

# Adapting to succeed? Leveraging the brand equity of best sellers to succeed at the box office

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**Abstract** Many movies are based on best-selling novels. While book adaptation is an often used strategy in the motion picture industry, it has received little academic attention. Using a multi-method approach, this research investigates the drivers behind the success of book-based movies. In Study 1, we analyze over 700 movies and find that book-based movies perform better at the box office on the opening weekend than non-book movies. However, this superior performance dissipates after the opening weekend. Further, the opening weekend performance of book-based movies is positively driven by book equity, book-movie similarity, and recency between the book's peak equity and movie release. After the opening weekend, many of these book-related variables cease to have an impact, and the effect of movie-related variables (e.g., reviews) increases. Because Study 1 documents that book-movie similarity positively impacts the movie's performance, contrary to prior findings that content similarity has negative or null impact on performance of a movie sequel, we undertake a second study to reconcile the discrepancy. Study 2 finds that content similarity results in satiation and therefore hampers the movie success for sequels; however, when a movie is adapted from a book, due to experiential modality change (i.e., from book format to film format rather than film to film), content similarity increases the movie's chance of success.

**Keywords** Experiential brand extension · Motion picture industry · Book adaptations · Box office revenue

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The motion picture industry attracts an audience of millions and generates tens of billions of dollars in revenue worldwide each year (MPAA 2008). Given the industry's enormous economic and cultural impact, it is not surprising that there is a great amount of academic interest in understanding what contributes to a movie's success (e.g., Joshi and Hanssens 2009; Sood and Drèze 2006). Past research has noted the presence of high risk associated with new movies (DeVany and Walls 1999), which has motivated academic investigations on production and marketing strategies that are instrumental in reducing risks and enhancing box office revenues (e.g., use of star actors and actresses, Elberse 2007; advertising, Zufryden 1996).

One risk-reduction strategy of the motion picture industry that has thus far been overlooked in academic research is to adapt best-selling books for the screen. Hoping to leverage the success of these books, studios release a large number of book-based movies every year. Many of these movies are indeed successful, and some even become blockbusters (e.g., *The Da Vinci Code* and the *Harry Potter* movies). However, unsuccessful examples also abound (e.g., *Hitchhiker's Guide to the Galaxy* and *Sahara*). Despite the wide use of book adaptations in the film industry, it remains unclear whether this is a viable strategy to increase movie success.

Based on brand extension theories (e.g., Aaker and Keller 1990), this paper seeks to understand the performance of book-based movies, which extend book names into the film category. First, we examine whether book-based movies generally outperform non-book movies. Our findings not only have implications for the filmmaking industry but also contribute to the brand extension literature, as little research has directly compared the performance of brand extensions to other new products (see McCarthy et al. 2001 for an exception).

Second, we investigate factors that impact the success of book-based movies. Research on antecedents of successful brand extensions have been largely confined to consumer packaged products; investigations of experiential goods such as movies are rather scarce (with Sood and Drèze 2006 being a

notable exception). Using the accessibility-diagnostics framework (Feldman and Lynch 1988; Lynch et al. 1988), our research identifies factors that can enhance the performance of an experiential brand extension in the context of book-based movies.

Third, we investigate how leveraging book equity (i.e., book-based movies) is different from leveraging movie equity (i.e., movie sequels) in filmmaking. Sood and Drèze (2006) have identified key factors that drive success in movie sequels, but we argue that book-based movies derive their success from different factors, due to change in modality between the original and new experiences.

In the rest of the paper, we first forward our theory and hypotheses, based on the brand extension research and the accessibility-diagnostics framework. Next, we report two studies that test our theory, using a multimethod approach. In Study 1, we analyze a large database to understand the performance of book-based movies in comparison to non-book movies, as well as the drivers behind successful book adaptations. In Study 2, we employ an experiment to examine different antecedents to performance of a book-based movie versus a movie sequel. We conclude with a discussion of the contributions, limitations and suggestions for future research.

## Theory and hypotheses

Prior work has suggested that equity of an existing brand can impact its extensions both directly and indirectly (Aaker and Keller 1990; see Czeller 2003 for a review). In its direct effect, the brand serves as an evaluative context and positively influences consumer perceptions of the new product in a global manner (Brown and Dacin 1997). In the context of book adaptation, consumers often store book attitudes in memory, which are retrieved later at the exposure of the book name as a movie title. The retrieved positive attitude toward the book will provide a favorable context for judgment, increasing consumers' expectation of the movie's performance and in turn their intention to watch the film (Shiv and Huber 2000). As such, book equity has a direct and positive effect on the performance of its screen adaptation.

Moreover, this effect could take place even among consumers who have not read the book, as it is evidenced in the literature that consumers often form attitudes toward products they have little usage experience with and apply such attitudes in related judgments. For example, Broniarczyk and Alba (1994) found that brand equity positively influences extension evaluations even among consumers with limited brand knowledge. Mao and Krishnan (2006) showed that participants formed a positive attitude toward a favorably described fictitious brand, which consequently impacted their judgment of the extension. Since studios, in marketing a book-based movie, often emphasize its origin from a well liked book

(please see Appendix 1 for examples), we expect that book-based movies appeal to both readers and non-readers and have an overall positive impact on the box office performance.

In addition to the direct effect, brand equity also influences extension evaluation indirectly through equity transfer (Aaker and Keller 1990; Park et al. 1991). Using the parent brand as a cue in judgment, consumers transfer relevant brand knowledge and affect to the extension and anticipate the extension to possess certain properties or benefits that have made the brand successful. In our context, the book serves as an important information source to make inferences about the adaptation and consumers transfer beliefs and affect associated with the book to the movie. To the extent consumers use the book as a judgment cue, book equity will be transferred to the movie. Hence, the effect of book equity on the movie can also be indirect and moderated by consumers' tendency to rely on the book for movie evaluation.

The situations where consumers tend to use book knowledge to make inferences about the movie can be described using the accessibility-diagnostics framework (Feldman and Lynch 1988; Lynch et al. 1988). This framework suggests that a piece of information is more likely to be used as a cue in judgment (1) if it is perceived as diagnostic or relevant to the judgment, (2) if it is accessible, or readily available for use in the judgment, and (3) if other information is less accessible. In the context of book-based movies, we propose that three factors will impact consumers' tendency to use the book as a cue for movie judgment. First, similarity between the book and the new movie is expected to affect the perceived diagnosticity of the book in evaluating the movie. Second, temporal recency of the book's peak equity is expected to impact the accessibility of book information. Third, we expect that after the opening weekend, other information than the book, such as movie reviews, will be more accessible. Thus, all these three factors (i.e., book-movie similarity, best-seller recency, and before/after opening weekend) are expected to impact the equity transfer process and consequently the effect of book equity on the movie's performance.

### Book-movie similarity (diagnostics of book equity)

It is well documented in the literature that brand extension similarity serves as an important antecedent to extension success (Aaker and Keller 1990; Mao and Krishnan 2006; Park et al. 1991). Here we propose that its effect occurs through enhancing the perceived diagnosticity of the original brand. When the extension closely resembles the original brand, consumers tend to perceive the brand as more relevant and valuable in judging the extension. The equity transfer process is thus facilitated, and the brand will carry a larger weight in the evaluation. In a book-based movie context, studios often promote a movie by highlighting its close adaptation of a book (Appendix 1), which is consistent with

findings in past research that studios tend to highlight attributes that positively influence potential consumers (Lampel and Shamsie 2000). The highlighted book-movie similarity will enhance consumer perception that the book is relevant and diagnostic to predict the movie's quality. In turn, positive book attitude is more likely to be transferred to the new movie. We thus expect an interaction effect between book equity and book-movie similarity. That is, book equity is more likely to affect the movie performance when there exists a similarity between the book and the movie.

However, recent research examining movie sequels has proposed an opposite effect and observed that extension similarity could negatively impact movie performance (Sood and Drèze 2006). It is argued that consumers value surprise and originality in experiential consumption, and repetition of similar ideas and episodes may quickly lead to satiation and decrease consumer enjoyment (Redden 2008). We propose that the negative extension-similarity effect established for movie sequels does not apply in the book adaptation context. With a movie sequel, the original brand and the extension belong to the same category (movies) and involve the same type of sensory experience (watching a movie). However, as experiential modality changes for book-based movies (from book reading experience to movie watching experience), we expect that satiation, which results from repetition of the same experience, will no longer take place and the anticipated enjoyment from the movie will not be reduced. Hence, we predict that high book-movie similarity, which increases perceived diagnosticity of the book, will favorably impact the equity transfer process and the movie's performance.

#### Best-seller recency (accessibility of book equity)

Due to the experiential nature of the parent brand (i.e., the book), the accessibility of the brand equity is expected to fluctuate over time. For a book that has only recently reached the peak in equity (manifested, for instance, by achieving a high rank on a best-seller list), consumers' memory trace of the book is strong, fresh, and readily retrievable. The high accessibility of book-related information renders an "equity momentum," making knowledge transfer particularly effective. In situations where there is a long temporal gap between the peak of the book and the movie release, book associations become much less accessible, as the memory trace of the book, often established at the time when the book was popular, will have significantly decayed or deteriorated over time (Crowder 1976). Further, fresh knowledge of newer books may have been established in consumer memory, interfering with the memory trace of the older book and making retrieval of the latter more difficult (Kent and Allen 1994). Since the accessibility of book equity tends to decline over time, best-seller recency is anticipated to positively moderate the impact of brand equity on movie performance. The importance of

timing in movie release can be evidenced by past research documenting another momentum phenomenon, which shows that studios are increasingly reducing the time gap between domestic and international movie releases, in part to utilize the fresh memory trace for the imported movie (Friedman 1992). Here, we propose that book equity momentum is important to book-based movies, as book equity is more likely to transfer and impact the new movie when the movie is launched shortly after the book reaches its peak equity.

#### Opening weekend versus post-opening gross (accessibility of other cues)

Past movie research has consistently treated the opening weekend differently from the later weeks of a movie's box office run when predicting revenue (Ainslie et al. 2005; Elberse and Eliashberg 2003), acknowledging that factors driving early and later performance of a movie are different. In the opening weekend, which typically accounts for about 25% of a movie's total U.S. revenue, prospective viewers have limited information to infer the film quality, except for factual details such as genre and MPAA ratings. Experiential information, such as reviews from other consumers, is usually scarce. Consequently, the book becomes an important information source for movie judgment.

After the opening weekend, experiential information about the movie becomes more accessible as reviews and word-of-mouth reports from consumers start to appear and circulate more widely (Elberse and Eliashberg 2003). With such direct experiential cues readily available, information used to predict the movie quality earlier on, including the book, has a much smaller impact. Instead, we expect that consumers will rely more on information such as reviews to infer the movie quality (Chevalier and Mayzlin 2006). This prediction is supported by the findings in the brand extension literature that consumers are less likely to use the original brand to judge an extension when extension quality information becomes available (Klink and Smith 2001).

Thus, the aforementioned interactions between book equity and book-movie similarity and between book equity and best-seller recency should exist only for the new movie's opening-weekend gross revenue and not for the post-opening balance gross. In contrast, reviews are expected to be an important indicator of the movie performance in the balance gross but not for the opening-weekend gross, consistent with prior findings (Eliashberg and Shugan 1997) that reviews are lagging predictors of box office revenues.

The only book-related factor that we expect to influence movie performance after the opening weekend is the direct effect of book equity. As discussed earlier, book equity directly impacts movie judgment by providing a favorable evaluative context. Research has suggested that such an effect persists even in situations where counter facts are

presented (Brown and Dacin 1997). Thus, we expect that book equity will continue to have a direct (albeit reduced) impact on the movie's gross after the opening weekend.

Based on the arguments above, we propose the following hypotheses:

- H1: Book equity has a positive impact on the performance of a book-based movie during the opening weekend and after the opening weekend.
- H2: Book equity and book-movie similarity interact to impact the opening weekend performance of a book-based movie. Specifically, book equity is more likely to positively affect the movie performance when there is high similarity between the book and the movie. This effect dissipates after the opening weekend.
- H3: Book equity and best-seller recency interact to impact the opening weekend performance of a book-based movie. Specifically, book equity is more likely to positively affect the movie performance when the movie is launched shortly after the book achieves peak equity. This effect dissipates after the opening weekend.
- H4: Reviews will positively impact the performance of a book-based movie after the opening weekend, but not during the opening weekend.

## Study 1

### Data and variables

Secondary data were collected to test our hypotheses. We obtained data on 482 wide-launch movies (at least 500 screens at time of launch) released between 1973 and 2007 (median release date: 1996) that were based on novels published after 1950. Movies based on comic books or comic book characters (such as Batman or Superman) were not included in our sample. Barring this exclusion, our dataset is a census of all movies based on books released between the dates indicated above for which data were available. Thus, our analysis is not restricted to only successful and popular books (e.g., *The Da Vinci Code*) but also includes relatively lesser known books adapted to the big screen (e.g., *Woman Thou Art Loosed* and *Blue City*).

To enable comparison of book-based and non-book movies, we also collected information on movies that were described as “based on an original screenplay” at the-numbers.com and the Internet Movie Database (IMDb). While we include book-based movies over an extended period of time (35 years) to ensure that sufficient data are available, using the same time period for non-book movies is less feasible since it would imply data collection for thousands of movies. Instead, we collected data for all non-book movies released in a 3-year period around the median

date for the former dataset. This resulted in a sample of 242 non-book movies released between 1995 and 1998.<sup>1</sup>

For each of these movies, we gathered data on opening-weekend gross and total U.S. gross. Opening-weekend gross serves as one dependent variable in our analysis. The balance gross, formulated as the difference between total gross and opening-weekend gross, is the other dependent variable.<sup>2</sup> We also obtained release date for each movie, which is used to compute the best-seller recency variable. Furthermore, a series of movie-related variables that past research has identified as antecedents of movie performance were collected as independent variables in our models. Specifically, we follow Zufryden (1996), Neelamegham and Chintagunta (1999) and Elberse and Eliashberg (2003) in using variables including production budget, screens at launch, movie reviews, star power, ratings from the Motion Picture Association of America (MPAA), seasonality, genre, and whether the movie is a sequel of an earlier movie.

Among these variables, movie reviews were used to test H4. Others were collected as they have been frequently modeled and found to affect movie performance in past research. For example, screens, production budget and star power have been shown to positively impact box office revenue (Basuroy et al. 2003; Elberse 2007) while an MPAA “R” rating has a negative impact on movie performance (De Vany and Walls 2002). While this research focuses on book-related antecedents to the performance of book-based movies, we include these movie-related antecedents for the purpose of completeness. In addition, including these variables in our models provides a more stringent test by examining whether our hypotheses could further explain variances in movie performance beyond these established antecedents. Data on most of these variables were collected from IMDb and the-numbers.com. Reviews were obtained both before the launch of a movie (from metacritic.com) and 2 weeks after launch (from IMDb) to incorporate the effect of consumer-driven word-of-mouth into the models. Table 1 presents these variables, their description, and the sources of data. All monetary data (e.g., revenues and budgets) were adjusted for inflation using CPI (Consumer Price Index) data from the Bureau of Labor Statistics to ensure comparability across years.

Next, for book-based movies, we further collected information on book-related variables, from multiple sources including the book database at the USA Today website and Wikipedia.org. These variables include the

<sup>1</sup> As a robustness check, we also collected a sample of 144 non-book movies between 2000 and 2006 and re-estimated the related models. The results remain the same except for minor changes in magnitude of coefficients. We would like to thank an anonymous reviewer for suggesting this robustness check analysis.

<sup>2</sup> Another option would be to use total gross as the dependent variable and have opening weekend gross as an explanatory variable, but that method is inferior to our approach, as it gives rise to concerns of multicollinearity.



highest rank each book reached on one of three best-seller lists (USA Today, New York Times, or Amazon), the date of that rank, and whether the author had a role in the creation of the movie (beyond writing the book upon which the movie was based). Table 2 details our book-related variables, their descriptions, and sources of data. These variables were further formulated to create the independent variables in our hypotheses—book equity, book-movie similarity, and best-seller recency—as explained below.

We used an inverted form of the highest best-seller rank (i.e.,  $1 / \text{highest rank achieved on best-seller list}^3$ ) as an instrumental variable for the book equity. If a book did not make any of the three best-seller lists, we assigned it an arbitrary rank of 1000,<sup>4</sup> which leads to a small book equity value of .001. We theorize that rank on a best-seller list, which is an indication of a book’s popularity, is a good proxy for the perceived equity of the book. Past research shows that the relationship between actual sales and best-seller ranking is approximately log-linear (Chevalier and Goolsbee 2003; Rosenthal 2009; Schnapp and Allwine 2001) and that sales rank is a good proxy for book sales (Chevalier and Mayzlin 2006). In addition, using best-seller to capture book equity follows the research in consumer behavior and economics that relates market share and quality perceptions (Caminal and Vives 1996; Hellofs and Jacobson 1999).

Our book-movie similarity variable is formulated using the data on the author’s involvement in making the movie. A recent *Los Angeles Times* blog post highlights both the importance of the author during movie creation and the need to stay “true to the characters” from the book during the adaptation phase (Martin 2009). We postulate that the presence of the author in the creation of the movie (in any capacity other than simply as the author of the original book) will ensure a smooth transition of the key elements of the book to the movie. Our use of this variable as a proxy for similarity is supported by the fact that when an author is involved in a movie based on his or her book, it is most commonly in the role of screenplay writer (in our research, it was true in 56 of the 130 cases in which the author was involved).<sup>5</sup>

The best-seller recency variable is formulated by dividing 365 by the difference in days between the launch of the movie and date that the book reaches highest best-selling rank. Table 3 provides the descriptive statistics for the book-based movie variables.

<sup>3</sup> We would like to thank an anonymous reviewer for suggesting this operationalization of the equity variable.

<sup>4</sup> We have conducted robustness checks with two different arbitrary rank assignments to books that have never made any best-selling list—500 and 10,000—and our results remain the same (except for change in the magnitudes of coefficients).

<sup>5</sup> Another possible instrumental variable for similarity can be whether the name of the book and movie are the same. However, in our dataset, only two movies (out of 482) had names that differed from the names of the books upon which they were based.

## Modeling steps

A total of six regression models are estimated. The first two models include all our movies (482 book-based movies and 242 non-book movies), with one model analyzing the opening weekend box office gross (Model 1a) and the other analyzing the balance box office gross (Model 1b). The purpose of these two models is to explore whether there exists a difference between the performance of book-based movies and non-book movies. In these two models, we include all the movie-related independent variables listed in Table 1 as well as a dummy variable for book-based movies, as shown in Eq. 1. A significant coefficient for the dummy variable will indicate that, ceteris paribus, book-based movies perform differently than non-book movies at the box office.

$$\begin{aligned} \text{REVENUE}_i = & \alpha_0 + \alpha_1(\text{BUDGET}_i) + \alpha_2(\text{SCREEN}_i) \\ & + \alpha_3(\text{REVIEW}_i) + \alpha_4(\text{SEQUEL}_i) \\ & + \alpha_5(\text{STAR}_i) + \alpha_6(\text{MPAA}_i) \\ & + \alpha_7(\text{SEASON}_i) + \alpha_8(\text{GENRE}_i) \\ & + \alpha_9(\text{BOOK}_i) + \varepsilon_i \end{aligned} \quad (1)$$

where

REVENUE <sub>i</sub>	opening-weekend or balance U.S. box office gross for movie i in U.S. dollars.
BUDGET <sub>i</sub>	movie production budget, in U.S. dollars.
SCREEN <sub>i</sub>	number of screens at launch.
REVIEW <sub>i</sub>	reviews from IMDb and metacritic.com. (We use data from metacritic.com for the opening-weekend model and from IMDb for balance gross.)
SEQUEL <sub>i</sub>	dummy variable, taking the value 1 if movie i is a sequel, and 0 otherwise.
STAR <sub>i</sub>	dummy variable, taking the value 1 if movie i has at least one star actor.
MPAA <sub>i</sub>	dummy variables representing the MPAA rating (PG, R) for the movie.
SEASON <sub>i</sub>	series of dummy variables for the five main movie-release seasons (January–March, April–May, Memorial Day–July, August–November, Thanksgiving–December).
GENRE <sub>i</sub>	series of dummy variables for genre of movie i. A movie may have more than one genre (e.g., action/comedy).
BOOK <sub>i</sub>	dummy variable, taking the value 1 if movie i is based on a book and 0 otherwise.

The other four models estimate book-based movies and non-book movies separately: (1) Model 2a analyzes the opening weekend gross for book-based movies; (2) Model 2b analyzes the balance gross for book-based movies; (3)

**Table 1** Description of movie-related variables used in analysis

Variable	Description	Source
DVs:		
Opening Gross	Box office gross earned by a movie on the opening weekend	the-numbers.com
Total Gross	Total revenue earned by a movie over the entire duration of its theatrical run	the-numbers.com
Balance Gross	The difference between Total Gross and Opening Gross of a movie	Calculated
Movie-related IVs:		
Production Budget	Estimated production budget for movie	the-numbers.com
Screens	Number of screens on the opening weekend	the-numbers.com
Reviews	Ratings for movies, obtained from two sources	IMDb and MetaCritic
Sequel	Dummy variable taking the value 1 if movie is a sequel	IMDb
Star Power	Dummy variable, taking value 1 if movie has any entertainer appearing in the Forbes Celebrity 100 list for the year.	Forbes.com
MPAA rating	Rating from the Motion Picture Association of America (e.g., PG, R)	the-numbers.com / IMDb
Seasonality	Season in which the movie opened, with a dummy variable for the main movie release seasons	IMDb
Genre	Classification by movie type	the-numbers.com / IMDb
Others:		
Release Date	Date on which movie was released in theatres; used to calculate best-seller recency	IMDb

Model 3a analyzes the opening weekend gross for non-book movies; and (4) Model 3b analyzes the balance gross for non-book movies. While our hypotheses are tested with Models 2a and 2b, we include Models 3a and 3b for two reasons: (1) to confirm that our methodology produces estimates comparable with past research, thereby demonstrating the correctness of our models, and (2) to provide baseline information and enable comparison on drivers of revenues for book-movies and non-book movies, which could lead to managerially interesting conclusions. The estimating equation for Models 2a and 2b can be parsimoniously represented as follows:

$$REVENUE_i = \beta_1 * [M_i] + \beta_2 * [B_i] + \beta_3 * [I_i] + \varepsilon_i \quad (2)$$

REVENUE<sub>i</sub> is the revenue for book-based movie i (opening-weekend gross for Model 2a or balance gross for Model 2b). The matrix [M] contains the same movie-related variables included in equation (1). The matrix [B<sub>i</sub>] contains three book-related variables:

- EQUITY<sub>i</sub>                                    1 / (highest rank achieved on a best-seller list).
- SIMILARITY<sub>i</sub>                                dummy variable taking the value 1 if the author of the original book participated in the making of the movie, and 0 otherwise.
- BESTSELLER\_RECENCY<sub>i</sub>                    inverse of the time between movie release and date when

**Table 2** Description of book-related variables used in analysis

Variable	Description	Source
Best-seller Rank	Highest rank achieved by book on the USA Today / New York Times / Amazon best-seller list; used to calculate the book equity variable. Books that do not make any of the three best-selling lists is assigned an arbitrary rank of 1000	USA Today / New York Times / Amazon.com
Book Equity	Inverse of best-seller rank, calculated as 1/best-seller rank	Calculated
Rank Date	Date on which highest rank was achieved; used to calculate the best-seller recency variable	USA Today / New York Times / Amazon.com
Best-seller Recency	Calculated as 365 / (difference in days between the book's Rank Date and the movie's Release Date).	Calculated
Book-Movie Similarity	Binary variable taking value 1 if the author was associated with the making of the movie and 0 otherwise	IMDb

**Table 3** Descriptive statistics for all book-based movies

Variable	Mean	Std. Dev.
Opening Weekend Gross (\$)	12914917	15685575
U.S. Gross (\$)	53629854	63848156
Production Budget (\$)	52261797	34344948
Average Review	6/10	1
Opening Screens	1849	857
Book Best-seller Rank	33	41
Best-seller Rank Date	1996	10 years
Best-seller Gap (difference in days between the book's Rank Date and the movie's Release Date)	954 days	2554 days

book reached peak rank on best-seller list (i.e., 365/gap in days between peak rank and movie release).

The matrix [I<sub>i</sub>] contains the interaction terms. To test H2 and H3, we include in the [I] matrix the interactions between Equity and Similarity (H2), and Equity and Best-seller Recency (H3). In addition, we also include interactions between Reviews and Equity, and Reviews and Similarity to provide actionable directions to managers. While we hypothesize a direct impact of Reviews on balance gross, these additional interactions serve to explore whether Reviews, which have been shown as an important antecedent to movie performance (Basuroy et al. 2003), may also have indirect effects on movie performance.

The estimating equation for Models 3a and 3b (non-book movies) is as follows:

$$REVENUE_i = \gamma_1 * [M_i] + \epsilon_i \tag{3}$$

Revenue<sub>i</sub> is the revenue for non-book movie i (opening-weekend gross for Model 3a or balance gross for Model 3b). The matrix [M] is the same as in Eq. 2. Since Eq. 3 is about non-book movies, the matrices [B<sub>i</sub>] and [I<sub>i</sub>] are not included.

### Results

We began with an exploratory analysis that compares the average opening-weekend gross and balance gross for book-based and non-book movies. The average opening-weekend revenue for book-based movies is \$12.9 million, significantly greater than that for non-book movies, which is \$10.1 million ( $t=2.27, p<.05$ ). In contrast, the averages for balance gross were \$40.7 million for book-based movies, which is not significantly different from the \$37.1 million for non-book movies ( $t=1.39, p>.05$ ). This analysis suggests that book-based movies enjoy an advantage at the box office over non-book movies during the opening weekend, but this advantage wears off afterwards.

Before estimating our models, two important concerns need to be addressed. For one, extant research on the motion picture industry has noted that endogeneity is a concern, especially when week-by-week revenues are being modeled (Basuroy et al. 2006; Elberse and Eliashberg 2003). While this research does not model week-by-week revenues, we perform the Hausman Test to rule out the presence of endogeneity, using the instrumental variables detailed in Elberse and Eliashberg (2003). Results indicate that endogeneity is not a problem in our case. Secondly, the inclusion of several interaction terms in our model along with other intuitively related explanatory variables (such as budget and star power) may raise concerns of multicollinearity. To address this concern, we estimate Variance Inflation Factors (VIFs) for each model, and a maximum VIF of 3 rules out the presence of multicollinearity.

Models 1a and 1b in Eq. 1 were estimated to further explore whether book-based movies perform differently from non-book movies after adjusting for other important factors such as budget and reviews. Results are displayed in Table 4. The positive and significant coefficient for the Book dummy variable in Model 1a ( $b=.23, t=3.84, p<.001$ ) indicates that movies based on books are more successful at the box office on the opening weekend. The effect of the book factor diminishes after opening weekend and is only marginally significant on balance gross ( $b=.11, t=1.70, p=.10$ ), consistent with the preliminary findings above.

*Main effects and H1* Table 5 displays the effects from the estimation of our Models 2a, 2b, 3a, and 3b. Models 3a and 3b are the opening-week gross and balance gross models for non-book movies, which serve as benchmark models, while Models 2a and 2b are opening-week and balance gross models for book-based movies and test our hypotheses. The R<sup>2</sup> and f-statistics in the four models indicate that both opening-weekend gross and balance gross are reasonably well predicted from the available data. The Durbin-Watson statistic exceeds 2 in all models, indicating the absence of serial correlation in the residuals. Overall, the magnitude, direction and significance of coefficients, coupled with the fit statistics indicate that our revenue models perform well and are in line with findings from past research.

The coefficients for Book Equity in Models 2a and 2b allow us to test H1. The positive and significant coefficients for book equity in the opening weekend model ( $b=8.42, t=2.64, p=.006$ ) as well as the balance gross model ( $b=3.93, t=3.16, p=.002$ ) imply that book equity has a strong influence on movie revenues throughout its lifecycle, thereby confirming H1.

*Interaction effects and H2 and H3* The interaction effects are estimated within Models 2a and 2b. Model 2a reveals a significant interaction between Book Equity and Similarity on opening weekend revenue ( $b=.03, t=2.97, p=.002$ ), indicating the presence of synergy between these two variables on movie performance at an early stage. However, this effect wears off

**Table 4** Revenue models results for all movies (Models 1a and 1b)

	Model 1a: Opening weekend gross			Model 1b: Balance gross		
	Coefficient	t-statistic	p-value	Coefficient	t-statistic	p-value
Intercept	2.16***	3.67	0.0003	1.95***	2.80	0.0054
Budget	.38***	8.29	0.0000	.39***	5.01	0.0000
Screen	.81***	13.27	0.0000	.42***	7.55	0.0000
Reviews	.06*	1.68	0.0922	.13***	3.96	0.0000
Sequel	.43***	3.07	0.0020	.22**	2.11	0.0350
Star	.49***	2.64	0.0084	1.28	.38	0.7040
PG	.97	1.08	0.2804	.49	.81	0.4180
R	-.15**	-1.96	0.0502	.82	.81	0.4180
Season	-.72	-.81	0.4180	.11**	1.99	0.0468
Sci-fi	1.05*	1.87	0.0616	.34	.47	0.6340
Action	-2.64	-.91	0.3630	.52	.20	0.8414
Comedy	-.17	-1.08	0.2804	1.88	1.44	0.1500
Drama	.86	1.12	0.2628	.71	1.01	0.3112
Book	.23***	3.84	0.0002	.11*	1.70	0.0953
Adjusted R <sup>2</sup>	.75			.59		
F-statistic	47.07			9.82		
Prob. (F-statistic)	.00			.00		

\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

over time and is insignificant for balance gross in Model 2b ( $b = .01$ ,  $t = .39$ ,  $p = .35$ ). Hypothesis 2 is thus supported. Similarity, Book Equity and Best-seller Recency are shown to have an interaction effect on opening weekend revenue in Model 2a ( $b = .013$ ,  $t = 2.51$ ,  $p = .007$ ). This effect disappears on balance gross in Model 2b ( $b = .095$ ,  $t = 1.19$ ,  $p = .23$ ), lending support to H3. Thus, book equity is more likely to impact movie performance when the movie is a close adaptation or when the movie is launched shortly after the book reaches peak equity. However, these effects apply only to opening weekend revenue and not to balance revenue.

*Impact of reviews and H4* Furthermore, Model 2b demonstrates that Reviews positively impact balance gross ( $b = .18$ ,  $t = 3.37$ ,  $p = .001$ ). In contrast, the coefficient for Reviews in Model 2a is insignificant ( $b = .50$ ,  $t = .72$ ,  $p = .47$ ). Thus, Reviews have an impact on revenues only after the opening weekend, lending support to H4. The effect of reviews on box office performance of non-book movies revealed a similar pattern. As shown in Model 3a and 3b, reviews have a significant impact on the balance gross of non-book movies ( $b = .04$ ,  $t = 2.47$ ,  $p = .015$ ) but not on the opening gross ( $b = .07$ ,  $t = 1.68$ ,  $p = .10$ ), a finding consistent with past literature (Eliashberg and Shugan 1997).

Overall, our empirical analysis finds support for all four of our hypotheses. First, book equity drives the movie's revenue both on and after opening weekend. Second, opening weekend revenues are positively impacted by the interaction between a book's equity and the book-movie similarity, and the equity and recency of that equity. Both interactions are significant only in the opening weekend. Finally, reviews drive revenues only after the opening weekend.

*Other interaction effects* The other interaction variables included, though not hypothesized, provide managerially useful results. Model 2a reveals a significant interaction between Book Equity and Reviews, suggesting that a best-seller is more likely to generate high opening weekend revenue if the movie receives good reviews ( $b = .16$ ,  $t = 1.91$ ,  $p = .057$ ). Once again, such an effect dissipates for the balance gross ( $b = .61$ ,  $t = 1.37$ ,  $p = .171$ ). These results are consistent with our theory that the indirect effect of book equity tends to take place only during the opening weekend. In addition, these findings also indicate that movie reviews have an impact on opening weekend performance through facilitating the transfer of book equities. Thus, film quality is especially important for book-based movies as a well-liked, high-quality film is more likely to leverage the equity of a best-seller at an early stage and will continue to drive revenue directly afterwards. There is no interaction effect between Reviews and Similarity, either in the short or long run ( $p > .10$ ).

*Book-based versus non-book movies* Besides the interaction effects, the comparison across models for book and non-book movies offers some interesting insights. Sequels appear to have different revenue characteristics for book-based and non-book movies. Specifically, while the impact of a sequel lasts on balance revenues for book-based movies (Balance Gross:  $b = .26$ ,  $t = 1.92$ ,  $p = .055$ ), its impact fades after opening weekend for non-book movies ( $b = .57$ ,  $t = 1.33$ ,  $p = .188$ ). We speculate that this effect may be due to the fact that book-based movie sequels are often based on highly successful book sequels (such as *Harry Potter* and *The Lord of the Rings*). Second, Model 3a reveals that star power has a



**Table 5** Revenue model results for non-book and book-based movies (Models 2a, 2b, 3a, 3b) (t-statistics are in parentheses)

	Model 2a: Opening gross (Book-based movies)	Model 2b: Balance gross (Book-based movies)	Model 3a: Opening baseline (Non-book movies)	Model 3b: Balance baseline (Non-book movies)
Intercept	1.45 (3.69)***	1.52 (2.42)***	1.81 (2.06)**	1.27 (2.49)**
Budget	.24 (3.07)***	.45 (4.95)***	.43 (8.29)***	.78 (10.03)***
Screen	.70 (8.21)***	.59 (4.29)***	.89 (13.27)***	.60 (3.65)***
Reviews	.50 (.72)	.18 (3.37)***	.07 (1.68)*	.04 (2.47)***
Sequel	.59 (2.95)***	.26 (1.92)**	.63 (3.07)***	.57 (1.33)
Star	1.08 (1.36)	.39 (.61)	.53 (2.64)***	.07 (1.36)
PG	.66 (.94)	.29 (.30)	1.33 (1.08)	.73 (.66)
R	-.31 (-1.26)	-.95 (-1.06)	-.19 (-1.96)**	-.61 (-1.30)
Season	.57 (.91)	-.25 (-1.61)	-.43 (-.81)	.31 (2.14)**
Sci-fi	1.3 (1.58)	.82 (.31)	1.37 (3.24)***	1.02 (1.61)
Action	.09 (.16)	.67 (.05)	-1.49 (-.54)	.25 (1.73)*
Comedy	.27 (1.83)*	1.52 (1.28)	-.22 (-.97)	-.68 (-1.52)
Drama	.43 (1.91)*	.55 (1.07)	.62 (1.05)	-.55 (-.41)
Book Equity	8.42 (2.64)***	3.93 (3.16)***		
Best-seller Recency	11.96 (2.58)**	28.70 (1.24)		
Similarity	.45 (3.11)***	.26 (1.21)		
Equity * Similarity	.03 (2.97)***	.01 (.39)		
Equity * Best-seller Recency	.013 (2.51)**	.095 (1.19)		
Equity *Reviews	.16 (1.91)*	.61 (1.37)		
Review*Similarity	-.05 (-.47)	.12 (.12)		
Adjusted R <sup>2</sup>	.72	.55	.68	.48
F-statistic	56.03	123.41	124.61	41.07
Prob. (F-statistic)	.00	.00	.00	.00

\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

positive impact on opening weekend revenue for non-book movies ( $b = .53$ ,  $t = 2.64$ ,  $p = .009$ ). However, as shown in Model 2a, such an impact does not exist for book-based movies ( $b = 1.08$ ,  $t = 1.36$ ,  $p = .175$ ). This is an important managerial finding, as it implies that a book-based movie can have a successful opening without the presence of any stars, as its performance is largely driven by book-related variables. Finally, the “R-rating paradox” (wherein R-rated movies consistently earn less than other movies, De Vany and Walls 2002) does not seem to extend to book-based movies. For such movies, an R rating has no impact on opening or balance revenues (opening gross:  $b = -.31$ ,  $t = -1.26$ ,  $p = .208$ ; balance gross:  $b = -.95$ ,  $t = -1.06$ ,  $p = .290$ ), in comparison to a negative opening weekend impact for non-book movies ( $b = -.19$ ,  $t = -1.96$ ,  $p = .051$ ).

### Discussion

The models discussed above offer several valuable findings from both the academic and managerial perspectives. First, utilizing the accessibility-diagnostics framework, our research shows that book-related knowledge is more diagnostic when the movie is a close adaptation of the book and more accessible when the movie is launched shortly after the book reaches peak equity, and these effects are more likely to take place at the

opening weekend when other information, such as reviews, is less accessible to consumers. Specifically, we find that while the positive impact of book equity on extension evaluation is persistent (affecting both opening-weekend revenue and balance revenue), the effect of other book-related factors (Equity\*Similarity and Equity\*Bestseller Recency) is temporary and fades out after opening weekend. From a managerial perspective, this highlights the importance of opening a movie based on a best-selling book on as many screens as is possible to maximize the opening weekend revenue. Furthermore, to fully leverage book equities at opening, it is important for studios to adapt a recent best-seller and make the adaptation maximally close to the original book. In addition, the persistence effect of book equity implies that studios should carefully select a book high on the best-selling rank to adapt, as a great book provides an overall revenue boost.

Besides providing managerial implications to the movie industry, Study 1 also makes theoretical contributions to the understanding of experiential brand extensions, a relatively underdeveloped area (Sood and Drèze 2006). First, we hypothesize and find that for an experiential brand extension, a momentum effect exists and temporal recency between the original and new experiences facilitates the transfer of brand equity. The equity recency factor is a unique antecedent to the success of experiential extensions, as brand equity in a more tangible product category is less affected by time. As equity of

an experiential brand tends to weaken over time, timing in launching the brand extension becomes particularly important.

Another important contribution of this research to the experiential brand extension literature is the finding that a movie's similarity to a popular book would enhance the movie's performance. This result is opposite to an earlier finding in the experiential brand extension literature which shows that high similarity may lead to satiation and reduce consumer evaluations (Sood and Drèze 2006). As discussed earlier, we believe a moderating variable—experiential modality change—alters the effect of similarity on performance of experiential brand extension. To be clear, we propose that a film adaptation of a book, which is a brand extension that involves experiential modality change, is positively impacted by extension similarity, whereas a movie sequel, which does not involve modality change, is not. Following Sood and Drèze's (2006, p. 359) call "to compare and contrast the determinants of success in a broader set of experiential categories," in Study 2 we use an experimental procedure to test the role of similarity on book adaptations versus movie sequels in a highly controlled environment.

## Study 2

In studying movie sequels, Sood and Drèze (2006) argue that a similar extension of an experiential good tends to receive unfavorable responses from consumers. Their argument is rooted in the satiation literature that repetition of similar episodes of sensory-based experiences may quickly lead to satiation and reduce consumer enjoyment (Redden 2008; Rolls et al. 1981). Supporting their propositions, Sood and Drèze (2006) find in their first study that similarity to the original movie has either no impact or negative impact on consumer evaluations of a sequel.

We propose, however, that extending a book to a movie is different, qualitatively, from extending a movie to a sequel. This view is consistent with the "category specificity effect" identified for consumer satiation phenomena (Redden 2008), which suggests that a past experience will reduce the enjoyment of a new experience only if the two are perceived as belonging to the same category. Interestingly, two experiences do not need to possess distinct content to be classified into different categories. For example, research has shown that consumers feel more enjoyment when they copy text using different handwriting styles (Sansone et al. 1992). Also, consumers experience less satiation when they consume jelly beans with different fruit flavors (Redden 2008). Thus, simple changes in experiential modality or form may be enough to overcome satiation, even if the content remains the same.

Related to the category specificity effect, researchers have also suggested that satiation is sensory-specific (Redden 2008). For example, feeling full does not make

consumers perceive watching TV as less appealing. People act as if they have independent appetites for different senses, and satiation of one appetite has no impact on their desire to satisfy other appetites. Thus, when a sensory feature is altered, satiation is less likely to affect consumption experiences.

When a movie sequel is produced, the extension offers an experience in the same category as the brand (i.e., the original movie). Furthermore, the brand and the extension also involve the same type of sensory features (i.e., watching the big screen and hearing the dialogue, music, and sound effects). Sood and Drèze (2006) suggest that in such a situation, satiation is likely to occur, and extension similarity has no or negative effect on consumer evaluation of the new movie. However, when studios adapt a book to the screen, consumers perceive the original and the new product as belonging to two different categories (i.e., books and movies) and offer experiences that focus on distinctive sensory features (i.e., reading versus watching and hearing).

Hence, we propose that people who have "consumed" a book (have read a book) will not anticipate satiation for watching a movie based on the book. The experience modality change overcomes satiation, and there is no need to alter the movie's plot or content from the book. On the contrary, based on the accessibility-diagnostics framework, keeping the movie similar to the original book will increase the diagnosticity of book-related information and facilitate transfer of positive attitudes to the movie. Thus, we suggest that in the film industry, the effect of extension similarity differs based on the type of brand extension strategy (i.e., movie sequel vs. book adaptation) employed.

## Design and procedure

The purpose of Study 2 is to investigate our proposition that the effect of extension similarity on experiential brand extensions in the movie context is dependent on whether the new movie leverages an existing successful movie or an existing successful book. We chose to adopt an experimental approach to establish such boundary condition. A highly controlled laboratory setting allows us to isolate and examine the effect of extension similarity in movie sequels and book adaptations with high internal validity. The study is a 2 (brand extensions: movie sequel vs. book adaptation) x 2 (extension similarity: similar vs. dissimilar) between-subjects design. A total of 81 students from a large university participated in this study in exchange for extra credit.

*Manipulations* In the movie sequel condition, participants were told that a sequel of the award-winning thriller film *Memento* was to be released. In the book adaptation condition, participants read that a film adaptation of the best-selling thriller novel *Nineteen Minutes* was to be released. Several

criteria led to our selection of *Memento* and *Nineteen Minutes* as the original brands in the experimental scenarios: (1) Both are thrillers with crime-related themes, and as such the new movies in both conditions are of the same genre. (2) Both have been well received by consumers and thus have high equity—*Memento* won numerous awards from various film critic associations and festivals (including two Oscar nominations), and *Nineteen Minutes* reached number one on the *New York Times* best-seller list. (3) Both are relatively recent. (4) *Memento* has not launched a sequel, and *Nineteen Minutes* has not yet been adapted to the big screen, allowing the new movie introduction in the experimental scenario to be perceived as plausible and also avoiding potential contaminations on consumer evaluations.

Next, participants read a short description of this to-be-released new movie, which contained the extension similarity manipulations adapted from Sood and Drèze (2006). In the similar-extension conditions, participants read that the new movie closely follows the storyline of the original. In the dissimilar conditions, they were told that while the new movie follows the general story of the original, it also adds a new element—a romance story between the main character and a schoolteacher. A pretest was conducted to ensure the validity of the similarity manipulation. A total of 127 students from the same pool were randomly assigned to read one of the four versions of the new movie description, before they rated extension similarity on a two-item, seven-point scale (very different / exactly the same; a great amount of deviation from the original / no deviation from the original;  $r=.70$ ). A 2 (brand extension: sequel vs. book adaptation)  $\times$  2 (extension similarity: high vs. low) ANOVA shows that, compared with those who read a description of a new movie dissimilar to the original, participants who read a description of a similar movie reported higher perception of extension similarity ( $M_{\text{similar}}=4.62$  vs.  $M_{\text{dissimilar}}=3.61$ ;  $F(1, 123)=20.28$ ;  $p<.001$ ). No other effect is significant. The extension similarity manipulation is thus confirmed.

**Dependent variable** After reading the movie description, participants evaluated the movies on a seven-point scale adapted from Sood and Drèze (2006) (bad movie / good movie; uninteresting / interesting; sounds worse than most films / sounds better than most films; forget it / must see; wait for rental / see opening night;  $\alpha=.83$ ). In addition, we also collected respondents' thoughts on the new movie, which were coded and analyzed to reveal the processing mechanism underlying the movie evaluation effects.

## Results

**Movie evaluations** We used a 2 (brand extension type)  $\times$  2 (extension similarity) ANOVA to analyze the results. As

expected, there is a significant two-way interaction ( $F(1, 77)=4.33$ ;  $p=.04$ ). Contrast analysis further shows that for a book-based movie, similarity has a positive effect on consumer evaluation ( $M_{\text{similar}}=4.35$  vs.  $M_{\text{dissimilar}}=3.55$ ;  $F(1, 77)=6.46$ ;  $p=.01$ ). For a sequel, however, similarity does not make an impact ( $M_{\text{similar}}=4.43$  vs.  $M_{\text{dissimilar}}=4.56$ ;  $F(1, 77)=.17$ ;  $p=.68$ ). This result suggests that the effect of extension similarity is bounded by consistency in the experiential modality between the original and the extension. When a movie is extended from another movie, the experiential modality remains the same, and content similarity does not generate more favorable movie evaluations. This null effect is likely a result of two opposing forces via the positive impact of increased brand diagnosticity and the negative impact of anticipated satiation. But when a movie is extended from a different experiential category, such as a book, only the increased diagnosticity mechanism is at work, and satiation ceases to have an impact. As a result, similarity starts to have a positive effect on consumer evaluations.

**Respondents' thoughts** Two judges who were blind to the experimental conditions coded respondents' thoughts by valence as positive (e.g., "the movie sounds interesting"), negative (e.g., "it seemed somewhat boring"), or neutral (e.g., "when is it coming out?") ( $r=.86$ ). Difference between judges was resolved through discussion. An index for thought valence was obtained by dividing the difference between positive and negative thoughts by the total number of thoughts. We expect that brand extension type and extension similarity will influence respondents' thought valence in the same fashion as these factors influenced respondents' movie evaluations. We used a 2 (brand extension type)  $\times$  2 (extension similarity) ANOVA model to analyze the thought valence index. As expected, a two-way interaction emerged ( $F(1, 77)=9.52$ ,  $p=.003$ ). Contrast analysis further revealed that for the book-based movie, respondents generated significantly more positive thoughts when the movie possessed a similar plot than they did when the movie had a dissimilar plot ( $M_{\text{similar}}=.15$  vs.  $M_{\text{dissimilar}}=-.43$ ;  $F(1, 77)=16.41$ ;  $p<.001$ ). However, for the movie sequel, similarity has no impact on the valence of respondents' thoughts ( $M_{\text{similar}}=.004$  vs.  $M_{\text{dissimilar}}=.06$ ;  $F(1, 77)=.15$ ;  $p>.10$ ). The pattern of the index for thought valence is thus consistent with the results of the movie evaluations.

To test whether the satiation effect is responsible for the different response to book-based movies and sequels, we had the two judges code respondents' thoughts based on whether they reflected satiation ( $r=.72$ ). (An example of a satiation-related thought would be "sounds too similar to the previous movie.") Respondents' satiation-related thoughts were subject to the same 2 (brand extension type)  $\times$  2 (extension similarity) ANOVA model. Results revealed a significant two-way interaction ( $F(1, 77)=4.33$ ;  $p=.04$ ). Further analysis suggests that a high level of similarity between the new movie and its

source is more likely to induce satiation when the new movie is a sequel ( $M_{\text{similar}}=.30$  vs.  $M_{\text{dissimilar}}=0.05$ ;  $F(1, 77)=5.95$ ;  $p=.02$ ). When the movie is adapted from a book, increased similarity does not cause satiation ( $M_{\text{similar}}=0.00$  vs.  $M_{\text{dissimilar}}=.050$ ;  $F(1, 77)=.24$ ;  $p>.10$ ). This finding provides evidence to our theory that satiation takes place only for a similar movie sequel but not a similar book-based movie.

## Discussion

Study 2 supports our proposition and shows that a movie extension based on an existing movie is evaluated in a different way from a movie extension based on a book. With a movie sequel, high similarity to the original movie does not improve consumer evaluations, but a book-based movie is likely to receive higher evaluations when it is similar to the book. Furthermore, satiation is the reason why similarity lacks positive effect on movie sequels. When a movie sequel highly resembles the original movie, consumers expect increased satiation and reduced enjoyment. This effect counters the equity-transfer process and neutralizes the impact of extension similarity. In contrast, with a book-based movie that highly resembles its original, change in modality between the parent and extension experiences curbs satiation, allowing for a positive impact of extension similarity on consumer evaluations.

The findings from Study 2 are important from both the academic as well as managerial perspectives. We extend current knowledge of brand extensions by identifying a moderating variable on the effect of extension similarity. From a managerial perspective, our results highlight the importance of creating a close extension when the extension represents a change in modality from the original. Thus, studio executives should strive to ensure that movie adaptations of best-selling books capture the main essence of the latter.

## Conclusions and future research

Book adaptation is a commonly used strategy in the motion picture industry, and yet, to our knowledge, there has been no research in this area. We apply concepts from the brand extension literature and demonstrate that extending books to movies is distinctly different from other experiential brand extensions. In particular, on account of the change in experience modality from reading to watching, similarity between the original and the extension does not induce satiation and positively impacts the initial evaluation of the extension. Furthermore, we demonstrate that many book-related effects, such as interactions between book equity and book-movie similarity, and between book equity and best-seller recency, impact only the opening weekend at the box

office, and their effect wanes over time, with movie-related characteristics (e.g., reviews) being better predictors of balance box office revenue. Our results offer several insights for managers: to leverage book equity and have a successful opening for a book-based movie, studios should select recent best-selling books and make films of close adaptation.

We also acknowledge limitations in our research and suggest avenues for future studies. First, this research is focused on movies based on novels. However, new movies could also be adapted from a different type of books—comic books. Comic books have many distinct characteristics from novels, including the use of pictures rather than text as a main way of communication. Thus comic book movies may have a different set of antecedents for success than those identified in this paper. In addition, while the focus of this research was the motion picture industry, it would be interesting to apply the theory developed here to extensions of other experiential goods, such as remakes of TV shows or video games.

Second, we examined the performance of book-based movies by investigating the movies' box office revenue (Study 1) and consumer evaluations of the movie (Study 2). However, recent research has used other indicators for movie performance, including stock returns (Joshi and Hanssens 2009) and allocation of number of screens (Krider et al. 2005). Investigating these dependent variables could be a possible extension of our work. In addition, from a modeling perspective, future research could model the impact of book-related and movie-related factors on a week-by-week basis to better understand how their effect fluctuates over time.

Third, our studies look at the overall performance of book-based movies without differentiating two important groups of consumers—those who have read the book and those who have not. Based on the evidence documented in literature that brands are used as cues for new product judgment even among consumers with little usage experience of the brand (Broniarczyk and Alba 1994; Mao and Krishnan 2006), we expect that the effects observed in our study should apply to both groups. Nonetheless, there exist many interesting differences between these two groups that call for future research. For example, book readers may be more likely to perceive the movie as inferior to the book it is based on. Future research should explore how book readers and non-readers may differently respond to a book adaptation.

Fourth, while our model is based on a unique and comprehensive dataset and involves several variables for movies as well as books, we lack movie advertising data, which are not publicly available. We do not expect the lack of advertising data to impact the main results of our model, since (1) a priori, there is no reason to believe that book-based movies receive differential advertising support than non-book movies, and (2) we also control for a host of other variables, such as budget, screens, and stars, which are known to be correlated with advertising expenditure. However, it is possible that advertising could serve



to compensate for low book equity or lack of book-movie similarity, or may extend the impact of book-related variables beyond the opening weekend. We leave these interesting questions to be tackled as possible extensions of this work.

Finally, research on movie sequels has identified strategies to enhance a movie sequel's performance by differentiating it from the original movie (Sood and Drèze 2006). For example, it is suggested that change in the title could have a positive impact on a movie sequel. Change in storyline and use of different characters are likely to have similar effects. In the book-based movie context, similarity between the book and the movie is a driver of success, and future research needs to identify strategies to increase the similarity perception. For

example, studios have almost always kept the title and the character names the same in book adaptations, and they often emphasize the book in promoting the new movie. Future research should examine these and other strategies and their role in enhancing the performance of book-based movies.

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## Appendix 1: Movie Posters Leveraging Book Equity



Prominent Use of Book Equity in Movie Promotion

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