

The Value of Exposures Provided by Outdoor Advertising: A Critique of Outdoor Advertising Visibility Adjustments

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Overview

In an article entitled, “The Creative Heresy in Audience Measurement,” Ephron and Philport argue that some measure of creative effect should be factored into computation of the size of audience likely to see an outdoor advertising display. The basic idea is that some physical attributes of a billboard, such as angle to the road, distance to the road, display size, etc, and their interactions should be factored into the size of audience estimate, along with a measure of noticeability, based on creative effects included in the ad.

We assert that the fundamental value of outdoor advertising lies in the exposures that it generates and that discounting the value of these exposures is problematic, both in terms of measuring true cost per thousand exposures and in comparison to other media. Because traditional measures of recall grossly understate the effectiveness of outdoor advertising (Young 1984), it is important to closely examine the value of the exposures generated by outdoor advertising. If anything, the current measurement system may undervalue the exposures provided by outdoor advertising due to the following factors:

- 1) In addition to the reach that is possible through outdoor advertising, one of the fundamental strengths of the medium is high frequency. There is considerable evidence available that the cumulative effect of repeated exposures is higher than the effect of a series of individual, isolated exposures.

- 2) Outdoor advertising is typically viewed in a less cluttered environment than most other media. As a result, an individual outdoor ad is more likely to be seen by the viewer than is the case in many other media.

- 3) The locational advantage of many outdoor ads is so profound that many local businesses who use outdoor advertising do not have alternative media that can provide exposures to their target market.

The paper will also examine measurement issues associated with attempting to implement a system that adjusts exposures based on VAI and noticeability, pointing out that this type of measurement system is inconsistent with that used by other media. Moreover, the adoption of principles being applied in Europe is questioned on the grounds that the factors that affect the outdoor advertising industry vary between the U.S. and Europe.

In an era where other media are facing issues relating to clutter and getting the message through to consumers, the exposures provided by outdoor advertising are more valuable than ever. Because of advantages in overcoming selective perception and the ability to deliver a message at the right time and place, recent trends in media favor outdoor ads. Wall Street should place heavy weight on the value of these exposures in industry valuation. Certainly, the industry should not implement a measurement system that systematically downgrades the value of some outdoor advertising exposures.

Introduction

From a marketing communications perspective, the value of exposures provided by outdoor advertising should not be underestimated by the industry, advertising agencies, or Wall Street. Traditionally, advertising space has been valued based on the number of consumers who are exposed to an ad. While the impact of exposure to an individual ad may vary a great deal from consumer to consumer, exposure is a prerequisite for an advertisement to be effective. In other words, it is possible for ads that are seen by the public to be effective, whereas ads not seen by the public cannot be effective. Thus, exposure is an important measure for advertisers, and due to consistent difficulty in applying other measures of effectiveness for the purposes of pricing advertising, provides an appropriate mechanism for setting advertising rates.

It is somewhat ironic that Ephron and Philport would argue that outdoor advertising exposures be somehow discounted or calibrated based on creative factors, given that, in our opinion, the value of the raw exposures provided by outdoor advertising is currently being underestimated. The reason the value of exposures provided by outdoor advertising have been underestimated lies in three fundamental facts: 1) the level of frequency provided by outdoor advertising allows advertisers to realize the advantages that result from repeated exposures in a way that is not characteristic of most other media; 2) outdoor advertising operates in a less cluttered environment and is more able to overcome problems for advertisers related to selective perception in comparison to most other media; and 3) geographic factors linked to the location of outdoor advertising make the exposures of some outdoor locations exceptionally valuable to certain types of businesses, often retail and service businesses or tourism related business.

The above factors, coupled with the relatively low cost per thousand exposures that is characteristic of outdoor advertising, have made it a good value for many advertisers and have, perhaps, led to an undervaluation of outdoor advertising as an industry. In a media environment that will only become more cluttered and an economy characterized by an ever increasing service sector, it is likely that the advantages provided by outdoor advertising over other media will only increase. Improvements in the technology applied to outdoor advertising will also be a positive feature raising the value of this medium.

The remainder of this paper will examine unique features of outdoor advertising that contribute to the exposures provided by the medium. A discussion of why these exposures have a greater impact in comparison to exposures provided in other communications contexts will be provided.

I. Systems adjusting for VAI and noticeability underestimate the traditional strengths of outdoor advertising.

Three of the fundamental strengths of outdoor advertising are that it: 1) is a high frequency medium that can generate high levels of repeat exposures; 2) is viewed in a relatively uncluttered environment; and 3) provides locational advantages that are highly advantageous to many businesses. As a result, the value of exposures provided by outdoor advertising should not be underestimated. These unique advantages should have an impact on enterprise value in an era characterized by media fragmentation.

Repeated Exposures

One of outdoor advertising's key advantages is repeated exposures. High reach and frequency are consistently listed in marketing and advertising textbooks as being among the major advantages of outdoor advertising critical to outdoor advertising's success (Hewett 1972; King and Tinkham 1990; Young 1984; McGann and Russell 1988; Kelley and Jugenheimer 2004; Belch and Belch 2005; Taylor, Franke and Bang 2006). In fact, Taylor, Franke and Bang (2006) found that media efficiency (ability to achieve high reach and frequency in an area at an efficient cost) was one the primary reasons why advertisers use billboards.

In a review of evidence from academic studies on outdoor advertising, Woodside (1990) found that the primary advantage of outdoor advertising is high frequency in an uncluttered environment. In practical terms, this is important, because it means outdoor advertising has the ability to expose members of a target market to a message numerous times in a relatively short period of time. Many motorists pass by an individual billboard numerous times in a month and, thus, are exposed to the billboard multiple times.

The impact of repeated exposures providing greater impact than individual exposures is well documented. For example, a recent study of recognition and recall of outdoor ads positioned in Laguardia airport indicates that ads that have been displayed in previous months are recalled at a disproportionately high rate.

Another important point is that there is substantial evidence from academic research that passive exposure has an important cumulative effect on consumers. This contributes to an increased value of exposures typical of outdoor advertising. Decades of research resulting in hundreds of studies have shown that prior exposure to a stimulus

(e.g. an advertisement) predisposes an individual toward the stimulus when it is encountered at a later time (Bornstein 1989; Fechner 1876; Maslow 1937; Zajonc 1968). For example, prior research has shown incidental exposure to advertising that occurs during newspaper reading can enhance a consumer's liking for ads, brands and product packages *despite* the subject's inability to recognize having previously seen the ads, brands and product packages (Janiszewski 1988). Low involvement processing of information can result in increased brand awareness and incidental ad exposure has been linked to increased accessibility of information in memory (Shapiro, MacInnis and Heckler 1997). Incidental exposure to product information can also increase the chances that a product makes it into a consideration set (the set of available product or service options most likely to be considered in a choice by the consumer) (Shapiro 1999; Shapiro, Macinnis and Heckler 1997). Also, previous research has shown that incidental exposure effects remain even when in the presence of a large amount of competitive interference or after a lengthy time delay (DeSchepper and Treisman 1996).

A criticism of the VAI model is that it potentially limits the effects of outdoor advertising and underestimates the audience reactions to the outdoor ad. A possible alternative to the VAI model that emphasizes the elements of exposure over noticeability is the processing fluency/attribution model (Bornstein and D'Agostino 1992; 1994; Jacoby, Kelley and Dywan 1989); which is the most popular explanation of the incidental or "mere" exposure effect. The processing fluency/attribution model proposes that repeated exposure to a stimulus (e.g. an ad or billboard) will result in a representation of the stimulus in memory. When the stimulus is encountered later, the memory representation will facilitate the processing of the stimulus (e.g. the advertised product on

a retail store shelf) and make processing more fluent (Janiszewski and Meyvis 2001; Jacoby, Kelley and Dywan 1989; Mandler, Nakamura and Van Zandt 1987). Mere exposure therefore leads to easier processing of product information.

In situations where consumers have little or no opportunity to elaborate on ad stimuli (e.g. driving a car and passing an outdoor ad), the effects of initial exposures on ad liking are stronger (Bornstein 1989; Nordhielm 2002). Studies on advertising repetition effects have found that ad effectiveness increases at lower levels of repetition (i.e. ad wearin; Cox and Cox 1988) while decreasing in effectiveness when continued repetition results in tedium and boredom with the message (i.e. ad wearout; Anand and Sternthal 1990; Blair and Rabuck 1998; Calder and Sternthal 1980). Nordhielm (2002) found that repetition effects (after 80 exposures) under conditions of “shallow” (short duration) processing do not result in a reported decrease of advertising effectiveness (wearout). Additionally, repetition effects extended beyond affective response (liking the ad) to purchase intentions and perceptions regarding product marketing (Nordhielm 2002). Prior research has also shown that when stimuli are processed in a shallower manner, the effects of prior exposure on affective response can actually last as long as one year (Roediger and McDermott 1992). Outdoor exposures are typically of a short duration and this finding enhances the value of frequent, repeated ad exposures for advertisers. The implications of the previously cited research on prior exposures should not be underestimated in the outdoor advertising arena. Exposure in and of itself is an important measure of advertising effectiveness.

Visibility – Overcoming Selective Perception

Outdoor advertising is viewed in a less cluttered environment than other media. While Ephron and Philport argue that outdoor ads are shown in a crowded field of view, outdoor ads are actually viewed in a situation where there is less competition for people's attention (e.g, ability to zip or zap; ignore print ads to move on to other articles; get distracted by other stimuli at home). Outdoor ads cannot be "turned off" and are visible 24 hours a day. In fact, users of billboards rate outdoor advertising very high on the visibility dimensions. In their survey of Taylor, Franke and Bang (2006) found visibility, as measured by the items "easily seen and noticed," "make a powerful visual impression," and "visible 24 hours today" to be the single highest rated reason for using billboards, with a global mean of 5.77 on a 7 point scale.

Although short exposure time and relatively low involvement in the medium (vs. television or newspapers) do mandate that high frequency for outdoor advertising to make it's impact, (Murray and Jenkins 1992; Cannon and Riordan 1994), the ability to cut through clutter and deliver very high frequency provides outdoor with an advantage over other media. While Ephron's observation that the "message is the medium" is accurate as applied to outdoor, the context in which consumers view billboards and other forms of outdoor advertising actually allows them to be noticed relatively easily. It is not possible to "zip" or "zap" a billboard, and consumers cannot simply skip a "section" or group of articles as in a print medium.

We live in an era when the consumer is bombarded by a huge volume of advertising messages. To manage the very high volume of ads they are exposed to, consumers control their information processing by engaging in selective perception.

Selective perception is a four part process consisting of selective exposure, attention, comprehension and retention. Selective exposure refers to limiting the messages one is exposed to hear those that conform to one's pre-existing views. Selective attention refers to paying attention to the ad when exposed to it. Selective comprehension and retention refer to reconciling ad content with prior beliefs, and remembering those messages that are more consistent with one's beliefs, respectively. For an ad to reach the consumer, at a minimum, selective exposure and attention must take place. Because billboards cannot be turned off and are visible 24 hours, they have the advantage of being less prone to be "screened out" by consumers in comparison to other types of ads.

In short, the visibility and ability to generate repeat exposures help billboards to be noticed and read by consumers rather than being screened out by selective perception processes, thereby increasing the value of the exposures.

Locational Advantages

The locational advantage of many billboards is so profound that there is simply no other available substitute. Taylor (1997) found that information on availability/location is the most commonly communicated information cue on a billboard. Billboards communicating availability information most frequently provide directions to a place of business and for many retail businesses, contribute to tangible response in the form of a consumer visit to the place of business. Thus, it is not surprising that a large group of billboard users surveyed by Taylor and Franke (2003) rated billboards substantially higher (5.14) on the "ability to increase sales" than other media (local television was second, at 3.96 on a 7 point scale, followed by radio at 3.68). Additionally, in the same

survey, when asked if other specific media served as a substitute for billboards, the billboard users rated all other media below the midpoint of the seven point scale.

There is sound theory behind the idea that billboard locations in close proximity to a retail or service business can provide an advantage to the advertiser. Dating back to Reilly's law of retail gravitation, gravity models have established that in the absence of a known major advantage of an alternative, consumers will prefer to travel less distance to shop (Reilly 1931; Huff 1964; Bell et al. 1998). As gravity models suggest a natural preference to travel less distance and shop at nearby places, it follows that billboards that point a consumer to a nearby location will have a stronger influence on store traffic and sales.

It is well documented that most retail businesses draw a high proportion of their customers from a limited geographic area ("trade area"). The ability of billboards to provide high reach and frequency in a geographically confined area can allow for excellent coverage of a target audience in a local trade area.

As has been noted by Ephron (1997), advertising works by influencing those who are ready to buy. As a result, Ephron recommends "recency planning," which suggests that consumers should be reached at the time and place when they are ready to buy. As noted by Ephron (1997, p.61), "consumers control messages by screening out most and selecting only a few that are relevant at the time. The new model accepts the relevance that what makes ads work is provided by what is happening in the consumer's life and seldom by the advertising." Billboards are particularly effective to many businesses in exposing consumers to the message at the right time and place, as they are often positioned in close proximity to the place of business and being less likely to be screened

out via selective perception processes. Moreover, recent research by Allaway et al. (2003) supports the notion that putting billboards in close location to a store can enhance gravity effects.

Billboards in locations in close proximity to a place of business can provide exceptional value even if the creative strategy used in the would not score high on the “noticeability” scale as proposed by Ephron. This is especially true of billboards for many types of retail and service businesses (e.g., retail stores, restaurants, gas stations, auto dealerships) and tourism related businesses (tourist attractions, hotels, campgrounds). Thus, as with visibility and frequency advantages, the geographic advantage provided by many billboards suggests that the value of these exposures should not be discounted.

II. The proposed system (VAI with noticeability adjustments) is not consistent with audience measurement techniques used by other media and makes little sense as outdoor advertising’s exposures are better suited to serve multiple functions in comparison to most other media.

In spite of greater clutter associated with other media, television, radio, and print media do not discount exposures based on “noticeability” scores. As alluded to above, not all viewers of a television program are attentive to all ads shown, magazine readers do not closely attend to every ad, and radio listeners may be inattentive or switch channels during advertisements. Thus, outdoor advertising is not a logical medium in which to initiate such a system, as its messages are generally more noticeable (Young 1984).

Outdoor advertising exposures can serve multiple goals. It can, in itself, initiate stops, serving a read/react/stop function (e.g., stopping at a gas station as a response a

directional sign). Outdoor ads can also serve a read/recall function whereby a sign is read and recalled later when the need for the good or services arise. An additional function that outdoor ads can serve is extended recall, by which repeated exposure to a message increases the unaided recall period (Taylor, Claus and Claus 2005). Various outdoor ads can be efficient at these multiple functions in a way that other media generally are not.

III. Ephron's reliance on the POSTAR system assumes that outdoor advertising conditions in the U.S. are the same as is the case in the U.S. Throughout much of Europe, standard posters are smaller than typical billboards.

The United States is a country that has been profoundly influenced by the expansion of use of the automobile. The U.S. has approximately 212 million registered passenger cars, trucks, and motorcycles, and that travel more than 4 trillion miles per year. According to the Automotive News Data Center, the average American spends 443 hours per year driving a car, and averages driving 10,000 miles. Moreover, the number of vehicle registrations and mileage driven continues to grow. For a variety of reasons, typical Europeans do not drive as much as Americans, nor is popular culture as profoundly influenced by the automobile. The United States is a large nation geographically that is connected by a complex network of highways. European cities are older, and traffic patterns often reflect street grids based on ancient, concentrated patterns. Many European cities are comprised of tightly knit streets and alleys which are better suited to pedestrians than automobiles.

In Europe, billboards are referred to as "outdoor posters" and are smaller than standard U.S. billboards. Standard sizes for U.S. billboards are relatively large, at 14' x 48' and 12' x 25'. The largest billboards in Europe are 3 meters x 12 meters, and there are relatively few of these signs. Roadside structures in Europe are usually considerably

smaller than those in the U.S., with the most common European size being 3 meters by 6 meters. Speed of recognition is a critically important variable in Europe (van Meurs and Klerkx 2005), as it is harder for the viewer to process the message quickly. Thus, it is likely that getting the outdoor advertising message read and processed is a bigger issue in Europe than in the United States. As a result of the above environmental differences and differences in the sizes of signs, direct comparisons of the outdoor advertising industry in Europe and the U.S. should be treated with considerable caution. While different environmental factors may make the POSTAR system applicable to measurement of outdoor in Europe, the assumption that it can be applied in the United States is problematic.

IV. Noticeability is a problematic measure conceptually. It is even harder to develop a good practical measure of this construct.

While virtually all measures of advertising effectiveness can be critiqued, measuring noticeability has its own flaws. Different consumers will respond to different creative strategies in different manners. It is dangerous to make predictions about “average consumers” in this context, as variance among consumers may be great. Different people prefer different types of creative, have different favorite colors, different font preferences, etc. Thus, developing a “one size fits all” approach in which a certain creative strategy is deemed superior for all consumers is highly questionable. Certainly, noticeability is not as accurate a measure of how many people see a billboard in comparison to actually asking consumers whether they recognize or recall a message.

Simply making a message more noticeable does not mean it is easier to draw conclusions from the message (Stewart and Martin 1994). There are contradictory

findings from noticeability studies in both the marketing and psychological literatures. For example, in the warnings literature, studies have shown neither size of the lettering in a warning nor the background color significantly increased the noticeability and legibility of a message (Popper and Murray 1989). Laughery et al. (1993) found that adding more features designed to draw attention to a warning did not significantly influence the degree to which people notice a warning message. Contradictory results suggest that the effect of specific characteristics of messages such as color, size, and lettering are dependent on the context in which they are used (Stewart and Martin 1994). Thus, with no clear conclusion on what factors constitute a generalizable, noticeable message, distinguishing between billboards on this type of basis is not advisable.

Additional difficulties arise in terms of developing a practical measure of noticeability in the outdoor arena. One major reason is the application of field and laboratory studies to the real world is problematic. Developing estimates of parameters based on experiments conducted under forced exposure or exposure under circumstances where the respondent knows his/her movements are being tracked introduces bias into studies that may compromise external validity. Researchers have argued that experiments suffer from several limitations including the control that is afforded the researcher which is not available in the real world, the fact that experiments have no consequences (short or long term) for the respondents, and the fact that experiments have a sudden beginning and a sudden end (Winer 1999; Wells 1993). Moreover, the idea of making downward adjustments in exposure based on physical attributes such as size, type of road, angle to the road, as obtained by surveys in large metropolitan areas is problematic as it is not representative of all billboard sites. Particularly in rural areas,

more billboards are likely to be placed in easy to see locations. Additionally, as was previously discussed, the impact of passive exposures should not be underestimated.

Conclusion

In today's media environment, the exposures to a message provided by outdoor advertising are more valuable than ever. Because it is increasingly difficult to get messages noticed and/or remembered, the uncluttered environment in which outdoor ads are seen (often with high frequency) helps to overcome problems of media fragmentation and selective perception. Moreover, the context specific advantages based on geography and the advertising message being seen at a time close to when the purchase decision is made, are key advantages of outdoor advertising exposures. As a result, the implementation of a measurement system based on VAI that discounts some outdoor advertising exposures makes little sense, particularly since similar adjustments are not being proposed for other, more fragmented media. Especially given research indicating the value of repeated exposure, including passive exposure, audience measurement in outdoor advertising should focus heavily on exposures, and Wall Street should recognize the increased value of these exposures.

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