Effectiveness of brand placement: New insights about viewers

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Abstract

Since traditional media have become saturated, the technique of product placement has been attracting growing interest. This research explores new insights concerning viewers’ reactions during a second viewing of a movie. A sample of 3532 French viewers of DVDs has been used to link the way the movie was chosen, viewed and appreciated (or not) with a spontaneous brand placement recall, the day after the film was watched at home. Results make a contribution to strengthening professionals’ interest in the technique, and to adding to academic knowledge of the topic. A first viewing of the movie at the cinema improves brand placement recall, as does watching the movie at home on a large home cinema screen. Such an improvement also occurs when a DVD movie is chosen either because of the movie director or when the viewer likes the movie.

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1. Introduction

Product placements (a product and/or a brand intentionally placed in a cultural medium) are mushrooming in movies nowadays. In 2007 alone, the fact that in the movie Sleuth, Bvlgari jewels are a key element of the plot, that MSNBC is the favored news channel in The Invasion, that the Porsche car brand is used as a reference in Transformers, that the New York Post is the unavoidable newspaper in the movie The Brave One, and that a Sony video camera is used in Vantage Point, a Columbia picture (subsidiary of the Sony Group), is not coincidental at all. Those products are part of a so-called product placement deal. Product placement in movies has become a communication technique which is used more than ever by advertisers (Karrh et al., 2003; PQ Media, 2007). A recent Association of National Advertisers (ANA) survey indicates that 63% of the American advertisers who responded already integrated product placement actions in their communication plan, 52% specifying that financing for those actions had been transferred from their TV advertising budget (Consoli, 2005). A great deal of research is already devoted to product placement in all its forms (Nelson, 2002; La Ferle and Edwards, 2006; Gupta and Gould, 2007) and more specifically to product placement in movies (Karrh, 1998). This paper strives to present new insights into the viewer’s contact with the movie and the brand placement. This approach originally focuses on the impact of brand placement on the potential second viewing stage (Brée, 1996; Bressoud and Lehu, 2007a), by using an innovative study of DVD viewers instead of the usual movie theatre viewers. The terms product placement and brand placement are sometimes used interchangeably. In this paper, new findings are presented to advertisers about the links existing between the viewers’ exposure conditions and the impact of brand placements.

2. Brand placement in movies

Since the first brand placements appeared in novels two centuries ago, they have developed with the movie industry (Turner, 2004; Newell and Salmon, 2004). Product placement is a crossbreed technique, that combines different communication techniques into one, taking place in a cultural and/or entertainment
environment. Placing a product consists of putting a product and/or a brand into a movie scene where it can be seen and/or its name heard. The placement can either be paid for by the advertiser or be part of a barter deal concerning products and/or services such as logistics facilities (Karh, 1998). Ford paid for an Aston Martin car to be featured once again in the James Bond films from *Die Another Day* (2002) onwards, but BMW at no charge supplied 32 Minis with specific features for *The Italian Job* (2003). Mainly since the end of the 1980s, several papers contribute to a better understanding of this communication technique which is dubbed hybrid by Balasubramanian (1994) since brand placement puts an ad message in entertainment medium. Its positive effect on attitude (Fontaine, 2005; Redondo, 2006) and especially its potential impact on brand recall (Brennan et al., 1999; d’Astous and Chartier, 2000) represent the main core of the research knowledge.

2.1. The reasons for product placement growth

Confronted with the fragmentation of media and their audiences on the one hand (Deloitte, 2005) and with the rise of electronic video devices allowing viewers to skip commercials (O’Neill and Barrett, 2004) on the other, advertisers are increasingly seeking to re-establish the link between products and their consumers. As brand placement in movies seems to be well accepted (O’Reilly et al., 2005), sometimes less expensive than a 30-second TV spot and also more effective (Jaffe, 2005), this communication technique is becoming more frequently used. Ways of placing the brand may differ, but the main purpose of obtaining brand recall and improving brand image remains (Lehu, 2007). That is why in 2006, for instance, Heineken beer was generously drunk in *Madea’s Family Reunion*, why Chief Inspector Clouseau drove a Smart car in *The Pink Panther* and why Dole bananas were eagerly eaten in *Curious George*.

Movies are not the only medium used for brand or product placement. Some can be found in television series or shows, theatre plays, songs, videogames, novels... (Kretchmer, 2004; Moser et al., 2004). The primary reason remains the same: generating complementary income for the author, the medium or the production on the one hand, while offering an opportunity of branded entertainment to the advertiser (Russell and Belch, 2005). Car makers were among the first to use the technique because of the potentially very large audience for a low cost (Parrish, 1976). Moreover the same movie can now be seen in theatres, on DVD, cable/satellite TV, syndication and reruns. Besides, building a fake car would be too costly for a production and somehow could appear too obvious to the audience (Moser et al., 2004).

2.2. Modalities and effectiveness of a product placement

Research into product placement usually focuses on effectiveness or spectators’ acceptance of this hybrid technique. Nevertheless, most research in this field explains and gauges effectiveness by the way the placement is made, meaning that most of the results show how the characteristics of the brand placement affect its effectiveness (effects from the placement).

Balasubramanian et al. (2006) identify several measures of effectiveness: brand typicality/incidence, placement recognition, brand salience, placement recall, brand portrayal rating, identification with brand/imitation, brand attitude, purchase intention, brand choice, and brand usage behavior. Three placement modalities are usually distinguished: prominence, audiovisual and plot insertion. Prominent placements occur when the product is made highly visible by the virtue of the size and/or position on the screen or its centrality to the action in the scene (Gupta and Lord, 1998). The audiovisual characteristic refers to the appearance of the brand on the screen and/or to the brand being mentioned in a dialogue (Russell, 2002). Finally, plot insertion refers to the degree to which the brand is integrated into the story itself (Russell, 1998). Such research contributes to a better understanding of product placement effectiveness (Vollmers and Mizerski, 1994; Russell, 2002; Karh et al., 2003; Bressoud and Lehu, 2007b), and more specifically brand communication effectiveness.

Several researchers have worked on placement effectiveness, and still do, either in movie theatres (Ong and Meri, 1994) or in TV program, including series (Stern and Russell, 2004). However, even if they recognized that a movie placement has a first life in theatres and a second life in the home (Vollmers and Mizerski 1994), little research has focused on this topic (Brée, 1996). Research into product placement concentrates on placement conditions which can be partly controlled by the advertiser.

2.3. Research objective

Because the link between a spectator’s conditions of exposure and brand placement effectiveness cannot be controlled, less research focuses on this relationship. But a spectator’s attitude influences such effectiveness (Johnstone and Dodd, 2000; Fontaine, 2002), and the advertiser could have chosen the movie on the basis of the attitude the story was supposed to generate. This primary analysis leads us to one goal: exploring the influence of the spectator’s attitude on the effectiveness of a second life brand placement in a film on DVD watched in the home. This goal is achieved by explaining the effectiveness of the brand placement in terms of the spectator’s attitude while watching the movie during this second viewing; the effectiveness is analyzed using an experiment with DVD viewers.

3. Hypotheses

The extent of spontaneous day-after recall (SDAR) in terms of number of brand placements seen on screen and remembered is used in this research as the measure of brand placement effectiveness. In determining this, the role of the consumer becomes pregnant, discussing how many brands a consumer should remember, given the conditions pertaining when he or she was exposed to the movie. The advertiser’s objective is obviously to make sure that the consumer recalls the specific brand and that he or she does so regardless of the modalities of the brand placement.
Four hypotheses have been formulated to link brand placement and the consumer who has been exposed to this communication technique. The main innovation in this research is to focus on the second wave of potential exposure—DVD as opposed to the cinema. The first two hypotheses focus on this aspect, before and during the exposure to the movie. The last two hypotheses concentrate on the spectator’s attitude towards the movie before and after viewing the movie in which brands are placed.

3.1. Second life of the placement

Among the respondents, some may have seen the movie previously, in cinemas. Johnstone and Dodd (2000) first test the hypothesis that SDAR might be higher if viewers were watching the movie for the second time. Unfortunately, they conclude that prior exposure has too little impact upon brand salience level to support this hypothesis. Their hypothesis is tested on a sample of 53 viewers. The present research employs a sample of 3532 viewers. A brand placement has several lives (Brée, 1996) which interact through the many viewings of the movie. Consequently:

Hypothesis 1a. The extent of brand placement SDAR on DVD viewing is favorably influenced by a first viewing of the movie at the cinema.

Consistent with this first hypothesis that links TV and theater, and the wish to focus on the TV second viewing, the difference of size of a TV screen, smaller than that of a theatre screen, must be considered. Two of the three modalities of product placement, plot integration and audiovisual remain the same whether the movie is shown on a theatre screen or on a TV screen. However, the third modality, prominence, may be drastically changed, given the difference in absolute screen size. Depending on the size of the screen, the product placement may appear less prominent on TV than on a cinema screen. Of course, the relative size of the placement in the movie scene always remains proportionally the same. In a cinema all the spectators are seeing the movie on a large screen, but this is not the case when it is viewed at home. However, pre-tests informed us that a certain number of viewers use video widescreen projection instead of a traditional TV set. This is not a problem if the size of the placement has no impact on its recall. Nevertheless, several researchers insist on the role of placement prominence (Gupta and Lord, 1998; Brennan et al., 1999; d’Astous and Chartier, 2000). They demonstrate that the more prominent the placement, the greater the impact. Thus the size of the placement in relation to the size of the screen – which is part of the placement prominence definition – influences the placement recall. This led us to question whether the absolute size of the placement could play the same role: that is, whether the larger the screen on which the respondents have been watching the movie, and thus the bigger the brand placement’s appearance, would, via this prominence, result in better recognition and recall. Consequently:

Hypothesis 1b. Watching the movie at home, on a large home cinema screen, improves the extent of brand placement SDAR.

3.2. Spectator’s attitude towards the movie

The two following hypotheses concern the choice of the movie and its appreciation.

Some movie viewers choose their movie (in movie theatres or on DVD) because of the film’s director (Ainslie et al., 2003). Those movie fans may be more interested than the average in the direction, the set and/or the acting, their supposedly higher attention could lead to a greater degree of SDAR for brand placements. The purpose of this hypothesis is not to analyze the impact of the director’s contingent fame on the SDAR. All the selected movies could be considered as successful in their domestic market, but the fame of the director was obviously very different from one film to another. So the goal is just to identify the possible impact of the movie director, whoever he or she was. Based on a direct effect due to vigilance:

Hypothesis 2a. Choosing a DVD movie because of the director improves the extent of brand placement SDAR.

Fontaine (2002) shows that appreciation of a movie has a positive impact on attitude change. This result is still accurate for recall and then, for a viewer who has enjoyed the movie, details might be better perceived and then be better recalled. This hypothesis is also inspired by Johnstone and Dodd’s work (2000) stressing the fact that placements could increase brand salience, and particularly so if the audience liked the movie. Consequently:

Hypothesis 2b. The more the DVD viewers appreciate the movie, the more they spontaneously recall placed brands.

This set of hypotheses is summarized in Fig. 1.

4. Research design

This section presents the original method adopted of collecting data following a second stage viewing of a movie and the methodology used to test the four hypotheses.

4.1. Data collection

The purpose of this research is to innovate by using a large, convenient sample of video viewers questioned the day after watching a movie on DVD, when leaving one of the three French video rental shops chosen for the study. The intention is to collect answers from single respondents only. This means that the DVD viewers are each interviewed about one film only. This means that the DVD viewers are each interviewed about one film only. The final sample includes 3532 video viewers questioned about one of the following 11 American movies: Men in Black II, Minority Report, Analyze That, Banger Sisters, Fashion Victim, Austin Powers in Goldmember, Johnny English, Intolerable Cruelty, Mr. Deed, Hardball and Paycheck. These movies were selected for the research because they were newly released DVDs (meaning heavy rentals during the data collection process), because they were successful (meaning many copies...
were available at the time, facilitating the data collection) and essentially because the placements were easily and clearly recognizable. This research covers a period from 2003 to 2005 partly because the decision to choose real motion pictures meant that they had to be selected carefully to ensure their maximal usefulness. All the brand placements identified and used in the research were strictly isolated, meaning that the link between an SDAR and a specific placement is exclusive, because each brand placement occurs just once in the movie considered. The movies have not been modified in order to control brand placements. This point was crucial to ensure that, during the interview with the respondent, questions were referring to the same brand placement. Furthermore, American movies represented 55% of the 2003 French DVD market by volume, and 69% by value (CNC, 2005).

4.2. Measurements

The SDAR of each placement was added to calculate the extent of SDAR per movie for one respondent, that is the dependent variable. The previous watching of the movie in a cinema was measured by a dichotomous question. Respondents were asked whether they watched the movie on a TV or on a large home cinema screen. They were also questioned about the reasons for their DVD choice, which were considered as “director: yes or no”. Finally, appreciation of the movie was evaluated on a 0 to 20 scale (0 meaning a total dislike and 20 an absolute liking). The data collection process took place from January 2003 to February 2005 focusing on the selected just released DVDs. The questionnaire was systematically submitted to every person renting one of the DVDs employed in the research. Every respondent freely chose the movie he or she wanted to watch. Owing to the small size of the video clubs, their proximity and the appeal of the research subject, only six individuals refused to answer the questionnaire.

4.3. Methodology

Since the four hypotheses are not independent, all of them have been tested in the same model rather than individually. Hypotheses are validated using an ANCOVA, which allows us to study the simultaneous impact of each independent variable on the dependent variable. Independent variables are mentioned in each of the four hypotheses presented above. The dependent variable is the number of brands recalled by the respondent (SDAR) in one movie. A hypothesis is validated when the relationship between the studied variable and the dependent variable is significant, that is $p$-value is less than 5%, and produces the expected mean of the value. Because the number of placements varies from one movie to another (indeed from 4 to 22 in the movies considered), the total number of brand placements in the movie has been included in the model as a control variable.

5. Results and discussion

Of the respondents questioned, 34% noticed and, the following day, recalled at least one brand placement in the movie they watched. The size of the sample, 3532 DVD viewers, appears sufficiently large compared with the number of respondents surveyed in the reviewed research in this field, from 62 (Sabherwal et al., 1994) to 378 (Fontaine, 2002), to allow us to diversify spectators, movies and placement modalities. This seemed necessary partly to compensate for the constraints arising from the fact that, when using real movies rather than films created especially for the research or simply excerpts, researchers do not have full control of the placement modalities.

Table 1

| Source                      | Value | Standard error | $t$  | $Pr>|t|$ Lower bound (95%) | Upper bound (95%) |
|-----------------------------|-------|----------------|------|--------------------------|-------------------|
| Intercept                   | 0.13  | 0.07           | 2.00 | 0.05                     | 0.00              | 0.26              |
| Brands_in_movie             | 0.00  | 0.00           | 0.15 | 0.88                     | -0.01             | 0.01              |
| Evaluation_Rank             | 0.02  | 0.01           | 3.77 | 0.01                     | 0.01              | 0.03              |
| Projection—TV               | 0.00  | 0.00           |       |                          |                   |                   |
| Projection—HomeCinema       | 0.86  | 0.05           | 17.39| <0.01                    | 0.76              | 0.96              |
| Choice_Director—No          | 0.00  | 0.00           |       |                          |                   |                   |
| Choice_Director—Yes         | 0.83  | 0.06           | 13.86| <0.01                    | 0.71              | 0.95              |
| Shown_Cinema—No             | 0.00  | 0.00           |       |                          |                   |                   |
| Shown_Cinema—Yes            | 0.85  | 0.05           | 15.64| <0.01                    | 0.74              | 0.96              |

Dependent variable: Number of SDAR.
First of all, according to the ANCOVA results (see Table 1), the control variable – that is the total number of brand placements in the movie – does not explain the degree of SDAR (probability associated is 0.88), which means that a profusion of brand placements does not automatically increase the number of brands recalled.

5.1. Extended time potential for product placement

Because of the specific characteristics of DVD viewers, this research took place during a potential second exposure to product placements. Validating Hypothesis 1a (“Shown Cinema—Yes” parameter > 0; p < 0.01) means that the respondents who have previously seen the movie in a cinema show more SDAR than respondents who have seen the movie for the first time on DVD. On the one hand, this analysis shows that product recall is stronger among viewers watching the movie on DVD a few months after viewing this same movie in cinemas. On the other hand, because some 15% of the respondents (representing 522 viewers) rented a DVD even after having seen the film in cinemas the previous year, this result supports the product placement professionals’ view as well as the academic research which argues that the potential total audience could be far bigger than the one calculated from cinema tickets alone (Brée, 1996).

Of the sample 17% saw the movie on a large screen (home cinema). Since the extent of SDAR was significantly greater among these 587 respondents, Hypothesis 1b is validated (“Projection—HomeCine” parameter > 0; p < 0.01). Indeed, the large dimensions of the screen allow the brand placement to appear significantly in size, that is more prominent, and hence to be more effective (Brennan et al., 1999; d’Astous and Chartier, 2000). Considering only the size of the placement, independent of its duration, placements seen for the first time at the movie theatre might be more effective than placements seen for the first time on a regular TV screen.

5.2. Benefits from spectators’ positive attitude

The findings relating to choice of a DVD because of the movie’s director support Hypothesis 2a (“Choice_Director—Yes” parameter > 0; p < 0.01). Logically, a movie fan who prefers a specific director is more alert to certain details, and thus to various brand placements. Nevertheless, the 10.4% of respondents who chose their DVD for this reason were knowledgeable about movie directing. They were attracted by the director’s name, leading to a direct effect. For advertisers, these results therefore invite them to favor well-known and accomplished directors for their branded entertainment deal. This partly explains why the $25 million global product placement deal for Steven Spielberg’s Minority Report appears quite suitable and logical (Lehu, 2005).

Hypothesis 2b, about the evaluation of the movie by the respondents, is validated (“Evaluation_Rank” parameter > 0; p < 0.001). Here, also, such a validation means that the more the viewers liked the movie they watched, the better they recalled the brand placements. The validation of this hypothesis leads us to conclude that a positive environment influences the degree of SDAR for brand placements. Thus, not only are advertisers invited to select the type of movie in which to place their products and brands, bearing in mind their intended target audience, but they are also called upon to evaluate the chances of getting a good movie at the end. Some might hesitate when validating Hypothesis 2b about the liking of the movies, as the success or failure of a movie can rarely be predicted (Bressoud, 2007). Even if its components (theme, story, director, editor, actors…) seem to be a high quality combination during pre-production, numerous movies are ultimately what professionals call a bomb, becoming a real box-office failure.

6. Main managerial implications

These results can contribute to reinforcing advertisers’ favorable attitudes towards brand placement as a rather profitable technique (Lubbers and Adams, 2004), considering its global impact as well as the fact that the placement efficiency increases with the second viewing, namely, in this research, watching the movie on DVD.

In addition, in France, home cinema equipment seems to be a consumer favorite, notably since the number of DVD players in French homes grew by 28.3% between 2002 and 2003, and 26% between 2003 and 2004 ( Médiamétrie, 2005). This is also an increasing trend in developed countries (Schmettits, 2005), enabling viewers to enjoy films in the comfort of their own homes. When viewers watch their movies on bigger screens at home, the likelihood of noticing and recalling the placements during the second viewing also increases. This finding can also stimulate advertisers to consider a placement in a movie, even after the release in movie theatres. If domestic conditions are improving and if viewers are more and more addicted to home cinema, the growing possibilities of digitally inserting placement for DVD releases and TV showing can attract their attention (Brown, 2003; Moser et al., 2004).

A director’s reputation can influence the consumers’ evaluation, especially if the movie critics are positive (d’Astous and Touil, 1999). As respondents attracted by a famous director’s name when choosing their movie presented more SDAR, the present research invites advertisers to favor famous directors who usually team up with a famous cast. This partly explains why, for instance, 28 different brand names appeared in Steven Spielberg’s War of the Worlds (2005) with Tom Cruise and Dakota Fanning, no fewer than 41 advertisers had their brands shown in Sydney Pollack’s The Interpreter (2005) with Nicole Kidman and Sean Penn, and as many as 50 of them appeared on screen in Martin Scorsese’s The Departed (2006) with Leonardo DiCaprio, Matt Damon and Jack Nicholson among other stars. This can spell bad news for unknown directors or for low-budget movies in general. Nevertheless, although a director’s appeal is already known by advertisers when choosing the movie in which they could make placements, the success of the movie will remain uncertain. But if large multinational advertisers are no longer interested or willing to take risks, this can offer a real chance for smaller brands. Barn discerned that countless Bollywood movies also
generate valuable opportunities for product placement (Barn, 2005).

7. Limits and further possible research

The external validity of this research remains naturally limited. Spectators solicited for the research have not been differentiated according to their possible personal characteristics. Even if a perception difference occurs from one gender to another (Schmoll et al., 2006) and, that under certain circumstances, children respond specifically to product placement (Auty and Lewis, 2004). Moreover, this research was conducted in France, and previous research about product placement in movies teach us that disparity can occur when comparing results from different countries, (Gould et al., 2000; McKechnie and Zhou, 2003; Devanathan et al, 2003).

Furthermore, choosing genuine movies as the material for the research offers greater realism in the study, because respondents can supply us with more natural answers. Unfortunately, that choice also implies a natural structural limit: the lack of control over the material used, which means that not every movie can be used in such an experiment. The appearance of the product and/or the brand cannot be modified because the shooting is of course already complete. That’s why the movies used for this research were very carefully chosen to present clear and indisputable brand placements. Nevertheless, the sample of respondents is large compared with those usually employed. That is why the results, obtained through the use of real movies, are strong, in partial compensation for the limits implied by reduced control. Moreover, working with genuine full-length movies and natural exposure conditions opens a new perspective of research in this field.

The liking of the movies has no predictive value because the success of a movie can never be foreseen. Nevertheless, the validation of Hypothesis 2b appears very interesting given the rise of digitally inserted product and brand placements. Some placements can now be elaborated, replaced or even erased after the movie has been shot (Brown, 2003; Sivic and Zisserman, 2004). In the near future, this could lead to a more systematic use of previews to analyze the relevance of integrating a brand or otherwise; not right from the outset but after watching the final edited motion picture. This could then allow some sort of pre-testing with elaborate concrete material, the kind traditional advertising already offers.

Extending this research to a greater number of movies, to different countries and to the next stages of viewing (television programming, for instance) would be interesting in order to validate the correlation between better placement recall and the number of viewings. A further contribution could be made by explaining brand placement recall according to the individual characteristics validated in this research and to brand placement characteristics already found to be relevant.

8. Conclusion

The marketing communications environment is increasingly using practices borrowed from the entertainment business, to try to lure more complex and more marketing-aware targets towards an experiential consumption (Hackley and Tiwsakul, 2006). Recommending that advertisers consider as much as possible the viewer’s characteristics in order to conceive their product and/or brand placement operations may sound technically difficult at first sight. But the consumer’s identity and specific characteristics are becoming increasingly known, recorded and used. No doubt that, in a near future, producers and advertisers will be able to adapt the placements to the target, especially when the movie is watched on DVD. An interaction already occurs. The DVD main menu already offers the viewer a choice of version (short, long, director’s cut…), type of screen (pan and scan or widescreen), language, subtitles… Advertisers sometimes request adaptations relating to areas where the movie is running in cinemas. Examples include Pepsi changing a Dr Pepper placement in Spider-Man 2 (2004) to Mirinda (another soda) in areas where the latter was much better known than Dr Pepper (Lehu, 2007).

Considering their real communication potential, product placement and brand placement in movies have become indisputably attractive techniques of branded entertainment. The deeper the research delves into its impact and its modalities of usage, the more product and brand placement is revealed as a sophisticated communication technique. This crossbred technique has been increasingly and legitimately appreciated by movie producers, communication consultants and of course advertisers looking to solve problems of media and audience fragmentation through new efficient ways of contacting and seducing their potential consumers. The new insights offered by this research will confirm the value of the technique for advertisers, as they can obviously count on repeated product exposure with a heightened impact as multiple opportunities to see the movie are offered to the consumer.

Appendix A. Table of statistical results

Summary statistics

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<th>Variable</th>
<th>Obs.</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard deviation</th>
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<td></td>
<td>Yes</td>
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Goodness of fit statistics

| Observations          | 3532          |
| Sum of weights        | 3532          |
| DF                   | 3526          |
| $R^2$                | 0.24          |
| Adjusted $R^2$       | 0.24          |
Analysis of variance

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<th>Source</th>
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Standardized coefficients

| Source                  | Value | Standard error | t     | Pr>|t| | Lower bound (95%) | Upper bound (95%) |
|-------------------------|-------|----------------|------|--------|------------------|------------------|
| Brands_in_movie         | 0.01  | 0.01           | 0.15 | 0.88   | 0.02             | 0.04             |
| Evaluation_Rank         | 0.06  | 0.01           | 3.77 | 0.01   | 0.03             | 0.09             |
| Projection—TV           | 0.00  | 0.00           | 17.39 | <0.01 | 0.23             | 0.29             |
| HomeCinema              | 0.26  | 0.01           |       |        |                  |                  |
| Choice_Director—No      | 0.00  | 0.00           |       |        |                  |                  |
| Choice_Director—Yes     | 0.21  | 0.01           | 13.86 | <0.01 | 0.18             | 0.24             |
| Shown_Cinema—No         | 0.00  | 0.00           |       |        |                  |                  |
| Shown_Cinema—Yes        | 0.25  | 0.02           | 15.64 | <0.01 | 0.22             | 0.28             |

Analyzed with XLSTAT 2007.

References


Bressoud Etienne, Lehu Jean-Marc. The second life of a product placement in the industry structure. film themes and placement opportunities with the industry structure. film themes and placement opportunities with the industry structure. j Advert 1994;23(4):29


PQ Media. PQ media market analysis finds global product placement spending grew 37% in 2006. Stamford, CT: PQ Media LLC; 2007 [March].