SCHEMA CONGRUITY – A BASIS FOR EVALUATING AMBIENT ADVERTISING EFFECTIVENESS

Jurca Maria Alina, Plăiaș Ioan
Marketing Department, Faculty of Economics and Business Administration, Babes-Bolyai University, Cluj Napoca, Romania
alinamaria.jurca@yahoo.com
ioan.plaias@econ.ubbcluj.ro

Abstract: The purpose of this paper is to develop a theoretical basis for evaluating ambient advertising in relation to the schema. Ambient advertising, a creative form of out-of-home advertising that conveys direct and contextual messages by using and often altering existing elements of the environment in a way that surprises the target audience, appears to be a solution to the increasing clutter from the media. This study draws on the schema congruity theory to offer a better understanding of how consumers are processing information received from advertisements. Schemas are organized structures of knowledge and expectations that consumers develop in order to categorize the incoming information, and that they access every time they are experiencing a new situation. The schema-based approach is important in understanding consumer behavior because consumers are facing an environment filled with similar brands and products promoted by ads that sound and look alike. According to schema congruity theory information perceived as schema congruent offers a comfortable feeling of familiarity and generates limited cognitive processing, whereas schema incongruent information generates surprise and triggers extensive cognitive processing in order to help individual make sense of the unusual situation. Taking into consideration the combination of the different levels of expectancy and relevancy there have been identified three congruency situations: extreme congruity, moderate incongruity and extreme incongruity. Existing research shows that moderate incongruent information offers the best results in recall and recognition and also the highest affect levels compared to extreme congruity and extreme incongruity. Based on evidence from literature this study attempts to position ambient advertising in the moderate incongruity category, thus theoretically proving the assumed effectiveness of this promotional tool. Therefore, this paper is a starting point in bringing the light in the under-researched field of ambient advertising and can offer a theoretical basis for future empirical research on the effectiveness of this promotional tool.

Keywords: advertising; ambient advertising; schema; schema congruity theory; clutter; consumer behavior

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1. Introduction
Evidence from empirical research indicates a gradual decline of consumer attitudes towards advertising within the past decades (Zanot, 1984). Amongst the causes of the decline are the rising clutter and the intrusion of advertising messages (Zanot, 1984) and in the same time the increasing familiarity of individuals with current advertising efforts. Clutter is the amount of advertising in a medium (Elliott and Speck, 1998) and results from the ever-increasing number of commercial messages consumers are exposed to. Existing data show that advertisements sometimes occupy more than 50 percent of the contents of a certain medium (Belch and Belch 2003), thus raising the clutter at unprecedented levels. In addition, Elliott and Speck (1998) found that the higher the medium familiarity the lower the ad recall is, as consumers tend to ignore and avoid advertisements in the media they are most familiar with.

The increasing clutter has also affected consumers’ information processing and learning behaviors. Individuals are becoming savvier as their understanding of marketers’ persuasion techniques is improving every day. As a way to cope with the increasing clutter, consumers have developed schemas that act as protective shields (Dahlén and Edenius, 2007) against the massive amounts of promotional messages. The advertising schemas help individuals identify advertising and trigger an instinctive response of avoidance that is materialized in zapping, flipping the page or simply ignoring the ad.

In this context, ambient advertising has appeared and developed into a major form of promotional communication that seems to be able to overcome the problems faced by traditional advertising. Ambient ads use unconventional media and creative tactics to deliver the promotional message and to grab the attention of the target audience. Its placement in areas where consumers spend most of their time and where they don’t expect to encounter promotional messages contributes to the effectiveness of ambient (Hutter and Hoffmann 2011), making it one of the most promising advertising techniques for the future.

The research at hand attempts to position ambient advertising on the schema congruity scale based on the evidence from existing research in both marketing and cognitive psychology areas. This positioning can offer a better understanding of the cognitive mechanisms triggered by this promotional technique and what are the drivers of ambient advertising effectiveness. Moreover, a better theoretical understanding of how ambient advertising works at a cognitive level can offer marketing scholars new opportunities for empirical research that could bring some new light in the under-researched field of unconventional advertising.

2. Schema theory
The schema theory developed in social psychology assumes that cognitive processing is influenced by existing knowledge and it is used to explain how individuals process information by categorizing and evaluating it based on previous experience. Bartlett (1932), one of the pioneers in schema theory research, revealed that individuals organize the accumulated knowledge in so-called schemas, from where the information can be accessed by a word, an image, a symbol or an other cue (Warlaumont, 1997). Schemata are enduring understandings of a specific phenomenon that cannot be easily changed once they are established. When facing a new experience an individual’s brain attempts to access the corresponding schema.
in order to process the situation more rapidly (Beals, 1998). Advertising is a form of incoming information that consumers must process. Research has shown that advertising effectiveness is dependent on the extent to which consumers process the information embedded in the commercial message. There is evidence supporting the assumption that individuals have developed an advertising schema (Friestad and Wright, 1994; Friestad and Wright, 1995; Dahlén and Edenius, 2007; Warlauumont, 1997), and therefore their processing behavior can be evaluated based on the schema theory. Existing empirical research indicates that advertising schemata negatively impact consumers’ attention (Donthu, Cherijan, and Bhargava, 1993) and attitudes (Stafford and Stafford, 2002) towards advertisements increasing their suspicion against the commercial messages. Schemas provide general expectations that influence processing of specific situations (Fiske and Taylor, 1984) According to schema theory, individuals access the information stored in the existing schemas every time they encounter a similar instance. As that information has already been processed people don’t need to reevaluate the information. Therefore, the schema based processing is faster and easier.

With the aid of existing advertising schemas consumers can identify and interpret advertisements quickly as persuasive messages, their response being shaped by their previous knowledge and experiences in relation to the commercial attempts. Practically, advertising schemas can shape individuals’ future response to advertising (Friestad and Wright, 1994), once identified as advertising (Dahlén and Edenius, 2007). According to Brown (2004), consumers ignore advertisements once the schema is activated. Furthermore, Speck and Elliott (1997) discuss avoidance as a common response to advertising, as consumers attempt to reduce their exposure to commercial messages by flipping, zapping, eliminating or ignoring ads.

2.1. Schema congruity theory
Congruity theory attempts to examine the effects of confirmation and disconfirmation of expectations on individual response. The individual response is evaluated on both the information processing behavior and the evaluation behavior. The congruity theory pushes the schema theory even further, by investigating the impact of information based on its consistence or inconsistence with existing schemata. Thus, new experiences can correspond with existing schemas to a larger or smaller extent. If the new experience matches a schema it is congruent, whereas if it doesn't fit any existing schema is incongruent.

According to Mandler (1982) a situation congruent with existing schema generates familiarity and comfort and does not involve any cognitive effort. On the other hand, if a given situation does not match any schema, it stimulates the cognitive efforts to solve the perceived incongruity between the received information and existing schemata. The incongruent information is evaluated piecemeal (attribute by attribute) thus involving more time and effort (Sujan, 1985). The extent of incongruity influences an individual’s overall feelings about that particular experience. Thus, if the incongruity is too important, the situation can be perceived negatively, as it can be irritating or even frustrating if the incongruity cannot be addressed. If the incongruity however is moderate, it may result in positive feelings affect, as the individual is able to interpret the new information successfully (Mandler 1982). This opinion is also supported by empirical research (Meyers-Levy and Tybout,, 1989;
Stayman et al, 1992) which shows that moderate schema incongruity produced more favorable evaluations than congruity or extreme incongruity. The importance of advertising schemas is in close connection to the schema congruity theory. Similar to other areas of psychology where research has shown that schema-congruity influences processing and evaluation (Fiske 1982; Srull et al. 1985), the schema-congruity of advertising has a major role in the processing and evaluation of advertising messages. Consequently, it can influence the success or failure of an ad (Heckler and Childers 1992; Goodstein 1993).

2.2. Measuring schema congruity

Heckler and Childers (1992) developed a bi-dimensional framework based on expectancy and relevancy that contributes to conceptualizing the schema incongruity in advertising. In this context, expectancy is the extent to which an ad is conform to consumer expectations about such advertising, whereas relevancy refers to the degree to which the incongruent elements from an ad provide meaningful information about the brand or the product, easing consumer cognitive process to identify the primary message of the ad (Joost and Verlegh, 2002).

In the same study, Heckler and Childers (1992) developed three categories of advertisements based on a combination of different levels of relevancy and expectancy: expected – relevant, unexpected – relevant, unexpected – irrelevant. Congruent ads include expected and relevant information that match the schema, extreme incongruent ads present unexpected and irrelevant information that do not fit any existing schema, whereas moderately incongruent ads include unexpected but relevant information, depicting novel ideas that challenge the existing schema but that could still be reconciled with it (Heckler and Childers, 1992; Mandler, 1982). The different perceptions of schema incongruity lead to the assumption that an optimal level of incongruity may be established. Yoon (2012) associated schema congruity theory with the theory of optimal stimulation level (Berlyne 1960). According to his findings, the external level of stimulation may determine an individual to seek for an increase if the level is too low or a reduction if the external stimulation is too high. Evidently, stimulation is perceived optimal if it is neither too low nor too high (Steenkamp and Baumgartner 1992). In addition, Raju (1980) assumed that optimal stimulation levels are different for every person. Thus, the final evaluation of an experience depends not only on the stimulation level, but also on how the individual interprets it in relation to his/her existing schemata. Therefore even if stimulation level is optimal, the final outcome may be a negative evaluation or a positive one depending on whether the interpretation failed or the individual did not considered it satisfactory or if it was successful (Yoon, 2012).

3. Ambient advertising

Ambient advertising has become one of the most important forms of unconventional out-of-home advertising. Moreover, existing data shows that it is still expanding at fast pace, taking into consideration the important increase in its registered expenditure (Wehleit, 2003; PQ Media, 2007; PML Group, 2011). This form of promotion has become very popular lately among practitioners, because of its attention grabbing and its ability to stand out from the cluttered advertising environment..
The term “ambient” derives from ambience, which means surrounding. The first use of the concept in relation to advertising dates from the mid 1990’s and it belongs to Concord advertising, an outdoor specialized agency from London, who used it to define the “a bit different” advertising requested by agency’s clients (Luxton and Drummond 2000). Today, ambient advertising refers to a creative form of out-of-home advertising that conveys direct and contextual messages by using and often altering existing elements of the environment in a way that surprises the target audience (Jurca 2012).

Whether ambient advertising can be a viable alternative to traditional advertising it is still open to debate. However, until now the general opinion amongst marketing academicians is that ambient ads are more efficient when implemented as part of an integrated marketing communication campaign together with traditional advertising, rather than as a standalone strategy (Shankar and Horton, 1999, Luxton and Drummond, 2000, Reyburn, 2010, Lee Yuen, 2011). Consequently, the chances that ambient advertising might replace traditional ads are low, however it can enhance the results of the latter.

4. Schema incongruity as a trigger of ambient advertising effectiveness

The bi-dimensional framework of advertising incongruity developed by Heckler and Childers (1992) identified expectancy and relevancy as the two major factors in establishing the level of incongruity with existing schemas. Within this framework three situations were identified based on the different levels of expectancy and relevancy that an ad can display, expected – relevant, unexpected – relevant, unexpected – irrelevant. As mentioned above, the three possible combinations result in three different levels of congruity between the ad and the existing schemas: congruence, moderate incongruence and extreme incongruence. In what follows the paper will attempt to place ambient advertising in one of the three categories, in order to better assess its effectiveness.

As several authors agree upon, ambient advertising uses the unconventional placement (Luxton and Drummond, 2000; Shankar and Horton, 1999) and the non-traditional media (Pavel and Catoiu, 2009; Lee Yuen, 2011) as drivers of surprise for consumers, in order to attract their attention and direct it to the advertising message. Surprise is the result of the divergence between perceptions and expectations (Hutter and Hoffmann, 2011). Thus, by confronting them with visual elements that normally cannot be found in that particular environment (Barnes, 1999) ambient ads challenge individuals’ expectations stored in the existing schemata, and the perceived incongruence generates surprise (Alden, Mukherjee and Hoyer, 2000). In the mind of the consumers, the new experience will neither correspond with schemata that fit an individual’s physical surroundings (e.g., a park or a bus station) nor with the advertising schemes that expect traditional advertising (e.g., on TV, in newspapers, on billboards). According to Waddill and McDaniel (1998), unusual stimuli are processed longer than commonplace stimuli, which can further positively influence the memory. This opinion is also supported by Mandler’s (1982) congruence theory according to which a schema incongruent situation will generate deeper and longer cognitive processing as the individual attempts to make sense of the incongruity.

For ambient advertising, the phrase “medium is the message” coined by Marshall McLuhan in the 1960s (cit. in Dahlén, 2005) is fundamental. As the meaning of the
term “ambient” suggests and in line with the previously mentioned definitions of concept, this promotional technique uses existing elements from the surrounding environment, that are often altered in order to be integrated into the message delivery (Jurca 2012). Reyburn (2010) believes that an ambient campaign must start from the environment, thus making the location one of the most important elements of ambient advertising. In order to be efficient, the ad must fit both the environment and the context in which the consumer encounters it and in the same time the brand must be relevant for the environment (Ryan-Segger, 2007, Reyburn, 2010). Vice versa, also the medium carrying the message and the whole environmental context become relevant for the brand, suggesting a mandatory interaction between the ad message, the brand and the environment. Existing empirical research also suggest an increase in the effectiveness of the advertisement when a match between the brand, the ad and the media context exist (Dahlen, 2005; Dahlen, Friberg and Nilsson, 2009). Following Mandler’s (1982) idea, although the initial surprise generated by the unexpectedness of the ad may startle the audience, after a deeper cognitive processing the audience can reconcile the incongruence of the situation with the existing schemata due to the relevancy of the ad for the promoted brand or product.

Furthermore, another aspect that needs to be taken into consideration is creativity. The concept described by Leo Burnet (1968) as “the art of establishing new and meaningful relationships between previously unrelated things in a manner that is relevant, believable, and in good taste, but which somehow presents the product in a fresh new light” is an important characteristic of ambient advertising. According to Baack, Wilson and Till (2008, p. 86) creative ads are “highly unique and highly relevant”. Sheinin, Varki and Ashley (2011) identified two dimensions of advertising creativity that seem to be accepted throughout the academic literature: the novelty of the execution (or divergence) which refers to how different an execution is from consumers’ expectation, and the relevance (or usefulness) of the message, referring to extent to which an ad contributes to consumers’ understanding of the advertised brand or product. These two dimensions of creativity can be connected with the two dimensions of schema congruency from Heckler and Childers’s model (1992), with the novelty of the execution representing the unexpectedness and the relevance of the message referring to the relevance of the ad. Therefore creativity can create a moderate level of schema incongruity that challenges consumers’ expectations and in the same time as it positively influences the effectiveness of the ad.

By analyzing the above evidence, a conclusion can be drawn in what regards the expectancy and relevancy levels of ambient advertising. Thus it is obvious that one of the basic characteristics of this promotional technique is the unexpected character revealed through both the unusual medium choice and the unusual execution (Luxton and Drummond, 2000) aimed to surprise the audience and grab their attention. Furthermore, although unexpected an ambient ad is relevant for the promoted brand or product as it integrates the medium and the whole context in the delivery of the promotional message. Comparing this evidence with Heckler and Childers’s model (1992) it can be inferred that ambient advertising would fit the unexpected-relevant category thus generating a moderate incongruity with consumers’ existing advertising schemata. Furthermore, by including ambient advertising in the moderate incongruity category of ads it can be a conclusion can be drawn about the effectiveness of this promotional technique. As previous
research showed that ads with moderate congruity seem to be the most effective in what regards both affect and memory these results could be extrapolated to the ambient advertising category also. This categorization offers however and important basis for future research aiming to prove empirically the theoretical conclusion drawn in this paper on ambient ads effectiveness.

5. Conclusion

With the economic recession taking its toll on companies’ businesses, the marketing budgets have been cut drastically in order to reduce costs. Marketers are being held responsible for every dime spent and the focus is on the return of investment. This context favors the development of ambient advertising, as its costs are lower that the costs of traditional media and its returns in respect to expenditure seem to be better (Reyburn 2010), delivering extremely targeted campaigns with minimal wastage (PML Group 2011).

Unlike traditional advertising, ambient ads don’t use persuasive messages trying to convince the audience to buy, but rather they address to individual’s subconscious challenging the existing schemas and creating memorable images of the promoted brands. The creativity and unexpectedness of the ambient execution creates surprise and gets the attention of the viewers, engaging their mind and activating their cognitive processes that help them understand the unusual situation they are facing, and consequently creating an increased awareness of the brand and the ad. However, the scarce empirical research to date that proves the effectiveness of ambient advertising may not be enough to convince advertisers to change their promotional tactics. This paper offers a theoretical basis for advertising researchers to better understand the impact of ambient advertising and how it influences consumers’ attitudes in the buying process. However, there is an obvious need for a more in depth empirical research on how ambient advertising works and what cognitive processes triggers in audiences’ brain.

Ambient advertising is a versatile promotional technique that deserves more attention as it can be used by both small and large companies (Gambetti, 2010). While large companies use ambient to build brand image, grab attention and differentiate their brand in the hypercompetitive markets small companies take advantage of the low costs of this promotional tool using it as a mean to create awareness within their target audiences (Gambetti, 2010). Moreover, ambient has also been increasingly used in campaigns that attempt to create awareness and change behaviors in respect to social issues regarding environment protection, health issues (such as AIDS), dangerous behaviors (such as drunk driving), world poverty, and so on. This makes ambient a versatile promotional tool that can help any organization reach their communication purposes.

A better understanding of ambient advertising will also benefit advertising agencies, which can focus on improving the characteristics of advertisements that generate positive response from audiences, thus offering quality, rather than concentrating on quantity. For example, depending on the brand and brand’s target consumers, advertisers can create ads that are addressed to specific publics (with a higher or lower level of advertising literacy). Furthermore, a lower number of ads with a higher quality can also contribute to reducing the generally perceived advertising clutter that is one of the major factors reducing the effectiveness of promotional messages. Even though the general opinion is that ambient advertising will not replace...
traditional advertising (Krautsack and Aust, 2006), its use in a multi-media campaign can contribute to the success of the promotional attempt, as results of empirical research show (Wehleit, 2003). According to Krautsack and Aust (2006: 7) the "integration of ambient media in marketing plans will be a natural consequence of the development of the last 10 years". There will be a constant evolution of the forms of ambient that will go along with the changes of consumers' habits and marketers' needs, but as long as the "key principles of creation, design and implementation are followed" (Krausack and Aust 2006: 7) this advertising method will offer a way out of the clutter and into the mind of the consumers.

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