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## THE EFFECT OF MOVIE AND TELEVISION PLACEMENTS

### Abstract

Brand integration has become an increasingly common marketing strategy employed by companies today. By incorporating branded content into various media formats, companies use placements as an advertising device intended to promote their products and services. However, although much of the extant literature has used behavioral methods to assess the effectiveness of brand promotions, there is only a modest body of academic work that has sought to quantify the impact of these placements on the financial performance of companies. This is especially true with regards to the travel and hospitality literature, despite the popularity of brands placements as a form of advertising across these industries. Using the event study methodology, this paper assesses the performance impacts resulting from travel and hospitality industry product placements in film and television.

**Keywords:** brand integration, product placements, event study

### Introduction

Brand integration, an advertising strategy which entails the deliberate insertion of branded products and services into audio and visual mass communication channels (Balasubramanian 1994), is a relatively common practice employed by marketers today. Although the term ‘brand integration’ encompasses the inclusion of branded content into media such as radio and television, it is the placement of brands in films in particular that has attracted much of the attention of researchers in the last few decades (see for example, Yang and Roskos-Ewoldsen, 2007; Wiles and Danielova, 2009; Naderer, 2018; Srivastava, 2020). This relatively recent academic interest in this sort of advertising in no way implies that brand integration itself is a recent practice. The 1916 movie, *She Wanted a Ford*, is sometimes cited as the earliest instance of the placement of a product

into film (Thomas and Kohli, 2011). And by the early as the 1930s, MGM Studios had established a dedicated unit tasked with selling advertising space blended within its movies (Rothenberg, 1991). Of course, film placements have evolved radically ever since. Whereas initial placements were somewhat haphazard and might only have been in the form of fleeting background props, in recent decades branded placements in film frequently assume a much more seamless yet prominent role, even becoming an integral part of many movies (Yang and Roskos-Ewoldsen, 2007). The Mini Cooper, manufactured by BMW is, for example, conspicuously showcased throughout the 2003 movie *The Italian Job*, almost intertwined into the movie's plot.

By 2019, revenues from product placements in US media had grown to \$11.63 billion (Cision PRWeb, 2020). But are movie placements effective as a managerial strategy? In other words, is branded integration in film worthwhile for brands that pursue this strategy as a form of advertising? For many kinds of products and services the prior literature indeed finds certain beneficial effects, especially when one approaches the question from a consumer behavior perspective (see Nelson and Devanathan, 2006; Lehu and Bressoud, 2008). Even when considers the tourism and hospitality literature specifically, there is some evidence that suggests that destinations featured in movies may experience a number of desirable effects (see Riley and Van Doren, 1992; Tooke and Baker, 1996; Gong and Tung, 2017; Wen et al., 2018). But less is known about how brand placement in movies by hospitality and tourism corporations – rather than destinations – impact performance of the firms involved. Moreover, little is known about the issue from a finance-based perspective. Certainly, it may be true that positive effects for destinations featured in film also result in positive financial effects for hotels and other tourism related businesses at the destination. This, however, is a conversation unrelated to the objectives of this paper. Instead, the present study is concerned with ascertaining how product placements in film and television by travel and hospitality brands impact corporate-wide indicators of financial performance. In order to do this, an event study methodology approach is employed, using data from United States securities markets. The approach is detailed in the methodology section.

The remainder of the paper is organized as follows. The next section reviews the literature examining the relationship between brand integration and performance. Some of the popular approaches used in this scholarship to assess the effectiveness of brand integration are outlined, and the methodological and theoretical gaps that support the development of this study are highlighted. Thereafter, we make a handful of predictions involving theoretical and practical

expectations that follow from our key underlying arguments. Then, we present the methodology section, in which we provide a comprehensive description of the data collection process as well as the methodological steps used in the analysis. Next, the results of the analysis conducted are detailed. Finally, we conclude with a discussion section in which we identify the key implications that result from the study's findings.

### **Does Brand Integration Work?**

Companies today place their products into a variety of media, including television, radio, video games, theater productions and novels (Russel and Belch, 2005). The goal of product placements, like most marketing strategies, is to increase brand awareness and purchase intention. In many ways, brand integration blurs the line between advertising and entertainment (Balasubramanian, 1994), and in the process creates a potentially potent yet subtle advertising mechanism. Given that marketing and managerial decisions in the travel and hospitality industries have repeatedly been found to impact firm performance (see for instance, Graf, 2009; Xie and Kwok, 2017; Dogru et al., 2020; Woo et al., 2019; Gim and Jang, 2020), one is inclined to wonder how advertising choices with regards to film and television show placements might also be pertinent to performance. One certainly expects that the effectiveness of a placement would be reflected in performance indicators of the brand. The more general link between advertising and performance has, of course, been well established both in the general business literature (Mathur and Mathur, 1995; Eng and Kay, 2007; Sridhar et al., 2014), as well as in the travel and hospitality specific literature (Chen et al., 2013; Assaf et al., 2015; Kim et al., 2019; Jiang et al., 2020). Yet, despite the decades old practice that is brand integration, it has only been relatively recently that a sustained interest in studying this form of advertising has emerged.

In general, behavioral approaches stand out as prominent in the literature examining the effectiveness of brand placements. Papers in this strand of the literature usually employ measurement or manipulation to understand how consumers respond to placements. Yang and Roskos-Ewoldsen's (2007) experimental investigation, for instance, examines the effect of brand placements on consumer choice behavior. Several studies in this methodological strand of the literature commonly seek to uncover constructs such as purchase intentions attributable to and resulting from placements (see for instance, Law and Braun, 2000; Morton and Friedman, 2002). Other behavioral studies (Homer, 2009) have sought to explain the role specific placement related

attributes, such as repetition and prominence play in determining the success of branded content in film and television.

Certainly, behavioral studies like those described above lay critical groundwork for understanding the psychological processes and conditions at play in communicating the underlying message to consumers. As such they would undoubtedly be useful for purposes of placement design. The most glaring limitation of using behavioral approaches to study the effectiveness of placements, however, is that they fail to satisfactorily answer the question of whether placements are ultimately able to contribute to the bottom line of companies. One might presume, of course, that an increase in a variable like purchase intention as elicited from a consumer survey or experiment would translate into an actual increase in sales for a company. But in order to answer the question more conclusively, however, consideration must be given to accounting or finance-based measures.

Yet, almost absent from the literature assessing the value of brand integration to firms are approaches that use accounting-specific metrics. It is largely the reports that emerge from the industry and news media (see Reed, 1989) that have sought to evaluate the success of a placement in terms of figures like sales volumes. At first glance, it may seem puzzling that there exist very few academic studies that employ measures such as changes in sales, revenues, profits, etc. to evaluate whether the placement of branded content in movies or television shows pays-off for the brand in question. It might seem reasonably simple, after all, to make comparisons using these measures before and after a movie is released, and attribute any changes in numbers to the success or failure of the placement under study. A closer scrutiny of some of the deficiencies that plague accounting-based approaches, however, seems to explain why they are largely absent from the literature evaluating placement effectiveness. For instance, because accounting indicators are backward looking, one must wait for sufficient data to become available over relatively long time periods before they become usable in analyses. This then introduces the possibility of confounding from the many other developments that would also affect firm performance in that time. Moreover, accounting based approaches tend to be susceptible to manipulation by managers (McWilliams and Seigel, 1997). This can indeed be relevant when evaluating the success of a product placement – a manager who has made important decisions regarding certain branded content may be tempted to inflate the effectiveness of his or her choices. Another issue that one must consider when using accounting-based measures to assess the impact of a film or television placement – especially a

travel or hospitality industry placement – is that of seasonality (see also Nicolau and Sharma, 2019). Can an airline, for example, be certain that it was the product placement in a movie released in the week before Christmas that was responsible for the Christmas week surge in demand for seats on its planes? The answer would clearly be no.

It is for these reasons that we find finance-based, rather than accounting-based measures to be more useful when quantifying the impact of placements on firm performance. Not only do they overcome some of the aforementioned limitations posed by behavioral and accounting methods when assessing the value of placements, but they offer additional advantages. Financial indicators like market value are forward looking, and given their capacity to adjust instantaneously to new information, they are readily available and more effective in isolating effects (see MacKinlay, 1997; McWilliams and Seigel, 1997; Sorescu et al., 2017). The paper closest in spirit to the present research – and in many ways the inspiration behind this study - is Wiles and Danielova's (2009) investigation into the worth of product placements. Our paper differs, however, from their study in critical aspects. Importantly, Wiles and Danielova (2009) do not look specifically at film placements from the travel and hospitality industries. Instead, they adopt a much broader approach and examine placements from all industries in only 31 movies from the year 2002 which made \$20 during the opening weekend in the US sales. Our sample, on the other includes only placements from the travel and hospitality sector, and spans over four decades of movie and film placements, dating back to 1976.

## **Predictions**

Meaning transfer models are frequently used in the literature to establish the link between placements and brand success. This transfer process is akin to the mechanism used to explain why celebrity endorsers can be effective. McCracken (1989) argues that celebrities are endowed with certain critical meanings, which in effective celebrity endorsements, are passed on from the celebrity to the product, and further on to the consumer. A somewhat similar process could be expected to occur in the case of travel and hospitality company placements in movies or television. It is important to note, however, that the meaning transfer mechanism that might occur with product placements would likely be much more subtle in the case of product placements than would be expected with celebrity endorsements. This is because celebrity endorsements tend to be more explicit. Nonetheless, a movie or television show – or indeed actors that are part of the said media - may possess certain characteristics that are desired by travel and hospitality marketers to

be associated with their product. These movies and television shows may thus be seen as an appropriate outlet for the placement of that product because of the associations that would be evoked.

The propositions of the Associative Network Memory model (Collins and Loftus, 1975) further support this mechanism of meaning transfer between the placement platform (television, film, etc.) and the placement brand. Under this model, human memory consists of a system of cognitive networks consisting of interlinked nodes. Links exist between a node for the brand, and nodes for the product, the category of the product and for the need that the product satisfies (Neale and Corkindale, 2021). Exposure to brands in appropriate settings influences memory relating to these brands and reinforces the necessary links (Thomas and Kohli, 2011). This in turn drives consumer purchase behavior.

In the case of a successful placement, this consumer purchase behavior would occur in the form of an increase in the sales of products for the brand making the placement, which in this study entails hotel, restaurant and airline companies. The expectation of an increase in sales because of the placement leads to an increase in market value of the brand, as reflected in its stock prices. This is because the market value of a firm is assumed in the literature to reflect the discounted present value of all future cash flows, and under the principle of market efficiency, stock prices are assumed to adjust quickly to new information.

However, there are a number of factors that could be expected to influence the extent to which a placement of a travel or hotel industry brand in a movie might result in desirable effects. Among them are those factors relate to the characteristics of the movie or television show (genre, parental rating, etc.). In fact, although we largely expect placements to be effective, it is possible that certain types of placements could be counter-effective, possibly even hurting the performance of the brand.

Genre entails a variety of classifications – action, drama, thriller, romance, science fiction, etc. Not all these classifications would be expected to have a similar effect. Similarly, parental advisory rating can assume a number of classifications, depending on the suitability of the content for certain audiences. Whereas some movies or television shows are considered appropriate for young children, others are not. We expect a disproportionate effect of parental advisory rating on travel and hospitality industry placement effectiveness, as reflected in the resulting performance of the brand. We, therefore, make the following predictions:

*Prediction 1: Brand integration in movies and television shows exerts a positive impact on performance of travel and hospitality firms*

*Prediction 2: The effectiveness of a travel or hospitality company's brand placement varies with the movie or television show's characteristics*

## **Data and Methodology**

In order to assess the impact of movie placements on corporate level firm performance, an event study methodology, following the recommendations of McWilliams and Siegal (1997) is employed. The methodology follows from the tenets of one of the seminal propositions of neoclassical economics - the efficient market hypothesis, under which the price of an asset at any given time is seen as a reflection of its value given all available information (Fama et al., 1969, Fama, 1979). Accordingly, any change in a price of an asset – such as a company's stock returns – following an event is assumed to quantify the impact of the event. Central to the approach is the disentangling of 'abnormal' returns attributable to an event and impactful on firm performance from 'normal returns' that result from routine business operations. The method involves a sequence of steps based upon the McWilliams and Siegal (1997) guidelines which in the context of the present study are as follows:

- i) *Selection of sample:* Typically, in an econometric events study such as this, the first task is to select the sample. Accordingly, the first task here would be to obtain a list of US movies as well as US television shows which have featured placements from the travel hospitality sectors. Specifically, the data used covers publicly traded hotel, airline, and restaurant companies. Although other types of businesses such as cruise operators and travel agencies also fall under the travel and hospitality umbrella, for the sake of convenience, only placements from firms within the three aforementioned subsectors of travel and hospitality are considered. Table 1 shows some statistics about the number of firms in these three industries, their sizes, the number of announcements per industry and the decade (from February 9, 1976 to December 23, 2019) those firms made the placement announcements.

**Table 1. Descriptive statistics**

	# of firms	Assets	Liabilities	Sales turnover	# of announcements (final sample)	1970-1980s	1990s	2000s	2010s
Hotels	16	12514	9735	7505	56	19	37	0	0
Airlines	11	20724	17494	17831	34	0	4	27	3
Restaurants	16	9590	7139	7322	71	0	0	0	71

Because it would not be practical for us to personally watch thousands of movies and television shows for the purpose of identifying those that entail branded travel and hospitality industry content, we compile a list from publicly available sources including IMDb.com (Internet movie database) and [www.productplacementblog.com](http://www.productplacementblog.com). A total of 189 placements were identified in this step from publicly traded US hotels, airlines, and restaurants.

- ii) *Determination of event dates:* The next step when using the methodology being described here is to determine the dates on which the events under study occurred. Given that instantaneous adjustment of asset prices is an underlying principle behind the event study method, the most appropriate event date corresponding to a particular movie would be the date of its public release. Similarly, for television shows, the date would be defined by when the particular episode featuring the placement was first broadcast. Other studies that use movies as part of similar financial event analysis, have also used the day of public release as the event date (see for example, Wiles and Danielova, 2009).
- iii) *Construction of event window:* In line with the specific steps outlined by McWilliams and Siegal (1997), it is standard practice in this methodological strand of literature to construct a window consisting of a small number of days encompassing the event date. The few days before an event permit for the detection of events from the early availability of information to some individuals. In the context of movies availability of information may result, for instance, from early screenings of a movie, i.e., screenings in the days prior to the public release. It is similarly also routine in the event analysis literature to extend the event window to include a few days after the event date. This permits sufficient time for the dissemination of information across the spectrum of investors. A range of windows are used for the detection of abnormal returns resulting from hotel brand placements in film and television. This includes standard windows ranging from [-5,+5] to [-10,+10] window. The [-10,+10] window would, for instance, cover the 21-day period encompassing the release day of each movie or television placement – the day of the release, the 10 days leading up to the release, and the 10 days following the release. To illustrate, consider the movie, *Think Like a Man*, which premiered on 20<sup>th</sup> April 2012, and prominently featured the JW Marriott. The event window for this placement within which



we would detect possible abnormal returns would be the twenty-one-day period ranging from 10<sup>th</sup> April 2012 to 30<sup>th</sup> April 2012.

- iv) *Identification of source of contamination:* It is important to remember that there are a wide range of possible shocks unrelated to brand integration that also affect firm performance. In order to more confidently attribute any abnormal returns that might result from the events under study from other confounding shocks, McWilliams and Siegal (1997) recommend the exclusion of events where confounding is likely. Accordingly, a search of the Factiva database was conducted to look for possible sources of contamination within each event window. For instance, in the example from the *Think Like a Man* placement described above, the Factiva database was queried to check whether any incidents unrelated to the movie itself might have impacted Marriott performance in the period 18<sup>th</sup> April 2012 to 22<sup>nd</sup> April 2012. A total of 25 events were classified as likely contaminated and therefore dropped at this stage from further analysis.
- v) *Estimation of model:* The next step in the event study methodology is to estimate the model used to establish normal returns. This is usually done over an estimation period – or estimation window – consisting of an extended period leading up to the event itself. Consistent with the recommendations of Cowan (2003), and in line with other studies in this strand of the literature (for instance, Wiles and Danielova, 2009), a 255-day period of securities data was used for model estimation purposes, whenever such data were available for a travel or hospitality firm placing their product into a movie or television show. In order to mitigate the possibility of unreliable estimations, it was required that there be a minimum 90 days of data for the particular event to be considered for estimation. Four events had to be dropped as a result owing to non-availability of sufficient data. This might happen, for instance, if a particular hotel under examination for a placement became publicly traded mere weeks before the release of the movie in question. The final sample included 161 movies and television shows.

There are a number of estimation models available to researchers, but Sharpe's (1963; 1964) market model is the standard in the event study literature. In this model:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

for firm  $i$  on day  $t$ , daily returns are defined by  $R_i$  whereas the variable  $R_{mt}$  denotes the market portfolio's returns, which in the present study was represented by Center for Research in Security Prices' (CRSP) equally weighted index.  $\varepsilon_{it}$  is the standard error term. Once normal returns have been estimated, abnormal returns, AR, resulting from the movie placements can be calculated as:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt})$$

In order to control for possible kurtosis and heteroskedasticity in  $\varepsilon_{it}$ , we estimate the autoregressive conditional heteroskedasticity model, Nelson's (1991) EGARCH. The purpose of this would be to model the conditional variance of returns. The symmetric model would assume that any effect of new information on the variance would occur independent of the sign. If we define  $p$  as the number of lags, returns determined by the regular ARCH( $p$ ) model could be obtained as:

$$\varepsilon_{it} = h_{it}^{1/2} \eta_{it}$$

and  $\varepsilon_{it} / \varepsilon_{it-1}, \varepsilon_{it-2}, \dots \sim N(0, h_{it})$ , and  $\eta_{it}$  is independently and identically distributed with  $E(\eta_{it}) = 0$  and  $E(\eta_{it}^2) = 1$ . Here  $h_{it}$  is the conditional variance and is represented as

$$h_{it} = c_i + \sum_{j=1}^p \lambda_{ij} \varepsilon_{it-j}^2$$

where  $c_i$  and  $\lambda_{ij}$  are parameters to be estimated. GARCH( $p, q$ ) results from a generalization of the above, with  $q$  representing the lags of the autoregressive portion. Accordingly, the conditional variance assumes the following form:

$$h_{it} = c_i + \sum_{j=1}^p \lambda_{ij} \varepsilon_{it-j}^2 + \sum_{k=1}^q \gamma_{ik} h_{it-k}$$

Considering that asymmetries can result from the unequal impacts on conditional volatility of positive and negative shocks of equal magnitude, an adaption of the GARCH model to

Nelson's (1991) EGARCH is utilized (see Chang and McAleer, 2017), under which the conditional variance is expressed as:

$$h_{it} = \exp \left\{ c_i + \sum_{j=1}^p \left( \lambda_{ij} \left| \frac{\varepsilon_{t-j}}{h_{it-j}^{1/2}} \right| + \delta_{ij} \frac{\varepsilon_{t-j}}{h_{it-j}^{1/2}} \right) + \sum_{k=1}^q \gamma_{ik} \ln(h_{it-k}) \right\}$$

Note that we estimate a model for each individual announcement. Thus, we estimated 161 regressions with EGARCH models. From each of those models, the abnormal returns derived from each announcement are obtained. Next, we take the 161 abnormal returns to conduct the test.

- vi) *Testing of abnormal returns:* Once abnormal returns are detected, they must also be tested for statistical significance. Brown and Warner's (1985) test is used for this purpose. The test statistic is computed as:

$$t_i = \frac{\sum_{i=1}^N AR_i}{\sum_{t=1}^N AR_i \sigma_{\varepsilon_i}^2}$$

In order to test significance of cumulative windows, a bootstrapping procedure is applied with a resampling ratio of 0.25 based on the work of Lyon, Barber and Tsai (1999) and Kramer (2001).

## Results

The results of the analysis of daily returns over the 21-day period ranging from 10 days before a movie's release to 10 days after is summarized in Table 2. Recall that under the previously introduced efficiency principle that guides much of finance research, the price of a stock incorporates all available information, and reflects the present value of discounted future cash flows (Fama 1969, 1970). Consequently, when using finance-based metrics like the ones utilized under event study approaches as done in the present paper, an examination of extended periods of time following a shock would be counter-effective. This is because doing so would likely introduce considerable event contamination and thus result in unreliable estimates. Instead, it is the analysis of the (-10,10) window and patterns within it that would permit a more robust disentangling of any effects linked to a particular event.

With regards to the individual days of this window, the results in Table 2 show that three of these days show significant positive abnormal results – day-9 (0.46%,  $p < 0.05$ ), day-3 (0.46%,  $p < 0.05$ ) and day+7 (0.36%,  $p < 0.1$ ). The aforementioned efficiency principle also implies that the absence of additional days of positive abnormal returns should not be viewed as evidence of failure of using brand integration as a marketing strategy. The specific days of abnormal returns simply show the temporal patterns that the information dissemination process may have followed across the investor spectrum. Importantly, no days of significant negative abnormal returns are detected. Concerns about days of non-significant returns may, of course, be valid when using accounting metrics. Here, the statistically significant positive results support the assertion that placements in movies and television by travel and hospitality firms are effective – each day represent a change in overall valuation of the company. The positive reactions on Day-3, i.e., three days before the first official public screening of the movie or television show should not be surprising. A similar pattern has been observed in past studies in this strand of the literature – Wiles and Danielova (2009), for example, also find in their event study investor reactions to movies seem to occur seem to occur on Day -3. The early effects are explained by multiple factors. Not only have film prints been sent to movie theatres a few days prior to official release dates (Thomas, 1998), but movies are played for film critics and special audiences prior to date of release and that the possibility of leakages must be considered (see Wiles and Danielova, 2009). Similar reasoning might explain the positive reactions on Day -9. Publicity about an upcoming release begins to intensify around this time. This might come in the form of trailers, posters, and other mediums. Moreover, this would be the time when the brands behind the placements would be releasing information about the placement of their product in an upcoming movie. The information release may come through press releases or other advertising mechanisms. There is indeed evidence that this kind of ‘tie-in’ advertising helps placement brands (Karniouchina et al., 2016).

**Table 2: The effect of placements on daily returns**

<b>Day</b>	<b>AR</b>	<b>Brown-Warner</b>
-10	-0.04%	-0.219
-9	0.46%	2.385**
-8	0.22%	1.136
-7	-0.01%	-0.027
-6	-0.07%	-0.39
-5	-0.06%	-0.306
-4	0.20%	1.043
-3	0.46%	2.385**
-2	0.02%	0.11
-1	-0.25%	-1.316
0	-0.25%	-1.309
1	-0.03%	-0.134
2	0.17%	0.897
3	-0.10%	-0.518
4	0.14%	0.742
5	-0.18%	-0.936
6	0.20%	1.05
7	0.36%	1.876*
8	-0.09%	-0.454
9	0.08%	0.435
10	-0.03%	-0.134

AR= Abnormal Returns (Daily)

\*= $p < 0.10$ ; \*\*= $p < 0.05$ 

The effects observed in the analysis daily returns are corroborated by the analysis of entire windows of various lengths (see Table 3). The smaller windows show no significant effects in either direction, but positive effects of film and television placements are detected across the (-7,7)(0.61%,  $p < 0.1$ ), (-8,8) (0.74%,  $p < 0.1$ ), (-9,9) (1.28%,  $p < 0.05$ ) and (-10,10) (1.21%,  $p < 0.01$ ) windows. Interestingly, note that the statistical significance of effects become stronger as the windows expand. This pattern should not, of course, be interpreted as an obvious statistical consequence resulting from the expansion of the windows itself, but rather to possible trends in how travel and hotel company investors process information regarding movie and film placements.

The results obtained from the analysis of daily as well as cumulative returns are in line with Prediction 1, which anticipated that movie placements have a positive effect on the performance of travel and hospitality firms.

**Table 3: The effect of placements on cumulative windows**

Window	CAR	Brown Warner p-value
(-10,+10)	1.21%	0.003
(-9,+9)	1.28%	0.007
(-8,+8)	0.74%	0.03
(-7,+7)	0.61%	0.064
(-6,+6)	0.25%	0.269
(-5,+5)	0.13%	0.374

CAR = Cumulative Abnormal Returns

In order to understand how medium specific and firm specific attributes mediate the effectiveness of placements, regression analysis was performed (see Table 4). The variables collected pertained to the placement medium (movie, television show or television movie, the travel or hospitality specific subsector in which the brand that appeared in the placement belongs (airline, hotel, restaurant), the parental advisory rating, and the genre of the movie or television show (action, mystery, science fiction, etc.) Additionally, data on a firm level variable, assets, were analyzed in order to ascertain whether firm size plays any role in determining the effectiveness of placements.

The analysis suggested that the impact of movies and television shows were not significantly different than that of the baseline medium, which was taken to be television movies. In other words, placements across the three mediums – television shows, television movies and theater release movies were found to be equally effective. Similarly, there was no evidence that placements from a particular travel and hospitality subindustry were more or less impactful. Specifically, the analysis shows that brand placements from hotels and airline were as valuable as placements from the restaurant industry, which was used as the baseline.

Interestingly, however, we observed that movie related variables produced the most contrasting results. Both parental rating and movie or television show genre appear to matter. Whereas we find that placements in mediums rated G (suitable for general audiences) are significantly less effective than placements in outlets rated PG (parental guidance suggested). Moreover, we find that placements in mediums rated PG13 (some material may be unsuitable for

children under 13) and R/TV-MA (restricted – under 17 requires accompanying guardian) resulted in significantly better performance effects for the brand. The general trends appear to indicate that placements become more effective as the recommended age level advised for a movie or television show increases. The genre of the movie was also found in many cases to be pertinent. We find placements under the gameshows, musicals, mystery and sci-fiction genre to be particularly effective.

**Table 4: Effect of Movie and Brand Attributes on Placement**

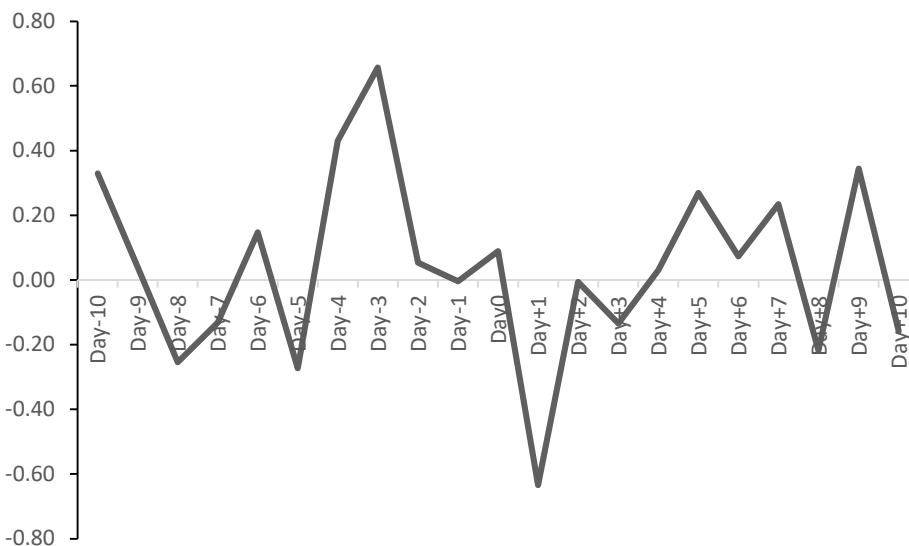
<b>Variable</b>	<b>Coefficient</b>
Theater Releases (Medium)	1.033 (1.982)
TV Shows	2.266 (2.313)
G (Parental Advisory)	-1.907 (5.312)
R_OR_TVMA (Parental Advisory)	2.797b (1.376)
PG13 (Parental Advisory)	3.402b (1.339)
Hotels (Sector Type)	-0.325 (1.255)
Airlines (Sector Type)	-2.277 (1.421)
Biography (Genre)	-3.519b (1.755)
Gameshow(Genre)	3.677b (1.693)
Music (Genre)	5.933c (3.478)
Mystery (Genre)	3.706c (2.016)
Science Fiction (Genre)	2.573c (1.466)
Assets (Firm Size)	0.000 (0.000)
Constant	-2.529 (2.130)
R <sup>2</sup>	0.135

a=p<0.01, b=p<0.05, c=p<0.1  
 Baselines: restaurants (sector type), television movies (medium), PG (parental advisory) and comedy (genre).

In order to address any temporal effects, we checked whether the reactions (the abnormal returns) to the placements change depending on the decade they take place. According to the Anova test ( $F=0.322$ ,  $p=0.810$ ), there are no differences. Thus, the stock market reaction to the announcement is independent of the time it occurs. Also, we have included time variables (defined by decades) in the model to control for it, and none of them are significant with a t-statistic that ranges from -1.161 to 1.006, and p-values with a range between 0.247 and 0.314. Therefore, time does not seem to have an effect on the reaction to placement announcements.

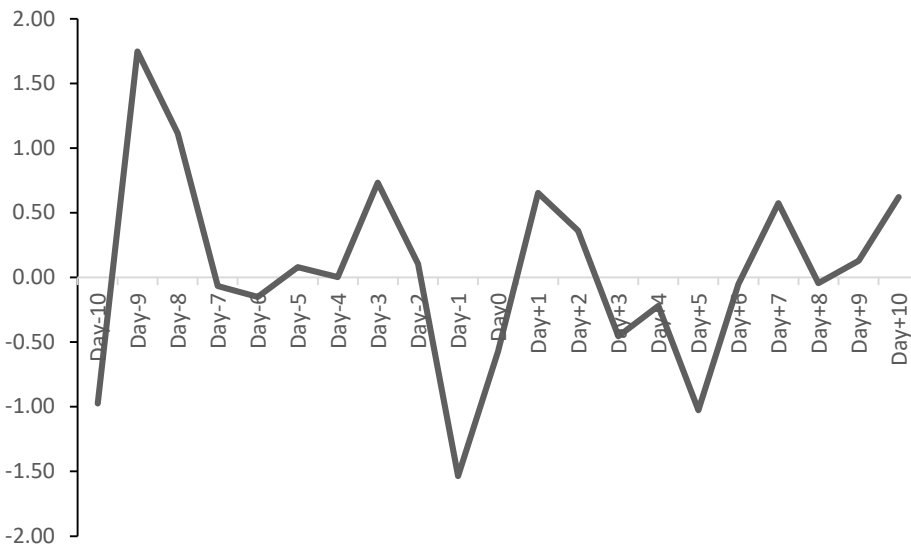
Lastly, the analysis suggests that firm size is irrelevant when it comes to placements. This is good news for smaller travel and hospitality businesses – placements from them are as effective as placements from the major corporations that possess large assets. This result, along with the finding that subsector type (airline, hotel, restaurant) does not matter when it comes to placements suggests that placement effectiveness has less to do with firm attributes, and more to do with the variables relating to the outlet in which they are placed. Still, although a general reaction is found, with the purpose of identifying the exact moment the impulse takes place in each industry, we plot the reaction of the stock market during the (-10,10) window for each industry. Graph 1 shows that hotels experience the strongest reaction on day -3, airlines on day -9 (Graph 2) and restaurants on day +6 (Graph 3).

**Graph 1. Hotels’ reaction to placements**

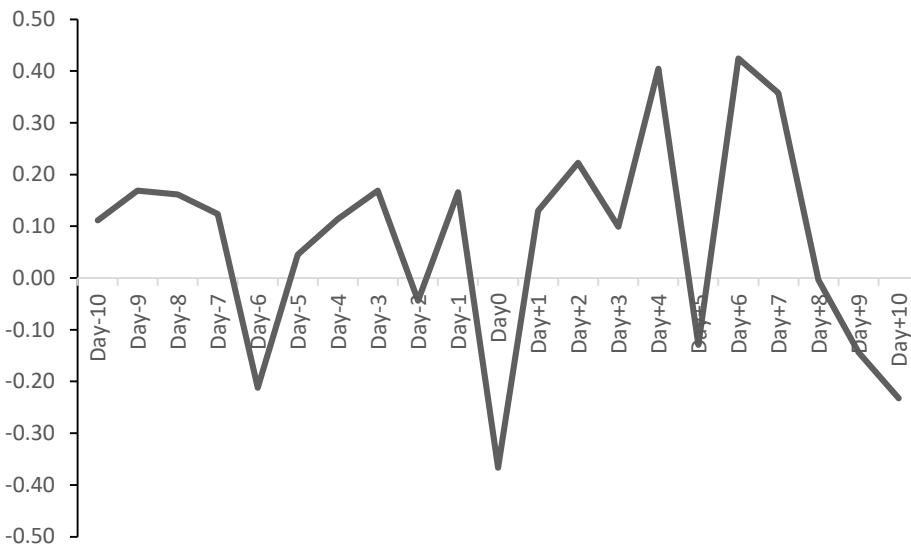




**Graph 1. Airlines' reaction to placements**



**Graph 3. Restaurants' reaction to placements**



**Conclusion**

The findings of this study suggest that brand integration can serve as a useful component of advertising strategy for travel and hospitality firms. Exploiting a rich dataset that spans more than four decades of brand placements in film and television, we show that brand integration has the potential to contribute to firm performance among travel and hospitality companies. The present study uses a market valuation approach, which in recent years has become increasingly

popular in the travel and hospitality literature (for instance, Gim and Jang, 2020; Li and Singal, 2021; Sharma and Nicolau, 2020; Qiu et al., 2021).

While previous literature has established from a behavioral perspective that product placements can be effective, the issue of how film and television placements impact financial performance of travel and hospitality firms had remained largely unexplored until now. Our analysis shows that branded content may boost valuation of travel and hospitality companies by up to a substantial 0.46% - a figure representative of the discounted value of all future cash flows resulting from the average placement. The effectiveness of placements is in many ways parallel to McCracken (1989) meaning-transfer process model which explains the mechanism that makes celebrity endorsements successful.

There are important implications that result from this paper. First, placements can significantly boost firm value of travel and hospitality brands, and should be considered seriously by managers as an important marketing practice. This might also be important from a hospitality and tourism industry recovery perspective. During economic downturns, and other periods of subdued demand for hospitality and travel industry services, marketers tend to be in the lookout for unconventional means of communicating with consumers. This might also be the case during the current Covid-19 pandemic. Although travel appears to be on the path for recovery, there is still a long way to go. In such periods, placements in film and television might be very useful to remind consumers about travel and hospitality company offerings.

Second, the approach used here offers travel and hospitality companies an effective method to determine the worth of their placements without having to consider possible confounding factors that might impact the evaluation of the placement's success. A more conventional but overly simplistic approach to assessing placement worth might be to compare product sales in the months before and after the film or television show was released. The obvious problem with this approach, however, would be that the product's sales would also be affected by many other factors. A hotel company placing its product in a movie might, for instance, experience a decrease in sales in the weeks after which the movie was released. But it would be premature to conclude that it was the placement that resulted in the decrease in sales. It is possible that other factors were involved. There could, for example, have been an unrelated service failure which resulted in widespread negative media coverage that led to the sales decrease. Similarly, there could have been an unexpected temporary hotel closure that was to blame for the decrease in sales.

Also, as is common in the hospitality industry, a seasonal downturn might have contributed to the decrease in sales for the hotel. In contrast, the findings that result from this study are considerably less likely to suffer from confounding effects as they result from the quantification of almost instantaneous changes in market value in order to capture expected long term effects.

Third, the fact that not all types of placements are equally effective has implications for how placements may be prioritized. As far as the travel and hospitality industries are concerned, the genre of movies and television matters in determining the worth of placements. Moreover, the parental advisory rating also matter. These factors must be considered by travel and hospitality industry management when deciding the most appropriate outlets for their products to be placed.

Fourth, the type of analysis used here is conducive to offering guidance on how placements could be valued, and this can assist in determine whether price demanded by the film or television production company for a placement is worthwhile. In other words, because this type of analysis offers a starting point with regards to how much of a dollar value might be attributed to a placement, it could help the travel or hospitality determine how much they should be willing to pay the film or television show production company for a particular placement.

Despite the many implications that follow from this research, there are certain limitations that must be kept in mind when interpreting the results. First, this study, like most other papers in the methodological strand of the literature that employs event studies, takes the efficiency principle as postulated by the neoclassical school, for granted. If it is established that markets are not efficient, many of the conclusions made in this paper would be weakened. Although in recent years several schools of thought have emerged to challenge the principle of market efficiency, the neoclassical position nonetheless remains dominant. Second, this research considers only publicly traded travel and hospitality companies. Yet, in the domain of hospitality and tourism, there exist hundreds of private organizations which are not traded on stock markets. While we are confident that the paper's findings would also apply to these companies, such parallels must be drawn with caution. A third limitation of this research is that it does delve into the many facets that would define a placement and make it different from other placements. For example, this research does not answer questions regarding subtlety or conspicuousness of placements. This sort of information would have further accentuated our findings. A fourth limitation of the study and other studies that employ the event study method to evaluate the success of marketing strategies is that

our measures of strategy success are ultimately based on shareholder estimates of increased sales, and shareholders can, of course, err.

Indeed, for future research, we recommend that attention also be paid to aspects relating to the placement itself. In the present paper we have considered a number of variables pertaining to movie and television shows in which the brand was placed. This includes variables like the movie's genre, parental rating, etc. We have also studied the effect of brand level variables like company size. It would, however, help to further advance the literature if in future research, variables relating to the placement itself were also considered. This could include, for instance, how often a placement was repeated in a movie, or how prominently a particular product was displayed. While these variables have been studied from a behavioral perspective in the context of promotions, more work is needed from a finance perspective, that too in the context of the travel and hospitality industries. Moreover, more research is needed to understand brand integration in the context of streaming and OTT (over-the-top) platforms like Netflix and Hulu, as these platforms are becoming increasingly dominant.

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