Competition Dynamics in the Theatrical Distribution and Exhibition of First-Run Domestic Films

Yusuf Ölmez[1]

Hüseyin Sami Karaca[2]

Abstract

This study aimed to elucidate the competition dynamics in domestic film distribution and exhibition in Turkey throughout the last two decades. Secondary data was harnessed after an extensive retouch. Descriptive statistics and regression analysis were used to determine the effects of horizontal integration on domestic film distribution. The results showed that some dominant genres and distributors are associated with the horizontal and vertical concentration in domestic film distribution in Turkey. Findings point out that the competition dynamics are not only unfair but also incompetent, especially for the niche films linked to genres like arthouse and documentary to be distributed and screened.

Vizyona Giren Yerli Filmlerin Sinemalara Dağıtımı ve Gösteriminde Rekabet Dinamikleri

Özet

Bu çalışma Türkiye'de son yirmi yıllık dönem için yerli film dağıtım ve gösterimindeki rekabet dinamiklerini aydınlatmaya çalışmaktadır. İkincil veri kapsamlı bir düzeltmeden geçirilerek kullanılmıştır. Tanımlayıcı istatistikler ve regresyon modelleri kullanılarak yatay entegrasyonun yerli film dağıtımına etkileri irdelenmiştir. Sonuçlar yerli film dağıtımındaki yatay ve dikey entegrasyonla ilişkili olan baskın film türleri ve dağıtımcılar olduğunu göstermiştir. Bulgulara göre rekabet dinamiklerinin sadece oransız değil aynı zamanda yetersiz de olup özellikle sanat filmi ve belgesel gibi niş filmlerin dağıtım ve gösterimini olumsuz etkilediği gözlemlenmiştir.

[1]Boğaziçi University, 34342, İstanbul, Turkey. E-mail: yusufolmez1@gmail.com, ORCID: 0000-0002-8074-2383

[2]Boston University, 02215, Boston, USA. E-mail: karaca@bu.edu, ORCID: 0000-0002-0461-9009

1. Introduction

The film industry has been a rapidly growing market in terms of gross revenues for the last few decades, excluding the recent period of the Covid-19 (coronavirus) pandemic. Turkey also followed this trend after its crisis in the 1990s, when the number of films dropped to ten per year (Tunç, 2012). The enforcement of the new law[3] of cinema is perceived as an encouraging threshold for Turkey's film industry. Subsequently, the domestic production increased, and it is possible to say that the upward inclination is still valid. On the other hand, the international position of domestic films is also becoming more visible because of significant awards and broader exports of domestic films. For example, *Kış Uykusu* [Winter Sleep] received the Palme d'Or at the Cannes Film Festival, one of the world's most important film festivals. Another example is *Kedi* [Cat], which became the US's third-highest box office hit of all time regarding foreign language documentaries (Atakan et al., 2014; Wuppermann & Torun, 2017). Although these films are internationally acclaimed ones, their domestic performances in terms of box office were not that fruitful, which is one of the points indicating attraction for research.

The surge in the domestic film industry is chronologically parallel to the horizontal and vertical integration in Turkey. This economic growth of domestic films triggered a shift in the shares related to these films' screening and ticket sales. According to Turkey Statistical Institute's (Turkstat) regular reports, the market share of domestic films is larger than foreign films in terms of tickets sold from 2013 up to now. At the beginning of the century, domestic films had a share of almost ten percent. Afterward, the domestic film industry rapidly expanded, which led to an increase in the box office, share of screens, and number of productions for such films. On the other hand, the type of films that dominate the box office had also been changing throughout the years. All six films of the *Recep İvedik* sequel have almost eight percent of all the tickets sold from 2005 to 2019. Despite these domestic industry developments, market conditions regarding competition dynamics are controversial. The current leader of the exhibition sector, Cinemaximum, is growing rapidly while having a remarkable portion of the total box office. According to a report, multiplex chains started dominating the exhibition market in the 2000s (Kanzler, 2014). The report also indicates that Turkey's market concentration rate in the exhibition is the highest among the top ten largest European markets. The leadership of Cinemaximum has incrementally amplified after the acquisition of the second-largest exhibitor in 2011, which many stakeholders in the domestic industry challenged. Moreover, the leading exhibitor established a distribution company in 2014 that became the market leader after a year. The time framework of these transformations has similarities with the production boom. Therefore, it is pursuant to investigate empirical relationships between them, especially considering the fact that all of these occurred without any major government intervention (Çetin-Erus & Erus, 2020, p. 577).

The main purpose of this study is to assess the constituents, properties, and outcomes of the competition dynamics in the theatrical distribution and exhibition of domestic films through the characteristics of the product, producer, and buyer. After defining the stakeholders in the industry, the aim is to provide information about the evolving demand and transforming competition by using both quantitative and qualitative analysis. In other words, the initial target is

---

[3] Sinema Filmlerinin Değerlendirilmesi ve Sınıflandırılması ile Desteklenmesi Hakkında 5224 numaralı Kanun *(Supporting Motion Pictures after Evaluation and Categorization Act 5224)*, Kabul Tarihi *(Acceptance Date)*: 14/7/2004.

to investigate the process of transformation in Turkey's film industry, ending up in monopolistic competition in distribution and exhibition sectors along with lower diversity in genres. Regarding the purpose of the research mentioned above, the study looks for answers to the research questions described as follows:

> 1. What does the current dynamics of competition in theatrical distribution mean for the film industry in Turkey?

> 2. What is the relationship between the competition in the domestic film distribution and genre from 2005 until 2019 in Turkey?

> 3. How does the demand of the audience evolve regarding the changes in the domestic market?

2. An Overview of the Film Industry

When the transformation of film theaters is analyzed, it can be observed that there were no chains in the 1990s since the individual film theaters were mostly owned by individuals, families, and municipalities (Kalemci & Özen, 2011). Furthermore, Cinemaximum, the current leading company in Turkey's film theater sector, was established in 2001. Its remarkable growth peaked when it merged with CJ Entertainment, the second-largest exhibitor, in 2012. This merger was debatable, and various stakeholders of the industry challenged it. According to the survey conducted by the Turkish Competition Authority (RK) in 2016, the dissatisfaction level of both exhibitors and distributors in the sector is vivid after the merger (Tomur et al., 2016, pp. 107–112). This merger was subject to an official audit by RK, but the approval of the merging decision was given with few minor requirements. Afterward, a lawsuit was filed requesting the annulment of the decision even though the plaintiff abandoned the action. The horizontal integration of the exhibition sector reached another dimension in the last decade that led to the future crisis in the competition. To analyze the changes in shares of exhibitors, data from 2014 and 2019 can be compared. According to Yavuz (2015), the largest chain had almost 95 thousand seats, whereas the remaining largest nine chains had 85 thousand seats; additionally, the leading exhibitor owned 677 screens and the remaining nine firms had 756 screens altogether at the end of 2014. In 2019, Cinemaximum expanded the number of seats by more than 28 percent and reached almost 123 thousand seats (Özdurak, 2020, p. 6). Table 1 shows the last records of each company in the exhibition sector in 2019.

Put Table 1 about here

In contrast to the report of the RK, the horizontal integration lifted in the following years. Cinemaximum had 26, 30, and 37 percent of the seats in 2013, 2014, and 2019 respectively whereas the second-largest exhibitor, Avşar, had a six percent share in 2013 and 2014 while undergoing a slight increase to 6.8 percent in 2019. When the final decision was given about the merger in 2013, RK called attention to new expansion opportunities to exhibitors other than

Cinemaximum by giving the example of opening malls. Thus, RK did not consider any other competition issues despite the concerns of the stakeholder. In the same report, RK also assumed that the other companies would expand at least as much as Cinemaximum. The comparison of the seats shows that this is not a valid assumption. On the contrary, Cinemaximum became a monopoly throughout these years by making use of the pseudo-opportunities of its competitors because the company expanded thanks to the mall boom as well (Çetin-Erus & Erus, 2020; Erbil et al., 2017; Tüzün, 2013). Contrary to these disadvantages concerning exhibitors' competition, there are some positive figures within the industry that give important information about the other side of the monopoly. According to the data of 2013, Turkey has the highest share of domestic films in Europe by 58 percent (Tomur et al., 2016). This share has maintained a similar level up to now, and the last figures were 62 and 56 percent in the last two years, respectively (Turkish Statistical Institute, 2020). The second-largest domestic market share belongs to France, which has almost 34 percent (Kanzler, 2014, p. 7). Moreover, the number of tickets sold also significantly increased during this period. As stated by Box Office Türkiye, 26 million tickets were sold in 2005, whereas 70 million were sold in 2018. It dropped to 60 million in 2019, which might be correlated to the surge in ticket prices by almost 30 percent compared to the average ticket price in 2018. Therefore, it is noteworthy that producers started a public debate to challenge the unfair contracts and ticket prices at the beginning of 2019.

Besides these advantageous characteristics, there are serious concerns about the film industry. A remarkable example from 2015 shows the possible effects of monopolistic competition in the sector. 1700 screens out of 2300 showed only two films, *Düğün Dernek 2: Sünnet* [Marriage Ceremony 2: Circumcision] and *Star Wars: The Force Awakens*, whereas in the US, this same record-breaking sequel of *Star Wars* was screened in 10 percent of the screens (Akpinar et al., 2015; Burk et al., 2015). In the same screening week, internationally acclaimed films like *Frenzy* and *Ivy started* being shown on 25 and 16 screens respectively (Köspeten et al., 2015; Özköse & Karaçelik, 2015). A group of filmmakers and critics made a medium-length documentary called *Only Blockbusters Left Alive: Monopolizing Film Distribution in Turkey* about the distribution crisis related to the monopolistic ecosystem of this period, pointing out the emergence of the competition dynamics (Müjdeci, Aydemir, Kaya, & Yücel, 2016). There was a critical public debate called the "popcorn crisis" that was related to the horizontal and vertical integration in the industry. It was mostly triggered by the speeches of popular filmmakers like Cem Yılmaz and Yılmaz Erdoğan when they had conflicts with the CGV Mars Group about the distribution contract of their latest films. Together with these filmmakers, some other producers supported their argument and challenged the contract between producers and exhibitors because Cinemaximum was increasing the ticket prices by adding promotional byproducts like popcorn, but not including this portion of the ticket price when sharing the profit from the ticket sales with the producers. Nevertheless, the government intervened by enacting a "torba yasa"[4] to balance the needs of both sides. Therefore, the price-related disadvantages for the audience and the incompetent competition for films with negative demand have not changed at all. This also highlights the political economy as a part of the existing competition situation in Turkey (Akkaya, 2016). Thus, interdisciplinary research that includes this aspect has the potential to draw a broad picture of the competition.

---

[4] "Torba yasa": It is a proposed law that covers a number of diverse or unrelated topics.

3.   Horizontal and Vertical Integration in Film Industries

Recent developments in media technologies have enabled many means for watching films i.e., online streaming, video-on-demand platforms, and online broadcasting channels (Organization for Economic Co-operation and Development, 1996, p. 5). Although these advancements in the sector might be read as positive developments, the situation for first-run films is still problematic regarding theatrical distribution. First-run films are mostly shown in film theaters, and their future success on other platforms, such as television and video-on-demand, is highly dependent on their performance at the box office. Hence, a poor box office performance is the primary factor that carries a possible long-term failure within itself. According to Aydemir (2019), the industry has risked a return to a similar situation that happened in the 1990s because domestic films lost a critical share in 2019 due to the standardization of the content of these films. This loss has been exacerbated also due to the common approach of producers, exhibitors and distributors to profit from the existing situation rather than diversifying the films and expanding the audience.

Turkey's fast-growing film industry seems promising to many entrepreneurs even though problematic aspects lie underneath the cultural side of cinema as an art form. It is not possible to consider the integration within the film industry without its triggering factors, such as the increasing number of malls. There are empirical and theoretical findings showing that the expansion of the film industry in Turkey would not be possible at its existing rate without the mall boom (Erbil et al., 2017, p. 9). This research finds that the ratio of mall screens to all screens increased remarkably, and the growth trend continues, which helps exhibitors and producers to attract new viewers to the industry. The research also points out the critical contribution of the mall boom to the increasing number of domestic productions. Yurtseven (2020, p. 120) correlates the mall boom with the effect of popular culture on cinema-going behaviors also shaped by the demographic changes in Turkey. Hence, the mall boom introduced a new aspect to popular culture, the multiplex, and this is a key event regarding the path toward monopolistic competition in Turkey's film industry (Tüzün, 2013).

Some scholars suggest that integration of production and distribution can enhance the productivity of the domestic industry; thus, it is needed in Turkey, too (Çetin-Erus, 2007). On the other hand, the economic value of such growth strategies seems to benefit the domestic economy in general, but it also suggests fragile dynamics among the stakeholders of the specific industry. De Vany and McMillan (2004) support a similar approach from a different perspective by suggesting that the Paramount Decree lowered the stock prices of production companies exacerbating the litigation between producers and exhibitors. This contrasted with the motivation of the Department of Justice to create a barrier against monopoly connected to vertical integration, which would supposedly result in a more resilient dynamics in the competition (Conant, 1981). The pitfall of this argument is missing the timespan of these events. The trend of vertical integration was stopped before it reached a level of high market concentration. Hence, it should be noted that the possibilities of a significant vertical integration are not emphasized in this study. Besides, the study considers the increasing number of lawsuits between studios and independent exhibitors following the court decision as a sign of growing hostility, but there is no evidence to support it. Moreover, the Paramount Decree did not last long, and major studios started building their combined network with the distribution sector, which forced them to endure their hegemony

alongside the exhibition sector after Reagan's policies lowered barriers to entry into the exhibition business. (King, 2002, pp. 25–27; Prindle, 1993, pp. 16–19).

Park (2011, p. 559) states that the increased competition for film audiences led to a more cost-effective exhibition of films in South Korea. The study also finds that the more diverse range of films that are presented in the cinemas, the more disparate the choices are according to the linear regression results employed. Kim (2020, p. 117) finds that hierarchical allocation of resources through vertical integration becomes inefficient, whereas the efficient incentive structure of vertical integration between distribution and exhibition does not benefit the economic efficiency within multiplex theaters due to economies of scale. Blackstone and Bowman (1999, p. 138) point out the extent of benefits that might stem from a certain level of vertical integration or contracts. In contrast, their study emphasizes the possible decline in those benefits in case vertical integration decreases competitiveness by creating entry barriers followed by horizontal restraints. The horizontal integration in the exhibition market is seemingly parallel to the standardization of genres in popular cinema. It is possible to detect the growing number or revenue of certain types of films when the latest box office figures are looked over. It is not surprising to find such inclinations in the current neoliberal economic system, in which business enterprises try to maximize their profits and gain more market share (Jin, 2012). Nonetheless, it has long been known by marketing theorists that customers' desires do not match their needs or benefits in every case (Kotler, 1972). At this point, it is subject of discussion as to whether enterprises should change their behavior no matter what the economic system directs them to do or governments should intervene by regulating the distorted conditions.

4. Methodology

This study primarily focused on generating insights from qualitative and quantitative data about the audience and the competition dynamics in distribution and exhibition sectors for first-run domestic films released from 2005 until 2019 in Turkey. The time interval was set by taking the changing dynamics in the competition into consideration, which has played a vital role in the last decade. Furthermore, data quality and availability is another factor for selecting the period of 2005-2019 due to diminishing accountability of the box office data before 2005.

Quantitative data was collected from online resources such as Box Office Türkiye, IMDb, and Turkstat. The data on tickets sold, box office revenues, and screening locations was provided by Box Office Türkiye. The data on the domestic audience, screening shares, number of malls, film theaters, seats, population growth, and other demographics was obtained from Turkstat. Box Office and Turkstat provide reliable data about distributor and exhibitor components. IMDb ratings and votes are publicly available and internationally well-known, and objectively reveal the perception of the audience. Hence, IMDb data can be accepted as a measure of the audience component related to film's popularity and reputation, which can be assessed by the number of IMDb votes and IMDb rating. All the secondary data were put to use after reviewing similar data analyses in the literature so that the dataset is suitable for linear regression. Moreover, part of the data was added by the authors through supplementary research for genres.

Qualitative data such as trails, posters, and reviews were analyzed to determine the genre of the movies. One genre was decided to be the dominant one in order to simplify the genre variable

in the analysis after the analysis. Therefore, a 'simplified genre' variable was created. The simplified genre variable helped to reduce the divergence caused by outliers because some genres like action, animation, documentary, and family are rare in terms of ticket sales and number of productions.

The variables from the descriptive statistics such as the number of screening locations, screening weeks, box office and ticket sales were analyzed to examine the competition dynamics in the distribution sector and to reach a deeper understanding about the genres. For example, a distributor who owns the majority of the cinemas can evaluate the potential of the film before its release and they can make a decision about the number of screening locations accordingly, thus affecting ticket sales. The potential of a film can be impacted by its genre, popularity, reputation etc., which makes it valuable for this research to investigate. Therefore, the secondary data was analyzed in two supplementary stages. First, the summary statistics were examined through frequencies, means, and standard deviations. To drop out extremely low-ticket sales, outliers were filtered out via tickets sold and the number of votes on IMDb. The limit was set to the bottom quartile of the whole dataset, which includes 1329 films released from 2005 up to 2019. This corresponds to a minimum of 3,000 tickets sold and 75 IMDb votes. Moreover, 18 distributors were selected to be included in the analysis as dummy variables. They were chosen by filtering out the distributors that did not have one percent market share for at least one year from 2005 until 2019. It was observed that 34 distributors out of 52 did not match this criterion. The total market share of other distributors that were not included in the analysis almost did not exceed one percent for each year. Table 2 shows the summary statistics for the major variables in the dataset. Although the data of 2020 was also collected, it was not included in the analysis due to the esoteric global changes caused by Covid-19 (coronavirus) pandemic.

Put table 2 about here

To benefit from the advantage of using secondary data in research design, two regression models were developed to predict the consequences of actions taken by the agents in the film environment, such as exhibitors, distributors, and audience (Sen & Srivastava, 2011). The first model intended to assess the competition in the 2000s, while the second one focused on the 2010s. The period starts from 2005 up until 2011 for the first model, whereas the second regression analyzes the period from 2014 until 2019.

After the descriptive statistics were analyzed, it was observed that the two models had distinct characteristics regarding the dominant genre and distributor. Hence, the first period was set according to the domestic market share of the dominant distributor, Özen Film, which had more than 57 percent share in 2005 and more than 27 percent in 2011. For the second model, CGV starts with a domestic market share of more than 12 percent in 2014, going up to almost 71 percent in 2018, and ending with 33 percent in 2019. The decrease in the last year is related to the establishment of the new subsidiary of the same conglomerate, which is CJ Entertainment Turkey (CJET). The majority of the revenue stream shifted to CJET in 2019, as their domestic market share was almost 65 percent. All in all, two clusters of dominant distributor and genre were selected, whereas the films released in 2012 and 2013 were not included in the regression analysis,

as this period did not have specific characteristics because it was the time interval of transformation in the industry.

The dependent variables were defined as tickets sold, inflation-adjusted total box office in Turkish liras, and screening locations. After filtering out the outliers, the natural logarithms of these variables were used to address non-linearities. The independent variables were selected to explain the issues related to this research. All in all, the natural logarithm of screening weeks along with IMDb rating, HHI and the dummy variables for drama, documentary, Özen, and UIP were utilized for the first regression analysis. The second regression included an additional dependent variable, screening locations, since it reveals significant results when regressed with the independent variables. This regression has the same independent variables of HHI and IMDb rating, but screening weeks are not included because of the insignificant outcomes. The second model has dummy variables such as drama, comedy, documentary, CGV, and M3. Table 3 demonstrates the summary of the statistical test results.

Put table 3 about here

5. Results

Table 4 shows the summary statistics of the first model. The predicted variables, total tickets sold, and total box office adjusted by GDP deflator based on the value of Turkish liras in 2019, were used after taking their natural logarithms. The predictor variable, the number of weeks that a film is screened in cinemas during its release year, was also used in the same way to address non-linearities in the regression. As can be seen from Table 4, seven films did not have IMDb ratings, but they had more than 3,000 ticket sales, so they were included in the model. The dummies were used for both genre and distributors. Genre dummies were selected according to their significance levels and relationship with the competition. The dominant genre of this period was drama with 196 films, which made almost 60 percent of all films included in the model.

Put table 4 about here

The predictor variable of HHI was calculated by using the market shares generated by domestic film distribution (see Figure 1). Although the index was also calculated for all films, the scope of this study makes domestic HHI more reasonable because it focuses on the competition dynamics within the domestic industry and films.

Put figure 1 about here

Table 5 demonstrates the summary statistics about the second model. The difference between the two summary tables reveals insights into the changes between them. The sample size increased by 140 percent even though this model covers six years which is two years less than the previous model. This showed the surge in domestic films in the last decade. This was the first fact about creating two different models to study the concentration in the industry.

Put table 5 about here

Table 6 demonstrates the regression results for the multivariate linear regression analysis for the drama era. HHI is strongly correlated with both explained variables. It should be noted that HHI has a minimum value of zero and a maximum of one. In other words, the increasing concentration is positively correlated with the ticket sales and box office at this time. Furthermore, the findings show that the number of weeks and IMDb rating are positively correlated with tickets sold and box office figures.

Put table 6 about here

This can be read as an indicator of a weak domestic industry that would benefit from consistently dominant players in the distribution sector (Çetin-Erus, 2007). It should be noted that the market share of Özen Film had perpetually been decreasing, and ended up being roughly two percent in 2012.

The leading genre of this period is drama, with an average of 60 percent of the released films in a year. Although dramas outnumbered comedies, their box office performance was rapidly decreasing, whereas comedy was emerging with yearly box office shares up to almost 70 percent. The sample size for comedies is relatively few, which makes the regression results insignificant in terms of p values. Thus, they are not included in this model. Even though there are also few documentaries released in this period, the model works well for them. It is predicted that a documentary genre is negatively correlated with ticket sales and box office when compared to all genres other than drama. Özen Film distributed roughly one-third of the domestic films from 2005 to 2011. However, yearly average ticket sales and box office are lower than UIP and other domestic competitors like Pinema, KenDa, and MedyaVizyon. This can be correlated with the slightly lower coefficient of Özen in comparison to UIP. If a film is distributed by Özen, the model predicts that it is positively correlated with the ticket sales compared to every distributor except UIP. UIP is also associated with a positive relationship with ticket sales and box office when compared to distributors other than Özen. The model was called "drama" as it was the dominant genre of this period, but it should be underlined that it was losing its power as in the case of Özen, which prepared the grounds for the following "comedy era" just like malls, new technologies, and demographic changes (Erkip & Ozuduru, 2015). It supported the studies that consider a certain level of horizontal and vertical integration as a necessary factor for the development of the domestic film industry (de Vany & McMillan, 2004). The regression analysis predicted that the hegemony of Hollywood distributors is not resolved yet. The predictions about HHI and UIP gave empirical evidence about these issues.

Table 7 presents the regression results for the multivariate linear regression analysis for the comedy era. The findings show that the number of weeks and IMDb rating are positively correlated with tickets sold and box office figures similar to the drama era. The coefficients point out an increase in the ticket sales, box office, and screening locations when there is an increase in the rating. Hereby, it is time to comment on the overall picture regarding IMDb rating. When all 1,386 domestic films released from 2005 up to 2019 are analyzed, it is observed that there are 1,255 rated films with an average of 5.2 and 2,341 for IMDb rating and the number of votes respectively. It seems like rating has a slight positive correlation on ticket sales and box office. In popular cinema, a film is mostly a commodity that surpasses its cultural value (Adorno & Horkheimer, 2002). When

these films are compared to arthouse films that are more of an art piece with significant cultural value, it is possible to observe the gap in terms of ratings. If it is assumed that most arthouse films are dramas, some remarks can be made via the dataset of this study. There are only 15 comedies out of 100 top-rated domestic films from 2005 up to 2019. On average, they earned 27 million Turkish liras, whereas dramas in this list earned less than 17 million Turkish liras on average (see Figure 2). The coefficient of the IMDb rating that predicts screening locations differs from the other as it is almost zero. The conclusions could be more distinguishable if the rating was available before its release. Nevertheless, it is still possible to refer to the rating as an indicator of product quality. Afterward, it can be stated that the correlation between quality and screening locations is slightly positive. On the other hand, HHI has vigorous associations with all the explained variables. Contrary to the drama era, a one percent increase in the index is expected to decrease both alterations in ticket sales and box office.

Put figure 2 about here

Put table 7 about here

The increasing horizontal integration is negatively correlated with both ticket sales and the box office of a film. Considering the average HHI being 0.35 for the comedy era, the empirical evidence shows that high concentration is negatively correlated with the box office performance for a film subject to these analyses. This supports the hypothesis of this study in terms of distributors aiming for higher market shares for other reasons, such as having the upper hand in bargaining with exhibitors. When vertical integration is considered, Cinemaximum's strategies associated with expanding in both directions in the industry become more relevant. Consequently, increasing the market share that CGV already has (see Figure 3) still allows them to increase their screening locations. On the contrary, a small-scale niche distributor, M3 Film, is negatively correlated with a film's box office figures. To sum up, increasing vertical and horizontal integration is negatively correlated with the box office figures.

Put figure 3 about here

6. Discussion

Although the distribution sector is not identified as a capital-intensive sector that can lead to barriers to entry that creates economies of scale, the market has been more or less concentrated throughout the years. Nevertheless, it should be noted that the sector does not have the attribution to yield a natural monopoly. All in all, Özen Film was the market leader for the drama era, while it was observed from the quantitative analysis that their market share was decreasing in parallel to the decline in the share of domestic dramas released in this period. The socioeconomic changes related to the urban population and mall boom were also significant elements that influenced several factors in the film industry of Turkey. This transformation was evident from the audience's perspective as there was a surge in the ticket sales of domestic films, which became prominent with the emergence of domestic comedies as well. The Hollywood-based rival of Özen, UIP, has a similar contribution to the box office performance as the analysis points out. This was a valid prediction considering UIP's perpetual performance in taking a remarkable portion from the share in the market distribution. Their consistent revenue stream arising from the distribution of

Hollywood blockbusters gave them the chance to easily balance the changes in the domestic market even if a monopoly exists in the domestic film distribution market.

This period prepared the grounds for the current dynamics in the competition, which compromises the last decade. Cinemaximum became the largest exhibitor in ten years when Özen was almost not operating anymore in 2012. The mall boom was one of the biggest opportunities for a new entrant in the exhibition sector since multiplex culture was becoming more and more predominant during the 2000s (Erbil et al., 2017; Yurtseven, 2020). As Hollywood distributors were dominant before this era, they overtook the market share again between the drama and comedy era. Considering the crisis in the domestic film industry that endured until the beginning of the 2000s, the horizontal integration in the exhibition sector might be considered a beneficial factor when taken into account with vertical integration, a claim raised in several studies (Çetin-Erus & Erus, 2020; de Vany & McMillan, 2004). Two-axis integration or contracts between stakeholders would contribute to the domestic film industry due to the extreme global dominance of the Hollywood film industry. However, there can be other effects of the two-axis integration, such as the increasing concentration ratio that indicates monopolistic competition.

As the coefficients of HHI indicated, horizontal integration is positively correlated with the performance of a film in the drama era. However, the predictions for the comedy era showed a negative correlation between the integration and box office performance. Besides, there were shreds of evidence of predatory pricing related to the largest conglomerate that operates mainly in distribution and exhibition. Hence, there has been a specific type of monopolistic competition in the domestic film industry in the last decade. The empirical evidence showed that the largest group of companies operated as if it was a coercive monopoly. Although there were competitors in exhibition and distribution markets, the economies of scale probably did not allow them to fairly compete, whereas the market leader can raise prices and make production decisions without any risk of customer churn. The empirical evidence showed a positive correlation in the box office performance of a film if it is distributed by CGV Mars whereas another domestic distributor, M3 Film, was predicted to have a negative correlation with the performance of a film. Since M3 film distributes a significant amount of outlier films like documentaries and arthouse or festival films, the concerns of stakeholders mentioned in Akkaya's (2016) study and many other declarations, news, articles, and research have become more prominent (Aydemir, 2020; Kanzler, 2014; Müjdeci et al., 2016; Vitrinel, 2015). Lastly, the second multivariate regression model revealed additional information about the screening locations. The positive correlation between the predicted variable and HHI showed that the increasing market concentration is positively correlated with the number of screenings. Hereby it is timely to mention that CGV Mars has a subsidiary company, Cinemaximum, which owns more than half of the film theaters, making them the largest exhibitor by far. The vertical integration supplemented the outcome of the regression results in a way that supported the argument related to the negative correlation of vertical integration with the box office figures of films in Turkey.

The first multivariate regression revealed that dramas were negatively correlated with the box office performance of a film by using the data from 2005 until 2011. Even though they were the dominant genre, the trend was rapidly declining during these years, while the trendline of comedy films illustrated an upward inclination for this period as well. However, the number of dramas produced was the highest during these years. This is why the average number of tickets sold was relatively lower than other genres due to the fact the genre was attracting most of the producers with the hope that it has more chances for more ticket sales. For this reason, drama had

the largest negative correlation with the box office performance, even more than documentaries. It should be noted that the difference between drama and documentary is really small, and the model predicts documentaries to have a remarkable negative correlation on box office performance.

In the second multivariate regression, the model predicted similar correlations for drama and documentary with the box office performance. However, comedies had a positive correlation with all three predicted variables of ticket sales, box office, and screening locations. The share of domestic comedy productions between 2014 and 2019 was 53 percent, which pointed out the domination in production numbers. In the comedy era, 73 percent of the tickets of domestic films were sold for comedies. These shares indicated the monopolistic tendency in the exhibition sector as well. The audience share for the domestic films collaterally increased with a higher concentration in the market. Lastly, the outlier genres had a difficult time in the distribution in the domestic market as the horizontal and vertical integration accelerated.

The average tickets sold for genres follow 425 thousand, 175 thousand, and five thousand for comedy, drama, and documentary, respectively. It can be observed that the demand for comedies is strongly correlated with the box office figures and has a higher coefficient than others in the second model. The drama coefficient had a slight decrease, but the figures fell dramatically for the documentary in terms of box office performance. The coefficient of documentary dramatically decreased in the comedy era compared to the drama era. In the light of the comparison of IMDb ratings and average tickets sold for two eras, there were two provoking results. One of them is the changing dominant genre, even though the perception of the films did not change at all. It can also be explained by looking at the maximum theater shares. Comedy had the highest share in both eras by 13 percent for the first era and 9 percent for the second era. The number of comedy films significantly increased in the second era, together with their maximum theater shares. The commercial success of comedies dominantly prevailed against other genres, and this evolution in audience demand follows a parallel trend with horizontal and vertical integration. On the other hand, the coefficients of HHI exhibited alternative perspectives about the changing demand. The model predicts that horizontal integration in the domestic film distribution in the drama era is positively correlated with the box office. However, the comedy era has the complete opposite prediction. This manifests the negative correlation of horizontal integration, which can be critical for the demand. As comedies were also preferred over others by producers due to the aforementioned advantages, the evidence showed that the product range got extremely limited in terms of genre. The second result is about outlier documentaries. Even though the perception and demand for domestic documentaries were quite high for both eras, screening locations share had decreased from five percent to one percent. As the horizontal integration increases, the regression analysis also stated a negative correlation between box office conditions and documentaries in the second era.

7. Conclusion

This study examined the competition dynamics in theatrical distribution and exhibition of domestic films in Turkey through quantitative and qualitative analysis. The results revealed significant information about horizontal and vertical integration, which has been evident for the last decade.

The regression results demonstrated that the rating does not have a strong correlation with box office performance, which can be interpreted as quality and content not being expected to have either a positive or negative correlation. It should be noted that the ratings exist after the release and saturate after a certain period, whereas the box office figures outrides. The regression results showed a remarkable correlation between the HHI and box figures, thus the horizontal integration in the industry of domestic film distribution. The critical changes between the drama and comedy era developed a completely new environment in terms of competition. The model states that horizontal concentration had a negative correlation with the box office performance of a film, whereas the model for the drama era revealed the opposite result. This can be correlated to the extent of integration, which exceeded a limit where the weak competitive environment might harm the fairness in the industry by creating market friction. With the effect of economies of scale, a domestic film's performance was positively correlated with the leading distribution companies both in drama and comedy eras, whereas the opposite correlation is stated for the local small size competitor in the second regression analysis. The alternative competitor in the drama era had a positive correlation with box office performance, but the significant difference of being a Hollywood-based distributor changed the dynamics in competition as they had significant revenue streams from foreign film distribution.

As for genre, the surge in domestic film production was observed to be parallel to the emergence of domestic comedies. The increasing trend for these films started in the drama era, as can be seen from their average box office performance. It prevailed after 2010 and dethroned domestic dramas in terms of box office and number of productions. The regression analysis pointed out that comedy genre is more strongly correlated with the box office figures than drama and documentary in the comedy era. Combined with other radical changes in the domestic film industry, this can be interpreted as a holistic transformation in the market. Mall boom, an increasing number of university graduates, settlement of the urban population, and increasing cultural expenditure in households are the exogenous factors that contributed to the evolution of the demand and supply in the domestic film industry (Çetin-Erus & Erus, 2020, pp. 569–571). The extreme concentration rate of the largest exhibitor can also be considered a major element in the process of transformation due to the parallel changes in genre and mall boom alongside the concentration in the distribution sector for domestic films.

This study revealed that the current largest domestic distributor, CGV, has a certain market power, which resulted in price bundling and even predatory pricing, which resembles a coercive monopoly. Considering a similar dominance of the subsidiary company in the exhibition sector, the competition dynamics became imbalanced without any major government intervention in the process. Therefore, the regulators such as RK and GDC might consider the results of this research beneficial for reconstructing the competition in a way more equitable and comprehensive for the stakeholders. Lastly, the transformation in the domestic film industry has already damaged the independent film theaters due to the shift towards multiplexes (Kayhan Müldür, 2020). The effect of horizontal and vertical integration on this change was investigated in this study. It was observed that the independent film theaters are positioned like niche products like festival films and documentaries. Due to economies of scale, they could not compete with large film theater chains. Moreover, it was also difficult to compete even for other multiplex chains with the market leader because of their market power. Thus, a similar incentive program can be initiated for independent film theaters in order to develop competition and diversification.

The limitations of this research can be summarized as follows:

1. The major data source, Box Office Türkiye, had a deceptive approach to recording the number of weeks that a film is screened in cinemas. The data did not present the total weeks, but it reflects the number of weeks in the release year. Although this provided the correct information for most of the domestic films, the information was misleading for the films that are released close to the end of a year. Other data sources were investigated to handle this issue but there was no alternative resource available that can remedy the problem. Moreover, there was no open data source for detailed information about the concentration in the exhibition market. Including such a variable or even descriptive statistics would benefit this study with another HHI for the exhibition sector.

2. Another limitation of the study is that most of the domestic films are genre hybrids. 'The simplified genre' variable is constructed for the study to be able to handle this limitation. Nevertheless, 'the simplified genre' is not a fully accountable approach to analyze the movies because the definition could differ from party to party. It is challenging to simplify the genre of a movie in a way that creates a common consensus.

3. The method used in choosing the variables in the regressions was eliminating the insignificant variables step by step from the all-inclusive model. The initial aim was to make the regression results in the research easily comparable with each other. Keeping the insignificant variables may have resulted in a slightly better fit of the data but the comparison would be more complex. Nevertheless, this is a limitation that can risk the validity of the results because of the omitted variable bias.

4. There was no transparent information about the Korean conglomerate, which owns CGV, CJET, and Cinemaximum, and their operations, especially about the motivation behind launching a new distribution company, CJET. Considering the fatal effects of the Covid-19 (coronavirus) pandemic on film theaters, the position of the online streaming industry gets more critical for theatrical distribution and exhibition of domestic films. The tendency and transformation related to watching films through these platforms might contribute to the disruptive innovation of film theaters; however, it requires further research.

5. The role of foreign films might have some critical effects on the domestic film industry despite the fact that these two groups of films are distributed seasonally, and Hollywood productions create most of these films like every other country, meaning the scope of this study is limited to domestic films to scrutinize the effect of competition in the local market with a particular focus on possible issues for outlier films to be distributed and screened in the country. The exclusion of foreign films has another disadvantage because their box office figures are not included among the independent variables. In other words, the regression models try to analyze the competition between the domestic films, but they exclude the effect of foreign films in the local competition dynamics.

6. Lastly, HHI variable seems to increase consistently over time. Therefore, the inclusion of proper controls for macro variables that can affect ticket sales would have made the interpretation of the HHI coefficient more meaningful.

Despite the empirical and systematic method that is followed throughout the whole process of this study, further research is needed to portray the competition dynamics, including foreign films and online streaming, to combine them with the case of the domestic film industry in Turkey. The comparison between theatrical box office figures and online streaming performance of films would benefit the results of this study as it might reveal critical differences. Further research on evaluating the concentration rates in other countries would also help both in this study and others

because of possible comparisons of different contexts. Lastly, certain findings of the study had remarkable connections with political economy and media studies, which makes future research on these fields valuable for the issues raised in this study.

References

Adorno, T., & Horkheimer, M. (2002). *Dialectics of Enlightenment*. Stanford University Press.

Akkaya, E. (2016). *Rethinking independent cinema: Public funding, market oligopoly and the film industry in Turkey*. https://doi.org/10.13140/RG.2.2.27329.97124

Akpinar, N., Bekce, Z. A. (Producers), & Aydemir, S. (Director). (2015). *Düğün dernek 2: Sünnet*. CGV Mars.

Atakan, Z., Yıldırım, M. (Producers), & Ceylan, N. B. (Director). (2014). *Kış uykusu*. Pinema.

Aydemir, Ş. (2019). "Yerli sinema dörtte bir küçüldü [Domestic cinema shrinked by one fourth]". *Gazete Duvar*. https://www.gazeteduvar.com.tr

Aydemir, Ş. (2020). "Netflix fırsat mı sunuyor, tekelleşmeyi mi körüklüyor? [Does Netflix create an opportunity or fuel the monopolization?]". *Gazete Duvar*. https://www.gazeteduvar.com.tr

Blackstone, E. A., & Bowman, G. W. (1999). "Vertical integration in motion pictures". *Journal of Communication*, *49*(1), 123–139. https://doi.org/10.1111/j.1460-2466.1999.tb02785.x

Burk, B., Kathleen Kennedy (Producers), & Abrams, J. J. (Producer/Director). (2015). *Star Wars: The force awakens*. UIP.

Çetin-Erus, Z. (2007). "Film endüstrisi ve dağıtım: 1990 sonrası Türk sinemasında dağıtım sektörü [Distribution and film industry: Distribution sector in post-1990 Turkish cinema]". *Selçuk İletişim*, *4*(4), 5–16. https://dergipark.org.tr/en/pub/josc

Çetin-Erus, Z., & Erus, B. (2020). "The rise of domestic popular film production with new audience and changing industry structure: The case of popular cinema in Turkey". *European Journal of Communication*, *35*(6), 565–579. https://doi.org/10.1177/0267323120928216

Conant, M. (1981). "The Paramount decrees reconsidered". *Law and Contemporary Problems*, *44*(4), 79–107. https://lcp.law.duke.edu

de Vany, A., & McMillan, H. (2004). "Was the antitrust action that broke up the movie studios good for the movies? Evidence from the stock market". *American Law and Economics Association*, *6*(1), 135–153. https://doi.org/10.1093/aler/ahg017

Erbil, C., Köksal, E., & Yurtseven, C. (2017). "Mall flicks - The mall boom in Turkey with an unexpected byproduct: The movie sector expansion". *Research in World Economy*, *8*(1), 1–14. https://doi.org/10.5430/rwe.v8n1p1

Erkip, F., & Ozuduru, B. H. (2015). "Retail development in Turkey: An account after two decades of shopping malls in the urban scene". *Progress in Planning*, *102*, 1–33. https://doi.org/10.1016/j.progress.2014.07.001

Jin, D. Y. (2012). "Transforming the global film industries: Horizontal integration and vertical concentration amid neoliberal globalization". *International Communication Gazette*, *74*(5), 405–422. https://doi.org/10.1177/1748048512445149

Kalemci, R. A., & Özen, S. (2011). "Institutional change in the Turkish film industry (1950-2006): Social exclusion impact of globalization". *TODAİE's Review of Public Administration*, *5*(1), 69–120. https://www.academia.edu

Kanzler, M. (2014). *The Turkish film industry: Key developments 2004-2013* (Issue October). https://rm.coe.int/168078354a

Kayhan Müldür, S. (2020). "The proliferation of alternative film exhibition spaces in Istanbul: cultural segregation and urban cinephilia". *Visual Studies*, *35*(2–3), 232–244. https://doi.org/10.1080/1472586X.2020.1779610

Kim, M. (2020). "Does vertical integration of distributors and theaters ensure movie success?" *Journal of Asian Sociology*, *49*(1), 119. https://doi.org/10.2307/26909867

King, G. (2002). *New Hollywood cinema*. Columbia University Press.

Köspeten, E., Öperli, N. (Producers), & Alper, E. (Director). (2015). *Abluka*. Bir Film.

Kotler, P. (1972). "A generic concept of marketing". *Journal of Marketing*, *36*(2), 46–54. https://doi.org/10.1177/002224297203600209

Müjdeci, K., Aydemir, Ş., Kaya, E., & Yücel, F. (2016). *Kapalı gişe: Türkiye'de tekelleşen film dağıtımı*. Coloured Giraffes.

Organisation for Economic Co-operation and Development. (1996). *Competition policy and film distribution*. https://www.oecd.org/daf/competition/sectors/1920038.pdf

Özdurak, C. (2020). "Birleşme ve devralmalar sonrasında Türkiye sinema sektöründeki oligopolistik yapı [The oligopostic structure of Turkish cinema industry after mergers and acquisitions]". *Nişantaşı University Journal of Social Sciences*, *8*(1), 1–17. https://dergipark.org.tr/en/pub/nisantasisbd

Özköse, B. E. (Producer), & Karaçelik, T. (Director). (2015). *Sarmaşık*. M3 Film.

Park, S. (2011). "Market change and diversity in the Korean movie market". *Asian Journal of Communication*, *21*(6), 544–563. https://doi.org/10.1080/01292986.2011.608224

Prindle, D. (1993). *Risky business: The political economy of Hollywood*. Westview Press.

Sen, A., & Srivastava, M. (2011). *Regression analysis: Theory, methods, and applications*. Springer. (Reprint of the original 1st ed. 1990).

Tomur, K., Kol, İ., & Bilaçlı, C. (2016). *Sinema hizmetleri sektör raporu [Industry report of cinema businesses]*. https://www.morogluarseven.com/wp-content/uploads/2019/01/Sinema-Sektör-Raporu_06.04.2016.pdf

Tunç, E. (2012). *Türk sinemasının ekonomik yapısı (1896-2005) [The economic structure of Turkish cinema]*. Doruk.

Turkish Statistical Institute. (2020). *Sinema ve tiyatro istatistikleri, 2019 [Cinema and theater statistics]*. https://data.tuik.gov.tr

Tüzün, S. (2013). "Multipleks sinema salonları ve Türkiye örneğinde sinema sektöründe değişen güç dengeleri [Multiplex movie theaters and the shift of power balance in the cinema sector in Turkey]". *Sinecine: Sinema Araştırmaları Dergisi*, *4*(1), 85–115. https://www.sinecinedergi.org

Vitrinel, E. (2015). *Le Cinema En Salle Face A La Multiplication Des Ecrans Une Analyse Pluridisciplinaire De La Situation En Turquie*.

Wuppermann, C. (Producer), & Torun, C. (Director/Producer). (2017). *Kedi*. Başka Sinema.

Yavuz, D. (2015). *2014 yılı vizyon raporları: Türkiye'nin sinemaları [Box office reports for 2014: Film theaters of Turkey]*. https://sadibey.com/dosyalar/Gerekli_Seyler/2014_Vizyon_Raporu_07.pdf

Yurtseven, Ç. (2020). "Enlargement and transformation of the movie theater industry in Turkey". *Economics and Sociology*, *13*(2), 110–122. https://doi.org/10.14254/2071-789X.2020/13-2/8

Abbreviations

BirF: Bir Film Dağıtım *Bir Film Distribution)*

BS: Başka Sinema Dağıtım *(Başka Sinema Distribution)*

CF: Cinefilm Yapım Dağıtım Hizmetleri *(CF Production Distribution Services)*

CGV: CGV Mars Dağıtım *(CGV Mars Distribution)*

ChF: Chantier Films

CJET: CJ Entertainment Turkey

DF: Derin Film

DW: Durbin-Watson Statistic

GDC: General Directorate of Cinema, Ministry of Culture and Tourism

HHI: Herfindahl-Herschman Index

KenD: Kenda Film Dağıtım *(Kenda Film Distribution)*

KRC: Kurmaca Film

M3: M3 Film

MC: MC Film Dağıtım *(MC Film Distribution)*

MVZ: Medyavizyon Film Yapım Pazarlama *(Medyavizyon Film Production Marketing)*

OBS: European Audiovisual Observatory

Özen: Özen Film

Pin: Pinema Film

RK: Rekabet Kurumu *(Turkish Competition Authority)*

Tig: Tiglon

TME: TME Films

Turkstat: Turkish Statistical Institute

UIP: United International Pictures

WB: Warner Bros. Türkiye *(Warner Bros. Turkey)*

Table 1 The Largest Exhibitors by the Number of Screens in 2019

					Share		
Rank	Exhibitor	# of Sites	# of Screens	# of Seats	Site	Screen	Seat
1	Cinemaximum	107	909	122,171	24.5%	33.3%	38.6%
2	Avşar	20	169	21,369	4.6%	6.2%	6.8%
3	Pink	27	188	17,746	6.2%	6.9%	5.6%
4	Cinemarine	13	109	11,548	3.0%	4.0%	3.7%
5	Prestige	11	94	10,588	2.5%	3.4%	3.3%
6	Torunlar	7	72	10,116	1.6%	2.6%	3.2%
7	Cinens	13	89	9,945	3.0%	3.3%	3.1%
8	Site	15	81	8,714	3.4%	3.0%	2.8%
9	Cinetime	7	59	6,244	1.6%	2.2%	2.0%
10	Özdilek	3	21	2,262	0.7%	0.8%	0.7%
11	Denk	2	17	1,363	0.5%	0.6%	0.4%
12	Independent	212	922	94,133	48.5%	33.8%	29.8%
	Total	437	2,730	316,199			

Source: Özdurak (2020)

Table 2 Descriptive Statistics for Major Continuous Variables in Raw Data

Variable	N	$\bar{X}$	σ	Min.	Max.
Screening locations	1329	150.43	184.966	1	1529
Weeks	1329	8.376	6.742	1	42
Box office (release year)	1329	2863413.8	8087488	0	89557347
Tickets sold (release year)	1329	278099.57	735016.51	0	7437050
Box office (total)	1329	3065174.2	8620907	32	90109884
Tickets sold (total)	1329	297572.14	783971.06	3	7437050
IMDb rating	1255	5.252	1.541	1	9.2
Number of votes	1255	2341.015	6844.342	5	104569

Source: Author's calculations from proprietary data from Box Office Türkiye
(boxofficeturkiye.com, 2005-2019).

Table 3 Summary of the Results for Assumptions of Linear Regression

Tests	Model 1		Model 2		
	Tickets sold	Box office	Tickets sold	Box office	Screening locations
Scatter plot	Linear (Figure 1)	Linear (Figure 2)	Linear (Figure 3)	Linear (Figure 4)	Linear (Figure 6)
Variance inflation factor test (mean VIF)	Independent 1.15	Independent 1.15	Independent 1.27	Independent 1.27	Independent 1.27
Durbin-Watson test (d statistic)	No autocorrelation 1.87	No autocorrelation 1.86	No autocorrelation 1.59	No autocorrelation 1.58	No autocorrelation 1.59

Table 4 Summary Statistics for the First Regression Model

Variable		N	$\bar{X}$	σ	Min.	Max.
Tickets sold		337	373,984	770,079	214	4,333,144
Box office		337	7,816,687	16,325,478	5,598	91,475,810
Weeks		337	12.15	8.09	1	39
IMDb rating		330	5.54	1.60	1.3	8.8
HHI		337	0.25	0.07	0.18	0.4
Dummies for						
	Drama	337	0.57	0.50	0	1
	Documentary	337	0.03	0.16	0	1
	Özen	337	0.26	0.44	0	1
	UIP	337	0.11	0.31	0	1

Source: Author's calculations from proprietary data from Box Office Türkiye and IMDb together with additional measures for genre and HHI (2005-2012).

Table 5 Summary Statistics for the Second Regression Model

Variable		N	$\bar{X}$	σ	Min.	Max.
Tickets sold		806	281,907	777,268	3	7,437,050
Box office		806	4,543,255	12,698,560	35.78	128,213,940
Screening locations		806	185.32	206.83	0	7.33
IMDb rating		684	5.1	1.55	1	1519
HHI		806	0.36	0.09	0.18	0.46
Dummies for						
	Drama	806	0.28	0.45	0	1
	Comedy	806	0.37	0.48	0	1
	Documentary	806	0.2	0.14	0	1
	CGV	806	0.26	0.44	0	1
	M3	806	0.05	0.21	0	1

Source: Author's calculations from proprietary data from Box Office Türkiye and IMDb together with additional measures for genre and HHI (2014-2019).

Table 6 Regression Results for the First Model

Variable	B	SE B	p
Tickets sold (ln)			
Weeks (ln)	0.43	0.12	0.001
IMDb rating	0.26	0.07	0.000
HHI	2.53	1.42	0.076
Dummies for			
Drama	-1.97	0.22	0.000
Documentary	-1.85	0.66	0.005
Özen	0.56	0.24	0.019
UIP	0.54	0.32	0.089
Constant	9.09	0.55	0.000
Box office (ln)			
Weeks	0.39	0.13	0.002
IMDb rating	0.27	0.07	0.000
HHI	3.1	1.46	0.035
Dummies for			
Drama	-2.02	0.23	0.000
Documentary	-1.92	0.68	0.005
Özen	0.57	0.24	0.019
UIP	0.64	0.33	0.050
Constant	11.96	0.56	0.000

	N	R^2	p
Tickets sold (ln)	330	0.25	0.000
Box office (ln)	330	0.25	0.000

Source: Author's calculations from proprietary data from Box Office Türkiye and IMDb together with additional measures for genre and HHI (2005-2012)

**Table 7** Regression Results for the Second Model

Variable	B	SE B	p
Tickets Sold (ln)			
IMDb Rating	0.33	0.05	0.000
HHI	-2.85	0.85	0.001
Dummies for			
Comedy	0.56	0.17	0.001
Drama	-1.43	0.21	0.000
Documentary	-2.69	0.57	0.000
CGV	1.15	0.17	0.000
M3	-1.04	0.36	0.003
Constant	9.95	0.42	0.000
Box Office (ln)			
IMDb Rating	0.34	0.06	0.000
HHI	-3.88	0.87	0.000
Dummies for			
Comedy	0.57	0.18	0.002
Drama	-1.51	0.21	0.000
Documentary	-2.79	0.59	0.000
CGV	1.20	0.17	0.000
M3	-1.08	0.36	0.003
Constant	12.96	0.43	0.000
Screening Locations (ln)			
IMDb Rating	0.08	0.03	0.005
HHI	1.07	0.43	0.014
Dummies for			
Comedy	0.20	0.09	0.023
Drama	-1.02	0.11	0.000
Documentary	-1.71	0.29	0.000
CGV	0.68	0.09	0.000
M3	-1.16	0.18	0.000
Constant	4.07	0.21	0.000

	N	R^2	p
Ticket Sold (ln)	684	0.25	0.000
Box Office (ln)	684	0.26	0.000
Maximum Theater (ln)	684	0.40	0.000

Source: Author's calculations from proprietary data from Box Office Türkiye and IMDb
together with additional measures for genre and HHI (2014-2019).

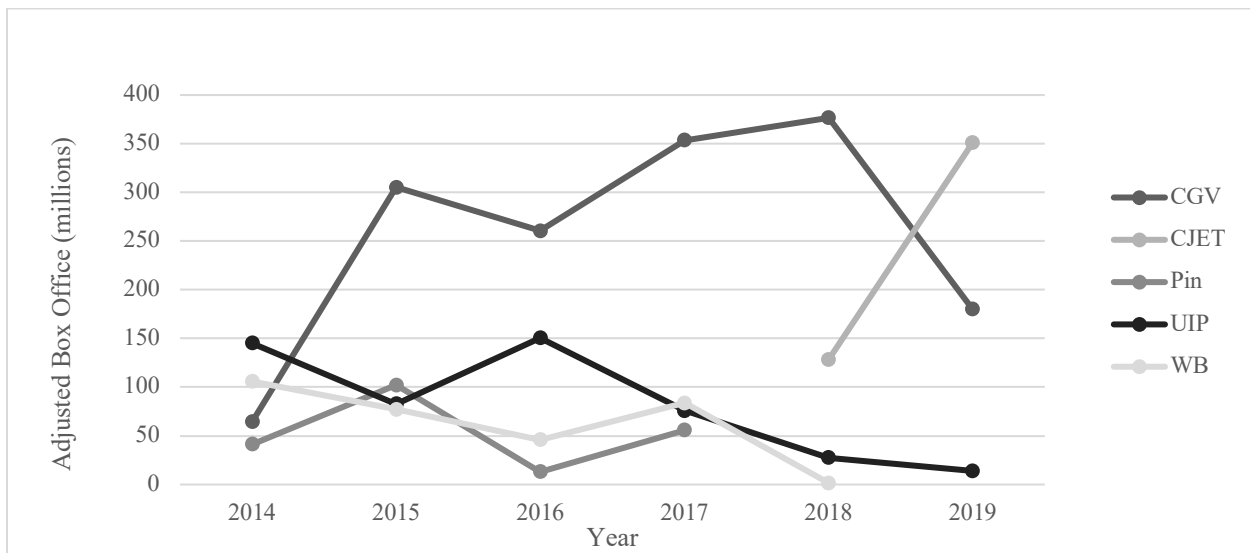**Figure 1** HHI for Domestic Film Distribution Market from 2005 until 2020
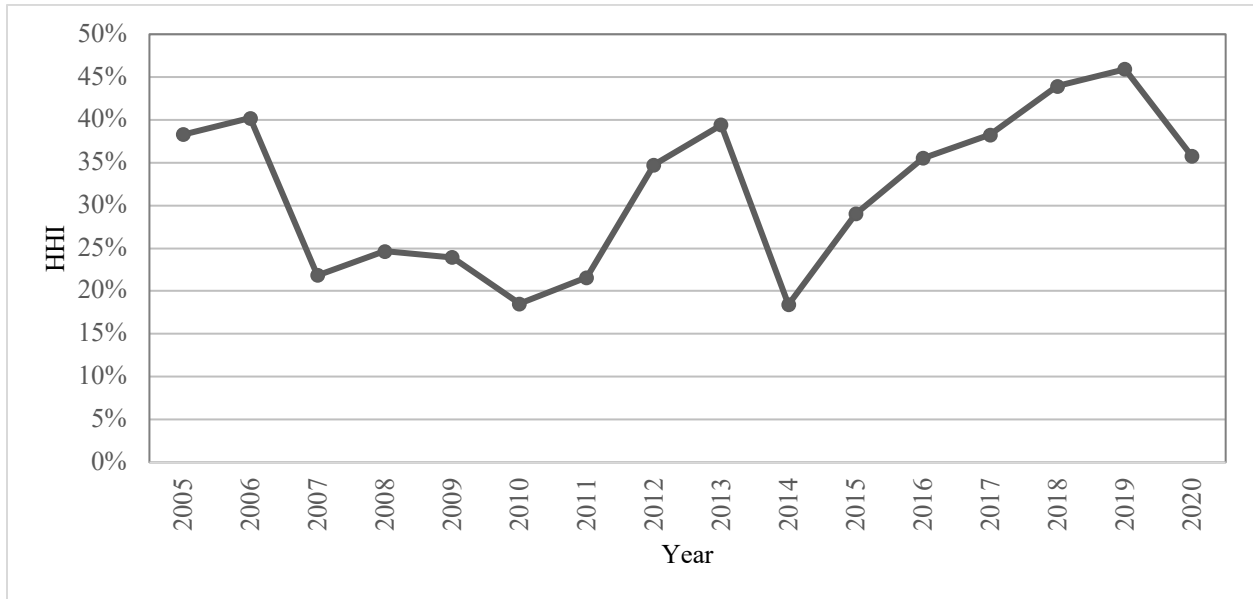
Source: Author's calculations from proprietary data from Box Office Türkiye
(boxofficeturkiye.com, 2005-2020).

Figure 2 The Box Office of Domestic Films By Genre (2014-2019)
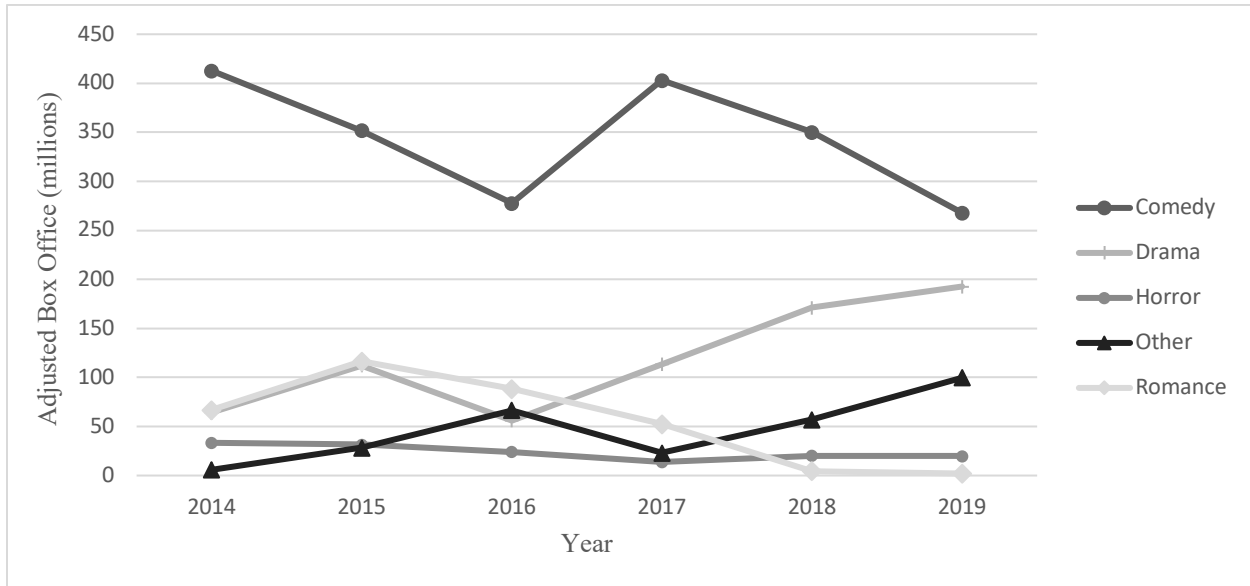
Source: Author's calculations from proprietary data from Box Office Türkiye
(boxofficeturkiye.com, 2014-2019).

Figure 3 The box office of domestic films by the five largest distributors (2014-2019)

Source: Author's calculations from proprietary data from Box Office Türkiye
(boxofficeturkiye.com, 2014-2019).