İletişim Kuram ve Araştırma Dergisi
Sayı 60 / Kış 2022
Ankara Hacı Bayram Veli Üniversitesi
İletişim Fakültesi
Süreli Elektronik Dergi
E-ISSN: 2147-4524

Journal of Communication Theory & Research
Issue 60 / Winter 2022
Ankara Hacı Bayram Veli University
Faculty of Communication
Periodical Electronic Journal
E-ISSN: 2147-4524

**Araştırma Makalesi** Research Article

# The Determinants of Box Office Performance in Turkey

## Türkiye'de Gişe Performansının Belirleyicileri

*Eyüp Al, Arş. Gör. Dr., Marmara Üniversitesi İletişim Fakültesi, E-Posta: eyup.al@marmara.edu.tr*
*Ömer Faruk Tan, Arş. Gör. Dr., Marmara Üniversitesi İşletme Fakültesi, E-Posta: omer.tan@marmara.edu.tr*

*https://doi.org/10.47998/ikad.1118114*

**Keywords:**

Motion Picture,
Turkey,
Box Office,
Multiple Regression,
Customer Satisfaction,
Economics of Cinema.

**Abstract**

The film industry has great importance for both global and local economies. In the process, movie studios and producers try to predict box office success due to financial risk management. It is necessary to increase knowledge about the factors affecting the box office of a movie and the relationship between factors. The purpose of this paper is to analyze the determinants of box office revenue in the movie industry in Turkey. The study sample consists of 1,178 movies released and the time spans between 2015 and 2019. Movies watched by at least 10,000 people were included in the sample. Based on the findings, an increasing number of theaters and weeks, sequels, and school breaks have a positive and significant effect on total revenues. In addition, if movies are released in November, December, January, and February, they show good financial performance. The results also indicate audiences prefer science-fiction, fantasy, and biography movies. Finally, the movies in the market distributed by Warner Bros. Pictures (WB) and United International Pictures (UIP) have a positive and significant effect on total revenues.

**Anahtar Kelimeler:**

Sinema Filmi,
Türkiye,
Gişe,
Çoklu Regresyon,
Müşteri
Memnuniyeti,
Sinema Ekonomisi.

**Öz**

Film endüstrisi hem küresel hem de yerel ekonomiler için büyük önem taşımaktadır. Bu süreçte, film stüdyoları ve yapımcılar finansal risk yönetimi nedeniyle gişe başarısını tahmin etmeye çalışmaktadırlar. Bir filmin gişesini etkileyen faktörler ve faktörler arasındaki ilişkiler hakkında bilgi birikiminin arttırılması gerekmektedir. Bu makalenin amacı, Türkiye'de sinema sektöründe gişe hasılatı faktörlerini analiz etmektir. Çalışmanın örneklemini 2015-2019 yılları arasında vizyona giren 1.178 film oluşturmaktadır. En az 10.000 kişinin izlediği filmler örnekleme dahil edilmiştir. Analiz sonuçlarına göre sinema salonlarının ve haftalarının, devam filmlerinin ve tatil sayılarının artması filmlerin toplam gelirlerini pozitif ve önemli ölçüde etkilemektedir. Ayrıca, filmler Kasım, Aralık, Ocak ve Şubat aylarında yayınlandıklarında, iyi finansal performans göstermektedirler. Sonuçlar ayrıca bilim kurgu, fantastik ve biyografi filmlerinin, filmlerin toplam geliri üzerinde pozitif ve önemli bir etkiye sahip olduğunu göstermektedir. Son olarak Warner Bros Pictures (WB) ve United International Pictures (UIP) tarafından piyasada dağıtılan filmler, gelir üzerinde istatistiksel olarak önemli ve pozitif bir etkiye sahiptir.

Araştırmacı Orcid ID / Researcher Orcid ID : 1: 0000-0003-1201-6299, 2: 0000-0002-8875-4696
Geliş Tarihi / Submitted : 24.05.2022
Kabul Tarihi / Accepted : 27.08.2022

Al, E. & Tan, Ö. F. (2022). The determinants of box office performance in Turkey, *İletişim Kuram ve Araştırma Dergisi*, (60), 72-92, https://doi.org/10.47998/ikad.1118114

## Introduction

Beginning in the mid-1960s, both studios and producers have been exploring what factors contributed to the financial success of movies. Information about the importance of variables affecting box office revenue is still maturing and at the beginning stage in countries, such as Turkey. The paper aims to explain the reasons for movies' financial success by examining the importance of various determinants in predicting box office revenues.

Production and marketing of motion pictures is a risky business, three to four out of ten films are neither making money nor losing money and only one is profitable (Vogel, 2001). Expanding the knowledge of the factors affecting a film's box office and the relationships between those factors can be seen as a major contribution to reducing the number of failures in the motion industry. However, since films are products belonging to the field of experience, identifying the key factors that influence a film's box office is especially difficult (Cooper-Martin, 1991, 1992). Therefore, it is important to make the profits of movies sustainable and predictable. In the past, there were additional opportunities such as DVDs and CDs; today, the profits of movies can be increased with internet-based systems. But still, most of the earnings come from movie theaters. The cinema channel is still important, as the achievement of a movie on secondary channels is often influenced by the success of the movie in theaters.

There have been many studies of the achievements of movies in the current literature. The leading factors in the literature are briefly as follows: film genres, budget, releasing time and seasonality, stars, early box office data, awards, critics/reviews, number of movie theaters, and advertising. According to Caves (2003), increasing the fixed cost of a film increases its value in the eyes of the consumer. Extra investment costs involve special effects, crowd interest, and more qualified participants in the film process. The fact that the film has good inputs means that it will have good outputs. At the same time, the presence of stars also increases the expectation of the film's revenue. Many approaches from various disciplines are used in the literature to find out and clarify different aspects of the success of motion pictures. The main factors and determinants in the literature are described in this article. The first multiple regression model used to predict the financial success of movies is developed by Litman (1983). The following words of Jack Valenti prompted Litman (1983) to do this work: "no one, absolutely no one can tell you what a film is going to do in the marketplace". This statement clearly refers to the difficulty of determining or anticipating the success of films in the marketplace.

However, Litman (1983) challenged this situation, identifying three key points that determine movie success. These are the creative sphere, the scheduling and releasing pattern, and the marketing effort. Many factors are important in the creative field. The releasing phase of the films and major distributors determine the fate of the films. Independent producers are helpless in the face of distributors and must comply with the date set by the distributor. Film budget and criticism are especially important in film rental processes. MPAA ratings and subjects of films are not key variables. Along with these, which actors or stars appear in the film also do not cause additional revenue. Litman's work shows that audiences go to the movies most intensely around the Christmas-New Year period, summer months, and Easter.

Along with these, one of the highlights of Litman's (1983) pioneering work is advertising and the number of movie theaters. Some studies claim that there is a direct relationship between the budget of the film and its box office success. As the spending on the movie increases, more viewers go to the movies (Litman & Kohl, 1989; Lehmann & Weinberg, 2000; Prag & Casavant, 1994). A similar argument is produced and tested in this article.

As the number of movie theaters increases, the number of people who can potentially go to the movie also increases. At least the possibility of the audience going to a movie is increasing. At the same time, the increase in the number of screens also creates a reason for increasing the box office of the film (Jones & Ritz, 1991; Sawhney & Eliashberg, 1996). In addition to these, the factor of how long a movie will stay in the screening also affects the box office success. No matter how long a movie stays on, the overall impact of the first week can be at very different levels (De Vany & Walls, 1999; Chang & Ki, 2005; Radas & Shugan, 1998; Lampel & Shamsie, 2000). The sequels positively increase the box office revenue. When there is a continuity relationship between movies, the audience prefers to go to the movie. That is why sequels are among the factors that determine box office revenue. In fact, sometimes the first factor that guarantees a movie's box office success is the sequel (De Vany & Walls; 1999; Sood & Drèze, 2006; Terry et al., 2005; Somburanasin, 2010). There is a positive correlation between the release date of a movie and its box office success. The movie season generates different revenues according to busy periods or Christmas times (Einav, 2022; Radas & Shugan, 1998; Sochay, 1994). Especially, holiday periods increase box office revenues (Krider & Weinberg, 1998; Litman, 1983); Litman & Kohl, 1989). Similar claims and studies have been carried out in many countries. However, since the factors affecting box office revenues in Turkey have not been tested, this study brings up a very important phenomenon in Turkey and tests the box office data.

The goal of the study is to analyze the determinants of box office revenue in the movie industry in Turkey. The study sample consists of 1,178 movies released between 2015 and 2019. According to the results of the analysis, the increasing number of theaters and weeks, sequel and school break positively and significantly affect the total revenue of the movies. In addition, if movies are released in November, December, January, and February, they display good financial performance. The results also reveal that science-fiction, fantasy, and biography movies have a positive and significant effect on the total revenue of the movies. Finally, the movies distributed by WB and UIP in the market have a statistically significant and positive effect on the revenue.

This paper contributes to the literature on the determinants of box office performance. There are few studies in the literature addressing the determinants of box office performance in emerging countries i.e. Poland (Gmerek, 2015), and studies conducted in the existing literature generally include analyses of developed markets. We want to fill this gap in our study, which, to the best of our knowledge, is the first to analyze the determinants of box office performance in Turkey. The remainder of this paper is organized as follows. Section 2 reviews the related literature and presents the hypotheses. Section 3 explains the data and research methodology. Section 4 indicates the empirical results and finally, Section 5 is the conclusion part.

**Literature Review and Hypotheses Development**

Topics argued in the literature include the movie's budget, advertising spending, releasing timing, and number of movie theaters. In this context, some researchers have found a positive relationship between the movie's budget and box office success (Litman & Kohl, 1989). As the studies are insufficient, the relationship between budget and box office success continues to be analyzed in more detail. There are studies that find a linear relationship between movie advertising costs and box office success (Lehmann & Weinberg, 2000; Prag & Casavant, 1994). There is a general acceptance that spending on advertising affects the audience and more viewers go to the movie. The success of a movie cannot be explained by the fact that productions with stars spend more on advertising. Instead of linking the box office success of any movie to a single reason, it should always be seen that several reasons are effective. In advertising spending, it is a very natural result that popular movies stand out to guarantee their costs.

Prosser (2002) does a study by considering the number of screens and the effects of advertising. The gradual regressions that he performed showed that the number of theaters where the film was released was not a serious factor after the advertising effect was activated. The high correlation between the number of theaters and advertisements in this context makes them only, and to some extent, substitution measures. But it should still be noted that advertising determines the popularity of a movie. In this study, the effect of advertising on the number of screens of a movie is important.

One of the main dynamics behind a film's box office success is the number of screens. A positive correlation has been detected between the determination of the number of screens by the distributor and the success of the box office. Actually, the most important determinant affecting viewers is the number of screens on which the film is released (Neelamegham & Chintagunta, 1999; Sochay, 1994). Litman and Kohl (1989) examined many variables in their study. As a variable, the number of screens in the cinema sector has continued its influence since the past and has a serious role in the economic success of a movie.

In the cinema industry, the number of theaters where any film is released determines the opportunities for access to that film from the point of view of the audience. Increasing the number of screens and theaters accessible to the audience also increases the number of movies viewed (Jones & Ritz, 1991; Sawhney & Eliashberg, 1996). A similar argument can be repeated and tested for Turkey. Therefore, with a rise in the number of movie theaters where a film is shown, it can have a positive effect on the number of viewers.

There is a direct relationship between the number of movie theaters and the opening of box office revenues. As the number of movie theaters increases, the number of viewers increases. The number of viewers that a film gets during its first weekend positively affects other viewers. That is why the first data about a film has great importance. Sawhney and Eliashberg (1996) developed a model to estimate gross box office revenue based on early box office data. Their model is to estimate box office potential based on early box office results to increase the film's screening capacity and help them to negotiate with

distributors. They conceptualized the film acceptance process of customers in two stages: "time to decide" to see the new film and "time to act" on the decision to own it. These two steps are modeled as two independent processes and the audience only go to the film after these processes.

There are also studies showing that the behavior of going to the cinema was influenced by the early box office and these viewers needed "social proof" (Cialdini, 2001). Each audience goes who goes to the film affects another audience in a positive or negative sense. When box office success is measured by numbers and people just look at the numbers here, it can be said that audiences who want to go to the movie have a positive impact. A certain number of audiences who go to the film clearly affects others.

The overall box office of motion pictures has been affected by success-breeds success. Because the success achieved in terms of the number of spectators also affects others. Thus, the number of spectators increases, and success brings success (Elberse & Eliashberg, 2003; Hennig-Thurau et al., 2006). What is important here is that the quality of the film is left out of the discussion and focused only on the numbers and the actions of people to go to the film. People buy tickets for a movie and this situation is affecting other viewers. To increase the number of spectators that a movie receives the first time, the number of theaters should be increased. We generate our hypothesis as follows:

***Hypothesis 1:*** *Increasing the number of theaters that featured the movie has a positive effect on total revenue.*

One of the important factors affecting the number of viewers of a movie is the number of weeks since its first release. How many weeks a movie is watched after its initial release naturally affects the number of viewers. In general, studios notice a drop in movie audience numbers after the first week of release. But what is distinctive here is how many viewers continue to go to the film (Squire, 1992).

The process of supplying theaters and weeks to a movie is variable. As the number of weeks, the film is watched increases, more seats are needed. Depending on the success of the film, the length of the run is also extended by certain contracts made. Increasing the film's run time means increasing the revenue generated each week. In this way, fixed costs such as production, printing, and advertising will be reduced. In addition, if the box office of the previous weeks exceeds the projected amount through contracts, the film is allowed to continue to be shown for another week. However, not every film achieves the same success because it is shown over a long period. Huge economic gains only apply to a few films that are at the top of the revenue distribution. It is uneasy to foresee how long a film will run in theaters. Because while the film is in theaters, new films are also released (De Vany & Walls, 1999).

Some studies have different conclusions. Just because a movie stays at the box office for weeks doesn't mean it will generate better box office revenue. Because first-week revenue was found to account for 28% of the film's total box office revenue, and these films remain on screen for 14 weeks on average (Chang & Ki, 2005). In another study, the average lifespan of films released in the cinema sector was found to be 10 weeks (Radas & Shugan, 1998). Therefore, the importance of the first week will increase even more in the account to be made over an average of ten weeks (Lampel & Shamsie, 2000).

Similar results were examined over total return and staying power. The main element that affects the total return is the number of screens, not the number of weeks. Movies released on more screens attract more viewers and this can increase the number of weeks of the movie, but the main factor is always the number of screens. Despite all its difficulties, the number of movie theaters is of great importance, especially in the week when the film was first released. The success of the box office, which impresses every audience, is in a decisive position for the first weekend and the first week. Based on the literature, we create our hypothesis as follows:

***Hypothesis 2****: Increasing the number of weeks the movie is shown in theaters has a positive effect on revenue.*

There are several key variables from the standpoint of global box office revenue, and one of them is sequels. Sequels contribute significantly to revenue. It is often thought that sequels affect the audience because the audience has both clear expectations and has watched previous movies in the series. As a result of the research, a positive relationship between revenue and sequels was found. One of the reasons for this may be that the audience knows about other movies. Producers can also shoot sequels of successful films based on this result (Pangarker & Smit, 2013). De Vany and Walls (1999) also add sequels to six causes affecting film revenue. Their result is that sequels have a positive impact on box office revenue. According to Sood and Drèze (2006), the fact that a movie is a sequel affects its box office success. In this study, they examined the continuity element in different ways. For example, sequels sorted by number are more successful than films sorted by name. Films that continue with numbers positively affect the satisfaction and experience of the audience. Similarly, the study of Terry et al. (2005) shows that sequels have positive and statistically significant effects on the box office revenue. Most of the movies in this work are sequels. They think that sequels should be evaluated as one of the important variables determining the global cinema market. 102 of the 200 films found in Somburanasin's (2010) study are sequels, and the first of the sequels guarantees the success of the other films in the series.

***Hypothesis 3:*** *Sequel films generate higher revenue.*

The release of any movie is expected by the end of the year, due to the prospect of being an Oscar nominee and the financial success that may result. From the point of view of the motion picture industry, this is a fundamental behavior (Nelson et al., 2001). Therefore, with the concern of winning awards, releasing time of films, and, of course, the expectations of box office revenue change. The award that can be obtained for a film determines the period in which the film will be released. Some studies in the literature show the seasonality and success of films. Einav (2002) found a positive correlation between films released on Christmas and revenue and provided evidence of a positive correlation in the revenues of films released in the summer. Radas and Shugan (1998) proved that the performance at the box office during the busiest periods of the season was much better.

There are many studies that the distribution processes of films and specifically, scheduling policies also affect the film's box office. Films released in the summer and during the Christmas period have been proven to generate high revenues, despite a

period of intense competition. Although there is an intensity in the appearance of movies during certain holiday periods, the number of viewers going to the movies has increased much more (Krider & Weinberg, 1998; Litman, 1983). Industry experts note that one of the most significant elements affecting the number of people who watch movies is the preferences of the distributor (Vogel, 2001). For example, in America, films distributed by major studios such as Warner Bros have seen a greater number of viewers than films by independent distributors (Ornstein, 1998). Film distribution companies will determine how many movie theaters a film will be shown in, which directly affects the number of viewers.

Box office success is related to the season in which the movie was released. Christmas and summer periods are important for the success of movies. However, since many films are shown on similar dates, the competition is also intense (Sochay, 1994). According to Litman and Kohl (1989), while the Christmas period is losing its effect, the summer period is becoming more important. Although the summer period is important in both studies, two different results have been obtained regarding Christmas.

***Hypothesis 4:*** *School break has a positive effect on revenue*

Many studies try to find a relationship between genre and box office success. Litman (1983) examined five types of stories –science fiction, drama, action-adventure, comedy, musical - and which ones yielded more returns. Among the analyzed stories, only science fiction movies were found to be associated with the economic return. In other words, Litman found a positive relationship between science fiction-horror movies and film rental revenue. As a result of the study conducted with regression analysis, it was seen that science fiction and horror movies were very popular between 1972-1978. If a movie has this kind of content, it has caused a very serious increase in average return figures.

Anast's work (1967) is about what film content an audience is interested in so that they can be included in the film. He has discovered a negative relationship between adventure, achievement films, and revenue. On the other hand, a positive relationship between violence, eroticism, and revenue has been found. According to Litman and Kohl (1989), in terms of film genres, comedy and horror films have lost their former importance. Looking at the returns of movies, only fiction-fantasy and dramas have a positive outcome, along with other variables. Science fiction movies maintain their former power and success. When a movie's content and MPAA rating are taken together, it can be financially successful.

Prag and Casavant (1994) consider that a film genre affects revenue to a certain level. In the study, they examined four film genres: romance/family, comedy, action, and drama. The study found only a negative relationship between the drama genre and revenue. Other film genres have had success at the box office. Neelamegham and Chinatagunta (1999) used a Bayesian model to foresee film audiences in domestic and foreign markets. They found the thriller genre to be the most popular and the romance the least popular. However, in another study, it was found that while the movies in the drama genre had a negative relationship with the box office revenue, horror films had a positive effect on the box office revenue (Chang & Ki, 2005). The relationship between genre and revenue is

a little more complicated because people's admiration and popular content change over time. Any genre can, of course, stand out from a period but it is important to be able to analyze the long-term relationship between periods and certain species. The influence of the film genre on the performance of the film has led to conflicting findings. Generally, the action genre has superior performance at the box office. However, the success of these films can be attributed to high production costs and other film factors such as the presence of stars. Therefore, it is not reasonable to consider a film genre as the main reason alone.

In the literature review, it is seen that there is no definite answer when determining which factors contribute to the box office success. Studies provide conflicting evidence depending on the various models and the characteristics of the data sets used. Determining box office success is still an important issue and knowledge on this subject needs to be increased. As seen in this section, the leading factors in the literature are briefly as follows: number of movie theaters and weeks, sequels, and school break. In this study, differences were made in the reasons affecting box office success due to the limitation and non-sharing of information in the cinema sector in Turkey. For example, in American cinema, the effect of the Oscar Awards on the box office success of movies can be measured, while there is no popular reward mechanism in Turkey to the extent that it can affect the box office. Similarly, it is hard to measure the effect of reviews or critical articles. Because there is no mechanism of criticism that has been professionalized and has a high power of influence on the Turkish audience. Therefore, while measuring the box office success of movies, in the research part, unlike the studies in the literature, factors that may negatively affect the validity of the study were excluded.

**Data and Methodology**

In this study, a multiple regression method is used to analyze the box office performance of movies produced and released in Turkey (Brewer et al., 2009; D. H. Kim, 2021; S. H. Kim et al., 2013; Litman, 1983; Pangarker & Smit, 2013; Prag & Casavant, 1994; Smith & Smith, 1986; Sochay, 1994). The data set is obtained from a cross section of all movies released in the years from 2015 to 2019 that reached an audience of at least 10,000. Limiting the data set by audience size resulted in 1,178 movies. All data is obtained from https://boxofficeturkiye.com/. This website is a unique platform in Turkey that includes that information pertaining to total revenue, audience size, the number of weeks the movies appeared in theaters, number of theaters, movie genres and awards received.

The basic empirical model used to analyze the determinants of box office performance is specified as below:

$$Revenue_i = \beta_0 + \beta_1 Theater + \beta_2 Week + \beta_3 Sequel + \beta_4 School\ Break + \varepsilon_i \quad (1)$$

Where *Revenue* is the natural logarithm of a film's total revenue (Elberse & Eliashberg, 2003; Gemser et al., 2007; Gmerek, 2015; Ravid, 1999). For regression analyses, the dependent variable revenue is transformed to correct for a skewed distribution resulting from a small number of outliers.

*Theater* is the total number of theaters that featured the movie (Basuroy et al., 2003; Elberse & Eliashberg, 2003; D. H. Kim, 2021; Neelamegham & Chintagunta, 1999; Sochay, 1994). Elberse and Eliashberg (2003) find that the number of theaters is an important projection for the box office revenue.

*Week* is the number of weeks the movie is shown in theaters (Basuroy et al., 2003; Neelamegham & Chintagunta, 1999).

*Sequel* is a binary variable to designate movies that are derived from a previously released film (Basuroy et al., 2003; Bohnenkamp et al., 2015; De Vany & Walls, 1999; Dhar et al., 2012; Gemser et al., 2007; D. H. Kim, 2021; Pangarker & Smit, 2013; Prag & Casavant, 1994; Ravid, 1999). Sequels are anticipated to perform well at the box office due to audiences' expectations based on their familiarity with the preceding film or films in a series. A movie is coded as "1" if it is a continuation of a series and "0" otherwise. The first film in sequels is coded as a non-sequel because at the time of its release it did not continue and established a story.

In general, studies conducted in the literature used the Christmas and Easter holidays as variables to represent a holiday effect (S. H. Kim et al., 2013; Litman, 1983). However, Turkey does not have holidays at these times, so instead, we use the period of school break as a variable in our model. In Turkey, there are generally two weeks of school break in January and February from primary school through high school. Hence, the variable *School Break* is a binary variable. If a movie is released one week prior to the school break or during the break time, it is coded as "1", if it is not released in this frame it is coded "0" (for example, in 2015, the school break is between 26 January 2015 – 06 February 2015).

Alternative models include additional variables, such as whether the movie is domestic or foreign, its month of release, and its distributor. We add these variables separately to measure the effect of each on total revenue. Movies are separately coded as domestic (DOM) and foreign (FOR). If a movie is produced by Turkish moviemakers, it is classified as domestic and given the coding "1" as a dummy variable; otherwise, it is coded "0". Similarly, if a movie is imported from outside the country and released in theaters in Turkey, it is given the dummy variable "1" and "0" otherwise. Thus, we investigate whether a film's status as domestic or foreign influences total revenues respectively. The movie's release time is also added as a variable and is coded similarly to the coding of domestic or foreign (Gmerek, 2015). For example, if a movie is released in January, it is marked "1" as a dummy variable and "0" otherwise. Each month is analyzed separately in this way to capture the effect of release time on revenue.

The movie's distributor is added as an independent variable (Dhar et al., 2012; Jansen, 2005). If the distributor of the movie is CGV Mars, The Moments Entertainment (TME), United Pictures (UIP), Bir Film, Warner Bros. (WB), ChF, Pin or CJ Entertainment (CJET), it is coded as "1" and "0" otherwise. We analyze the effect of each of the distributors on total revenue.

Movie genre is also coded as a variable (Anast, 1967; De Vany & Walls, 1999; Gmerek, 2015; Jansen, 2005; Litman, 1983; Neelamegham & Chintagunta, 1999; Prag & Casavant, 1994). Due to the size, location, and leisure preferences of the different target audiences, one genre might have a huge chance of success than another. On the other

hand, evidence suggests that this claim might not be accurate when looking at box office statistics (Brewer et al., 2009). Hence, it is hard to critique if some genres have more popularity than others. Comedy, animation, horror, drama, thriller, action, science fiction, biography, and fantasy genres are analyzed individually. For example, if a movie is a comedy, it is marked as "1" as a dummy variable and "0" otherwise.

## Empirical Findings and Discussions

Table 1 indicates the descriptive statistics for variables. The average total revenue in the sample is about ₺3.5 million. The movie *7. Koğuştaki Mucize* (2019-Domestic-Drama) has the highest revenue, while Agent F.O.X (2016-Foreign-Animation) has the lowest revenue. The average number of theaters for movies in the sample is 214. *Recep İvedik 5* (2017-Domestic-Comedy) has the highest number, with 1529 theaters. On the other hand, *Saul Fia* (2016-Foreign-Drama), *Youth* (2016-Foreign-Drama), and *Paterson* (2017-Foreign-Comedy) have the lowest numbers with 10 theaters each. Movies run for an average of 8 weeks, while The Boss Baby (2017-Foreign-Animation) has the highest run with 32 weeks. Domestic and foreign films represented 36% and %64 of the total, respectively.

**Table 1**

*Descriptive Statistics*

| *Variable* | *Mean* | *Std. Dev* | *Min.* | *Max.* |
|---|---|---|---|---|
| *Total Revenue* | ₺3.442.795 | ₺8.207.092 | ₺81.697 | ₺90.122.171 |
| *LN (Total Revenue)* | 13.832 | 1.479 | 11.31 | 18.316 |
| *Theater* | 214 | 186 | 10 | 1529 |
| *Week* | 8 | 5.2 | 1 | 32 |
| *Sequel* | 0.1196 | 0.21474 | 0 | 1 |
| *School Break* | 0.07045 | 0.25062 | 0 | 1 |
| *Domestic* | 0.3599 | 0.4801 | 0 | 1 |
| *Foreign* | 0.6375 | 0.4809 | 1 | 1 |

n=1178

The greatest number of movies premiered in April (113 movies), followed by, in order, March (112 movies), May (106 movies), September (105), January (101), August (100 movies), October (99 movies), June and December (92 movies), November (90 movies), February (85 movies) and June (83 movies). CGV Mars is the biggest distributor with 264 movies (16.31%), followed up by UIP (183 movies / 15.53%), TME (180 /15.28%), Bir Film (145 movies / 12.31%), WB (126 movies / %10.70), ChF (66 movies / 5.60%), Pin. (61 movies / 5.18%), and CJET (43 movies / 3.65%). Other distributors are MC, M3, Başka S., Kurmaca Film, İFP, PinAr,CF and Özen. Since they have fewer numbers of movies, we do not include them in the analysis. Among, the analyzed films, the most common genre is comedy (291/ 24.70%) followed by animation (191 / 16.21%), horror (169 / 14.35%), drama (147 / 12.48%), action (76 / 6.45%), thriller (73 / 6.20%), science fiction (53 / 5.35%), and fantasy and biography (40 / 3.40%) and other genres, such as historical, documentary, and crime movies, respectively.

Table 2 indicates the empirical results. Column (1) indicates the results of the basic model 1, while columns (2) and (3) include domestic and foreign movies as a dummy variable. Column (4) through (column (8) demonstrate the interaction of domestic and foreign movies, respectively, with *Theater*, *Week*, *Sequel,* and *School Break* variables. Model results show a statistically significant value of F-test indicating the validity of our model. R-squared is approximately 0.66, indicating that the model is explained 66% of the variance in the total box office. The variable of *Theater* has a positive and significant effect in all models, indicating that as the total number of theaters featuring revealing the movie rises, the total revenue increases. A film's performance is very tender to the number of theaters (Brewer et al., 2009). This result confirms *Hypothesis 1* and relates to findings in the literature (Basuroy et al., 2003; Elberse & Eliashberg, 2003; D. H. Kim, 2021; Neelamegham & Chintagunta, 1999; Sochay, 1994; Terry et al., 2015, 2010; Zufryden, 1996, 2000). Many shopping centers have been built in recent years in Turkey, and almost all include movie theaters. As of 2018, 80% of movie theaters in Turkey are located in shopping centers (Özdurak, 2020). As the shopping mall culture develops, the cinema becomes an inseparable part of this culture, and the increasing number of movie theaters played a crucial role in changing the meaning of going to the cinema as a cultural practice (Tüzün, 2013).

The *Week* variable is statistically significant and positive, which supports our *Hypothesis 2* and previous findings in the literature (Basuroy et al., 2003; Neelamegham & Chintagunta, 1999). As the number of weeks, the film is shown in the theater rises, the size of the audience increases, which has a positive effect on the revenue. The *Sequel* variable also has a positive and significant effect on total revenue. Audiences tend to react positively to sequels due to the success of the previous movie and their familiarity with the story (Somburanasin, 2010). Our results confirm the *Hypothesis 3* and findings in the literature (Basuroy et al., 2003; Bohnenkamp et al., 2015; De Vany & Walls, 1999; Dhar et al., 2012; Gemser et al., 2007; D. H. Kim, 2021; Pangarker & Smit, 2013; Prag & Casavant, 1994; Ravid, 1999; Somburanasin, 2010; Sood & Drèze, 2006; Terry et al., 2005, 2008, 2010). Among the top ten movies, *Recep İvedik 5, Recep İvedik 6, Düğün Dernek 2: Sünnet, Organize İşler: Sazan Sarmalı and Dağ 2* are sequel movies and of the 20 highest grossing movies, twelve are sequels. Somburanasin (2010) states that the success of a first sequel guarantees the next sequel in the series.

The *School Break* variable is statistically significant and positive. During this interim period of about 2 weeks, which is a holiday for students in primary, secondary, and high school, students may prefer to go to the movies with their families or friends. In addition, this break coincides with the winter, when there are few activities outside, so cinema may be more preferred in this period. This result supports *Hypothesis 4.*

Regarding the impact of domestic and foreign movies on revenues, domestic films have a statistically significant negative effect on revenues, while foreign films have a significant positive effect. Even though 17 of the 20 movies are produced by Turkish moviemakers, the general results indicate that foreign movies are preferred or were more successful with Turkish audiences. Finally, the interactions of foreign and domestic movies with *Theater, Week, Sequel, and School Break* are analyzed respectively. The interaction of domestic and foreign movies with *Theater* and *Week* are positive and significant. On the other hand, the interaction of domestic movies and sequel is negative, indicating that audiences do not prefer to watch sequels of Turkish movies.

**Table 2**
*Empirical Results*

| *Variables* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Theater* | 0.0060*** | 0.0063*** | 0.0062*** | 0.00473*** | 0.00483*** | 0.00632*** | 0.00632*** | 0.00634*** | 0.00634*** | 0.00636*** | 0.00633*** |
| | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) | (0.0001) |
| *Week* | 0.0398*** | 0.0360*** | 0.0383*** | 0.02809*** | 0.0216*** | 0.02655*** | 0.04722*** | 0.0332*** | 0.0054*** | 0.0334*** | 0.03340*** |
| | (0.0050) | (0.0049) | (0.0049) | (0.0046) | (0.0040) | 0.02655 | (0.0081) | (0.0050) | (0.1428) | (0.0050) | (0.0050) |
| *Sequel* | 0.2679*** | 0.2077** | 0.2213*** | 0.3860*** | -0.1416** | 0.2234*** | 0.2239*** | 0.30277*** | 0.0054*** | 0.21908*** | 0.21921*** |
| | (0.0826) | (0.0826) | (0.0829) | (0.0764) | (0.0667) | (0.0822) | (0.0822) | (0.0966) | (0.1428) | (0.0821) | (0.0821) |
| *School Break* | 0.2889*** | 0.4405*** | 0.2897*** | 0.4272*** | 0.5903*** | 0.6550*** | 0.6538*** | 0.6572*** | 0.6589*** | 0.5107*** | 0.9401*** |
| | (0.0700) | (0.0741) | (0.0696) | (0.0932) | (0.0795) | (0.0999) | (0.0999) | (0.0998) | (0.0995) | (0.1221) | (0.16574) |
| *DOM* | | -0.2899*** | | -6.17695*** | | -0.3797*** | | -0.19535*** | | -0.2535*** | |
| | | (0.0509) | | (0.40833) | | (0.0944) | | (0.0568) | | (0.0554) | |
| *FOR* | | | 0.2181*** | | -7.8183*** | | 0.3900*** | | 0.1933*** | | 0.2539*** |
| | | | (0.0541) | | (0.3108) | | (0.0942) | | (0.0567) | | (0.0553) |
| *Theater * DOM* | | | | 0.4342*** | | | | | | | |
| | | | | (0.0932) | | | | | | | |
| *Theater * FOR* | | | | | 0.5777*** | | | | | | |
| | | | | | (0.0221) | | | | | | |
| *Week * DOM* | | | | | | 0.0197* | | | | | |
| | | | | | | (0.0100) | | | | | |
| *Week * FOR* | | | | | | | -0.0212** | | | | |
| | | | | | | | (0.0100) | | | | |
| *Sequel * DOM* | | | | | | | | -0.29582** | | | |
| | | | | | | | | (0.1679) | | | |
| *Sequel * FOR* | | | | | | | | | 0.29742** | | |
| | | | | | | | | | (0.1679) | | |
| *School Break*DOM* | | | | | | | | | | 0.4052** | |
| | | | | | | | | | | 0.2055 | |
| *School Break*FOR* | | | | | | | | | | | -0.4314** |
| | | | | | | | | | | | 0.2038 |
| *Year Effects* | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| *Constant* | 12.34*** | 12.43*** | 12.20*** | 12.69*** | 12.68*** | 12.47*** | 12.08*** | 12.20*** | 12.39*** | 12.42*** | 12.17*** |
| | (0.1666) | (0.1666) | (0.0787) | (0.0844) | (0.0649) | (0.0695) | (0.0695) | (0.0698) | (0.0786) | (0.0786) | (0.0731) |
| *Observations* | 1178 | 1178 | 1178 | 1178 | 1178 | 1178 | 1178 | 1178 | 1178 | 1178 | 1178 |
| *Prob>F* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| *Adj. R-squared* | 0.658 | 0.657 | 0.665 | 0.7278 | 0.7909 | 0.6699 | 0.6701 | 0.6697 | 0.6697 | 0.6700 | 0.6701 |

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 3 demonstrates the results of the effect of genres, distributor, and releasing time on revenue respectively. Column (1) indicates the results of the effect of each genre on the total revenues of the movies. Science-fiction and fantasy movies have a positive and significant, while the action genre has a positive but insignificant effect on total revenue. Litman (1983) also reports a significant effect of science-fiction movies on the total revenue. Prag and Casavant (1994), Sawhney and Eliashberg (1996), and Terry et al. (2008) find a positive and significant effect of action movies on revenue. However, S. H. Kim et al. (2013) exhibit the negative effect of science-fiction and fantasy. Pangarker and Smit (2013), and Terry et al. (2005) do not find any linear relationship between the action genre and total revenue. While comedy and horror movies are the most common genres, both have negative effects on total revenue. Since too many comedy and horror movies are shot, the average revenues are affected downward. Gmerek (2015), Moon et al. (2010), Prag and Casavant (1994), and Sochay (1994) reveal that comedy movies indicate good financial performance. Brewer et al. (2009), and Litman (1983) discover that horror movies have a positive and significant effect on total revenue. Nevertheless, S. H. Kim et al. (2013) indicate that comedy and horror movies have a negative impact on revenue. Moon et al. (2010) uncover the positive effect of action on total revenue. The animation, thriller, and drama genres have a negative but insignificant effect on total revenues. The impact of drama is consistent with the literature (Jansen, 2005; S. H. Kim et al., 2013; Pangarker & Smit, 2013; Prag & Casavant, 1994; Sawhney & Eliashberg, 1996). In contrast, Moon et al. (2010) document the positive impact of drama movies. Somburanasin (2010) reports a negative but insignificant effect of animation movies on total revenues. Bohnenkamp et al. (2015) find a negative effect of thrillers, dramas, action, and science-fiction movies, but a positive effect of horror movies on total revenue.

In short, it would be safe to say that the effect of genres differs in studies. This might be due to the different countries that are taken into consideration in the studies, and the cinema culture of each country can be different. In addition, different time ranges are chosen for the study period in the literature. Column (2) exhibits the results of the effect of the distributor on revenue. Theater, Week and School Break is still positive and significant at 10%, and sequel is positive at 1%. The distributor of UIP and WB have a higher positive. Column (3) shows the results of the effect of months on revenue. February is the omitted condition. To prevent interaction problem with school break and January and February, school break is not included in the model. Our basic variables -*Theater, Week and Sequel* - retained positive significant effects. Movies released in December and January positively affect total revenues. These months are wintertime in Turkey, when many people spend their free time in shopping malls, which contain 80% of Turkey's theaters. Hence, audiences may prefer to go to cinema at this time. Our results show that releasing a movie in spring or summer has a significant negative effect on total revenue (Gmerek, 2015). We can interpret this result as showing that audiences in Turkey do not prefer to spend time in theaters when weather conditions are pleasant.

**Table 3**
*Empirical Results-2*

| | Genres | Distributor | Releasing Time |
|---|---|---|---|
| **Theater** | 0.00604*** | 0.00536*** | 0.00584*** |
| | (0.000153) | (0.000302) | (0.000142) |
| **Week** | 0.0359*** | 0.0576*** | 0.0452*** |
| | (0.00531) | (0.00478) | (0.00527) |
| **Sequel** | 0.245*** | 0.123* | 0.321*** |
| | (0.0820) | (0.0714) | (0.0805) |
| **SchoolBreak** | 0.640*** | 0.508*** | |
| | (0.0997) | (0.0800) | |
| **Comedy** | -0.209** | | |
| | (0.103) | | |
| **Animation** | -0.125 | | |
| | (0.112) | | |
| **Horror** | -0.280** | | |
| | (0.112) | | |
| **Dram** | -0.202* | | |
| | (0.115) | | |
| **Thriller** | -0.168 | | |
| | (0.135) | | |
| **Action** | 0.0390 | | |
| | (0.133) | | |
| **Science Fiction** | 0.339** | | |
| | (0.140) | | |
| **Biography** | 0.160 | | |
| | (0.163) | | |
| **Fantastic** | 0.342** | | |
| | (0.161) | | |
| CGV_Mars | | 0.734*** | |
| | | (0.0946) | |
| TME | | 0.845*** | |
| | | (0.102) | |
| UIP | | 1.392*** | |
| | | (0.0999) | |
| Bir_Film | | 0.268*** | |
| | | (0.0841) | |
| WB | | 1.383*** | |
| | | (0.100) | |
| ChF | | 0.476*** | |
| | | (0.115) | |
| Pin | | 0.752*** | |
| | | (0.123) | |
| CJET | | 0.523*** | |
| | | (0.173) | |
| January | | | 0.214** |
| | | | (0.124) |

| | | | |
|---|---|---|---|
| **March** | | | -0.316*** |
| | | | (0.121) |
| April | | | -0.579*** |
| | | | (0.121) |
| **May** | | | -0.654*** |
| | | | (0.123) |
| **June** | | | -0.496*** |
| | | | (0.127) |
| **July** | | | -0.617*** |
| | | | (0.131) |
| August | | | -0.391*** |
| | | | (0.125) |
| **September** | | | -0.316** |
| | | | (0.124) |
| **October** | | | -0.141 |
| | | | (0.126) |
| **November** | | | 0.103 |
| | | | (0.130) |
| December | | | 0.174* |
| | | | (0.132) |
| **Constant** | 12.48*** | 11.56*** | 12.45*** |
| | (0.112) | (0.0920) | (0.107) |
| **Observations** | 1178 | 1178 | 1178 |
| **R-squared** | 0.680 | 0.739 | 0.682 |

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

## Discussion and Conclusion

This study aims to figure out box office revenue in the motion picture industry in Turkey. The main goal of this research is to determine what factors contributed to the success of movies at the box office. The study shows that different variables often directly affect revenues such as the number of movie theaters and weeks, sequel, and school break. It is observed that the general definitions in the literature match with this study conducted in Turkey. For the first time in Turkish cinema, the relations between various factors are considered. Based on the findings in Turkey, producers and filmmakers can predict and determine a movie's box office result more successfully.

The sample consists of 1,178 movies released between 2015 and 2019. Films with audiences of at least 10.000 people are included in the study. The logarithm of total revenue is a dependent variable and, the total number of theaters featuring the movies, the number of weeks the movie is shown, sequel and school break are independent variables. Under alternative models, domestic and foreign movies, releasing time of the movie, genres, and the distributor of the movies are also added separately to the basic model by applying a multiple regression method. According to the findings of the study, an increase

in the number of theaters and weeks where the movie is shown, sequel and school break have a positive and significant effect on total revenue. Our results are consistent with the literature (Basuroy et al., 2003; Elberse & Eliashberg, 2003; D. H. Kim, 2021; Gemser et al., 2007; D. H. Kim, 2021; Pangarker & Smit, 2013; Prag & Casavant, 1994; Ravid, 1999).

In addition, while the effect of domestic films on the total revenue of the movies is statistically significant and negative, the effect of foreign movies is positive and significant. Although 12 of the top 20 films are Turkish, their impact on revenue is generally negative. The reason might be that the dominant genres in the Turkish film industry are comedy and horror, and because these films have weak content and similar stories, they are not attractive to the audiences. Foreign science fiction, fantasy, action, and biographic films perform well financially. Moreover, in Turkey, if movies are released in November, December, January, and February, they achieve better financial performance. The reason may be behind these dates are in the winter season in Turkey and people prefer to go to the cinema instead of spending their time outside (Gmerek, 2015). The other reason is that quality films can choose these dates for their premiere. In addition, if movies are distributed by WB or UIP in the market, they have better financial performance. In the literature, most studies analyze the box office performance in developed markets. To the best of our knowledge, there is just one academic work Gmerek (2015), that analysis the box office performance in Poland, which is one of the emerging markets. It is aimed to contribute to the gap in the literature by analyzing the box office performance in Turkey, one of the emerging markets also. For this reason, it is tried to conduct a general analysis of the Turkish cinema industry by keeping the dataset as wide as possible by only restricting the audience. In future studies, the dataset can be expanded, and more limits can be set. Also, in this study, some variables such as budget, stars, criticism, and awards used in the literature are not tested, and they can be examined by future studies to develop the study further.

The findings of the study contribute useful information for the film industry as well as facilitate future film research. By overcoming the limitations of this study, different studies can be made. Although a wide period of Turkish cinema was used in this study, many factors were excluded. With the introduction of the factors excluded from the research, different studies can be carried out and information about the box office success in Turkish cinema can be deepened. It has been proven both in the literature and in this study that periodic changes affect the box office. Seasonality and releasing time of a movie were frequently discussed in the literature and were also included in this study. However, the temporal variable was realized only for the period when the schools were taking a break. Therefore, national, and religious holidays and New Year's Eve may also be considered in future studies. Thus, the determinacy of the time factor can be analyzed in a much more detailed way for the whole year.

In addition, the production cost of movies, advertising, stars, and criticisms/reviews can also be examined in new studies. The main problem here is that the information about these issues is limited. The producers do not disclose the production and advertising costs of a movie in general. Therefore, it is important to obtain the information transparently

before conducting other studies. The effect of stars on the box office of movies may be examined in Turkey. It is stated that the Turkish audience attaches great importance to stars and is not interested in the director and the script. However, this is not a tested fact. Therefore, the impact of popular players on the box office can be an important study. Criticism, which affects box office success and is one of the main determinants discussed widely in the literature, is unfortunately not easy to examine in Turkey. Critics by certain columnists can be studied in future studies, even if their power of influence is low.

One of the topics discussed for a long time in the literature is word of mouth. For the cinema industry, word of mouth of a movie is important because audiences can seriously influence each other, especially through social media. Advertising is a major determinant of opening week revenues and the number of movie theaters. On the other hand, word of mouth is a vital determinant of revenue and the number of screens in the following weeks. The criticism dimension can now be removed from professional criticism and discussed around the ideas of the audience. In this way, the subject of criticism, which is not already in Turkey, can be discussed through quantitative data on social media. The phenomenon of social media, as an important contemporary factor that determines the film's performance at the box office, can and should be included in research processes.

**References**

Anast, P. (1967). Differential movie appeals as correlates of attendance. *Journalism Quarterly*. https://doi.org/10.1177/107769906704400111

Basuroy, S., Chatterjee, S., & Ravid, S. A. (2003). How critical are critical reviews? The box office effects of film critics, star power, and budgets. *Journal of Marketing*, 67, 103–117.

Bohnenkamp, B., Knapp, A. K., Hennig-Thurau, T., & Schauerte, R. (2015). When does it make sense to do it again? An empirical investigation of contingency factors of movie remakes. *Journal of Cultural Economics*, 39(1), 15–41. https://doi.org/10.1007/s10824-014-9221-6

Brewer, S. M., Kelley, J. M., & Jozefowicz, J. J. (2009). A blueprint for success in the US film industry. *Applied Economics*, 41(5), 589–606. https://doi.org/10.1080/00036840601007351

Caves, R. E. (2003). Contracts between art and commerce. *Journal of Economic Perspectives*, 17(2), 73–84. http://www.jstor.org/stable/3216857

Chang, B. H., & Ki, E. J. (2005). Devising a practical model for predicting theatrical movie success: Focusing on the experience good property. *Journal of Media Economics,* 18(4), 247–269. https://doi.org/10.1207/s15327736me1804_2

Cialdini, R. B. (2001). *Influence: Science and practice*. Boston. Retrieved from http://marefateadyan.nashriyat.ir/node/150

Cooper-Martin, E. (1991). Consumers and movies: Some findings on experiential products. *Advances in Consumer Research*, 18(1), 372–378. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=6522213&loginpage=Login.asp&site=ehost-live

Cooper-Martin, E. (1992). Consumers and movies: Information sources for experiential products. *Advances in Consumer Research*. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=9301106609&loginpage=Login.asp&site=ehost-live

De Vany, A., & Walls, W. D. (1999). Uncertainty in the movie industry: Does star power reduce the terror of the box office? *Journal of Cultural Economics*, 23(4), 285–318. Retrieved from http://link.springer.com/10.1023/A:1007608125988

Dhar, T., Sun, G., & Weinberg, C. B. (2012). The long-term box office performance of sequel movies. *Marketing Letters*, 23(1), 13–29. https://doi.org/10.1007/s11002-011-9146-1

Einav, L. (2002). Seasonality and competition in time: An empirical analysis of release date decisions in the U.S. motion picture industry. Working Paper, Harvard University.

Elberse, A., & Eliashberg, J. (2003). Demand and supply dynamics for sequentially released products in international markets: The case of motion pictures. *Marketing Science*, 22(3), 329–354. https://doi.org/10.1287/mksc.22.4.544.erratum2

Gemser, G., Van Oostrum, M., & Leenders, M. A. A. M. (2007). The impact of film reviews on the box office performance of art house versus mainstream motion pictures. *Journal of Cultural Economics*, 31(1), 43–63. https://doi.org/10.1007/s10824-006-9025-4

Gmerek, N. (2015). The determinants of Polish movies' box office performance in Poland. *Journal of Marketing and Consumer Behaviour in Emerging Markets*, 1(1), 15–35. https://doi.org/10.7172/2449-6634.jmcbem.2015.1.2

Hennig-Thurau, T., Houston, M. B., & Walsh, G. (2006). The differing roles of success drivers across sequential channels: An application to the motion picture industry. *Journal of the Academy of Marketing Science*, 34(4), 559–575. https://doi.org/10.1177/0092070306286935

Jansen, C. (2005). The performance of German motion pictures, profits and subsidies: Some empirical evidence. *Journal of Cultural Economics, 29(3), 191–212. https://doi.org/10.1007/s10824-005-1157-4*

Jones, J. M., & Ritz, C. J. (1991). Incorporating distribution into new product diffusion models. *International Journal of Research in Marketing*, 8(2), 91–112. https://doi.org/10.1016/0167-8116(91)90018-3

Kim, D. H. (2021). What types of films are successful at the box office? Predicting opening weekend and non-opening gross earnings of films. *Journal of Media Business Studies*, 1–22. https://doi.org/10.1080/16522354.2021.1887438

Kim, S. H., Park, N., & Park, S. H. (2013). Exploring the effects of online word of mouth and expert reviews on theatrical movies' box office success. *Journal of Media Economics*, 26(2), 98–114. https://doi.org/10.1080/08997764.2013.785551

Krider, R. E., & Weinberg, C. B. (1998). Competitive dynamics and the introduction of new products: The motion picture timing game. *Journal of Marketing Research*, 35(1), 1–15. https://doi.org/10.2307/3151926

Lampel, J., & Shamsie, J. (2000). Critical push: Strategies for creating momentum in the motion picture industry. *Journal of Management*, 26(2), 233–257. https://doi.org/10.1177/014920630002600204

Lehmann, D. R., & Weinberg, C. B. (2000). Sales through sequential distribution channels: An application to movies and videos. *Journal of Marketing*, 64(3), 18–33. https://doi.org/10.1509/jmkg.64.3.18.18026

Litman, B. R. (1983). Predicting success of theatrical movies: An empirical study. *The Journal of Popular Culture*. https://doi.org/10.1111/j.0022-3840.1983.1604_159.x

Litman, B. R., & Kohl, L. S. (1989). Predicting financial success of motion pictures: The '80s experience. *Journal of Media Economics*, 2(2), 35–50. https://doi.org/10.1080/08997768909358184

Moon, S., Bergey, P. K., & Lacobucci, D. (2010). Dynamic effects among movie ratings, movie revenues and viewer satisfaction. *Journal of Marketing*, 74(1), 108–121. https://doi.org/10.1509/jmkg.74.1.108

Neelamegham, R., & Chintagunta, P. (1999). A Bayesian model to forecast new product performance in domestic and international markets. *Marketing Science*, 18(2), 115–136.

Nelson, R., Donihue, M., Waldman, D., & Wheaton, C. (2001). What's an Oscar worth? *Economic Inquiry*, 39(1), 1–16. https://doi.org/10.1111/j.1465-7295.2001.tb00046.x

Ornstein, S. L. 1998. Motion Pictures: Competition, Distribution and Efficiencies. Larry L. Deutsch ed. Industry Studies 2. M. E. Sharpe, New York. 292–316.

Özdurak, C. (2020). Birleşme ve devralmalar sonrasında Türkiye sinema sektöründeki oligopolistik yapı. *Nişantaşı University Journal of Social Sciences*, 8(1), 1–17. Retrieved from https://dergipark.org.tr/en/pub/nisantasisbd

Pangarker, N. A., & Smit, E. V. D. M. (2013). The determinants of box office performance in the film industry revisited. *South African Journal of Business Management*, 44(3), 47–58. https://doi.org/10.4102/sajbm.v44i3.162

Prag, J., & Casavant, J. (1994). An empirical study of the determinants of revenues and marketing expenditures in the motion picture Industry. *Journal of Cultural Economics*, 18, 217–235.

Prosser, E. K. (2002). How early can video revenues be accurately predicted? *Journal of Advertising Research*, 42, 47–55.

Radas, S., & Shugan, S. M. (1998). Seasonal marketing and timing new product introductions. *Journal of Marketing Research*, 35(3), 296–315.

Ravid, S. A. (1999). Information, blockbusters, and stars: A study of the film industry. *Journal of Business*, 72(4), 463–492. https://doi.org/10.1086/209624

Sawhney, M. S., & Eliashberg, J. (1996). A parsimonious model for forecasting gross box-office revenues of motion pictures. *Marketing Science*, 15(2), 113–131. https://doi.org/10.1287/mksc.15.2.113

Smith, S. P., & Smith, V. K. (1986). Successful movies: A preliminary empirical analysis. *Applied Economics*, 18(5), 501–507. https://doi.org/10.1080/00036848608537445

Sochay, S. (1994). Predicting the performance of motion pictures. *Journal of Media Economics*, 7(4), 1-20. https://doi.org/10.1207/s15327736me0704_1

Somburanasin, M. (2010). Risky business: Does recognition reduce uncertainty of the movie industry global box office revenue? [Unpublished master's thesis] Jönköping University.

Sood, S., & Drèze, X. (2006). Brand extensions of experiential goods: Movie sequel evaluations. *Journal of Consumer Research*, 33(3), 352–360. https://doi.org/10.1086/508520

Squire, J. E. (1992). The Movie Business Book. Simon and Schuster.

Terry, N., Browning, L., & Mitchell, L. (2015). The determinants of box office revenue for documentary movies. *Southwestern Economic Review*, 42, 15–27.

Terry, N., Butler, M., & De'Armond, D. (2005). The determinants of domestic box office performance in the motion picture industry. *Southwestern Economic Review*, 137–148. Retrieved from http://www.ser.tcu.edu/2005/SER2005 Terry Butler DeArmond 137-148.pdf

Terry, N., Cooley, J., & Zachary, M. (2008). The determinants of foreign box office revenue for English language movies. *Journal of International Business and Cultural Studies.* 1–12. Retrieved from http://aabri.com/manuscripts/09274.pdf

Terry, N., King, R., & Walker, J. J. (2010). The determinants of box office revenue for horror movies. *Journal of Global Business Management*, 6(2), 1–10. http://search.proquest.com/docview/867819002?accountid=174204

Tüzün, S. (2013). Multipleks sinema salonları ve Türkiye örneğinde sinema sektöründe değişen güç dengeleri. *Sinecine: Sinema Araştırmaları Dergisi,* 4(1), 85–115.

Vogel, H. L. (2001). *Entertainment industry economics: A Guide for financial analysis.* Cambridge University Press.

Zufryden, F. (1996). Linking advertising to box office performance of new film releases - A marketing planning model. *Journal of Advertising Research*, 36(4), 29–41.

Zufryden, F. (2000). New film website promotion and box-office performance. Journal of Advertising Research, 40(1–2), 55–64. https://doi.org/10.2501/JAR-40-1-2-55-64

**Destekleyen Kurum/Kuruluşlar Supporting-Sponsor Institutions or Organizations:**

Herhangi bir kurum/kuruluştan destek alınmamıştır. None

**Çıkar Çatışması Conflict of Interest:**

Herhangi bir çıkar çatışması bulunmamaktadır. None

**Katkı Oranı (Birden fazla yazarı olan makale başvuruları için) Author Contribution Percentage (For article submissions with more than one author):**

Birinci yazar: % /First Author Percentage ___50___

İkinci yazar: % / Second Author Percentage ___50___