Drummond (2000), the way in which the consumer ‘discovers’ the ambient ad is an important contributor to the effectiveness of the technique. They state: “The recipient is invited to believe that they have ‘found’ something and is empowered by this and can better identify with the communication (p. 736).”

The second factor, Response Method, indicates which method the participants could use to respond to the advertisements. One set of advertisements asked the participants to respond by text messaging a code to a cell phone number, while the other set required the participants to write in their cell phone number and drop the advertisement in a drop box. The text messaging response method was selected as recent work by Rettie, Grandcolas, and Deakins (2005) has shown it to be an effective tool in stimulating consumer response. The drop box method was chosen as a more traditional method of response similar to the effort required in coupon redemption. Each of the four conditions of the experimental design had a fixed distribution of exactly 500 advertisements.

Table 1. Experimental Study Design

Type of Ambient Ad	Response Method	
	Txt	Drop-box
Flyer	Condition 1 - Txt code: petrol	Condition 2
Ground	Condition 3 - Txt code: fuel	Condition 4

The campus of a large university in New Zealand served as a controlled test site for the experiment. The advertisements were used to promote a competition being held at the University, which allowed respondents to enter to win a prize. Participants had to respond to the advertisement in order to enter the draw to win the prize. The competition ran for a period of two weeks. Petrol vouchers to the value of fifty dollars each were offered as the prize option, and these were pre-tested through the use of a survey to determine the most appealing prize option. Four petrol voucher prizes were awarded via the experimental promotional activity. The advertisements were designed to resemble a New Zealand five dollar note. However, a number of modifications were made in order to indicate, once the note had been picked up, that it was not real currency. The back of the ad contained a picture of a petrol

gauge pointing to empty with the words “running on empty?” It also included the promotion terms and conditions, and a message that was specifically designed to match the experimental design condition was included (e.g., txt vs. drop-box entry). All other conditions remained constant through the experiment to avoid any possible confounding effects. As the objective of this study consisted of measuring behavioural responses, the only dependent variable measured is the actual response rate to the promotional activity either via txt or drop box coupon. Knowing exactly how many flyers were distributed in each condition (exactly 500), we can record a very accurate response rate based on txts or flyers received.

Results

Of the 2,000 ambient advertisements distributed, a total of 133 responses were received. Thus, the overall response rate was across all conditions was 6.7%, which is fairly sizeable considering that this is a behavioural response requiring some extensive involvement after a short media exposure. There is no way of tracking neither attitudes nor awareness levels although the latter must have been at fairly high levels to generate such a response. We can safely assume that the experimental ambient advertisement was noticed in the physical space and that the manipulation was successful. A breakdown of responses by type of advertisement and response method is shown in Table 2.

Table 2. Responses by treatment group

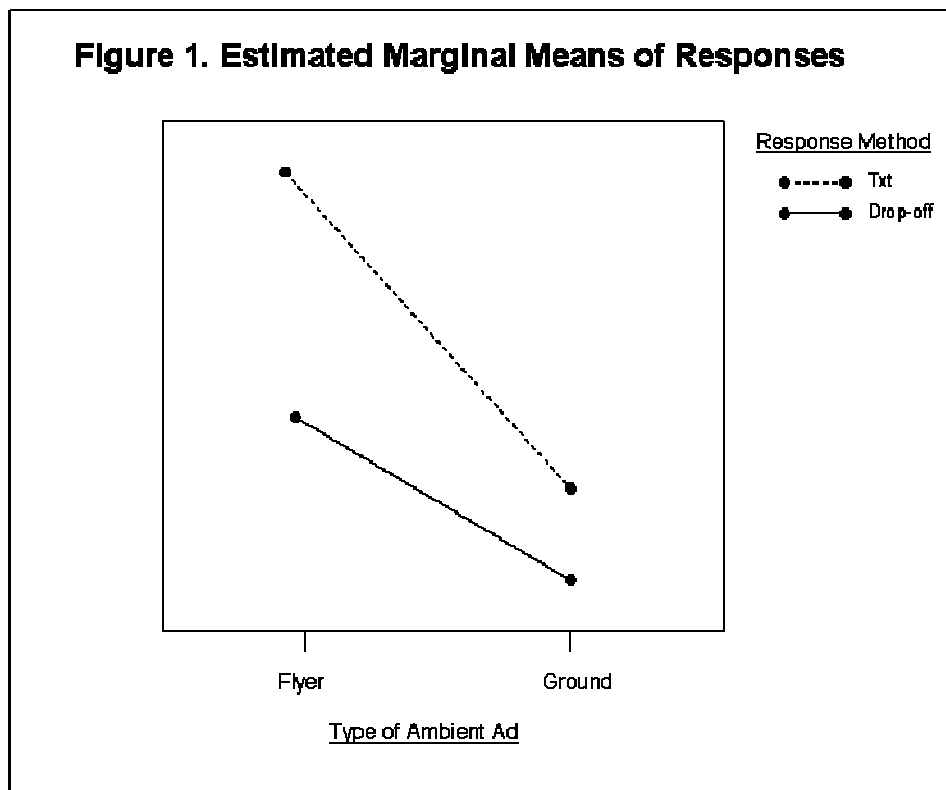
	Number received	(%) of all returns	Response rate (%)
Condition 1 – Flyer/text	73	54.9	14.6
Condition 2 – Flyer/drop-off	23	17.3	4.6
Condition 3 – Ground/text	32	24.1	6.4
Condition 4 – Ground/drop-off	5	3.7	1.0
Total	133	100.0	6.7

To analyse these results, we conducted a two-way ANOVA in order to uncover the effects of the two independent measures (Type of Ambient Ad and Response Method) on the dependent measure, Response to the Ad. The results are shown in Table 3. The results show a significant main effect for both Type of Ambient Ad ($p = 0.000$, $\eta^2 = 0.024$) and Response Method ($p = 0.000$, $\eta^2 = 0.014$). More interestingly, the results also show a significant interaction effect between Type of Ambient Ad and Response Method ($p = .035$, $\eta^2 = 0.002$). As shown in Figure 1, participants exposed to the experimental ambient advertisement were more likely to respond to the advertisement when encountered as a flyer within a captive environment as opposed to a randomly unexpected element lying on the ground. As expected, the txt response was higher than the traditional drop box coupon for both scenarios. As a result, both H1 and H2 are supported by our data. The significant interaction observed suggests that the response rate by using electronic SMS via a mobile phone is improved by a factor of two when used in a captive vs. open environment. This would suggest that when subjects have greater time to process the stimulus, they are more likely to engage with the promotion if they have access to an electronic response mechanism available on site.

Table 3. ANOVA Source Table

	Type III sum of squares	df	Mean Square	F	Sig.	Partial η^2
Type of Ambient Ad	2.96	1	2.96	49.65	.000**	.024
Response Method	1.74	1	1.74	29.15	.000**	.014
Interaction Type of Ambient Ad * Response Method	0.265	1	0.265	4.43	.035*	.002

Notes: *Significant at $p < .05$, **Significant at $p < .001$



Discussion

This study was innovative in using a field-based experimental approach within a realistic setting whereas previous research utilised a survey-based approach where subjects were simply shown photographs and descriptions of ambient and non-ambient ads (Bennett et al., 2000). Therefore, this research contributes empirically to current research on ambient advertising by examining a real-life ambient campaign with different executions of the ambient technique. The study focussed on gauging the behavioural response to different locations where an ambient advertisement might be encountered by consumers as well as the mechanisms that consumers might use to respond. It appears that ambient ads located in a setting where the target audience is captive, such as a classroom or a toilet, are more likely to generate an immediate response like a txt message via a mobile phone. While the “ground” version of the advertisement was arguably more *unexpected*, it didn’t manage to generate

more responses to the promotion although we can speculate that it might have had higher levels of awareness as it was highly noticeable. This result does not support the claim made by Bennett et al. (2000) that unusual stimuli in unexpected locations might generate a stronger consumer response.

The research carried out here does have some limitations to consider when examining the results. First, the advertisements did not contain a company name, brand or a source through which the competition was held. This might have increased the respondents' scepticism and led them to believe that the experiment was a hoax, which may have been accentuated by the fact that we used a fake five dollar note. Thus, the lower response rate to the ground ambient ad may have been the result of respondents wrongfully believing they had found money on the ground. If that was the case, response rates observed might be weaker than could have been otherwise; however, as our design was experimental, this effect would not impact negatively on the relative results observed as we compare means across conditions. It is also possible, although unlikely, that participants could have been exposed twice to the advertising stimulus which could impact on the response rate observed. Future research should examine ambient ads in other unusual and unexpected places as well as unconventional executions (Luxton and Drummond, 2000). In addition, ambient techniques might be explored in conjunction with other promotional techniques, as they are generally not used as a stand alone tactic. Any future study that could find a way of measuring both attitude and behaviour, which may be difficult to achieve, would bring a better understanding of the phenomenon under examination here.

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