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Drivers of Marketing Spending in Motion Pictures

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EXECUTIVE SUMMARY

This paper studies the apparent trend of accelerating marketing expenditure in the motion picture industry. While the number of movies released during the past decade has remained roughly constant, relative marketing costs per movie have increased significantly. Much more money is being spent in real terms to market each film, with no proportional increase in box office return.

Our purpose in this paper is to identify the drivers of this unusual growth in advertising spending, using three different sources to inform our analysis: actual motion picture performance data, first-hand interviews with industry insiders, and existing academic literature related to this subject.

Based on our research we have identified ten "drivers" of marketing spending, each of which relates to one of three major themes: 1) the narrow industry focus on opening weekend performance as the ultimate measure of success or failure of a movie; 2) the nature of the cultural and organizational environment within individual studios and the industry overall; and 3) the increased "cost of awareness" driven by television advertising price inflation and the decreased reach of the media networks. Together, the ultimate consequence of these factors is an increase in the cost of awareness and acceleration in media spending.

We believe that the overarching importance of opening weekend performance is caused by a number of interrelated factors, including the high degree of perishability of feature films, the increased flexibility of movie theatres, current methods used for revenue sharing between exhibitors and distributors, and the importance of the domestic box office grosses as a signal of both the quality of the picture and its future marketability in ancillary revenue streams.

Within the main studios and the industry as a whole, we observed a culture of organizational risk-aversion that compels the studios try to secure the success of a movie by the "proven" methods: star power and sequels, accompanied by huge marketing budgets and pre-released promotions. The mergers and acquisitions experienced by the industry during recent years might be exacerbating this risk averse behavior. Moreover, the significant power of major creative talent as well as current compensation structures create incentives for stars of all kinds to lobby to raise marketing expenditures.

Finally, in the last case, we observed a consistent increase in the television ad spot costs during recent years, as well as a decrease in the reach of this medium as a consequence of the proliferation of television channels.

After looking at each of these drivers of spending, we classified them into two categories: those that cannot be mitigated by a single studio acting unilaterally, and those that could be addressed without coordinated industry action. In our conclusion, we recommend that the studios concentrate their attention on the actionable drivers in order to control and, if possible, decrease their relative marketing spending.

1. ADVERTISING SPENDING IN THE ENTERTAINMENT INDUSTRY

1.1. Introduction

The entertainment industry, and Hollywood in particular, touches the lives of people all over the world. Across boundaries of time and culture, popular images of the movie business hold people's fascination: glamorous stars, extravagant premieres, visionary directors, mercurial producers… the list goes on. But above and beyond its iconic status across the globe, the United States entertainment sector, and movies in particular, also remain a huge and important industry domestically and overseas.

Motion pictures are complex products, and remain very difficult to produce, market, and make money from. They are an experience good, meaning the success of a product can only be determined after launch and adoption: the public doesn't know that it likes a movie until it sees it, and producers don't know if it will succeed until the public decides. Further, with a "shelf life" of only a few weeks, most movies have only a week or two to capture the audience's imagination before they are lost amid the constant onrush of new offerings. Only a handful of pictures enjoy long runs and become profitable in their first release, while most movies released theatrically lose money.

While the movie industry is thus fraught with risk, the professionals who make their living taking the chances nevertheless do their best to minimize it. By making strategic choices in booking theatres, budgeting, and hiring producers, directors and actors with marquee value, studios try to position a movie to improve its chances of success.

Thus, using judgment and expertise, the large movie studios routinely gamble hundreds of millions of dollars every year in producing big budget films that each may or may not ignite the box office. Each film is a carefully crafted product, and care is taken to ensure that it has the elements that can reliably translate into box office success – usually some combination of powerful concept, appealing storyline, major stars, and technical wizardry, all backed up by a

strong marketing campaign. Sometimes it works, as in the case of *Spiderman*, which had a very strong, familiar concept, or *Signs*, which reaped the "star-power" of its director, M. Night Shyamalan, and star, Mel Gibson. When the combinations work, they translate into tens or hundreds of millions of dollars of box office revenue for their owners, and, just as importantly, additional millions in ancillary revenue streams such as home video, television and international markets.

But sometimes even the best laid plans for the most (apparently) well-packaged movies can fail. *Waterworld*, for instance, had a strong concept, an actor at the peak of his career (Kevin Costner) and a huge production budget, yet the movie was completely rejected by audiences worldwide. In contrast, *Home Alone,* which had a much smaller budget and no real stars, remains one of the best selling movies of all time.

In this complex and unpredictable industry environment, where all product decisions are interrelated, and so many one-time, situation-specific choices can make or break a title's success, one very interesting aggregate (and so far unexplained) behavioral trend has become apparent in the recent years. This trend is the apparent acceleration of marketing expenditure at rates above and beyond growth in the return from that expense (i.e., gross box office). This observation is the central theme we will investigate in our paper.

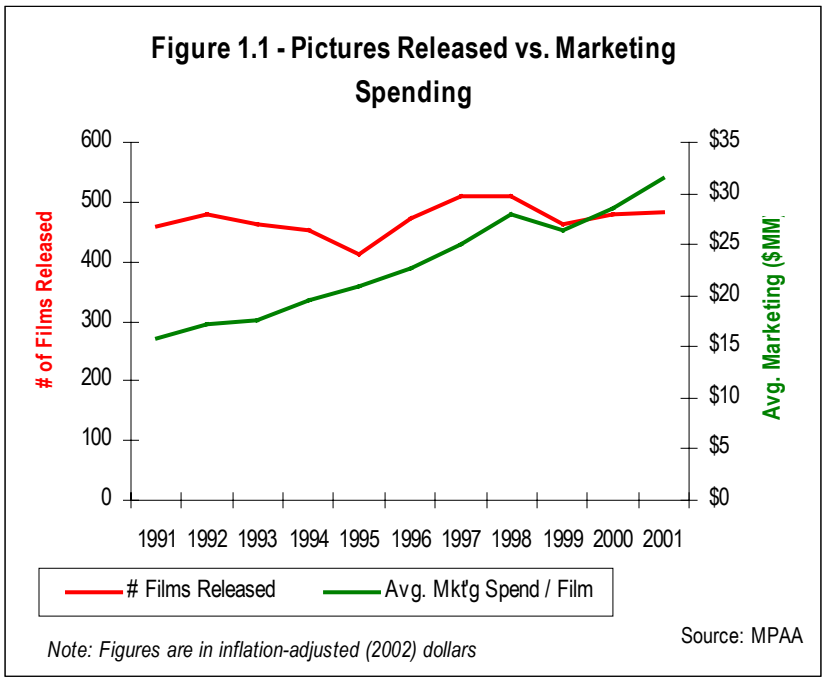
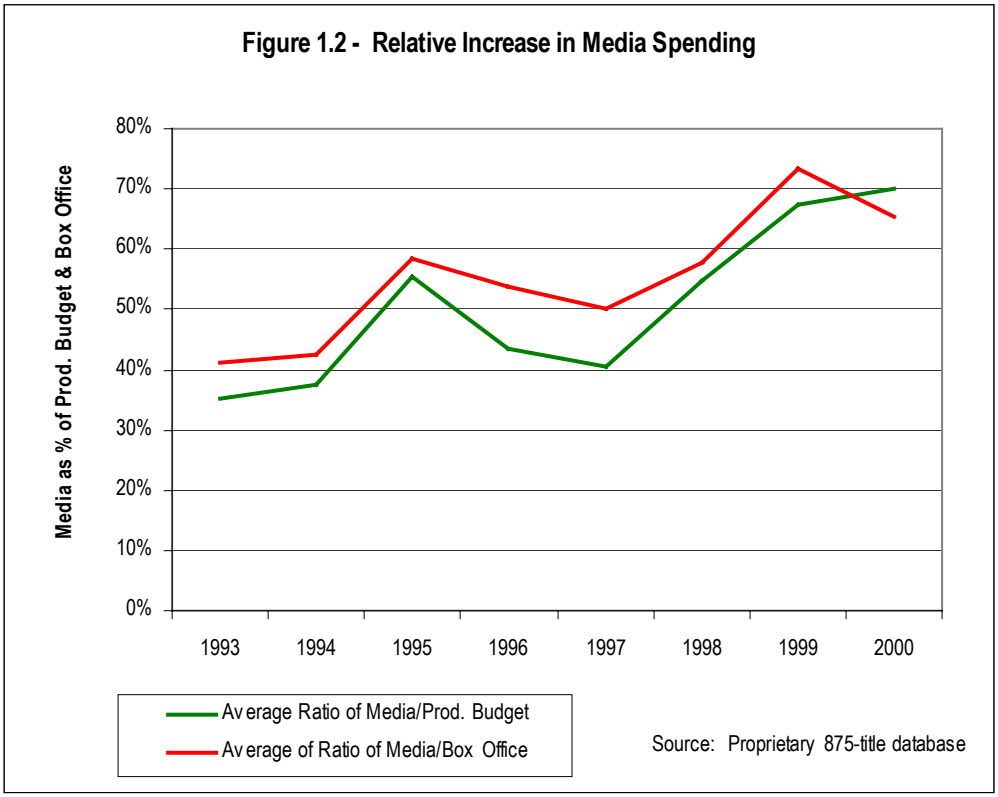
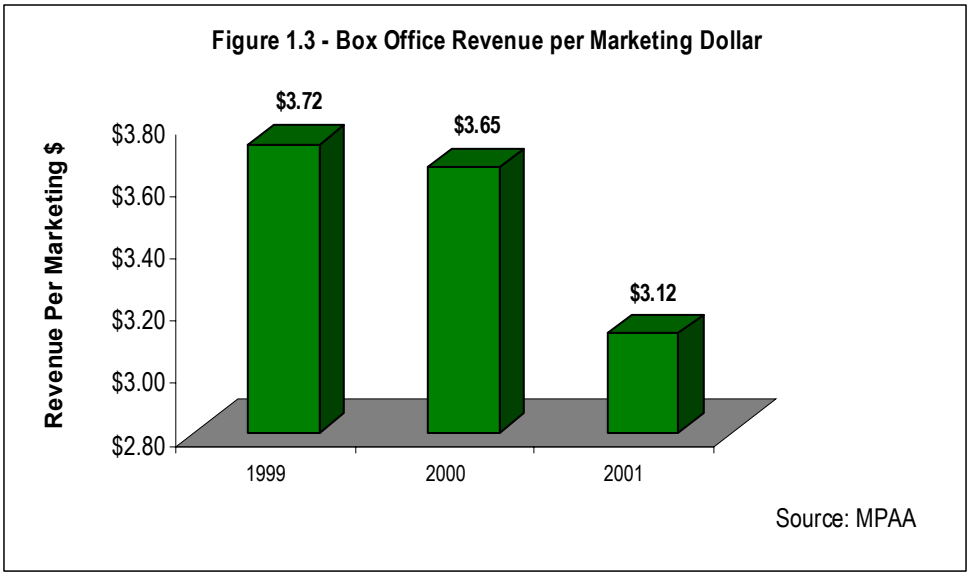


Figure 1.1 clearly shows that even as the number of movies released during the past decade has remained relatively flat, average marketing spending in terms of print and advertising costs per movie has increased significantly. Clearly, the film industry in aggregate is spending much more money in real terms to market each film. Using different data, Figure 1.2 further suggests that this observation might be cause for alarm. It shows how the average ratios of marketing expense to both production budget and gross box office revenue have increased between 1993 and 2000.



While the level of media spending does have a positive effect on box office revenues, regression analysis we performed also indicates that it still only explains less than half of the variation in box office "take" (Appendix 2). From the charts above, we can see that recent years' increased incremental media spending on each movie is clearly not buying a proportionate amount of revenue: between 1991 and 2001, while industry revenues increased 75%, marketing expense grew a whopping 157%! Figure 1.3 shows this effect in another way over the period 1999-2001.



The obvious implications of these observations for profitability are clear: increases in marketing expenditure come out of the bottom line, meaning lower final returns when these increases are not commensurate with increases in revenue. While exact details about picture profitability are very difficult to calculate because major studios report aggregate financials as part of large media conglomerates, and individual movie profit structures are usually unique and very rarely published, anecdotal evidence from industry insiders does indicate that this increasing expenditure is squeezing studio margins. Unchecked, ever-larger marketing expenditures will only worsen this burgeoning problem.

All this raises the following important questions: are marketing professionals in the film industry simply misguided in continuing to spend more and more on media, or is their behavior rational? Are studios engaged in an arms race of marketing spending? What is driving this trend, and what can be done about it?

1.2. Scope of this paper

This paper proposes to identify and study the industry issues ("drivers") that are fueling the larger trend of disproportionate marketing expense growth. In this we have focused on advertising expenditures directly related to major studio domestic theatrical releases (i.e., within the United States and Canada).

While we recognize the importance to studios of ancillary revenue streams from home video releases, pay-per-view, television syndication, and international theatrical markets, marketing activity for each of these streams is generally managed independently. We have in any case, while trying to limit the focus of the paper, nevertheless also considered these other outlets qualitatively, since theatrical release does impact their ultimate performance.

1.3. Research Methodology

Our research was based on a combination of data collection and analysis, and first hand interviews.

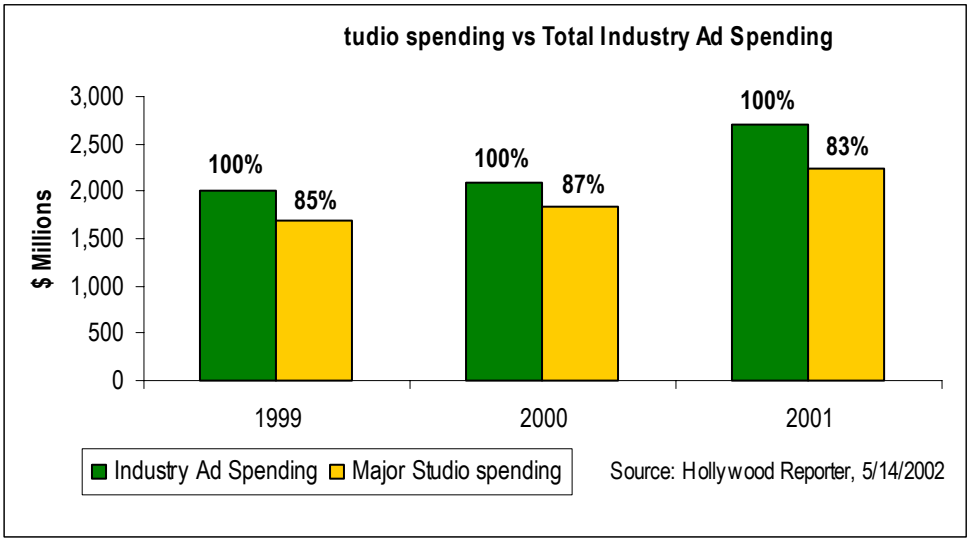
1.3.1. Data Sources

In addition to academic publications, periodicals, and survey sources, we studied an extensive database of over 875 movies released in the U.S. between 1993 and 2001, as well as a more detailed subset of it, representing 331 pictures over the period 1995 to 1998. Individual title information included in the database was compiled from various sources available in the public domain, including industry periodicals, websites such as IMDB.com, and fee-based data services. Industry historical information was taken from the MPAA (Motion Picture Association of America) database, and other industry sources such as NATO (National Association of Theatre Owners).

Our research focused on the behavior of the following studios:

- Universal Pictures
- The Walt Disney Co. / Buena Vista / Miramax
- Warner Bros. / New Line Cinema
- Sony Pictures Entertainment / Revolution Studios / Columbia
- DreamWorks SKG
- Paramount Pictures
- Twentieth Century Fox
- Metro Goldwyn Mayer (MGM)

We can see in the following chart (Figure 1.4) that these studios undertake the majority of industry ad spending. These top studios also account for more than 90% of industry revenues. We thus believe that our research, while not examining in detail the marketing behavior of independent or specialist studios, distributors, and exhibitors, is properly focused on the most significant portion of the industry.



1.3.2. Interviews

We conducted a series of interviews with more than fifteen industry participants and academic professionals specializing in the entertainment and/or marketing areas, and ranging in perspective from small independent film producer to studio head. The majority of the interviewees were studio executives at or around the vice-president level, and directly involved in the distribution and promotion of films. All interviews were conducted using an interview instrument designed broadly to investigate the following principal questions:

1) How are film marketing budgets and advertising/promotional strategies planned?
2) What is the effect of competition on marketing spending?
3) What are the main drivers of escalating marketing expenditures?

Given the breadth of different interviewees' professional experience and functional concentration, specific, individual questions were sometimes tailored to ensure relevance for a particular respondent. A copy of the generic questionnaire is included in Appendix 1.

1.4. Structure of this paper

This paper is divided into four main sections as follows, plus supplementary appendices:

1) **Introduction**

2) **Industry Review**: This section very briefly describes the various stakeholders in the motion picture business as they are related to marketing decisions. It also covers main issues and concepts involved in the process of marketing a typical studio film.

3) **Drivers of Advertising Spending:** This section covers the main output of this project, analyzing what we believe to be the drivers of escalating marketing spending.

4) **Supplementary Analysis and Salient Research:** We conducted a survey of select academic studies on the motion picture industry and found some interesting results that we believe are important for managers and decision makers in this industry to be aware of. We explore some of these ideas and provide relevant analysis of our own dataset.

We should mention here that in order to keep this paper at a readable length and to maintain a smooth narrative structure, we have appended several interesting discussions and a variety of additional background information to the end of the main paper. In particular, other than back up data, these Appendices contain a summary of a very important piece of academic research relevant to this work, namely the "Parsimonious Model for Forecasting Box Office Revenues" by Sawhney and Eliashberg (1996) (Appendix 5).

2. INDUSTRY REVIEW – THE DOMESTIC THEATRICAL MARKET

2.1. Introduction

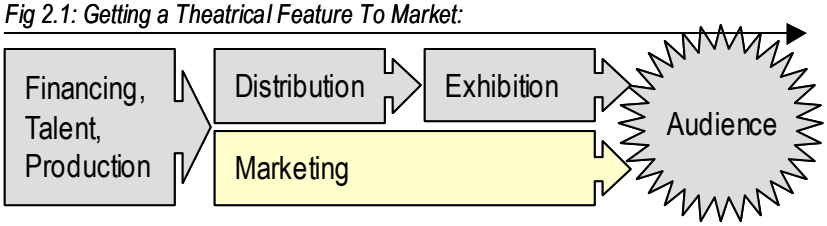
In trying to understand the drivers of marketing spending in the movie business, it is important to have a rudimentary knowledge of key industry dynamics, and of film promotion and advertising in particular. This section seeks to provide that understanding to the uninitiated by explaining the relevant interests of other stakeholder groups at different points in the motion picture value chain, as well as looking at the stages of, and considerations present in, the development and execution of a typical movie marketing plan.

Though more sophisticated readers may already be familiar with most of the following, we are hopeful that this section incorporates fresh observations gleaned from our series of interviews, and may offer some new insights even to those with substantial industry experience.

2.2. Non-Marketing Areas

While our work has been concentrated principally on behavior in the advertising and promotional area of the film industry (what we are choosing for the sake of simplicity to call *marketing*), we will nevertheless briefly discuss the considerations present in other areas of the business in order to provide a broader context for understanding marketing-related decision-making. This reflects the reality that neither marketing nor any other important decisions are made in a vacuum. In fact, the complicated web of interrelationships between individual industry participants, and among major studios' various business units usually precludes such independence. Figure 2.1 below shows how we have chosen to delineate these different functions, and their place in the industry value chain.

Fig 2.1: Getting a Theatrical Feature To Market:

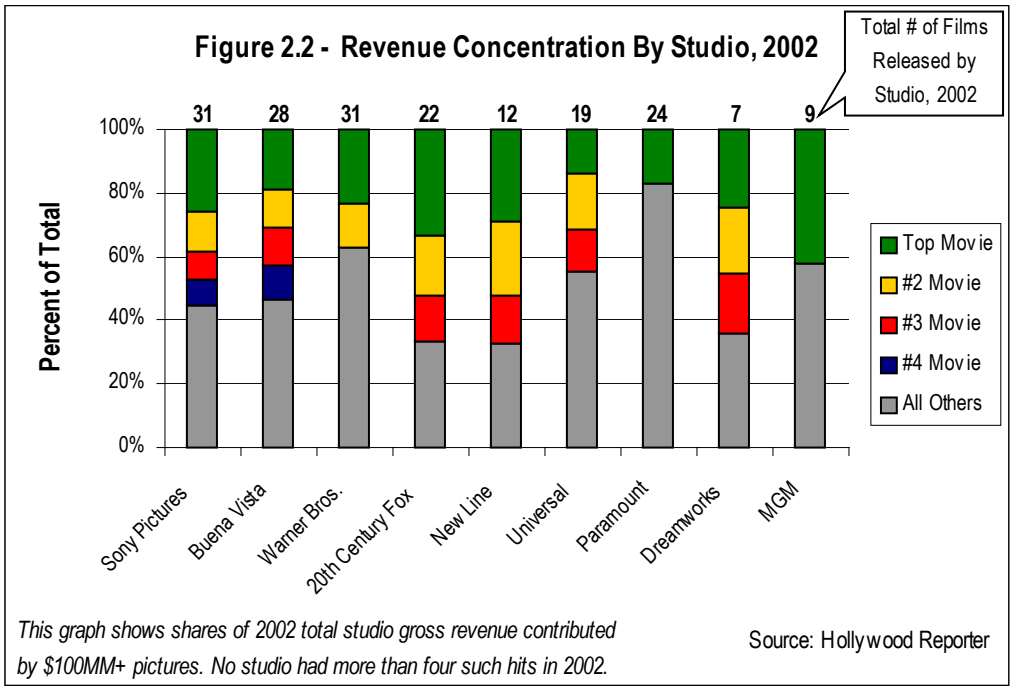


Of the list of studios considered in this research (described in Section 1.3.1.) all are involved in the full range of activities up to the point of exhibition, either via internal company divisions, affiliated companies or both. Wherever appropriate, any reference to a "major studio" is meant to include all such subsidiaries and affiliates.

2.2.1. Financing, Talent, Production

This category of activities is clearly the broadest, encompassing the work of all participants leading up to the point of having a completed film "in the can", from the heads of media conglomerates to individual craftspeople, talent agents, and artists. As noted by Vogel (2001), these various parties act together in a fluid, "contract-driven" environment to make the films that distributor/marketers, through their own complex network of agreements with both exhibitors and filmed-property owners, bring to market. While we will not attempt to elaborate on the many ways that "concepts", talent, and financing are joined together in making a film, we will discuss two strategic issues that, through these participants, affect the marketing function: production budget and "star power."

Major-studio executives financing and producing a slate of films are working within an environment in which gross revenues are the primary public measure of financial success. They are also strikingly dependent on the top-grossing few films in any given year (see Figure 2.2 below). Executives are thus naturally concentrated on trying to enhance and secure revenues for each title, and for their most promising "tent-pole" productions in particular. Two main investments are believed to make this possible: production value and stars.



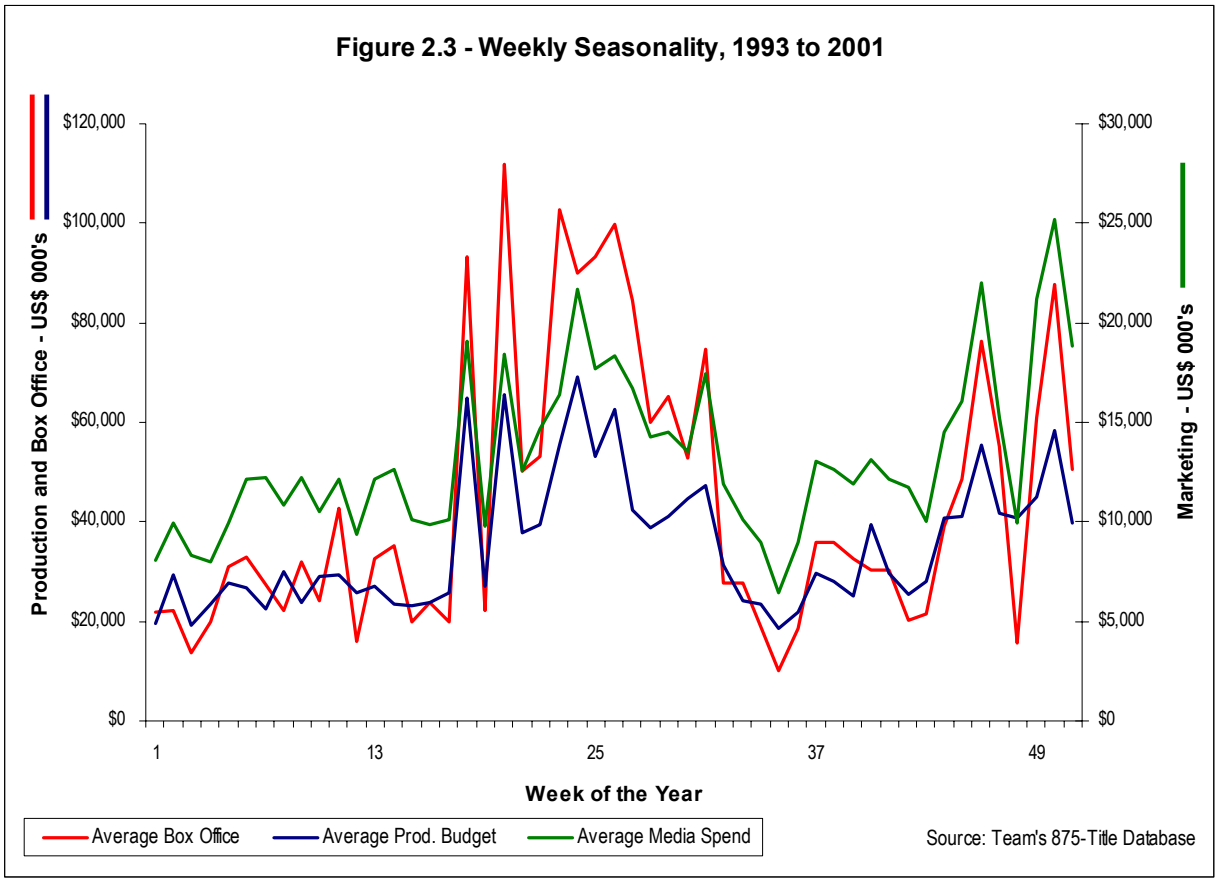
Not surprisingly, many studios and academics conclude that the production budget is highly correlated with revenues. A second preferred means of enhancing (and securing) revenues is the presence of a popular star in the production. Such major stars, whether in front of or behind the camera, can also often drive up marketing expense, in addition to commanding a large chunk of the production budget. Several studies have been conducted to test both these perceptions. We discuss these in Section 4.

2.2.2. Distribution

Distribution decisions (relating to when and where to show movies) are, of course, very closely connected to and coordinated with what we have already described as the *marketing* activities that are the focus of our paper -- the main advertising and promotional activities explicitly aimed at consumers.

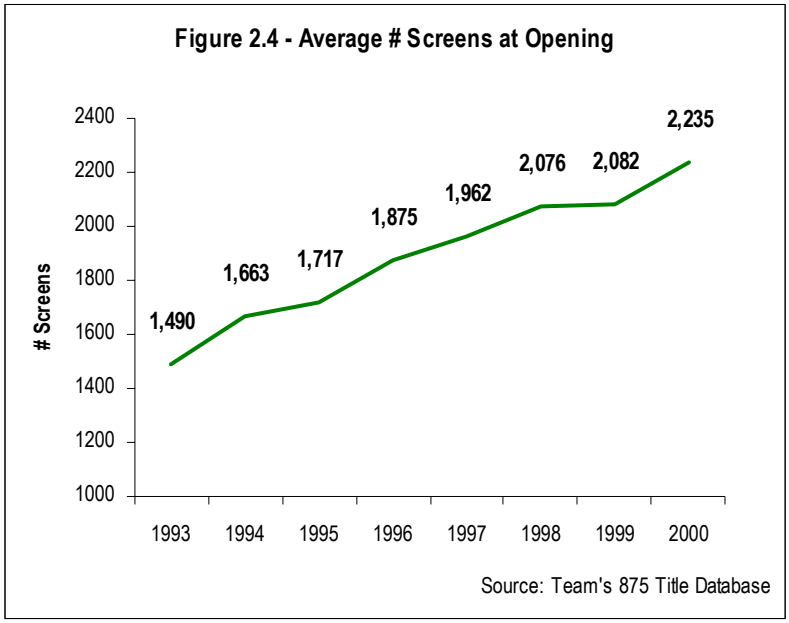
"… A very serious game of strategy is at work – a cross between chess and chicken – which studio distribution chiefs play year round, but with increasing intensity during the summer and holiday release period." (The New York Times, December 6, 1999)

The decision of when to release a particular film is a very important one. Nowadays, almost all films are released on a Friday, giving literal meaning to the term "opening weekend". The strategic question for distributors therefore is to decide on which weekend to release. Our research showed that while there is a high degree of variability in box office performance from week-to-week within a given year, there is relatively much less variability between the same weekend in different years. This predictable weekly seasonality (Figure 2.3 below) means that distributors' release schedules are based on very similar assumptions about total market size for each weekend, leading to a dynamic competition in which studios strategically position their pictures on release dates to try and maximize their market share and revenue versus competitors doing the same.



Typically, very rich weekends (e.g., Memorial Day, July 4th, and Christmas) attract the highest-potential (and budget) film titles, and a corresponding marketing effort. With a limited number of "big" weekends to go around, the scheduling game for similar major-release titles can become a game of chicken played out in the industry press. Even in such an environment, there remain opportunities on the margins: films targeted well outside of a blockbuster's demographic can still succeed in spite of the presence of the 800-pound gorilla in the weekend.

Almost as important as the timing of the release is its breadth – a function of the distributor and exhibitor's confidence that the movie can fill the maximum number of seats possible early in its run. Over recent years, pictures' average breadth of release has been increasing, as demonstrated by our (wide-release) data in Figure 2.4 below.



In general, three main categories of release breadth exist, associated with decreasing magnitudes of distribution (and marketing) expense:

- **Wide release:** The picture is released nationwide simultaneously in several thousand theatres. It is accompanied by a major national advertising campaign.

- **Platform release:** The film is released in a smaller number of theaters, often in only a few big cities, with advertising concentrated on more local rather than national media. As positive word of mouth builds, it expands to more theaters and more rural areas.

- **Limited release:** The movie is released only in a couple of big cities – New York, Los Angeles, and maybe Chicago and Toronto, because it is targeted to a very distinct segment.

It is an industry rule of thumb that any film released over 600 screens is considered to be wide release, but this is a reference point rather than a fixed rule. For example, the *Hollywood Reporter* magazine uses a slightly different classification schema, as follows: "very wide" (more than 1,500 theatres), "wide" (more than 1,000 theatres), "moderate" (more than 500 theatres), and "limited" (release only in selected regions).

While, overall, a broader release is obviously most attractive from a distributor's perspective (it maximizes shelf-space), too broad a release can obviously hurt individual exhibitor returns if overall demand is not strong enough. This represents an important dynamic in the relationship between distributors and exhibitors.

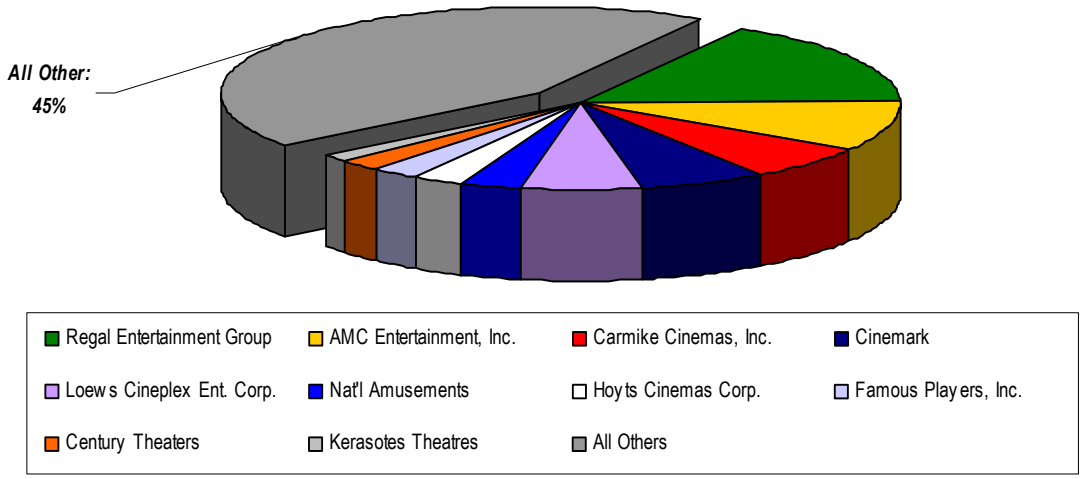
2.2.3. Exhibition

Exhibitors, the owner/operators of actual movie theaters, typically return about 40-60% of total box office revenues to the distributor. The nature of the financial relationship can be of two types, depending usually on the terms of the individual studio: either a single pre-release contract is signed, or the deal between distributor and exhibitor is renegotiated weekly based on the performance of the film. Different financial arrangements of course will affect incentives for both the exhibitor and distributor in terms of how films are shown and marketed. Exhibitors may, for instance, accept less favorable terms for box office share on a major title that can draw demand to its (high-margin) concession business.

As a sector, exhibitors are currently in the aftermath of a period of general financial distress and subsequent consolidation that hit the industry in the late 1990's. Overaggressive expansion and

poor financial decision-making led to a wave of bankruptcies in the industry. Today, with the formerly troubled companies reorganized and rationalized, the top ten chains now manage 55% of all screens in the U.S. (Figure 2.5).

Figure 2.5 - Top 10 Exhibitor Market Share By # of Screens, 2002



Source: National Association of Theater Owners (NATO)

2.2.4. Audience

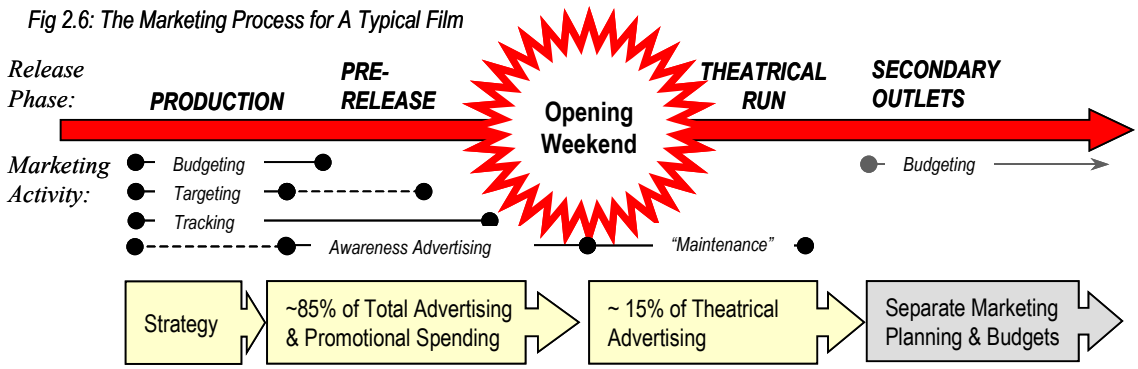
While the potential addressable market for movies is theoretically limited only by people's disposable income or by their access to theaters, in fact only 30% of people in the United States saw a movie at least once a month during 2002. This demonstrates that there exists a distinct movie-going segment of consumers towards which marketing efforts are targeted.

For example, the most important demographic for the studios on wide releases is the 12-29 age group; fifty percent of annual admissions in year 2000 belonged to this group. This insight has important implications in film production and marketing: the bulk of mainstream cinema is targeted towards them, the release patterns of movies reflect weeks of the year during which this demographic is more likely to go to the movies, and most marketing expenditure is targeted towards them through the media they are most familiar with: i.e. prime-time television.

2.3. The Movie Marketing Process

Having looked at factors in the larger industry that directly impact the promotional and advertising activities around motion pictures, we now briefly cover the process of marketing a typical major-studio film to the public. Figure 2.6 shows a simplified chronological view of this process.

Fig 2.6: The Marketing Process for A Typical Film



2.3.1. Budgeting and Planning

The advertising and promotion of a film is its second largest expense after the negative cost, and is the crucial, variable investment made by the studio to recover the sunk costs of production. The process of budgeting marketing dollars to a particular movie is thus a key business decision. Typically, the general level of spending is first set in relation to the production budget. This initial figure is then adjusted, according to the particular cost of addressing the target audience, as well as the expected maximum return that the movie can generate. While most studios set annual advertising budgets and do make allocations to particular movies, individual budgets tend to be managed separately.

Most executives, regardless of which studio they are affiliated with, agree that it is better to overspend than underspend. Consequently, the studios will rarely spend less than their budget, all else being equal. There are situations, however, where tracking results will justify a change in marketing policy, and perhaps, budget.

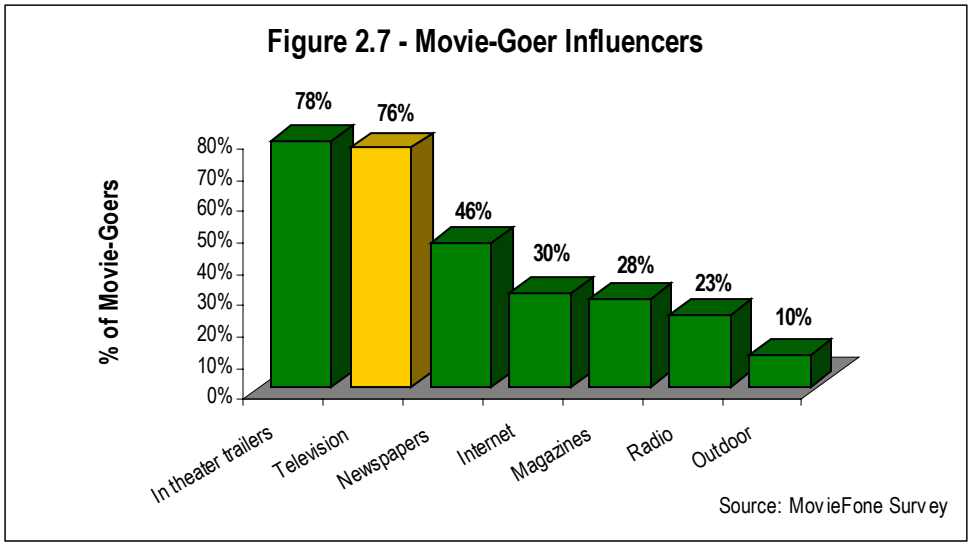
2.3.2. Targeting and Tracking

While executives will generally have an initial idea of the target audience and potential success of a film based on a combination of judgment and a history of "comparable" titles, the studios also use very sophisticated market research services in order to gauge sample audience response. NRG (National Research Group) is the leading service in this and other research areas of the film industry. Such research can be used to make late editing changes to films as well as to perform the vital "tracking" function, measuring awareness of a movie in the weeks leading up to release. Studios also rely on other services such as MarketCast (owned by *Variety* parent Reed Elsevier) and financial research firms like Mintel, Dodona and Harris.

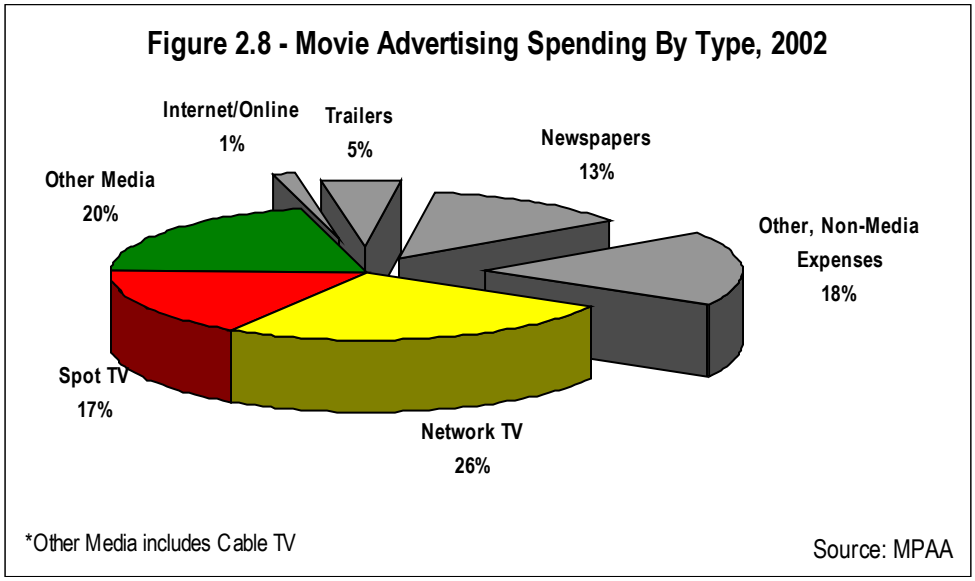
This tracking data is essential to making informed advertising decisions in the critical last few weeks. For example, if tracking results are lower than expected, the studios may want to spend more money in advertising than the originally allocated budget in order to get awareness of the movie up before the opening. Keeping in mind that the level of opening weekend box office may effectively determine the success or failure of a movie, this decision to overspend may be reasonable. Either way, it is typically assumed that industry executives "just know" (based on experience, gut feel and awareness tracking data) if the playability of the movie justifies the money spent in extra advertising.

2.3.2. Advertising: Pre and Post Release

Studios develop a media plan for each movie that is determined by the budget allocated and the identified target audience. Although teaser trailers may be released up to a year or more in advance, the typical movie advertising campaign generally starts six to eight weeks before the target release date. As noted above, this media plan is "dynamic," being updated weekly (or even two or three times a week) according to new developments, either in the tracking data or, for instance, in reaction to the announcement that a competing movie will unexpectedly be opening the same day.



For studios, only theatrical trailers, which also give consumers an opportunity to "sample the product," approximate the same impact on moviegoers as television commercials (Figure 2.7).



As such, television (with a much broader reach) represents by far the largest proportion of movie promotional spending of all media, at least 42% (Figure 2.8). Two main reasons for this are the studios' preference to advertise heavily on popular and demographically favorable Wednesday and Thursday shows (with the key target audience, right in advance of a weekend opening), and the added expense incurred in the last minute spot-TV buys that a "dynamic" marketing strategy demands.

Adjusting for the effect of Monday Night Football, prime-time slots on Wednesday and Thursday nights are the most expensive of the entire week. Unsurprisingly, the top three television shows ranked by film advertising revenue fall on these two days (*Friends*, *ER* and *The West Wing*).

Importantly, the prices of the ad spots in different programs are not only related to the rating of the show but also to the number and attractiveness of demographic segments that the show reaches. For example, even though *CSI* (CBS) is currently the number one prime time ranked show, an equivalent spot on *Friends* (NBC) is much more expensive because of the preferred demographics that this program attracts. While television is the dominant medium for movie advertising, other media are nevertheless used. For background on these outlets, please see Appendix 3.

Usually about 85% of the total advertising budget will be spent in the period leading up to the release of the film, in an effort to maximize awareness of the film at opening. Subsequently, further "maintenance" dollars will be spent to support the film in the weeks afterwards, especially if the film has exceeded expectations. In this way, maintenance dollars are hoped to provide support either to favorable audience word-of-mouth or to "buzz" generated by an unexpectedly strong box office opening.

Finally, after a film has exhausted its first run domestically it is usually distributed for release in secondary "windows" that seek to maximize ultimate film revenue by releasing to successively more marginal outlets. In response to increasing piracy (especially internationally), these windows are shrinking including, in the most extreme cases, to a global "day-and-date" (i.e. simultaneous) theatrical release. In any event, though, so far budgeting and strategy for marketing in secondary outlets is usually handled separately from the domestic theatrical marketing plan. For more details on these ancillary revenue streams, please see Appendix 4.

3. DRIVERS OF ADVERTISING SPENDING

3.1. Overview

"There is a certain minimum threshold amount we have to spend to market a movie, and that threshold is increasing every year."

"You can 'buy' a certain amount of box office revenue through promotional expenditure."

The above are representative opinions expressed by major studio executives that we spoke to in our research interviews, and suggest both the nature and a cause of the trend in marketing expense growth. While some did downplay the significance of the problem*: "The movie business is driven by passion, not numbers"*, most executives were acutely aware of the situation: "*We've already reached our spending cap: our advertising budget will not be increased from that of last year*."

From the collected insights gained via these interviews, as well as analysis of our own data, we identified several trends that are pushing up media spending. These "drivers" are each related to one of the following major issues:

- An **increasing focus on opening weekend performance** as the ultimate measure of success or failure.
- A **cultural and organizational environment** within individual studios and the industry overall.
- The **increase in media costs** (especially television) and the **decreased reach of the media networks**.

Together, the ultimate consequence of these factors is the acceleration we have seen in marketing spending.

We believe that the overarching importance of opening weekend performance is driven by the following interrelated factors:

- **Feature films are highly "perishable" products**, with new competing alternatives introduced weekly. Box office performance is understood to decay very predictably after the opening weekend.
- **Theaters have unprecedented flexibility** to match screen runs (supply) to audience demand; thus, today's audiences are almost assured of a seat during the opening weekend.
- Current typical **box office revenue sharing arrangements** give studios a disproportionate share in the early weeks of release and an incentive to drive early consumption.
- **Box office grosses are seen as a signal of future marketability** of a film in ancillary revenue streams.
- Coverage of the movie industry in the media has created popular awareness of films' early financial performance, suggesting that **opening weekend grosses are a signal of quality to consumers.**

Within individual organizations and the industry as a whole, there are particular concerns and institutionalized patterns of behavior that are also driving the increase in advertising and promotional expense:

- Within the leading studios, **a culture of organizational risk-aversion** encourages decision makers to spend more on marketing rather than critically evaluating the likely impact of each incremental marketing dollar.
- One of the consequences of this culture of risk-aversion is that **studios try to secure the success of a movie by proven methods:** star power and sequels, accompanied by huge marketing budgets and pre-release promotions.
- **The significant power of major creative talent** as well as current compensation structures, mean that marketing spending levels are often driven, at least partially, by talent's demands.

Finally, the new dynamics and costs of the media have also influenced the increase in advertising spending. The entertainment industry spends, on average, a higher percentage of its marketing dollars on television advertising. Therefore, changes in the television advertising environment during recent years have directly affected movie marketing costs:

- We can observe a consistent **increase in the television ad spot costs** during recent years, mainly in prime time shows.
- **Decrease in reach:** as a consequence of the increase in the number of television channels, the same target audience has more alternatives to choose among and therefore the number of people reached per TV spot has decreased considerably.

As gaining share of total weekend continues to be a major priority for studios, as television is unquestionably "the preferred medium" for advertising movies to be released, and as institutional forces inhibit the rationalization of marketing costs, our expectation is that if no action is taken to address these factors, industry profitability will continue to suffer.

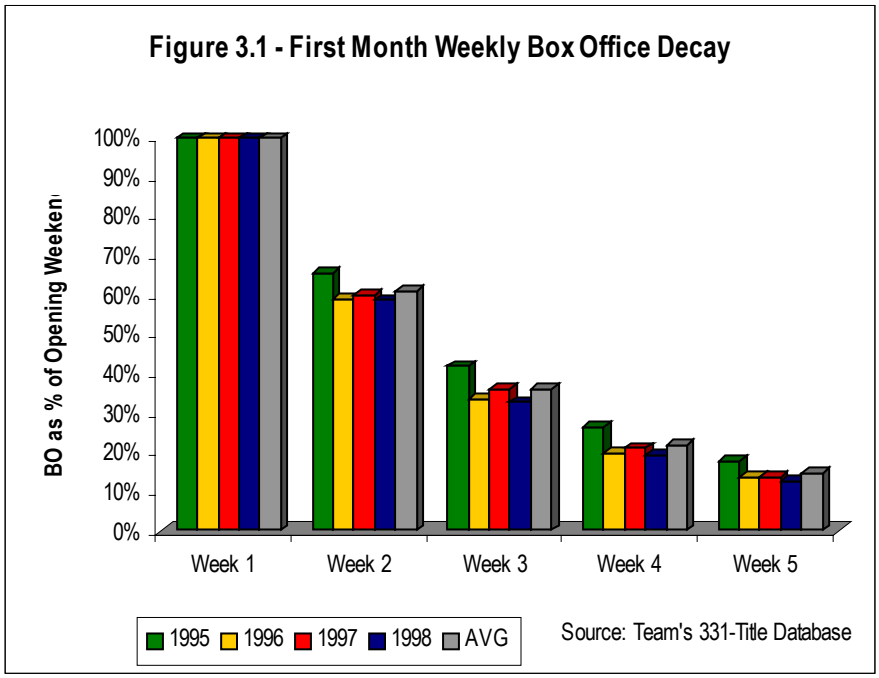
3.2. The Opening Weekend

"The movie marketer's job is to open the movie; after the opening weekend, the success of the motion picture mainly depends on the playability of the picture."

The level of opening gross is the paramount measure of success for most marketing professionals in the industry. Much has been made of the usefulness of the opening week, two weeks, weekend, day or even Friday's first hour gross in predicting the eventual total box office performance of a film, as well as, by extension, its ultimate profitability through all the ancillary revenue streams.

In addition to past experience with comparable titles, consistent expectations about decay in box office revenues are most often mentioned as key to studios' ability to make such predictions. Sawhney and Eliashberg (1996) model the rate of expected adoption (or the decay pattern) of movies, and find that they fall into three different categories. This very relevant paper is discussed in Appendix 5.

In looking at our database with weekly and total box office data between 1995 and 1998, we observed a clear and strongly consistent overall pattern of average box office revenue decay, as shown in Figure 3.1.

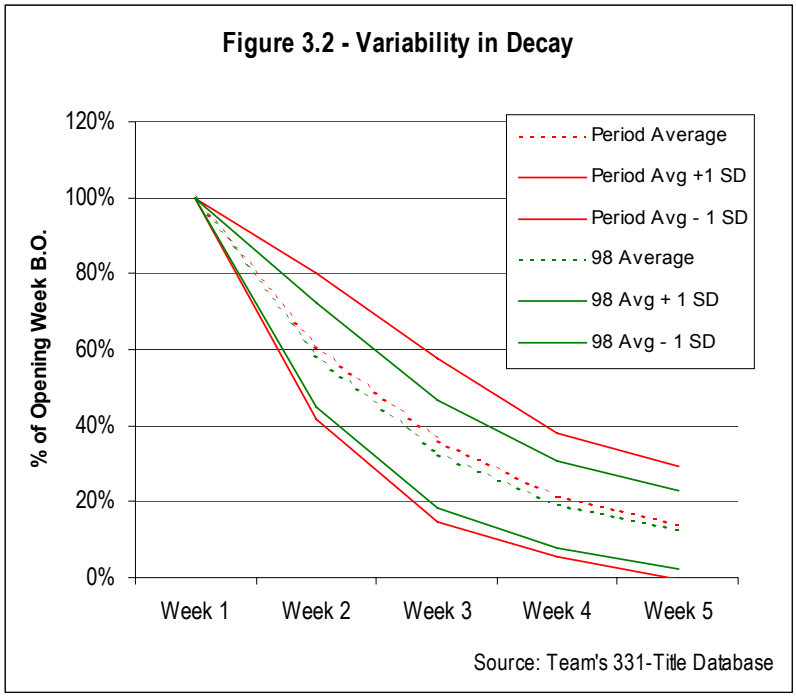


Virtually all the movies in this data set were wide release films, the type most relevant to our study. Further, the decay pattern they exhibited is consistent with the blockbuster decay curve as described in the Sawhney and Eliashberg model.

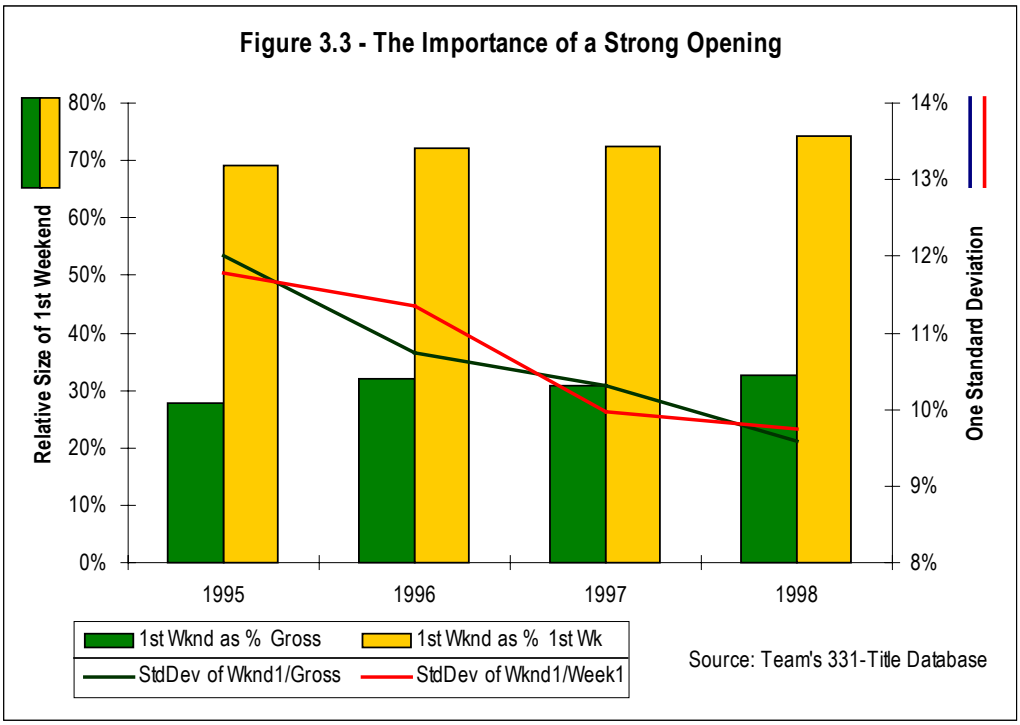
While Figure 3.1 above shows an impressive average consistency, it is worth noting that for an individual film substantial variability exists relative to these average decay curves. We could mention some exceptions to this general rule of revenue decay, such as those movies that open in a platform release (for example, *My Big Fat Greek Wedding*, 2002) or those that open in especially difficult weekends and therefore make more revenue during the second week than during the opening one (for instance, *The Ring*, 2002). These follow the "platform release" or "sleeper" pattern of decay as depicted by Sawhney and Eliashberg.

The opening weekend box office revenue or the first week gross should only be taken as a reference, not as an exact calculation of the expected revenue generated by a movie. The dashed **red** line in Figure 3.2 shows the average five-week decay curve for the data from 1995 to 1998,

as well as the range of +/- one standard deviation for each week In view of this, knowing the opening week gross alone is clearly no guarantee of one "ultimate" number more than another.



This important observation can be seen again in Figure 3.3, comparing opening weekend gross to opening week and entire-run grosses:



Again, the average percentage of opening weekend gross to the later measures stays stable over time, but variability (in terms of standard deviation) is also high. In the comparison of the opening weekend versus total gross box office (presumably the most desirable figure to predict), the standard deviation has continuously decreased, which means that the predictive power of the opening weekend (and its consequent importance) has improved with every year. A regression analysis on the same dataset of opening weekend on cumulative box office revenues gave an R squared of 0.78, again pointing to the high predictive power of the opening weekend (see Appendix 6 for output).

Although this rudimentary analysis admittedly ignores the effect of any additional variables that studios, financial analysts or students of this industry might include in a practical predictive model, it does either way make clear one key realization (for wide release films): **while the pattern of decay may be highly variable, weekly box office hardly ever increases.** This demonstrates the first factor that influences studios to focus on the opening weekend, perishability.

The data studied show the pattern of perishability and decay clearly and, therefore, justify the belief that the maximum revenue a film will earn will be in the opening weekend. Thus, to "open big" to a significant extent will influence the total gross of the movie. It explains why the bulk of marketing budgets, and ever-increasing dollar amounts, are targeted towards opening the movie "big".

Since the most important event for a movie is the opening, it increases the risk involved in this activity. From our interviews, we found that approximately 85-90% of the promotional expenditure is committed or spent prior to the opening weekend. Interestingly, this may also be responsible for the subsequent decay in the future weeks – since there is such a drop off in promotions, people are not enticed to see the movie after the first weekend.

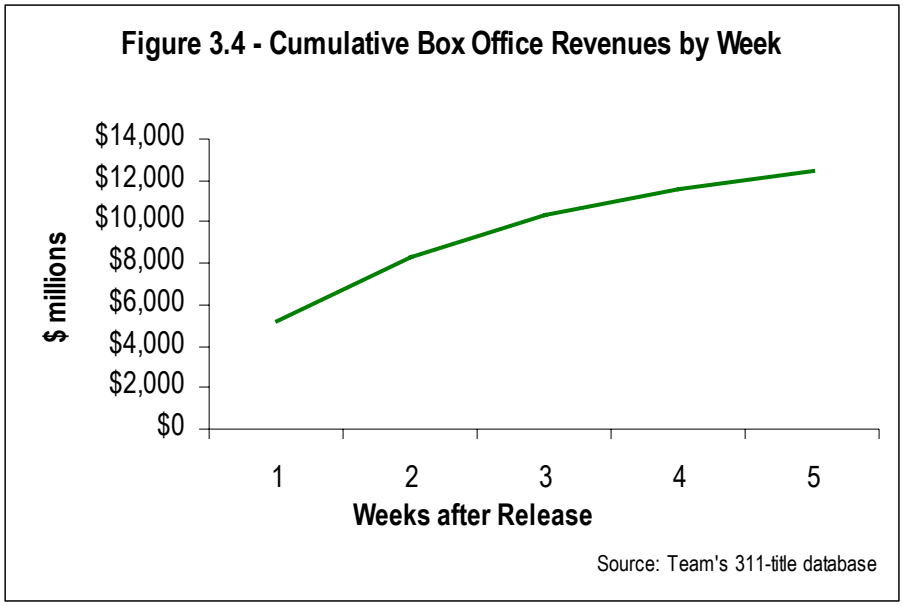
3.2.1. Films Are Highly Perishable

"A movie is like fresh fish; you have to sell it as soon as you can."

The comment above is a general perception in the industry, and a description of reality: theatrical motion pictures have the shortest shelf life of any major entertainment industry offering.

In our data, out of 331 films only 14 enjoyed later higher box office gross than the opening week, and of these, 10 were released in the middle weeks of December, implying a unique holiday seasonal effect on customer behavior. Of the remaining four, none were high-budget "event pictures" – the highest production budget amongst them was a modest $25 million. Thus **for the bulk of studio pictures, and especially the "tentpole" pictures on which the major studios depend, performance is indeed limited by the opening weekend results.**

The opening weekend accounted for 24% of the films' revenues. If the top fifty highest grossing films were considered, the opening weekend accounted for 21% of the total revenues. We can observe in the graph shown in Figure 3.4 that most movies in our database have reached very close to their maximum box office potential within five weeks of release.



This cumulative revenue (or cumulative adoption) pattern is again consistent with the "blockbuster" type film as depicted in the Sawhney and Eliashberg (1996) model. The short, and perhaps shortening, life spans of motion pictures are attributable to a number of factors:

1) While the size of the target audience segment remains roughly constant, the number of screens showing the movie and the runs (i.e., the times that each of these screens shows the movie) have increased; therefore, the same audience is satisfied in a much shorter period of time.

2) Increased competition from other movies; there are multiple new releases every week.

3) Increased number of entertainment alternatives other than movies, such as video games or new, innovative television programming.

4) Shrinking release windows of the ancillary businesses, such as home video or television. Mainly in order to fight piracy, more and more movies are being released day and date in the international markets, for example *Harry Potter and the Chamber of Secrets* (2002) was premiered in North America and the major international territories simultaneously. See Appendix 4 for explanation of ancillary revenue streams.

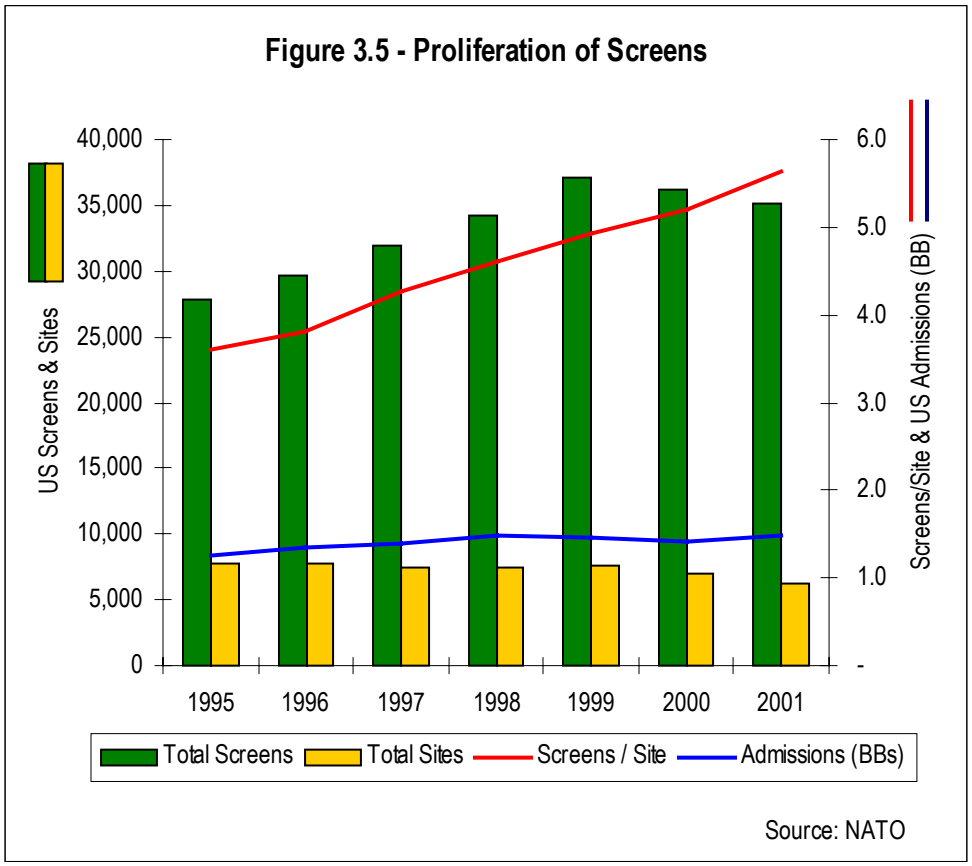
3.2.2. Theaters Have More Flexibility Than They Used To

"We even release a movie in theatres where we cannot recover the print costs just to have an additional screen during opening weekend; every additional seat counts."

Over the last couple of decades, the growth of multiplexes and the ongoing consolidation of theatre ownership have contributed to an overall increase in the industry's focus on the importance of first-run titles. This has come about in at least two main ways:

1) Exhibitors have increased the number of screens, in spite of the reduction in the number of theatre locations (Figure 3.5).

2) Increasing consolidation of market share among leading theatre "circuits" has meant that the availability of marginal, or second-run outlets has diminished.



By increasing the number of screens and the number of runs per screen, overall as well as in relation to the number of admitted viewers, the exhibitors are better able to control the supply (of showings) in response to demand. They are also better able to satisfy the demand earlier and faster: the total audience for the motion picture will still be the same, but the segment will be satisfied in a shorter period of time.

This increased flexibility, borne out by anecdotal evidence that theaters will "bump" a less popular film in order to free up a screen for an otherwise sold-out feature, means that it is less likely than ever before that a consumer would be unable to see a title in its first weekend or week of release. This means that any effect that such forced deferred viewing would have on reducing decay is eliminated, and that to some degree, for studios, the sky is the limit in terms of potential opening weekend gross. Thus the focus on driving critical opening weekend gross is reinforced by the desire to immediately satisfy all potential demand.

3.2.3. Revenue Sharing Agreements Favor Distributors in Early Weeks

Per Vogel (2001), the agreed division of gross box office receipts (after accounting for theatre operating expenses, the "nut") heavily favors the distributor in the earliest weeks of a release. This often means that a distributor can receive 90% of post-nut gross in the first week, with the distribution gradually evening out to closer to the average 50/50 split.

Current industry practices present some differences from Vogel's description. In reality, the highest percentage of the box office revenue received by the distributors during the first week rarely exceeds 70% of the total grosses. In general, distributors and exhibitors use fixed or weekly negotiated percentages called "the minimum" and "90/10/X" rule in which they share the overhead costs (indicated by "X") per screen. Each week both methodologies are applied and distributors get the highest portion of the total gross from both calculations.

Independent of the revenue distribution method used, the distributors do get a much bigger share of the pie during the first week of release. Consequently, studios clearly have a strong incentive to try to front-load grosses.

3.2.4. Box Office Grosses affect Marketability in Future Revenue Windows

"Films are released theatrically as a giant marketing exercise for DVD sales."

The analysis of our data confirmed the general belief in the industry that theatrical release in the domestic market is a loss leader. In our sample of 875 pictures we observed that only 8% were profitable for the studio, assuming theatrical rentals at 50% of gross. Notably, this does not account for the cost of any potential gross participation for talent. It is extremely important, therefore, that studios are able to sell the product in other release "windows". These ancillary revenue streams are becoming an increasingly significant part of the revenues earned by the studios. (See Appendix 4.)

Retail sales of films on DVD increased from $6 billion to $11 billion in 2002. This total will, for the first time, be greater than the expected $10.1 billion of domestic theatrical gross. Including

rentals and sales of VHS tapes, the home video revenue stream is expected to add up to a whopping $25 billion in 2002. In recognition of the importance of this business, studios are now beginning to spend large amounts of money on the launches of DVDs. Columbia TriStar, for example, spent $40 million on the launch of the *Spiderman* DVD, which earned $190 million in its first weekend in the shops, a weekend during which the top ten films then in theaters took in only $100 million combined.

Most importantly, the largest rental and sell-through outlets (such as Blockbuster and Wal-Mart), base their buying decisions principally on theatrical gross. Given the very large share of total DVD sales that such outlets represent, studios must be very conscious of this criterion when determining the ultimate profitability of a film property, and ensure a strong theatrical opening and run accordingly.

3.2.5. Early Box Office Results may be a Signal of Quality to Consumers

"Box office ratings have become the star of Monday's news shows."

The box office tournament has become a keenly watched game in recent years. Today, shows focused on Hollywood, such as *Entertainment Tonight*, *Access Hollywood* and *Extra*, routinely report the weekend box office revenues of the movies that open each weekend. Further, even mainstream news outlets have in recent years taken to reporting the results of the weekend box office performance. A dedicated TV channel, E! Entertainment Television, even broadcasts the box office grosses of each weekend every Sunday night. Entertainment magazines, such as *Variety* and *The Hollywood Reporter*, publish weekend box office estimates on Sunday morning and also email this information during the weekend to their subscriber base.

Given that specialized and general media now distribute box office performance data to the general public, studios have another incentive to fight desperately for opening weekend victory. These figures may serve to replace word of mouth publicity; audiences tend to take note of the highest grossing films and want to see them. This has arguably become as powerful a marketing tool as reviews from professional entertainment critics. The weekend rank in terms of gross receipts has become a meaningful signal of the quality, or playability, of a film.

3.3. Institutional and Cultural Factors

"Today profitability is our "number one" objective. Five years ago, it was topline growth. The secret of our success is that we analyze every number, every week, constantly."

"The movie business is more like Las Vegas, not Wall Street."

Based on our interviews we believe that two institutionalized characteristics of the industry restricting studios ability to control marketing costs: 1) Performance measurements that tend to focus on revenue rather than profitability create agency conflicts for studio executives; 2) The balance of power between studios and major talent appears to favor the latter, who, in addition to receiving ever higher compensation, can and do directly influence increases in marketing spending. This section analyzes some of these factors.

3.3.1. Risk-Aversion and Corporate Inertia

"Spending too little on a movie is generally seen as 'mismarketing' it."

"Even if we know that we could spend less in advertising blockbuster films such as Harry Potter, who has the guts for making such decision?"

"When the movie tracking is not so good, the panic always transforms into spending."

Within most studios, marketing executive's performance tends to be equated with the level of box office revenues generated from the films they are responsible for. This makes executives very averse to considering alternative ways of doing things, because it translates directly into a personal career risk. Our interviews revealed that most executives, while accepting of the level of business risk required in this industry, were remarkably risk averse personally to doing business in new ways. We believe this is a very strong factor in hindering exploration of alternative marketing strategies. Marketing expenditures are widely seen as being able to 'buy' box office revenues and therefore, there is no incentive to rationalize these expenditures, given that individual performance is so often judged by revenue.

"No one will blame you for having overspent on a movie that generated hundreds of millions of dollars in box office revenue, but if you decide not to spend all your budget and the movie doesn't perform, guess who is going to be blamed for the unsuccessful results."

In numerous interviews, we found that executives who had a certain amount of marketing dollars to spend on a movie rarely did not spend all of it. Since the 'investment' in terms of negative costs and revenue expectations is so high, few studio executives are willing to rationalize marketing expenditures and risk being held accountable for the box office failure of the film.

This is also confirmed by several academics such as Einav (2002) who says, [conservatism in decision making] *"may be magnified if we think of the institutional context and the potential agency costs in the industry. Top directors and actors do not want to see their films fail because of a poor marketing decision."* Studio executives would rather be conservative than risk their jobs, reputation and potentially future business because of a movie failure that would be attributed to a poor marketing decision.

The spate of mergers and acquisitions that took place in the entertainment industry during the last decade may also be feeding risk aversion. In today's large media conglomerates, activities such as marketing, finance and production of movies are very well separated and managed almost independently. From our interviews, we came to understand that the main responsibility of the marketing division is to 'open the movie'; the money that it takes to reach this goal successfully is just a circumstance, and profitability a technical afterthought.

Gerard J. Tellis (1998) gives an anecdotal example of the potential negative consequences of perverse bureaucratic incentives, in the acquisition of ABC Networks by The Walt Disney Co. He writes that although initially financiers hailed the merger as a match made in heaven between Disney content and ABC distribution, such an arrangement could have substantial disadvantages. If, for instance, Disney were forced to buy excess time that ABC could not sell in the open market, management would clearly be losing control of marketing spending.

3.3.2. Talent Compensation

"If Julia Roberts makes a movie, you're going to spend your lungs out. If Tom Hanks makes a movie, you're going to spend your lungs out. If Steven Spielberg makes a movie, you're going to spend your lungs out."

As discussed in detail in Section 4.3, established stars and directors have a positive correlation to overall box office revenues. In most cases, the cost of the talent is the single largest production cost. Moreover, powerful stars and directors can force studios to increase marketing budgets (often at the last minute). Definitely, this can be a significant driver of costs. This has been tested empirically against our database as well, as seen in Section 4.3 where, on average, movies with stars in them had both larger negative costs and media budgets.

"We need to get back to the model where everybody gets paid only when the movie performs."

Another trend observed in the industry is actors and directors demanding a percentage of domestic and international box office revenues as part of their remuneration. For example, for *Lethal Weapon 4*, $50 million was paid as royalties to the stars, of which $25 million was paid to Mel Gibson alone (Vahabzadeh 1999). This sort of remuneration can become a difficult proposition for studios, since the talent has no stake in the costs of the film and therefore bears no risk, but has an incentive to see revenues increased at any cost. In many cases, the marketing budget is pre-decided and made a condition by talent before signing on.

"There are some very powerful people in Hollywood, who have the ability to make things happen when they want them to happen, such as: Julia Roberts, Tom Cruise, Mel Gibson, Tom Hanks or Stephen Spielberg."

Finally, prior to a film's release, stars are paid separately for publicity, i.e. for promoting the films they star in or direct. This can take the form of fees for television and magazine interviews, press briefings and attendance at promotional events. It could also include fees for special appearances at the launch of the film in international markets, including the flight and hotel expenses.

3.5. Changes in Media Dynamics

"*The increase in ad spending is about how much things cost (not the increase of the importance of the opening weekend), because in 1998 the opening weekend was still important but the ad spending was much less… the average production costs decreased almost 10% from 1998 to 2001, but the average media and marketing costs increased more than 20%."*

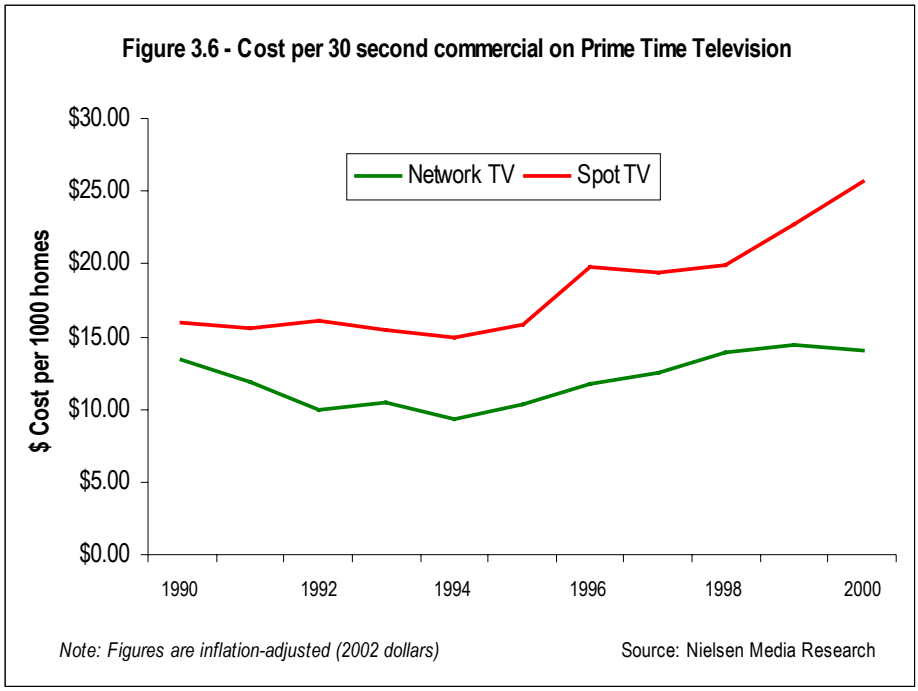
Virtually every interviewee mentioned media inflation as one of the most significant drivers of escalating marketing expenditures. This media component is two fold: first the cost of buying spots on television has increased, and second, given the declining market shares of the major networks, ads need to be placed on more channels to reach the same number of people.

3.5.1. Increase in Media Costs

As mentioned already, television is the single largest component of movie advertising spending. In other consumer industries, the average spending on television advertising is 32% of the marketing budget (*Advertising Age*), whereas in the entertainment industry it is over 40%. In addition to other factors, this is because a television ad is the closest a consumer can get (other than trailers) to 'sampling' the movie ahead of time.

Although advertising markets have been soft overall since the end of the Internet boom, advertising expense in the film industry has not diminished. The spending on television for marketing movies has increased, driven by three factors:

- Overall increases in marketing budgets have led to greater spending on television.
- Increases in advertising rates on television have resulted in a greater amount of money being spent to put the same number of commercials on television.
- Movie advertisers are chasing the same scarce spots.



In Figure 3.6 above we can observe a clear increase in the cost of prime time ad spots (8 pm to 11 pm) in recent years.

Tellis (1998) also points out how the average length of TV ads declined from 60 seconds in 1965 to 30 seconds in 1975, and is currently heading towards 15 seconds. One factor responsible for this trend is the cost of TV ad time. This cost has been increasing as the audience's size and firms' demand for advertising time has grown. In response, media suppliers have reduced the minimum length of an ad to make it more affordable.

3.5.2. Decrease in Media Reach

Tellis (1998) defines "Fragmentation of Traditional Media" as the process by which an audience for a particular medium breaks up into smaller segments, each of which watches a different programming. With the growth of cable TV, the average number of TV channels that US households have access to rose from 10 in 1980 to 33 in 1990. Recently, satellite transmission and high-capacity TV antennae have increased the number of channels accessible to households to over 100.

In the past, a few TV networks catered to a wide audience. Today, they reach smaller, segmented audiences, and this has major implications for advertisers, who find it harder and costlier to reach a wide national audience. This has been another important reason for the increased advertising spending of the movie studios.

During the 1980s and 1990s, as the national TV audience declined but TV ad rates kept increasing, knowledge of the precise audience that TV programs reached became critical. Advertisers had to make strategic decisions about in which shows and times to advertise in order to get a fair audience for the increasingly high price they paid for the ad time. This challenge explains why film commercials are shown during programs such as *Friends* that reach many diverse target segments of the U.S. population, even if it has the most expensive cost per 30-second ad spot.

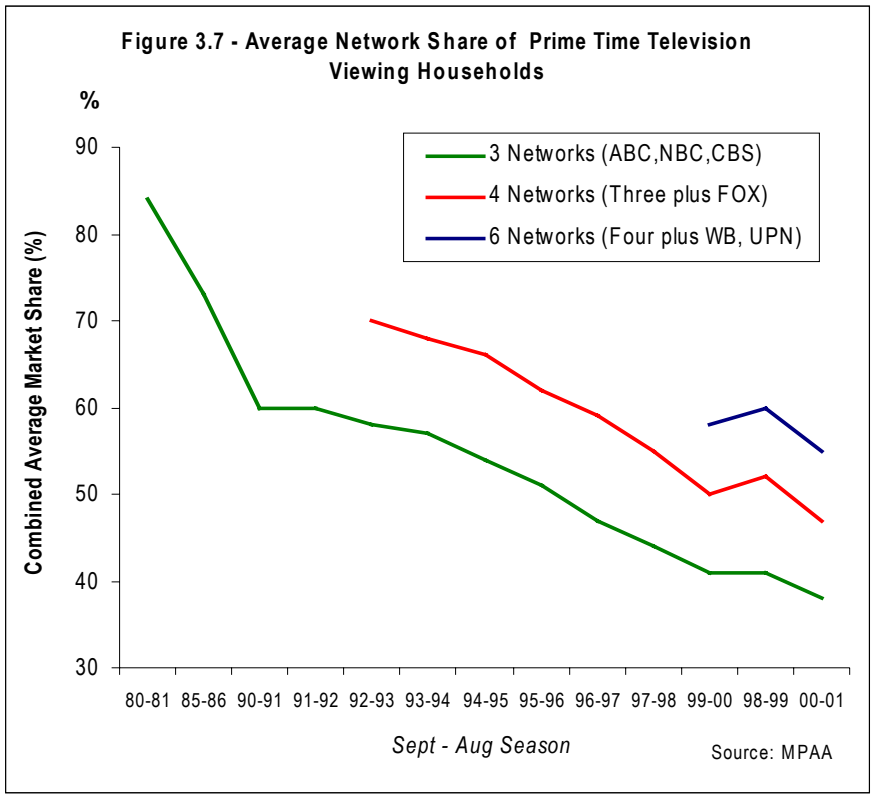


Figure 3.7 above illustrates the decrease in the networks' average share of prime time television households during the last two decades.

4. CONCLUSION

4.1. Recommendations

Our review of the drivers of advertising spending in the motion picture industry naturally leads to the question: *What could be done differently?* While this question has no easy answers, we believe that there are credible opportunities to head off further (uneconomic) escalation in movie marketing expense.

Barry R. Litman, in his paper about predicting success of theatrical movies, defines three crucial decision making areas that are important in determining the success of a theatrical motion picture:

- **The Creative Sphere**, which refers to the total creative effort expended in making the film, including the actual story itself, the cast and director, the production budget and the rating assigned by the MPAA.

- **The Scheduling and Release Pattern**, which considers choices such as the selection of the distributor or the release date decision.

- **The Marketing Effort**, which comprises the media campaign based on the decisions made in the two areas described above.

Our recommendations below, regarding the escalation of advertising spending, fall into these classifications.

4.1.1. The Creative Sphere

Compensate Talent According to Profit Contribution and Share Risks Appropriately.

While stars are widely considered a key element in ensuring box office success, we can observe that the most successful movies of all time had no established stars (for example, *Titanic*, *Star Wars*, *ET*, and *Jurassic Park*). In fact, of the top twenty highest grossing films of all time, only

six had a 'star' in them (see Appendix 8). It is said that these movies all had a very strong "concept," reducing the need for a big star. Strong concepts, however, are hard to find, and in their absence, we find that the industry tends to count on star power to produce successful films.

It is an industry rule of thumb that the presence of an established star accounts for 20% of a movie's box office revenues – the star is seen by the public as a "brand" with its own drawing power. Established stars often account for the single largest production cost. Even though an established star cannot guarantee a movie's success, he or she can at least draw in the initial crowds in the all-important opening weekend.

Several academic studies have been conducted to evaluate the impact of the presence of established stars on the film revenues. The findings are very interesting. Almost all these studies show that stars *do not* contribute to the success of the movies. Ravid (1999) finds that stars play no role in the financial success of a film. Litman observed that the presence of a superstar in a movie was not able to generate additional rentals when other variables were held constant.

De Vany and Walls (2002a and 1999) reach the conclusion that: "No actors are able to move the upper decile of revenues, although several are able to move upward the lower decile of revenues". In other words, such stars may provide a 'floor' to the revenues generated by a picture.

Using our data of 875 movies, we ran regressions to see the effect of stars (defined as entertainers with earnings greater than or equal to $10 million, or star power greater than or equal to 87.5, as defined by *Forbes* and *Hollywood Reporter*, respectively) on box office revenue, the estimated negative costs as well as the media budget. We can see the outputs of these regressions in Appendices 9 to 11.

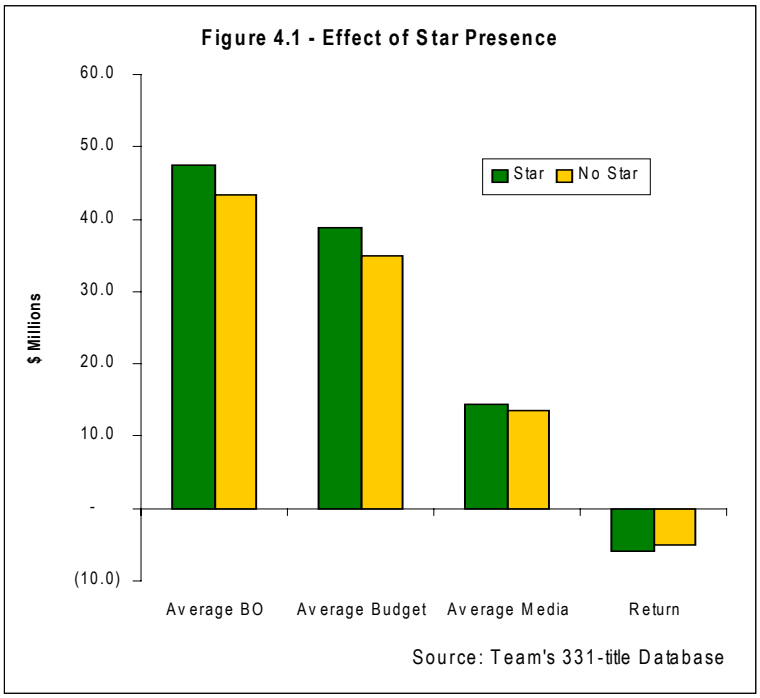
All three regressions present positive coefficients, indicating that stars have a positive effect on box office revenues, but also tend to drive up negative costs and media budgets. However, this impact is not positive on return (calculated as box office revenue minus negative cost minus media budget), as shown in the following table:

	Star	No Star
Average BO	47,459,499	43,389,089
Average Budget	38,873,438	34,988,457
Average Media	14,392,381	13,443,538
Return	(5,806,320)	(5,042,906)

From the results obtained, a few observations become evident:

- While stars do not guarantee a hit, movies with stars show marginally higher revenues. This was upheld by the regression outputs as well.
- The presence of a star tends to drive up the negative costs as well as the media budgets.
- It appears that, on average, the increases in revenues that stars bring are more than *washed out* by the increase in negative and media costs.

These conclusions can be seen graphically in Figure 4.1 shown below:



We also ran multiple regressions (shown in Appendix 12) with the "box office total" as dependent variable and "presence of a star," "production budget" and "media budget" as independent variables. The results obtained show that, in our 875 titles database, the presence of a star adds $12 million roughly to the box office total, but adds $29 million to the negative cost and $7.6 million to the marketing budget when regressed individually (shown in Appendices 10 and 11). Clearly, the positive effect that stars have on the box office revenues is washed out by the increases they bring about in production and marketing costs. Furthermore, the combination of these three variables explains only 48.6% of the variation in box office performance, which shows that while stars and large production and media budgets are important for total revenues, they cannot be relied upon solely to ensure success.

Based on this analysis of our data, it appears incorrect to conclude that stars will typically improve profitability at theatrical release. Indeed, allowing talent to share in the box office gross simply compounds the problem of overspending. Given that top actors and directors are already paid very high fixed salaries, it is only fair for studios to expect that they undertake some of the risk associated with the ventures rather than make a simple percentage of revenues. Every additional dollar that is paid to talent as participation in the theatrical gross comes directly out of the studios' bottom line. This arrangement also creates perverse incentives for talent to drive up below the line expenses. A more aggressive compensation model that bases a large component of salaries on the performance of the picture would improve film economics. However, it will alter existing power structures in the industry, and will require tough action by the studios.

We strongly recommend that studios be aware of the real contribution established stars make to overall profits generated by a movie. They need to control their influence on marketing decisions, in addition to making them share the risks inherent in releasing a picture. A significant portion of compensation based on profitability will ensure this.

4.1.2. The Scheduling and Release Pattern

Look for "Real" Demand when Scheduling the Release Date.

As we discussed in some detail in Section 3, the biggest driver of marketing spending is the tremendous focus on the opening weekend and its impact on, and predictive power of cumulative box office revenues. Any single studio, acting alone, cannot deflect attention away from the opening weekend and, thereby reduce marketing expenditures. However, a critical view of the choice of opening weekend may provide an opportunity to find an advantage.

The release date is one of the most important decisions that a studio can make. If it releases a film on a "big" (in which a large aggregate number of people is likely to attend) weekend, it can mean a proportionately higher opening weekend and overall revenues. According to Litman, there are three periods of peak audience attendance for theatrical movies: Christmas and New Year (the best one); the summer months (starting with Memorial Day and ending before Labor Day, and including July 4th, the second biggest weekend of the year); and around Easter.

Given the importance of the release date decision, distributors will try and block off big weekends by making announcements about the intended release dates of their movies, often several months in advance. The objective is to scare off competition from movies released by other distributors on the weekend – in this way the scheduling game is like a game of chicken over the best release dates. (Appendix 13 shows an example of release announcements and subsequent changes to illustrate this.) Distributors thus make a tradeoff between seasonal and competition effects.

This brings us to a fundamental question of causality: Are the so called "big" weekends (or key seasons) important because more people prefer to watch movies at these particular times of the year, or do they tend to go to the movies in larger numbers because there are more and better films being released during these times?

Einav (2002) studies exactly this issue. He breaks down the seasonal pattern in film releases from 1985 to 1999 into two components:

- The seasonal pattern in underlying demand.
- The seasonal pattern in market competition.

He finds that the cumulative box office revenues most closely resemble what the distributors *perceive* to be the seasonal pattern in demand, rather than what he estimates to be the actual underlying demand of the population to want to go to the movies. This means that distributors are

using the observed pattern of industry sales as a proxy for industry demand, rather than the estimated actual demand, *which is very different.* He finds that the underlying demand for motion pictures is actually much flatter and quite different from the seasonality of observed industry revenues. The shape of the seasonal pattern is shifted forward by one or two months; in particular, he finds that consumer demand in early summer is relatively less important, that around Labor Day it becomes surprisingly high and the demand around Thanksgiving and its preceding weeks is very low. Yet we find studios fighting to release movies in early summer, when demand gets stronger much later in the summer, not before July.

This study suggests that, in contradiction to the conventional wisdom in the industry, releasing on Labor Day or the end of summer is quite attractive for an individual studio, because the competition effect is lower and demand is higher. This has very important implications for the release pattern of movies. If the industry is, in effect, dictating demand rather than reacting to it, there may be opportunity for a shrewd studio to steal a punch on its competitors.

The studios' common focus on "big" weekends escalates marketing costs for those weekends. As we saw in Figure 2.3 in Section 2, it is on the 'big' weekends that studios tend to spend the most money on media. This is due largely because TV ad spots cost more than double during the most demanded weekends. Consequently a marketing budget of $40 million might be too much for a movie opening in winter, but not enough for a picture releasing during Memorial Day. By moving films to weekends where they can fulfill Einav's demand unmet by competing films, there is an obvious possibility of improving the cost effectiveness of awareness advertising.

We conclude that studios need to seriously reconsider their current release behavior, taking into account:

- "Real" demand for movies
- Competition
- Increased Media costs

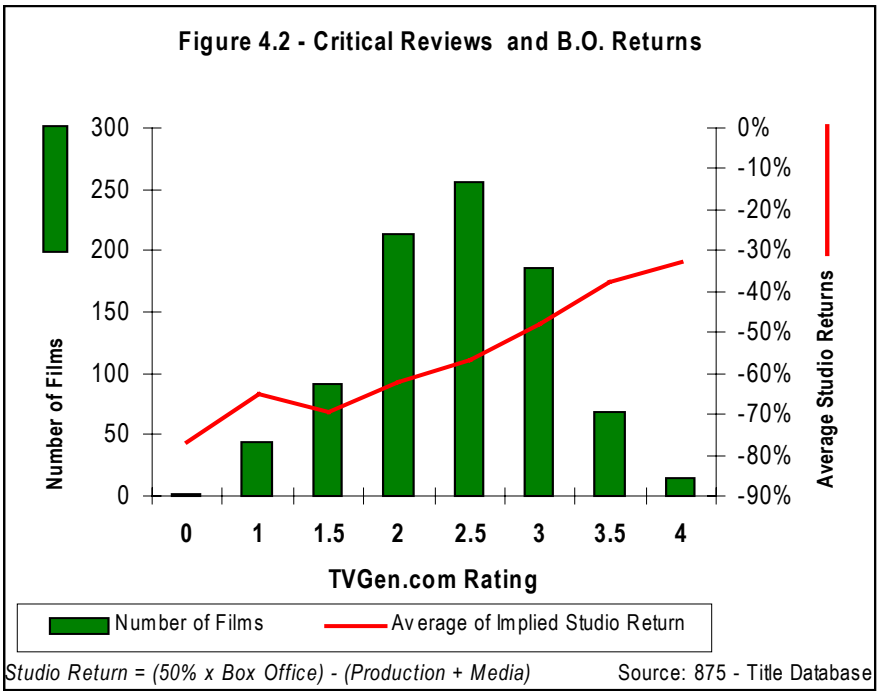
"Spiderman" for example, was released in May 2002 traditionally looked upon as a "weak" period, yet became the highest grossing movie of the year.

Distribute More Quality Films in a Flexible, "Platform" Release.

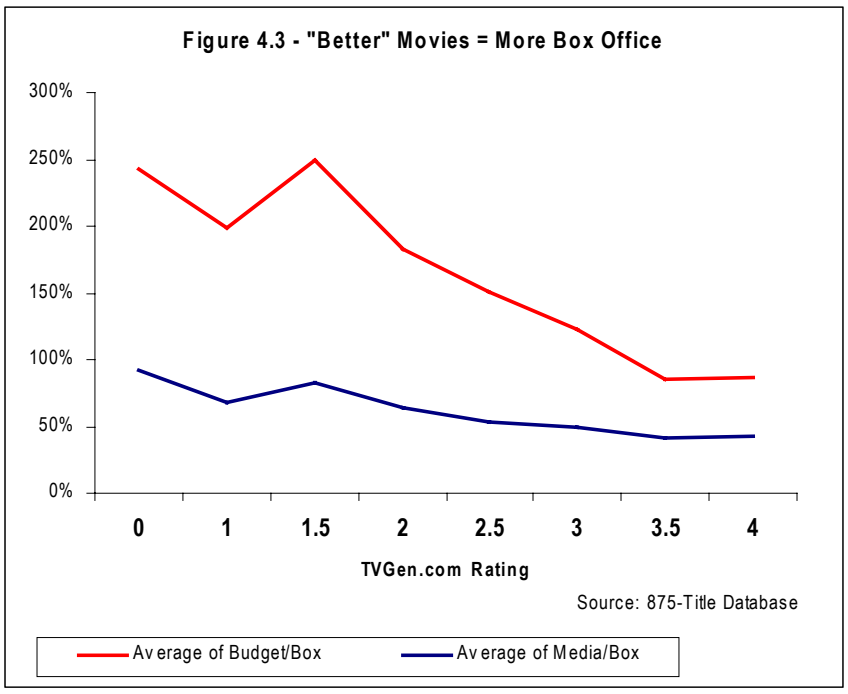
As noted by Sawhney and Eliashberg (1996), films with a platform release pattern show a much lower rate of decay over the release period than typical wide-release titles. We believe that such a pattern, by greater use of positive word-of-mouth and similar effects, could help reduce overall advertising spending for films with a particular "quality" profile. Positive audience response, critical acclaim, and major awards have each been demonstrated to have a positive effect on film performance (especially in later weeks), and we believe that studio films that are likely to enjoy one or all of these could be "rolled-out" more slowly, both to take advantage of these effects and to allow distributors greater flexibility in targeting and adjusting the film's marketing message as time goes by, rather than focusing marketing resources on creating the "non-informative information cascade" that drives audiences to the big opening weekend. Even though platform releases make lower cumulative revenues, they have significantly lower costs (at least in terms of marketing spending) making them more profitable on a margin basis.

Zufryden (1996) modeled the positive impact of word-of-mouth on awareness, intent to purchase, and ticket purchases, demonstrating the relevance of the phenomenon to eventual performance. Most significantly, his research suggests that word-of-mouth could act as a substitute for advertising spending as a driver of box office revenue.

Similarly, Eliashberg and Shugan (1997) demonstrate that critics' reviews, while not closely correlated to early box office returns, <u>are</u> a good predictor of late and cumulative box office grosses. Analysis of our own database shows this to be true, as we can see in Figure 4.2.



Our estimates of studio return are significantly higher for better-rated movies. While this observation does not in itself guarantee that critics are able to influence the behavior of moviegoers, their preferences certainly seem to be a good predictor of demand for a picture. Especially noteworthy is the lower level of media spending relative to box office that better-rated pictures enjoy (Figure 4.3).



A third consideration, the signaling effect of academy award nominations (and victories) offers another very obvious avenue for generating later box office revenues. While recognition of this kind cannot realistically be planned for, and can itself be expensive to promote, it is nevertheless an important and real driver of box office returns for the few fortunate titles that achieve it. Nelson (2001) measures the value of nominations and victories in the five most-visible categories: Best Leading Actor/Actress, Best Supporting Actor/Actress, and Best Picture. Their models show that a victory in either the Best Actor/Actress categories can add between $5-10 million in additional box office revenue, while a victory in the Best Picture category can add over $20 million. Compounded with the likely additional benefits to revenue in ancillary markets, the financial impact of winning a major award is thus clear.

Over the past 10 years, films that have won Best Picture at the Oscars have rung up an average of 11% in additional domestic grosses after the awards, according to box office tracker Nielsen EDI. *A Beautiful Mind* (2002) added another 16% to its box office coffers after winning the Oscar. In addition, 1993 winner *Schindler's List* displayed the best recent use of the Award, with a whopping 35% of its $96.1 million coming after the Academy Awards. According to Carl Diorio (*Daily Variety*), the 2003 Best Picture Academy Award-winner *Chicago* can reasonably expect similar box office increases.

While each of the effects listed above are indeed difficult to secure (what kind of advice is it to tell a studio head to make good movies?), we feel that for those movies that studios can identify as having potential for benefiting from one or all of these effects, a slower, managed platform release is a credible (and cheaper to advertise) alternative to the big opening pattern that most movies follow today. Even if platforming a film is a much more difficult challenge for a distributor, we think that reduction in advertising spending can, in the long run, show that the effort was worth it.

4.1.3. The Marketing Effort

Make Marketing Spending Accountable.

The cultural and organizational factors explained in Section 3 represent very important drivers for increased advertising spending. The motion picture industry relies heavily on "rules of thumb"

and prescriptions based on experience to make most strategic decisions, including in the area of marketing.

Lampel and Shamsie (2000) studied the strategies for creating momentum in the motion picture industry. They maintain that higher rates of innovation, less stable customer preferences and shorter life cycles are making it increasingly difficult for firms to rely on past market success in order to develop sustainable advantages.

In another academic paper, Lehmann and Weinberg (2000) analyzed the sale of film through sequential distribution channels, theatrical and videos. They found that the optimal time to release a videotape varies depending on the opening strength and decay rate of a movie, parameters that can be determined early enough in a movie's run to be used in making the video release timing decision. However, this runs counter to current practice, because the data that they analyzed (from the performance of 35 movies) indicated that videos are released at a relatively constant delay of 22 weeks from the movie's release date. If the results of these tests suggest that profits would increase if movies were released to video sooner than is the current practice, depending on variable performance factors, why do the studios use fixed release windows for the ancillary revenue streams?

Lampel and Shamsie (2000) also wrote about the importance of flexibility in "hyper competitive" environments such as the motion picture business. According to them, sustained advantage can only result from the development of flexible organization i.e., organizations that make dynamic decisions based on the learning from past experiences and the changing situations that they are presented with.

Therefore, our recommendation is that studios should make objective analytical evaluations of past performance of the movies and analyze which are the most effective strategies, in order to optimize their decision making process in the future. They should also implement accountability systems that control and evaluate the results of the marketing spending decisions of their executives. Even more, executives should be motivated to "save" the studios money and compensated based on their "wise spending" performance with bonuses and awards.

Use Alternative (Cheaper) Ways of Advertising.

As explained in Section 3.5, the changes in media dynamics are another important driver of advertising spending for the motion picture industry. In particular, studios spend around 75% of their marketing budget on television, a medium that has shown a consistently increasing trend in ad spot costs during the last decade. As a particularly relevant example, TV ad spots for the 75th Anniversary Academy Awards have sold for a record-high average rate this year. National advertisers have paid an average of $1.3 million to $1.4 million per 30-second spot on the Oscar telecast, an increase of about 10% over year 2002.

It would be a titanic challenge for an individual studio to try to persuade the television networks to decrease the costs of the ad spots. What studios are able to do is to look for alternative ways of advertising, other than television. We recommend that studios explore new advertising options and analyze their cost effectiveness against TV.

For example, they should start by studying the advantages offered by the Internet. Industry studies show that broadband households watch fewer television advertisements. According to Professor Jeffrey Cole, director of the UCLA Center for Communication Policy, television commercials have been in trouble for years, ever since the invention of the remote control, and the Internet accelerates this. Other industry studies analyzing the most common Internet queries showed "accessing entertainment information" to be fourth in the overall ranking.

Overall, Internet users watched less television during 2002 than in 2001 (11.2 hours per week compared with 12.3 hours). In 2002, Internet users watched about 5.4 fewer hours of television per week than nonusers compared with 4.5 fewer hours in 2001. And 31% of children now watch less television than before they started using the Internet at home, up from 23% in 2001. Taking into account that this demographic segment is the most desirable for the Hollywood studios today (they will reach a record peak in the total US population in 2004 and they see movies multiple times), studios should consider advertising more heavily on the Internet.

4.2. Summary

The motion picture industry is a "magic business", which excites feelings and emotions in the audience. More significantly, it is also an industry in which business is sometimes done in ways that appear, by other industry standards, to make little sense. Today, movie marketing decisions in particular often seem to fit this description.

We believe that it will take a long time and the individual efforts of all the Hollywood studios to control, or even try to reverse, the increasing marketing spending trend observed in the industry during the last decade. In this paper we tried to offer some insights on where to focus in taking on this important and challenging task.

Keeping in mind areas that are actionable, we came up with the following recommendations. First of all, studios should try to compensate the talent according to their contribution to the overall performance of the movie, and make them share the risks and be paid based on profitability results. Then, distributors should look for the real demand of each opening weekend and schedule the release date of their movie based on this analysis. In addition, studios should try to produce more high-quality films, preferably in platform release in order to take advantage of the word of mouth as replacement of advertising dollars. Moreover, they should also try to implement systems to make marketing spending accountable and incentivise executives to "save" the studios money, when possible. Finally, studios should also start analyzing the use of alternative (and cheaper) advertising media, such as the Internet.

4.3. Areas for Further Research

During our study we identified a number of areas of research that we believe would provide very useful insights as well as further support to our suggestions above:

- Analyze the use of dynamic release windows to match the ancillary revenue streams releases to the optimal level of movie awareness.

- Consider the alternative of convincing the downstream partners (wholesalers, retailers and international distributors) to shift decision focus away from domestic theatrical gross by using incremental marketing commitment and awareness instead.

- Study current cost allocation methods for allocating media and negative costs across all revenue streams, not just theatrical. Should these costs, if at all, be allocated across all streams, is it practicable and what impact will it have on spending behavior?

- Study the true economics of the motion picture business as part of a media conglomerate. Do merged corporations "cushion" unprofitable entertainment companies from bankruptcy, and consequently allow them to continue as loss leaders?

- Analyze the impact of the continued escalation of marketing spending on movie studios' profitability and their existence in general.

Our paper has primarily focused on the drivers to marketing spending. However, we found some empirical evidence that positively correlates high marketing spends with higher box office revenues. As long as this holds true, marketing expenditures are unlikely to diminish significantly. Further research needs to be done to determine what amount of marketing spending is optimal, and what part of the budget is "wasted," i.e., does not bring about at least a dollar of revenue for each dollar of marketing money spent.

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6. APPENDIXES

APPENDIX 1: The Interview Tool

QUESTIONNAIRE

(in case of multiple correct answers, please indicate %)

THE ADVERTISING PLAN:

1. Who makes the budgetary allocation decision?

    a) The studio
    b) The producer
    c) The advertising agency

2. What is the end goal towards which the advertising is targeted:

    a) Maximizing Box Office Revenue
    b) Influencing pick up by Wal-Mart / Blockbuster etc for DVD / Video sales?
    c) Influencing consumer recognition of the movie which helps to boost DVD / Video sales.

3. How does box office performance drive:

    a) DVD buying / wholesale stocking and promotion
    b) End user consumption

4. What percentage of your advertising budget is allocated to:

    a) Theatres
    b) Consumers

5. How does the marketing budget differ depending upon the type of film?

    a) Target segment
    b) PG rating
    c) Genre

MEDIA STRATEGY: SETTING MEDIA BUDGETS

(How much money should be spent in an advertising campaign)

1. How is the actual amount of the advertising budget decided?

    a) Percentage of negative costs

    b) Contractual agreement

    c) Rules of Thumb or "Gut Feel"

    d) Competitor spending

2. At what stage of the movie life cycle is the budget developed?

3. How is your emergency advertising money defined?

- What are the factors that may make you spend more or less money that what was originally planned?
- Do you make an annual advertising budget planning or is the budget defined on a "per movie" basis?
- Does this annual budget influence how much money can be used in the "contingency fund"?

4. What is the end purpose of increasing the marketing spend on a movie at the last minute / above or below the budgeted spend?

- Increasing box office revenue?
- Scaring off competition?
- Increasing future revenue streams

MEDIA TACTICS: ALLOCATION OF MEDIA BUDGETS

(How the media budget is to be spent)

1. Please rate the following media from most to least effective:

    a) Television

    b) Movie Trailers

    c) Radio

    d) Newspapers

    e) Magazines

    f) Billboards

    g) Online

2. Is there any rule of thumb about what is the most effective combination of media?

3. What research and data sources do you use to get feedback for adjusting a feature's positioning and advertising strategy?

4. What is the preferred media for emergency spending decisions?

5. Do you have any recommendations for reducing overall marketing expenditures?

ADDITIONAL:

1. How do you calculate your film ultimate? (i.e. what is the maximum time period over which the revenue streams are counted?)

2. What is your benchmark of ROI (rate of return) for a movie to be approved & produced?

3. If the revenue generated by a movie in its entire domestic theatrical life can be calculated from the initial box office gross, what are the variables that go into this calculation? On what basis is the actual calculation made?

Finally: Do you think there is an escalation in movie marketing cost happening? If yes, what is causing that, and how will it impact the industry?

Organizational problems:

- If you have a budget, do you feel motivated to spend all of it, regardless of the performance of the movie?
- Is the spiraling marketing cost a function of the fact that a lot of studios own TV networks? Is there a factor of transfer pricing that influences increasing costs?

APPENDIX 2: Media Budget to Box Office Total

Regression Output: Media budget to Box Office Total

Data Range: Solid Criteria Inc. Screens!A1:BT876

Number of data points: 875

Response(Dep. Var.) : Box to Date

Residual df 873

Multiple R-squared 0.456
Residual SS 1136787000000000000.000
Std. Dev. Estimate 36085480.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	-12200353.000	2389229.250	-5.106	0.000
Media budget	4.135	0.153	27.060	0.000

APPENDIX 3: Other Forms of Media used in Advertising a Film

Trailers

After television advertising spot spending, trailers are the most expensive medium used to market a film. Trailers are the most powerful tools of in-theatre marketing because they are directed to a captive movie going target audience that is sitting in the theatre when the trailer is playing.

The duration of a trailer cannot be more than two minutes and thirty seconds, with one exception per studio per year. Trailers can be classified as red band (only can run with R-rated movies) and green band trailers (can run with any movie). Every studio has the right to attach one trailer to their movie. The studios can also insert trailers in the can. Studios trade out spaces in the can for the trailers with other studios. In fact the exhibitor makes the final decision of what percentage of all the trailers the theatre will finally show (the average percentages are from 70% to 90% of them).

The key success factor for the strategy of using trailers is to place them with movies that have the same target audience as the picture in which the trailer runs. There is also a short version of trailers called "teasers". Their purpose is simply to announce a new coming movie, and their duration is generally less than one minute.

In-theatre marketing

In addition to the trailers and teasers, studios also spend money in other kinds of advertising within the theatres, such as banners, standees, posters, tent-pole film displays, concession programs (drink cups, popcorn bags, kids trays, etc.), and marketing brochures. They can also run national managers' contests, with very attractive prizes such as vacation trips, etc. in order to

motivate theatre managers to dedicate time and effort in developing creative advertising strategies for their movies.

Newspapers and magazines

In 2000, studios spent approximately 16% of their media budgets in advertising in newspapers and magazines. Today this figure is lower. Specialized magazines (such as *Daily Variety*, *The Hollywood Reporter*, and *Entertainment Weekly*) are a very efficient, focused way to advertise, since these have a well-defined target audience that is keenly interested in the movies.

The circulation of newspapers has dropped in the last few years, and their costs have increased. They are used mainly for reaching the adult audience and to announce the screenings and premieres of the movies. The *Los Angeles Times*, *New York Times* and *Wall Street Journal* are the most popular newspapers for news about the entertainment industry.

Radio and Internet

These media formats represent a very small part in the marketing mix used by the studios to promote their movies.

Academy Awards

For a picture to win a big award, such as the Academy Oscars or the Golden Globe Awards, can easily mean tens of thousands of dollars in additional box office revenue. Therefore, studios tend to do some "academy spending" such as the "For your consideration…" ads in the entertainment magazines or newspapers. Sometimes, this spending is predetermined and even included in the contracts that the studios sign with the talent. In general, movies have special advertising budgets set to support pictures competing for Academy Awards.

APPENDIX 4: Ancillary Revenue Streams

Domestic theatrical box office grosses today represent less than 15% of the total revenues generated by a motion picture. The remaining 85% comes from the ancillary markets, which have shown considerable growth during recent years. The most important are:

- International theatrical market.
- Domestic and International:
  - Home Video
  - Pay television.
  - Network Syndication.

In the industry, the timing decision between the releases of a picture in these different markets is called "windowing". Even though the windows are not fixed and may vary according to many factors, such as the genre of the movie or the target country of release, we can observe in the following table an example of a typical windowing strategy:

Release Type	Window
Domestic Theatrical	Release Date
International Theatrical	2 months later
Domestic Home Video	5 months later
International Home Video	7 months later
Domestic Pay TV	1 year later
International Pay TV	1.5 - 2 years later
Domestic Network / Syndication	3 years later
International Syndication	3 - 4 years later

Over the past decade, these ancillary revenue streams have become increasingly important and lucrative. During the late seventies, adoption of VCR technology started a home video industry whose importance is still reflected in the DVD market today. During the last few years, the television market showed a considerable growth. Also the international theatrical business is now being considered "seriously" by the studios, as its relative importance increases and it is currently generating more box office revenue than the domestic theatrical business.

The International Market

The international theatrical market has shown good growth during the last several years. The domestic market used to represent roughly 60% of the total theatrical gross box office revenue, while the international market used to get the 40% share. Today, the opposite is true.

Because of this growth and also because of the easier and faster communications available today, the opening window between domestic and international markets is narrowing very fast, and each day we see more and more movies playing 'day and date'.

The impact of this trend is two-fold:

- It increases the risks inherent in the release of the picture. When there was a time gap of a few weeks or months between domestic and international release dates, the studio knew the performance and reaction to the film in the domestic market, and accordingly could decide its international marketing budget and positioning. It also helped to build positive word of mouth at the worldwide level if the movie was successful. When the release dates converge, it is natural that the gamble on the movie's success becomes inherently riskier, and given the industry's preference to overspend rather than underspend, it likely increases overall marketing budgets as well.

- It has a positive effect on the fight against piracy. When the movie is released internationally on the same date as in the US, it reduces the likelihood of black market exhibition ahead of the scheduled release, and preserves theatrical revenue for studios and distributors.

Taking into account the variety of tastes and traditions in the different countries of the world, in some cultures the studios may even change the marketing materials of a movie in order to accommodate the market.

The strongest international markets are Germany, Japan, United Kingdom, Australia, Spain, Italy and France. Different genres work better in different countries. Even some stars are better accepted in some countries than in others. A very important factor for determining the success of a particular movie in different markets is the population demographics of each country, and the target segment the movie was created for. The United States presents a very particular population demographic that is not replicated anywhere else in the world. Hollywood studios produce movies keeping in mind the North American population, because the domestic market is the most stable one as well as the largest. Once the movie is ready, they find out for which of the international markets it will also be suitable and market it accordingly. Consequently, a movie that was a total disaster in the US could be very successful internationally, and vice versa.

Home Video

Over the past decade, DVD and VHS releases have become very significant revenue streams for the motion picture industry. By some estimates, they account for up to 40% of all revenue earned by a movie.

The domestic theatrical distribution is "*the engine that drives the train*". The big disadvantage of the theatrical distribution is that it has a short shelf life (an average of three to four weeks), while the home video business (especially DVDs) have a much longer shelf life; the "ultimate" income from the home video revenue stream is calculated with a 10-year period in mind.

Industry specialists predict that in the near future, DVD adoption will eliminate VHS as a medium. A clear signal of this trend can be found in the fact that for the first time ever, in March 2003, DVD rentals generated more weekly revenue than VHS rentals, according to the Video Software Dealers Association. The video industry's leading trade organization said DVD rentals generated $80 million during the week ending March 16, compared with $79 million reported for VHS rentals, according to the national organization's VidTrac home video rental monitoring system.

Television

Once a movie is released in the theatrical and home video markets, it is time for its television release. The television business is implemented in two phases. The first phase consists in releasing the movie in pay television, in a Pay-Per-View (PPV) or Video-On-Demand (VOD) format. Although different studios have different windowing strategies, this step is generally performed a couple of months after the home video release.

The second phase consists in the release of the movie in network syndication and basic cable. Here again, there is no general timing rule, but this step is generally performed between three to five years after the theatrical release of the picture.

Thanks to the proliferation of the cable and satellite companies, and to the introduction of new digital entertainment distribution technologies (such as PPV and VOD), this ancillary revenue stream has shown a very fast growth during the last few years.

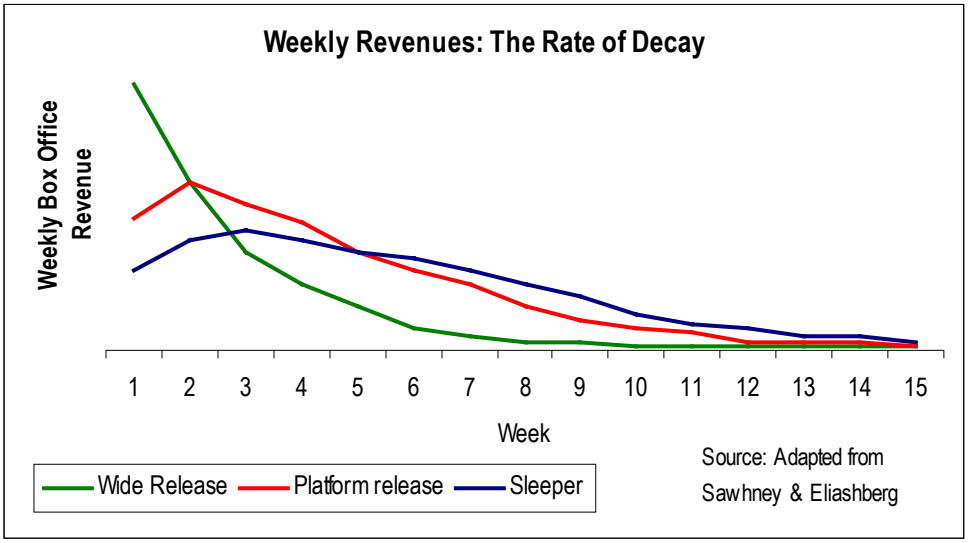
APPENDIX 5: Sawhney and Eliashberg

A Parsimonious Model for Forecasting Gross Box-Office Revenues of Motion Pictures: Sawhney and Eliashberg (1996)

Sawhney and Eliashberg (1996) developed a 'parsimonious model' for forecasting the gross box office revenues of motion pictures. They see the consumer's 'movie adoption' process as a sum of two steps:

- The *time to decide* to see a new movie
- The *time to act* on the adoption decision

The time to decide is influenced by the intensity of information available on a movie prior to its release that influences a consumer to go and see the movie. There are three basic classes of consumer adoption patterns (which directly translates into box office gross) for a new film as shown below.

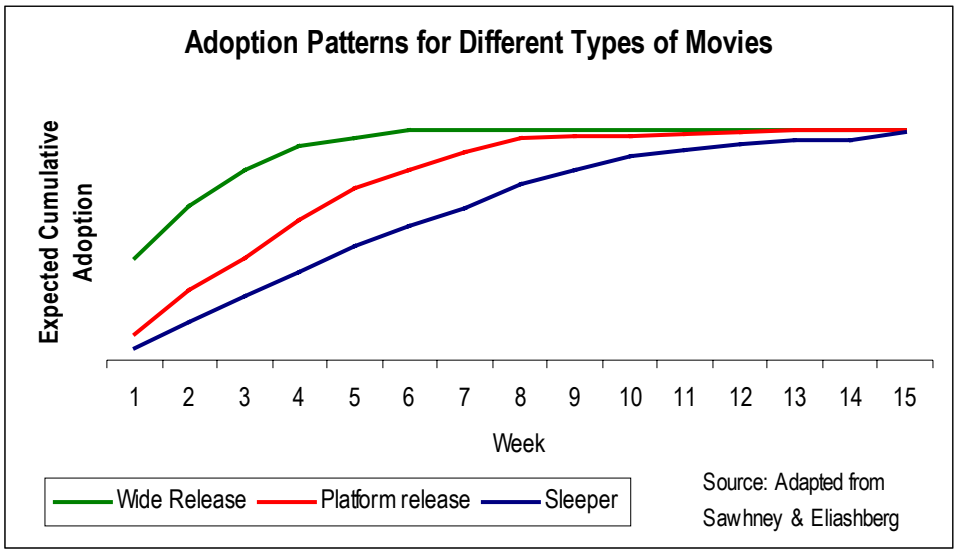


As Sawhney and Eliashberg (1996) themselves note, films that follow the 'blockbuster' pattern are accompanied a huge marketing 'blitz', and open simultaneously on several thousand screens.

Thus, for a consumer, the time to decide to watch such movies begins to approach zero and the cumulative adoption pattern (and corresponding cumulative box office gross) is similar to the green curve. In the first couple of weeks of release, the effects of positive word of mouth and critical reviews is minimized, as the media campaign is the most important influencer of adoption.

Movies that are "platform release" or "limited release" typically are not accompanied by a large media campaign at the outset and open on a smaller number of screens as well. Word of mouth and critical reviews thus become more important (and are more influential) for these films that appeal to a less mainstream audience. Hence the time to decide is longer, and so is the time to act, since the movies tend not to be widely distributed. They display adoption patterns similar to the red and blue curves.

Sawhney and Eliashberg also model the rate of expected adoption (or the decay pattern) of movies, and find that they fall into 3 different categories as shown below:



Our study of 331 wide release films is consistent with this model.

APPENDIX 6: Opening Weekend on Box Office Gross

Regression output: Opening Weekend on Box Office Gross

Data Range: Full Data for Analysis!A1:CA332

Number of data points: 331

Response(Dep. Var.) : Box Office Total

Residual df 329

Multiple R-squared 0.780
Residual SS 156546000000000000.000
Std. Dev. Estimate 21813386.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	2482008.000	1707886.370	1.453	0.147
Opening Gross	3.870	0.113	34.121	0.000

APPENDIX 7: Negative Cost on Box Office Gross

Regression Output: Negative Cost (Estimated Budget) on Box Office Gross

Data Range: Solid Criteria Inc. Screens!A1:BT876

Number of data points: 875

Response(Dep. Var.) : Box to Date

Residual df 873

Multiple R-squared 0.299
Residual SS 1464772000000000000.000
Std. Dev. Estimate 40961692.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	8185103.000	2289531.000	3.575	0.000
Estimated Budget	1.006	0.052	19.308	0.000

APPENDIX 8: Top 20 Highest Grossing Films of all Time

#	Film	Studio	Year	Gross
1	Titanic	Paramount	1997	$ 600.7
2	Star Wars	Fox	1977	$ 460.9
3	Star Wars: The Phantom Menace	Fox	1999	$ 431.0
4	E.T. The Extra-Terrestrial	Universal	1982	$ 399.8
5	Jurassic Park	Universal	1993	$ 357.0
6	Forrest Gump	Paramount	1994	$ 329.6
7	The Lion King	Buena Vista	1994	$ 312.8
8	Return of the Jedi	Fox	1983	$ 309.1
9	Independence Day	Fox	1996	$ 306.1
10	The Sixth Sense	Buena Vista	1999	$ 293.5
11	The Empire Strikes Back	Fox	1980	$ 290.1
12	Home Alone	Fox	1990	$ 285.7
13	How the Grinch Stole Christmas	Universal	2000	$ 260.0
14	Jaws	Universal	1975	$ 260.0
15	Shrek	Disney	2001	$ 251.9
16	Batman	Warner Bros.	1989	$ 251.1
17	Men in Black	Sony	1997	$ 250.1
18	Toy Story 2	Buena Vista	1999	$ 245.7
19	Raiders of the Lost Ark	Paramount	1981	$ 242.3
20	Twister	Warner Bros.	1996	$ 241.7

APPENDIX 9: Presence of a Star on Box Office Gross

Regression Output: Presence of a Star on Box Office Gross

Multiple Linear Regression

Data Range: Solid Criteria Inc. Screens!A1:BT876

Number of data points: 875

Response(Dep. Var.) : Box to Date

Residual df 873

Multiple R-squared 0.127
Residual SS 1824258000000000000.000
Std. Dev. Estimate 45712604.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	35,394,424	1700070.000	20.819	0.000
Presence of a star	46,021,920	4078956.000	11.283	0.000

APPENDIX 10: Presence of a Star on Negative Cost

Regression Output: Presence of a Star on Negative Cost (Estimated Budget)

Data Range: Solid Criteria Inc. Screens!A1:BT876

Number of data points: 875

Response(Dep. Var.) : Estimated Budget

Residual df 873

Multiple R-squared 0.174
Residual SS 510227800000000000.000
Std. Dev. Estimate 24175470.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	29903042.000	899095.438	33.259	0.000
Presence of a star	29274588.000	2157188.000	13.571	0.000

APPENDIX 11: Presence of a Star on Media Budget

Regression Output: Presence of a Star on Media Budget

Data Range: Solid Criteria Inc. Screens!A1:BT876

Number of data points: 875

Response(Dep. Var.) : Media budget

Residual df 873

Multiple R-squared 0.130
Residual SS 48509370000000000.000
Std. Dev. Estimate 7454281.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	12123266.000	277227.656	43.730	0.000
Presence of a star	7600247.500	665148.813	11.426	0.000

APPENDIX 12: Multiple Regressions

Influence of Star, Production and Media Budget on Box Office Totals

Data Range: Solid Criteria Inc. Screens!A1:BT876

Number of data points: 875

Response(Dep. Var.) : Box to Date

Residual df 871

Multiple R-squared 0.486
Residual SS 1073637000000000000.000
Std. Dev. Estimate 35109100.000

Predictor (Ind. Var.)	Coefficient	StdError	t-statistic	p-value
Constant	(13,516,861.00)	2373692.750	-5.694	0.000
Presence of a star	12,120,620.00	3479560.000	3.483	0.001
Estimated Budget	0.308	0.060	5.127	0.000
Media budget	3.276	0.195	16.836	0.000

APPENDIX 13: Example of Released Dates and Changes Announcement

Daily Variety Magazine (Friday, March 21, 2003)

RELEASE DATES AND CHANGES

As of March 20		
Pic	**New Date**	**Old Date**
ARTISAN ENT.		
Havanna Nights: Dirty Dancing 2	Feb. 13, 2004	Nov. 21
CINEMA FOUR		
Gaudi Afternoon	March 21	
DREAMWORKS		
Envy	Coming	June 6
FILM MOVEMENT		
Marion Bridge	April 11	
Manito	June 13	
IDP DISTRIBUTION		
Passionada	Aug. 15	
MAGNOLIA PICTURES		
Bollywood Hollywood	May 23	
SONY PICTURES		
Radio	Nov. 21	Oct. 3
Mona Lisa Smile	Dec. 19	Nov. 21
Secret Window	2nd Quarter 2004	

Red indicates new entry

All dates 2003 unless noted