Hollywood Creative Accounting: The Success Rate of Major Motion Pictures

Sergio Sparviero
Paris Lodron University of Salzburg
s.sparviero [AT] gmail.com

Abstract:
Academic, trade, and popular publications commonly assert that 80 percent of motion pictures fail to make a net profit, suggesting also that the main players of the motion picture industry operate in highly volatile market conditions. More importantly, major film companies use this argument to negotiate for better terms with their production and distribution partners, to lobby for stricter copyright protections, and to argue in favor of media conglomeration as a hedge against adverse market conditions. This article disputes these assertions by calculating the full range of income that major motion pictures derive from their primary and secondary markets. It demonstrates that a large share of studio films are ultimately profitable, therefore challenging the arguments that conglomerates make with industry partners and government policy makers.

Keywords: Film, Distribution, Marketing, Hollywood, Conglomeration

The business of filmmaking in Hollywood radically changed following the controversial release of Michael Cimino’s Heaven’s Gate (1980), whose financial losses so weakened its producer-distributor United Artists that it was soon after taken over by Metro-Goldwyn-Mayer (MGM). As a distributor, United Artists embodied an approach to filmmaking that had become “emblematic of the art in the 1970s, based on prizing the independence of directors and glorifying artistic innovation.” Therefore, the demise of United Artists led the way to an alternative approach to filmmaking, one more focused on commercial goals. Distributors belonging to the largest info-entrepreneur conglomerates (here, “the major distributors” or “majors”) shaped the principles of the new business strategy, which involved large investments in films designed to generate important revenues from emerging and rapidly growing secondary markets, including retail video sales and rentals, pay-per-view cable channels, and digital downloads. In more recent years, the exploitation of intellectual property (e.g., characters, images, and scores) in ancillary markets (e.g., books, music CDs and digital downloads, video games, theme parks, fast food restaurants and various other merchandising items) also became an important element of this strategy. As a result, distribution became the “art of maximizing consumption and corresponding revenues across exploitation options,” and film distributors took on more and more important roles within the increasingly vertically integrated value chains of media conglomerates.
Although the strategy of the majors has been changing quite radically since the 1980s, analyses of the profitability or the success rates of motion pictures produced by these companies seems to be largely lacking. On the contrary, the existing body of literature describes the film business as characterized by regular commercial failures and a few very fortunate successes. For example, in 1998, Weinstein bemoaned that only 10 to 20 percent of film projects were reporting net profits. In 2008, the United Nations echoed these estimates, saying “it was widely recognized” that only 20 percent of movies made a profit. In making these assertions the aforementioned articles failed to cite any empirical studies, but in 2004 De Vany and Walls confirmed these estimates after studying a large sample of films released between 1984 and 1996. They concluded that about 78 percent of these movies lost money and only 22 percent were profitable.

Many scholars of media policy and economics are likely to have encountered other variations of this “20 percent success rule” in reports and academic papers implying that the generic producer or distributor—large corporations and small independent companies alike—can survive or build fortunes thanks to the success of a few lucky projects. However, Hollywood accounting is known to be creative, employing contractually defined notions of net profit that can be very different from the generally accepted accounting principles applied in other sectors. As explained in this article, although the definition of net profits can vary from distributor to distributor (and from contract to contract), all of the existing versions seem to share a common rationale: the most significant degree of bargaining power generates a surplus for the most significant stakeholders, even when a motion picture officially does not make a net profit.

Therefore, a more careful examination of the notion of profit used in the formulation of the 20 percent success rule is important for understanding what this commonly-accepted statement actually reveals about the financial risk of filmmaking. De Vany and Walls define the net profit of a motion picture in admittedly simple terms: as the difference between the film rentals (i.e., the share of theatrical ticket sales that is fed back to the distributor) from the United States and Canadian markets minus the production costs of the movie. Therefore, the 20 percent success rule seems to suggest that only (about) one in five motion pictures earned enough from the first exhibition window to cover the costs of production. Furthermore, among this small percentage of motion pictures, there is a small collection of very fortunate projects that generate incomes much larger than their costs. What the 20 percent success rule does not explain is how many motion pictures released generate a positive return after having exploited all the opportunities available and how that income is distributed between the stakeholders.

In addition to theatrical release in the US and Canada, Hollywood motion picture revenue also includes film rentals from theatrical release in international markets as well as income from secondary and ancillary windows. Moreover, the distributors that commonly produce or coproduce a motion picture also manage the film’s exploitation in the first and subsequent windows. They normally take most of the risks associated with the production and release of a motion picture, and hence are the stakeholders claiming the largest share of its revenue. Furthermore, the distributors that are part of the six major info-entertainment conglomerates directly control the exploitation of motion pictures in different windows through a network of fully-owned subsidiaries (e.g., Comcast, NewsCorp, Disney, Viacom, Time Warner, and Sony Corp.). The income generated by a motion picture in secondary and ancillary markets is nowadays so important (up to 80 percent) that the primary activity of the major distributors is to manage intellectual properties to create synergies between the different windows of exploitation. Therefore, the high level of uncertainty that once characterized the return from the
theatrical release does not affect the choice of content or, more generally, the business strategy of the major distributors as it did before the expansion of secondary and ancillary markets.

This study attempts to critically review the 20 percent success rule and to question the commonly accepted belief that the business strategy of the media conglomerates is highly influenced by the volatile market conditions that may characterize the theatrical release. In order to reach this objective, it calculates the success rate of a slate of motion pictures distributed in 2007 by the majors and their subsidiaries. These success rates take into account revenue estimates realized in (most of) the secondary windows and are calculated from the viewpoint of the producers and conglomerates.

The year 2007 was chosen because it is the most recent annual span for which data concerning secondary markets revenue was publicly released. In order to reach its objectives, this article draws from specialized websites and from information (such as distributors’ fees and cost of prints) documented by a variety of experts about the most common practices employed by key stakeholders of the motion picture industry.

**Methodology and Assumptions**

<table>
<thead>
<tr>
<th>Table 1. Imported Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>1 Title of the Movie</td>
</tr>
<tr>
<td>2 Date of Release</td>
</tr>
<tr>
<td>3 Main Distributor</td>
</tr>
<tr>
<td>4 Production Budget (also “Declared Budget”)</td>
</tr>
<tr>
<td>5 Domestic Total Gross Box Office</td>
</tr>
<tr>
<td>6 Foreign Total Gross Box Office</td>
</tr>
<tr>
<td>7 Widest Release (no. of theaters)</td>
</tr>
<tr>
<td>8 US DVD Rental Gross</td>
</tr>
<tr>
<td>9 Domestic DVD Sales</td>
</tr>
</tbody>
</table>

The dataset used for this analysis was built by collecting data about 191 motion pictures released in 2007 by mainstream distributors and specialty labels affiliated with the six largest info-entertainment conglomerates, which at that time were Time Warner (abbreviated “TWX”), Walt Disney (DIS), News Corporation (NWS), NBC Universal (NBCU), Paramount (now Viacom, VIA), and Sony (SNE) (see Table 3). The data taken from online databases are referred to here as the “imported variables” (listed in Table 1 and marked in the formulæ with the sign “*”), a
term chosen in order to distinguish them from the “computed variables” estimated by the author (see Table 2).

<table>
<thead>
<tr>
<th>Table 2. List of Computed Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Estimates of Domestic DVD Sales</td>
</tr>
<tr>
<td>II. Estimates of Home Video Rentals</td>
</tr>
<tr>
<td>III. Net Profits (or Losses) of a Motion Picture</td>
</tr>
<tr>
<td>IV. Gross Revenue (Producer) of a Motion Picture</td>
</tr>
<tr>
<td>V. Box Office Rental of a Motion Picture</td>
</tr>
<tr>
<td>VI. Home Video Revenue of a Motion Picture</td>
</tr>
<tr>
<td>VII. Wholesaler’s Gross Home Video Revenue</td>
</tr>
<tr>
<td>VIII. Gross Home Video Revenue of a Motion Picture</td>
</tr>
<tr>
<td>IX. International DVD Sales of a Motion Picture</td>
</tr>
<tr>
<td>X. International DVD Rental of a Motion Picture</td>
</tr>
<tr>
<td>XI. Revenue of a Motion Picture from Television (US &amp; International)</td>
</tr>
<tr>
<td>XII. Total Negative Cost of a Motion Picture</td>
</tr>
<tr>
<td>XIII. Production Cost of a Motion Picture</td>
</tr>
<tr>
<td>XIV. Interest on the Production Costs of a Motion Picture</td>
</tr>
<tr>
<td>XV. Advertising Overhead of a Motion Picture</td>
</tr>
<tr>
<td>XVI. Administrative Fees of a Motion Picture</td>
</tr>
<tr>
<td>XVII. Distribution Fees, Theatrical</td>
</tr>
<tr>
<td>XVIII. Distribution Fees, Television</td>
</tr>
<tr>
<td>XIX. Distribution Fees, Home Video</td>
</tr>
<tr>
<td>XX. Profits (or Losses) from a Motion Picture (Conglomerate)</td>
</tr>
<tr>
<td>XXI. Profits (or Losses) from Distribution</td>
</tr>
<tr>
<td>XXII. Total Cost of Prints per Motion Picture</td>
</tr>
<tr>
<td>XXIII. Distributor’s Overhead</td>
</tr>
<tr>
<td>XXIV. Profits (or Losses) from Home Video Distribution</td>
</tr>
<tr>
<td>XXV. Rate of Return (Producer) on a Motion Picture</td>
</tr>
<tr>
<td>XXVI. Rate of Return (Conglomerate) on a Motion Picture</td>
</tr>
<tr>
<td>XXVII. Total Negative Cost (Conglomerate) of a Motion Picture</td>
</tr>
<tr>
<td>XXVIII. Rate of Success (Producer)</td>
</tr>
<tr>
<td>XXIX. Rate of Success (Conglomerate)</td>
</tr>
</tbody>
</table>

Finally, imported variables and computed variables are used to calculate success rates: the percentages of motion pictures of the total sample (but also of each distributor and of each conglomerate) that are likely to have generated a positive return. These success rates are based on two notions of profits: the net profits (or losses) of a motion picture—from the viewpoint of the producers—and the profits (or losses) of a motion picture from the viewpoint of the conglomerates. The most important difference between these two notions is that, in the case of the former, the fees paid to the distributors before the calculation of profits are assumed to be expenses paid to a third party, while in the case of the latter, these fees are replaced by the net
margins generated by the distributors, as they are considered to be part of the same conglomerates of the studio coproducing the motion picture.

Moreover, instead of assuming specific, contractually-agreed conditions, the variables necessary to calculate the profit of different movies assume standardized conditions based on the most recurring practices as detailed by Epstein, by Ulin and by Wasko. Although these three sources tend to converge, there are small differences between what they respectively indicate as the most common fees and costs; therefore, many methodological choices had to be made. Given the large number of these methodological choices, a sensitivity analysis of the variables used here would not help in assessing the consistency of the results provided. Instead, as detailed below, the decision was made to account for the potential effects of different methodological choices in the calculation of the success rates by using intervals.

Unfortunately, the imported variables DOMESTIC DVD SALES and US DVD RENTAL GROSS available (respectively) from The Numbers and Box Office Mojo do not provide observations for all of the 191 movies selected; indeed, some of the data concerning productions by specialty labels are missing. Therefore, the missing observations were estimated using the coefficients obtained by two multiple linear regressions based on two subsets of the database containing the (complete) data of motion pictures of similar scope. As such, variable I.

I. ESTIMATES OF DOMESTIC DVD SALES was explained by the DOMESTIC TOTAL GROSS Box Office and the widest release (i.e., the maximum number of theaters in which the movie is shown at the same time), while the revenue from variable II. ESTIMATES OF HOME VIDEO RENTALS was explained by the widest release and the COMPOSITE SCORE, a variable constructed to take into account users’ feedback and the potential of word-of-mouth advertising following the theatrical release.

\( I. \) ESTIMATES OF DOMESTIC DVD SALES
\[
= 0.35 \times \text{BOX OFFICE, DOMESTIC TOTAL GROSS}^* + 4435.64 \times \text{WIDEST RELEASE}^*
\]

\[\text{MULTIPLE } R^2 = 89.1%; \ R^2 = 79.5%; \ R^2 \ (\text{ADJ}) = 76.1%\]

\( \text{II. ESTIMATES OF HOME VIDEO RENTALS} = 9153.21 \times \text{WIDEST RELEASE}^* + 149107.69 \times \text{COMPOSITE SCORE} \]

\[\text{MULTIPLE } R^2 = 89.8%; \ R^2 = 80.6%; \ R^2 \ (\text{ADJ}) = 78.5%\]

The “Net Profits” of Motion Pictures

The distributor not only manages but also actually drives the process of sharing the income of a movie between parties. In fact, even though distributors compete for the services of established and successful producers/directors, ultimately the distributor is the stakeholder with the most significant degree of bargaining power. As a result, producers commonly pay generous fees for various services to the distributor and other branches of the same info-entertainment conglomerate. In the calculation of net profits according to the definition presented in this section, namely, from the viewpoint of the producers, these fees represent expenses paid to third-party companies.

\( \text{III. NET PROFITS (OR LOSSES) OF A MOTION PICTURE} = \text{GROSS REVENUE (IV) − TOTAL NEGATIVE COST (XII)} \)
A Motion Picture’s Gross Revenue

(IV.) GROSS REVENUE (PRODUCER) OF A MOTION PICTURE

\[ = \text{BOX OFFICE RENTAL (V)} + \text{HOME VIDEO REVENUE (VI)} + \text{REVENUE FROM TELEVISION (XI)} \]

The gross revenue of a motion picture is calculated in this exercise as the sum of the box office rentals, the video revenue (rental and sales), and the revenue generated by TV licenses in domestic and international markets. This section explains the details of the methodology followed in order to estimate these variables. The gross revenue should also include the income generated from the ancillary and new media windows; however, due to the lack of data, these sources are not included in the definition of gross revenue used for this exercise.\(^{27}\)

(V.) BOX OFFICE RENTAL OF A MOTION PICTURE = 50% OF BOX OFFICE (DOMESTIC * + INTERNATIONAL*)

The estimate of the box office rental (the share of the box office paid by the exhibitor to the distributor), is calculated here as 50 percent of the sum of DOMESTIC TOTAL GROSS BOX OFFICE and FOREIGN TOTAL GROSS BOX OFFICE (both imported variables). Notably, there are different types of contracts used to share this revenue between exhibitors and distributors, but a 50 percent split between these two stakeholders is the current norm.\(^{28}\) Previous standards, such as the “90/10 minimum-guarantee deal,” on the other hand, allocated a smaller share of the box office to the exhibitor (i.e., that 10 percent) in addition to a negotiated fixed-house allowance. Nonetheless, as this share increased, for films kept in the theater for more than two weeks, using 50 percent of the box office as an estimate of the gross film rental is generally considered a reliable “rule of thumb” for the period under study.\(^{29}\)

(VI.) HOME VIDEO REVENUE OF A MOTION PICTURE = 20% OF WHOLESALER’S GROSS HOME VIDEO REVENUE (VII)

(VII.) WHOLESALER’S GROSS HOME VIDEO REVENUE = 60% OF THE GROSS HOME VIDEO REVENUE (VIII)

[40% IS KEPT BY THE RETAILERS]

(VIII.) GROSS HOME VIDEO REVENUE OF A MOTION PICTURE

\[ = \text{DOMESTIC DVD SALES}^* + \text{DOMESTIC DVD RENTALS}^* + \text{INTERNATIONAL DVD SALES (IX)} + \text{INTERNATIONAL DVD RENTALS (X)} \]

The home video distributor, which is normally a fully-owned subsidiary of the main info-entertainment conglomerate, is nowadays believed to retain at least 80 percent of the wholesaler’s gross revenue from the sale and rental of the DVD.\(^{30}\) Furthermore, both datasets providing the imported variables on domestic DVD sales (i.e., The Numbers) and on domestic DVD rentals (i.e., Box Office Mojo) are based on retail prices.\(^{31}\) Therefore, variable VII. WHOLESALER’S GROSS HOME VIDEO REVENUE was calculated after removing a retail markup of 40 percent from the gross home video revenue, given that the distributor’s share of the
gross rental revenue\(^{32}\) and the “dealer price” (i.e., wholesale) of the units sold\(^{33}\) should be approximately 60 percent of the market price.

\[(\text{IX.}) \text{INTERNATIONAL DVD SALES OF A MOTION PICTURE} = \frac{\text{INTERNATIONAL BOX OFFICE}^*}{\text{DOMESTIC BOX OFFICE}^*} \times \text{DOMESTIC DVD SALES}^*\]

\[(\text{X.}) \text{INTERNATIONAL DVD RENTAL OF A MOTION PICTURE} = \frac{\text{INTERNATIONAL BOX OFFICE}^*}{\text{DOMESTIC BOX OFFICE}^*} \times \text{US DVD RENTAL GROSS}^*\]

Moreover, variable VIII. \text{GROSS HOME VIDEO REVENUE OF A MOTION PICTURE} was calculated by adding up the revenues from sales and rentals in the domestic and international markets. However, the data on international DVD rentals and sales was estimated because it is considered highly confidential by Hollywood distributors.\(^{34}\) These estimates are calculated (respectively) from the variables \text{US DVD RENTALS GROSS} and \text{DOMESTIC DVD SALES} and adjusted in order to account for a difference in taste between the domestic and international audiences. This difference is integrated in the calculation by assuming that the ratio between the DVD sales (and rentals) in the international and domestic (i.e., US) markets of each motion picture in the sample is the same as the ratio between the international and the domestic box office revenues (see IX and X). This implies that, if the theatrical release of a movie was less (or more) successful abroad than in the domestic market, the same dynamic (and difference) also applied to the DVD.

\[(\text{XI.}) \text{REVENUE OF A MOTION PICTURE FROM TELEVISION (US & INTERNATIONAL)} = \left(\text{PERCENT OF DOMESTIC GROSS BOX OFFICE OF A MOTION PICTURE IN 2007}\right) \times \left(\text{TOTAL GROSS REVENUE FROM TELEVISION IN 2007 OF ALL MOTION PICTURES}^*\right)\]

Notably, the gross revenue of a motion picture also includes the licenses paid by broadcasters to the distributor. Motion pictures are licensed domestically and internationally to pay television stations, network television stations, and then to (other) cable and terrestrial television stations (i.e., the “free” television stations). Moreover, although there are some guiding principles, the terms of licensing—which include the number of runs, the lengths of “blackout periods,” and the nature of the license itself—are negotiated for each movie with each broadcaster or group of affiliated broadcasters.\(^{35}\) Often movies are licensed in a “bundle” with other films and/or television programs. Moreover, methods of pricing these licenses vary. Domestic cable television would normally be charged a fee equivalent to a percentage of the theatrical box office (e.g., 15 percent), up to a maximum of $25 million; other types of (seemingly less frequent) deals, however, might include an up-front fee and a share of the advertising revenue. Alternatively, the price charged to pay television is commonly calculated as a fixed dollar amount per subscriber.\(^{36}\)

Given the diversity of licensing deals and the absence of reliable and detailed data, the methodology chosen to calculate the variable XI. \text{REVENUE OF A MOTION PICTURE FROM TELEVISION (US & INTERNATIONAL)} has to be necessarily simple: the relative success of a movie at the box office in the domestic market always provides the basis for negotiation between distributors and television broadcasters. Notably, a relatively large return from the box office entitles a distributor to ask for a relatively high price, regardless of how the licensing deal is fashioned.\(^{37}\) Therefore, the decision was made to divide the total worldwide receipts from
television windows in 2007 (i.e., $16.2 billion, according to the MPAA) by each motion picture’s share of revenue from the total domestic box office.\textsuperscript{58} Notably, television revenue from movies released in 2007 was only partly realized in that year, accruing mainly in the years that followed. The 2007 data, however, are the most recent available, and one can assume that there are relatively small changes from one year to another as indicated by the revenue figures from 2006 and 2005.\textsuperscript{39} Therefore, the calculations of this variable assume that the overall revenue from television licensing in 2007 derives from the slate of motion pictures released that same year. In other words, the revenue of motion pictures released in the past and traded in 2007 (which is included in the figure adopted for the estimate) is used as a proxy for the revenue that motion pictures released in 2007 would realize in the following years.

\textit{A Motion Picture’s Total Negative Cost}

The total negative cost is the sum of all the expenses necessary to make a movie. This variable is calculated according to the following formula:

\[(\text{XII}) \text{TOTAL NEGATIVE COST OF A MOTION PICTURE} = \text{PRODUCTION COST (XIII)} + \text{INTEREST ON PRODUCTION COSTS (XIV)} + \text{ADVERTISING OVERHEAD (XV)} + \text{ADMINISTRATIVE FEES (XVI)} + \text{DISTRIBUTION FEES (XVII–XIX)}\]

\[(\text{XIII}) \text{PRODUCTION COST OF A MOTION PICTURE} = 80\% \text{ OF THE PRODUCTION BUDGET}^*\]

Variable XIII PRODUCTION COST OF A MOTION PICTURE was calculated as a percentage (80 percent) of the “declared” production budget, which was made available to the press by distributors and producers. In most cases, the real negative cost is likely to be smaller than the declared budget, as the latter may include administrative charges and interest (which here are calculated separately), or, more generally, because distributors and producers often inflate the budget figures leaked to the press (and collected by the databases that are the sources of data of this study) as a marketing strategy that signals to the public the “superior quality” of their films. For example, Epstein notes that the Warner Bros. movie \textit{The Negotiator} (1998), with Samuel L. Jackson and Kevin Spacey, was efficiently produced for $43.5 million, as opposed to the $50 million budget figure that was made publicly available.\textsuperscript{40} Sometimes, when the cost may be perceived as too high for the type of movie or when a movie performs particularly poorly at the box office, the data on the production budget and/or the negative cost remains secret. More rarely, the budget figures communicated to the press are underestimations of the real negative costs.\textsuperscript{41} This may have been the case, for example, with the film \textit{Evan Almighty} (2007), distributed by Universal Pictures and considered one of the biggest “Hollywood bombs” of the year. According to \textit{The Numbers} and \textit{Box Office Mojo}, \textit{Evan Almighty}’s budget was $175 million, while the \textit{Los Angeles Times} reported a negative cost of over $225 million.\textsuperscript{42}

\[(\text{XIV}) \text{INTEREST ON THE PRODUCTION COSTS OF A MOTION PICTURE} = 10\% \text{ OF THE PRODUCTION COST (XIII)}\]

As both Ulin and Wasko indicate, distributors charge interest on the cost of production. The interest rate chosen here is the same that Ulin uses in his example, 10 percent,\textsuperscript{43} although Wasko states that this could be between 12 and 25 percent.\textsuperscript{44}

\[(\text{XV}) \text{ADVERTISING OVERHEAD OF A MOTION PICTURE} = 10\% \text{ OF THE PRODUCTION COST (XIII)}\]
Although some stakeholders involved seemingly find this unfair, as they consider advertising a distribution task that should be included in a distributor’s fee, a fixed percentage provision (commonly 10 percent) is normally added to the movie’s negative costs.\textsuperscript{45}

\textbf{(XVI. ADMINISTRATIVE FEES OF A MOTION PICTURE = 15\% OF THE PRODUCTION COST (XIII)}

Moreover, as both Ulin and Wasko explain, a charge of 12 to 25 percent of the production cost is normally added and included in the total of the negative cost in order to cover the studio’s expenses.\textsuperscript{46} Here, following the most recent source, this charge is assumed to be 15 percent.\textsuperscript{47}

\textbf{(XVII. DISTRIBUTION FEES, THEATRICAL = 35\% OF FILM RENTAL (US \& INTERNATIONAL) (V)}

\textbf{(XVIII. DISTRIBUTION FEES, TELEVISION = 35\% OF TV REVENUE (US \& INTERNATIONAL) (IX)}

\textbf{(XIX. DISTRIBUTION FEES, HOME VIDEO = 35\% OF HOME VIDEO REVENUE OF A MOTION PICTURE (US \& INTERNATIONAL) (VI)}

In addition to interest, advertising costs, and administrative fees, distributors charge a fee for selling the movie and managing its licenses. This fee is assumed to be 35 percent and is applied to the film rentals, the consolidated revenue from television, and the revenue from home entertainment (all both domestic and international). To simplify, the fee percentage utilized by this study is an average of the rates suggested by Ulin and by Wasko.\textsuperscript{48}

\textit{The Conglomerates’ Profits from Motion Pictures}

A conglomerate’s profits from a motion picture are calculated as adding the profits (or losses) from a movie with the profits realized by the main distributor and the profits generated from home distribution. Following the most likely case scenario and for the sake of simplicity, all of the motion pictures in this sample are assumed to be coproduced by different stakeholders. Therefore, in the calculation of the conglomerate’s profits from a movie, only 50 percent of the latter are included; nonetheless, the conglomerate is assumed to bear 100 percent of the losses when these occur.\textsuperscript{49}

Tentpole movies based on franchises as well as some less expensive movies are likely to generate other important revenues in ancillary markets. These include theme-park royalties, music and book royalties, and royalties from derivative works or the underlying material.\textsuperscript{50} The revenues from these markets are normally not included in the calculation of a movie’s profits or losses even though they are earned by the conglomerate that owns the intellectual property associated with the film.\textsuperscript{51}

\textbf{(XX. PROFITS (OR LOSSES) FROM A MOTION PICTURE (CONGLOMERATE = 50\% OF PROFIT (OR 100\% OF LOSS) FROM A MOVIE (III) + PROFIT (OR LOSS) FROM DISTRIBUTION (XXI) + PROFIT (OR LOSS) FROM HOME VIDEO DISTRIBUTION (XXIV))}
(XXI) PROFITS (OR LOSSES) FROM DISTRIBUTION

\[ \text{PROFITS (OR LOSSES) FROM DISTRIBUTION} = \text{DISTRIBUTION FEES FROM THEATRICAL (XVII)} + \text{DISTRIBUTION FEES FROM TELEVISION (XVIII)} - \text{TOTAL COST OF PRINTS (XXII)} - \text{DISTRIBUTOR’S OVERHEAD (XXIII)} \]

Given that advertising expenses are paid from the movie’s returns,\(^{52}\) the calculation assumes that fees paid to the distributor are used to pay for all the expenses necessary to run the distributor’s operations (i.e., the distributor’s overhead) and for the movie’s prints. Because distributor’s fees affect the cost of the movie, the methodology of how these were estimated was already detailed above; estimates of the distributor’s overhead and the total costs of prints are introduced below.

(XXII) TOTAL COSTS OF PRINTS PER MOTION PICTURE = \(2 \times 1.07 \times 1344 \times \text{WIDEST RELEASE}^*\)

The estimate for the variable TOTAL COSTS OF PRINTS PER MOTION PICTURE was informed by Ulin’s estimate that the average cost of a print is $1,500\(^3\) and the average cost of a digital print is approximately $200.\(^3\) Ulin assumes that a movie is shown on average on two screens per location and that prints are “bicycled” to secondary and international venues, given their high cost.\(^5\) Ulin also assumes that backup copies for important venues are printed and distributed; these backup copies account for an additional five hundred copies in the case of a distribution to seven thousand screens (so, about 7 percent). He estimates that the printing cost of movies such as Shrek 2 and Spiderman 2 is no less than $11.25 million for the US market alone.\(^5\)

Moreover, in a 2012 report, the MPAA estimated that in 2007 in the US 34,342 screens were analogue, 986 were digital 3-D, and 3,646 were digital non 3-D screens.\(^5\) That means that 88 percent of screens required prints and 12 percent digital copies. Therefore, the estimates of the costs of prints per movie are calculated as follows: the cost of prints is proportional to the number of theaters of the variable WIDEST RELEASE found on Box Office Mojo. The number of prints is then multiplied by 2 in order to estimate the number of screens and by 1.07 to account for backup copies. The average cost of one print also accounts for 12 percent of digital copies; therefore, it is estimated at $1,344 (1500 \times 0.88 + 200 \times 0.12). The calculation assumes that all wide-release copies are then bicycled.

(XXIII) DISTRIBUTOR’S OVERHEAD = 8% OF PRODUCTION COST (XIII)

The variable XXIII DISTRIBUTOR’S OVERHEAD is estimated at 8 percent of the production cost. According to Epstein, this is the actual cost of distributing the movie, which includes fees paid to “public relations specialists, media buyers, as well as expenses for customs clearance, transportation and lawyers’ time.”\(^5\)

(XXIV) PROFITS (OR LOSSES) FROM HOME VIDEO DISTRIBUTION

\[ \text{PROFITS (OR LOSSES) FROM HOME VIDEO DISTRIBUTION} = 80\% \text{ OF THE WHOLESALER’S GROSS HOME VIDEO REVENUE (VII)} + \text{DISTRIBUTION FEE, HOME VIDEO (XIX)} - \text{COSTS OF HOME DISTRIBUTION (27\% OF THE WHOLESALER’S GROSS HOME VIDEO REVENUE)} \]

The variable XXIV PROFITS (OR LOSSES) FROM HOME VIDEO DISTRIBUTION consists of 80 percent of the wholesaler’s gross home video revenue, plus 35 percent of the share of the movie’s revenue from the home video sales and rentals, which are paid out as the home
distribution fee (therefore, effectively 87 percent of the dealer’s gross). The home video distributor, however, has to bear the costs of printing, promoting, and distributing the DVD. In 2007, the cost of printing, promoting, and distributing a DVD was about $6.75, roughly 27 percent of the retailer price of the time (about $25). Therefore, the cost of printing, distribution, and promotion (borne by the home video distributor) was estimated as 27 percent of the gross home video revenue and the studio’s home video revenue calculated as the difference between the wholesaler’s gross home video revenue and this cost of production.

Motion Pictures’ Rate of Return and the Share of Movies Making Profits

Estimates of each motion picture’s rate of return (RoR) are calculated from the computed variables “net profits (or losses) of motion pictures”—the surplus (or loss) realized from the viewpoint of the production, and from the profits (or losses) realized from the viewpoint of the conglomerate. These variables are useful to illustrate the total rate of commercial success of the 2007 slate of movies and to compare the rate of success of each distributor and conglomerate. Given that many assumptions had to be made in order to calculate the missing variables and observations required to perform these calculations, a rate of return showing a small profit margin or a contained loss can be too highly dependent on methodological choices. On the contrary, a rather large profit or loss according to estimates calculated clearly has a higher probability of corresponding to a real profit or loss.

Therefore, in order to increase the consistency of the results obtained, the “success rates” of variables are defined by an interval, which is determined by two definitions: the first definition takes into account all the movies, while the second definition only takes into account the motion pictures that generated a rate of return of 30 percent or higher, and the motion pictures generated a rate of return of −30 percent or lower.

To summarize, the rates of return and consequent success rates are calculated according to the following formulae:

(XXV.) Rate of Return (Producer) on a Motion Picture

\[
\text{Rate of Return (Producer) on a Motion Picture} = \frac{\text{Net Profits (or Losses) from a Motion Picture (III)}}{\text{Motion Picture’s Total Negative Cost (XII)}}
\]

(XXVI.) Rate of Return (Conglomerate) on a Motion Picture

\[
\text{Rate of Return (Conglomerate) on a Motion Picture} = \frac{\text{Net Profits (or Losses) from a Motion Picture (Conglomerate) (XX)}}{\text{Total Negative Cost (Conglomerate) (XXVII)}}
\]

(XXVII.) Total Negative Cost (Conglomerate) of a Motion Picture

\[
\text{Total Negative Cost (Conglomerate) of a Motion Picture} = \text{Production Cost (XIII)} + \text{Administrative Fees (XVI)} + \text{Interest on Production Costs (XIV)} + \text{Advertising Overhead (XV)} + \text{Distributor’s Overhead (XIII)} + \text{Total Cost of Prints (XXII)} + \text{Wholesaler’s Gross Home Video Revenue (VII)}
\]
(XXVIII.) RATE OF SUCCESS (PRODUCER) = [MIN, MAX] OF [% OF MOTION PICTURES WITH A POSITIVE ROR (PRODUCER), % OF MOTION PICTURES WITH A POSITIVE ROR (PRODUCER) WHEN CONSIDERING ONLY THE MOVIES WITH ± 30% ROR]

(XXIX.) RATE OF SUCCESS (CONGLOMERATE) = [MIN, MAX] OF [% OF MOTION PICTURES WITH A POSITIVE ROR (CONGLOMERATE), % OF MOTION PICTURES WITH A POSITIVE ROR (CONGLOMERATE) WHEN CONSIDERING ONLY THE MOVIES WITH ± 30% ROR]

Table 3. The Success Rates of Motion Pictures Released by the Majors in 2007

<table>
<thead>
<tr>
<th>Label</th>
<th>Rate of success (producer) (XXVIII)</th>
<th>Min. sample</th>
<th>Rate of success (conglomerate) (XXIX)</th>
<th>Min. sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>N</td>
<td>Max</td>
<td>N</td>
</tr>
<tr>
<td>Time Warner</td>
<td>66.7%</td>
<td>32</td>
<td>73.5%</td>
<td>25</td>
</tr>
<tr>
<td>Warner Bros.</td>
<td>77.3%</td>
<td>17</td>
<td>77.8%</td>
<td>14</td>
</tr>
<tr>
<td>Warner Independent</td>
<td>80.0%</td>
<td>4</td>
<td>100%</td>
<td>3</td>
</tr>
<tr>
<td>New Line Cinema</td>
<td>61.5%</td>
<td>8</td>
<td>71.4%</td>
<td>5</td>
</tr>
<tr>
<td>Picturehouse</td>
<td>37.5%</td>
<td>3</td>
<td>50.0%</td>
<td>3</td>
</tr>
<tr>
<td>Disney</td>
<td>80.0%</td>
<td>16</td>
<td>88.2%</td>
<td>15</td>
</tr>
<tr>
<td>Walt Disney Pictures</td>
<td>84.6%</td>
<td>11</td>
<td>85.7%</td>
<td>12</td>
</tr>
<tr>
<td>Miramax</td>
<td>66.7%</td>
<td>4</td>
<td>100%</td>
<td>4</td>
</tr>
<tr>
<td>20th C. Fox</td>
<td>84.6%</td>
<td>22</td>
<td>95.0%</td>
<td>19</td>
</tr>
<tr>
<td>20th Century Fox</td>
<td>81.3%</td>
<td>13</td>
<td>91.7%</td>
<td>11</td>
</tr>
<tr>
<td>Fox Searchlight</td>
<td>90.0%</td>
<td>9</td>
<td>100%</td>
<td>8</td>
</tr>
<tr>
<td>NBC Universal</td>
<td>74.1%</td>
<td>20</td>
<td>92.9%</td>
<td>13</td>
</tr>
<tr>
<td>Universal Pictures</td>
<td>77.8%</td>
<td>14</td>
<td>87.5%</td>
<td>7</td>
</tr>
<tr>
<td>Focus Features</td>
<td>66.7%</td>
<td>6</td>
<td>100%</td>
<td>6</td>
</tr>
<tr>
<td>Paramount</td>
<td>80.0%</td>
<td>20</td>
<td>82.4%</td>
<td>14</td>
</tr>
<tr>
<td>Paramount Pictures</td>
<td>81.3%</td>
<td>13</td>
<td>90.0%</td>
<td>9</td>
</tr>
<tr>
<td>Paramount Vantage</td>
<td>71.4%</td>
<td>5</td>
<td>77.8%</td>
<td>7</td>
</tr>
<tr>
<td>Sony/Columbia</td>
<td>62.2%</td>
<td>28</td>
<td>79.3%</td>
<td>23</td>
</tr>
<tr>
<td>Sony Pictures</td>
<td>66.7%</td>
<td>18</td>
<td>83.3%</td>
<td>15</td>
</tr>
<tr>
<td>Sony Pictures Classic</td>
<td>55.6%</td>
<td>10</td>
<td>72.7%</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>72.3%</td>
<td>83.2%</td>
<td>68.6%</td>
<td>91.1%</td>
</tr>
</tbody>
</table>

Note: Calculations explained in the text of the article. Note that Min. sample indicates the percent share of sample considered when only the motion pictures producing at least a return on investment of + (resp. −) 30 percent are successful (resp. unsuccessful); N is the number of
movies that generate a positive return.

Conclusion

This article illustrates that more than 70 percent of motion pictures distributed in 2007 by the six largest media conglomerates are likely to have generated a positive return for the producers, if the revenue from the secondary windows is taken into account. Such a statement remains valid even for films producing a rate of return of 30 percent or more and those producing a loss of 30 percent or more (i.e., only 68 percent of the sample). Furthermore, the ratio of motion pictures likely to have generated a positive return goes up to 90 percent if net income generated by the different distribution branches involved is also taken into account (see the Total line in Table 3). The estimates also indicate that the 36 motion pictures that saw a negative rate of return from the point of view of the producers are nonetheless likely to generate a profit for the conglomerate. This occurred despite the fact that poor performance in the theatrical window has a negative influence on the performance of the film in the following ones. Examples include *El cantante* (2007, distributed by TWX) and *Evan Almighty* (2007, by NBCU).

These calculations also confirm that the specialized distributors undertook projects that were more original and riskier than the ones produced and distributed by the mainstream labels. Apart from the results of Fox Searchlight and Warner Independent, the rate of success in 2007 of these minor labels tended to be lower than the mainstream labels of the same conglomerate.

It must be stressed, however, that these calculations rely heavily on a large number of methodological choices. Simply put, a standard and most recurring case scenario of fees and costs was constructed and applied to a dataset of revenue streams, which also had to be partially completed by estimates of data and series. This standardized framework of agreements between different stakeholders is used to approximate a world of complex contracts, sometimes resulting from lengthy negotiations. However, the point of this exercise is not to introduce a new rule and to replace 20 percent with 70 percent. As explained above, the belief that the stakeholders of the motion picture industry operate in highly uncertain market conditions is widely assumed even though it is not justified or supported by calculations of success rates that consider the total exploitation cycle of motion pictures across various platforms and ancillary markets. Therefore, the purpose of this exercise is to assess whether the 20 percent success rule still applies to motion pictures distributed by the majors in this new environment. The estimates provided indicate that this is unlikely to be the case.

The consequences of the 20 percent success rule should not be underestimated. The shared assumption that market conditions are risky works in favor of the majors, when they negotiate with potential partners, while also allowing them to lobby for stricter copyright protections, as well as to argue in favor of conglomeration in the media industries. Notably, if policy makers accept that the financial outcome of a movie is highly unpredictable, they are also more inclined to accept capital concentration in this sector as a way to reduce risk and encourage investment. In a situation characterized by low rates of success, it is argued that large media conglomerates are the only ones able to deliver a slate of motion pictures that contains enough successful titles to make the company financially viable.

Such an assumption leads to vertical integration in the media sector that in turn increases the bargaining power of film distributors that are divisions of the largest conglomerates. This both
ensures their profitability and undermines the business conditions faced by small producers and distributors. These industry participants must accept the conditions imposed by the majors, including paying large fees for distribution and collecting a relatively small share of revenue from the secondary markets. Therefore, the 20 percent success rule is a pernicious narrative that in numerous ways serves the interests of major conglomerates, quite likely at the expense of filmmakers, audiences, and public policy.

---

1 Sergio Sparviero is Assistant Professor at Paris Lodron University of Salzburg, Institute of Communication Studies (Fachbereich Kommunikationswissenschaft). He teaches courses in media economics, Hollywood economics, media innovations, and creative industries. His research interests range from alternative economic theories to the effects of the digitization of media content on various media industries, including audiovisual media, music, and news. He is a member of the International Association of Media and Communication Research (IAMCR) and of the European Communication and Research Education Association (ECREA).

2 The author would like to thank Michael Curtin, Ricard Parrilla Guix, and the two anonymous reviewers for their comments and suggestions, and Anna Bramböck, Holger Weiss, and Friederike Zuber-Goos for their assistance.


4 Ibid., 218.


18 Such as The Numbers (http://www.the-numbers.com/) and Box Office Mojo (http://www.boxofficemojo.com/).


20 Here domestic refers only to the United States.

21 Note that the list of movies was mainly generated from the data delivered by the www.the-numbers.com. The Numbers.com list of movies released in 2007 by the distributors mentioned is 187. From information collected from other sources, the following movies were added: La Vie en Rose, The Orphanage (Picturehouse, TXW), In the Valley of Elah, December Boys (Warner Independent, TXW), Perfume: The Story of a Murderer (Paramount Pictures, VIA). The Last Sin Eater (Twentieth Century Fox, NWSA) was not included because of lack of data. According to The Numbers, the total domestic theatrical box office was $9,629,223,928. The total box office for the sample of movies analyzed was $8,735,242,714 (about 90 percent). The total number of motion pictures released in 2007 was 610; the sample analyzed only includes about 60 percent of them.

22 Unfortunately, the primary sources of the data delivered by Box Office Mojo and The Numbers were not revealed. However, given the lack of alternative sources, these websites are commonly used as sources of information for academic research. Some examples of academic papers that draw information from one or both these websites include: Sang Ho Kim, Namkee Park, and Seung Hyun Park, “Exploring the Effects of Online Word of Mouth and Expert Reviews on Theatrical Movies’ Box Office Success,” Journal of Media Economics 26, no. 2 (2013): 98–114; Holger Roschk and Sebastian Große, “Talking About Films: Word-of-Mouth Behavior and the Network of Success Determinants of Motion Pictures,” Journal of Promotion Management 19, no. 3 (2013): 299–316; Hyejin Yoon and Edward J. Malecki, “Cartoon Planet: Worlds of Production and Global Production Networks in the Animation Industry,” Industrial and Corporate Change 19, no. 1 (2010): 239–71.


24 These data (sub)sets contain only fifty-nine observations for home video rentals and thirty-eight for domestic DVD sales.

25 The latter is an indicator calculated using the ratings of the movie as they are published on Rotten Tomatoes, IMDb and Metacritic as explained in more detail in Sergio Sparviero, “The


31 Indeed, even though a description of the methodology is not publicly available, the revenue of the latest movies released on DVD is seemingly based on a price of about $15 per unit, i.e., the price at which the DVD is available on Amazon.com (at the time of writing).


33 Ibid., 204.


36 Ibid., 236-237.

37 As mentioned above, there are contracts that include a share of the advertising revenues, although these are seemingly relatively rare. Ibid.


39 Ibid., 180.


41 Note that the declared production budget figures for 28 of the 191 films of the sample were not available from any other sources used and were estimated using the same methodology applied in Sparviero, “The Business Strategy of Hollywood’s Most Powerful Distributors.” These estimates are based on a comparison with another movie, which had a similar opening weekend, quantified in the number of screens. The choice of this last indicator as a proxy for the production budget is informed by the fact that efforts to promote a motion picture are normally proportional to its total cost (see, for example, Ulin, *The Business of Media Distribution*). These twenty-eight films are either small productions (e.g., documentaries), or films that were relatively poorly rated by their audiences.


Ibid., 445; Wasko, How Hollywood Works, 92.

Such an assumption is likely to produce an underestimation of the rate of successful movies. Conglomerates normally own more than 50 percent of their franchise movies, which are likely to be the most profitable, while losses in general are likely to be borne by conglomerates as well as other stakeholders. Ulin, The Business of Media Distribution.

Ibid., 442.

Ulin, The Business of Media Distribution. Also note that Wasko contends that the amounts due as sales tax are assumed to be included in the distribution fees. Income tax and subsidies are not included in the calculations because of a lack of information.


Ibid., 145.

Ibid., 127.

Ibid., 145.

Ibid. In The Hollywood Economist, Epstein also suggests that the average cost of a print is $1,500, but he indicates that the cost of an opening weekend is about $6 million, calculated for four thousand screens, although he fails to mention for which type of movies.


Epstein, The Hollywood Economist, 125.


Bibliography


