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경영학석사 학위논문

Factors Affecting the Performance  
of Re-released Movies:  
Focusing on Korean Movie Market  
재개봉 영화의 성과에 영향을 미치는  
요인에 관한 연구:  
한국 영화시장을 중심으로

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이원정

# Factors Affecting the Performance of Re-released Movies:

Focusing on Korean Movie Market

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## Abstract

# Factors Affecting the Performance of Re-released Movies: Focusing on Korean Movie Market

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This research attempts to find predictors of box office performance for re-released movies. We devised a conceptual framework of the key factors influencing the success of a re-released movie. Three categories of independent factors are film characteristics(genre and MPAA rating), previous performance of a movie(Maxscreen and Ratings), and re-release timing of a movie(Event and Duration). Two dependent variables including total

box office sales and first week box office sales were adopted in this study. The analysis was conducted using descriptive statistics and multiple-regression method. Motion Picture Association of America rating(PG15), maximum number of screens in first release(Maxscreen), viewers' rating(Ratings), release events(Event), and the time it takes to be re-released(Duration) were significant predictors to box office performance. Additional analysis was conducted focusing on scale of re-opening screens. The results show that genre(Romance), viewers' ratings(Ratings), special events(Event), and the time it takes to be re-released(Duration) were significant predictors. Also, it shows U-shaped relation between the time it takes to be released(Duration) and the number of screens on re-opening day(Rescreen).

This analysis can help managers to choose which film to re-release and decide how many screens to allocate on the first day of re-released film.

**Keywords:** Re-released movies, release timing, repurchase behavior, movie performance, marketing strategy

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## Chapter 1. Introduction

Movie re-release has become a trend in Korea since 2013. In 2016, the number of movies that was re-released was 90, which was 164% increase compare to 2013. Despite the fact that VOD has enabled customers to stay home and watch any film at a lower cost, demand for re-release of movies in theater has increased. Take the <Harry Potter and The Sorcerer's Stone>, for example. The film was re-released in 2018 selling out all the tickets. On top of that, some re-released movies results better performance compared to its' previous release. <Eternal Sunshine of The Spotless Mind>, which was first released in 2005 with 170 thousand viewers, was later re-released in 2015 with 490 thousand viewers in Korea. As the demand for re-released movies in theater increases, marketing managers' role to make decisions about which movie to re-release has become important issue. However, when choosing a film, managers currently rely on their insight. Through out this paper, the term *re-released movies* refer to movies that are released for the second time in a

theater more than 40 times a week.

From the managers' perspective, understanding consumers' repurchasing behavior is essential to movie releasing decisions. Managers of theater would like to know what kind of movies are profitable. Normally, consumer's decision of choosing which movie to watch is closely related to purchase decision process. They try to avoid risk, such as wasting time and money, by searching for additional information(Rook and Hotch, 1985). However, re-released movies have a unique characteristic, different from movies as an experience goods. Movie have an experience good property that consumers do not know the value of the movie until they experience it(Shapiro and Varian, 1999). Once they know the value of the experience good, unless it provides high-quality experience or an incentive to consume again, it will not lead to repurchase behavior(Telser, 1980; Klein and Leffler, 1981). This disposable characteristic of a movie emphasizes the need for additional studies of re-released movie performance. Despite the important issues mentioned above, not much research has been conducted regarding re-released movies. The objective of this research is to devise a new theoretical framework that effectively

develop predictors for box office success of re-released movies using multiple regression analysis. The proposed method would enable managers to estimate the performance of re-released movies and to make decisions on which movie to re-release.

This paper is organized as follows. The Literature Review section discusses about previous researches and explains the demand for re-released movies. Then in Conceptual Framework and Hypothesis, this study suggests practical prediction factors for box office performance of re-released movies. Next, data source and variables are explained in Research Method section. The Results of Statistical Analyses talks about the results derived from the model used in this study. The Discussion and Limitations section provides implications and limitations for this study.

## Chapter 2. Literature Review

Most of the movie related research has focused on finding predictors of box office performance. The predictors include motion picture association of America(MPAA) rating(Ravid and Basuroy, 2004), the genre(Desai and Basuroy, 2005), sequels(Chang and Ki, 2005), director power(Litman and Kohl, 1989), production budget(Basuroy et al., 2003), actors(Litman and Kohl, 1989), critical reviews(Eliashberg and Shugan, 1997), number of screens(Elberse and Eliashberg, 2003) and seasonality(Einav, 2007). Recently, as ratings and comments on social networking services and websites have become easily accessible, researchers started to study about the effect of WOM on box office sales of movies(Duan, Gu, and Whiston, 2008). Among the predictors, several factors are used in this research. However, considering the reason consumers purchase re-released movie tickets, we assumed that there should be other factors affecting the movie performance.

Contrary to general experience good property, the demand for old

movies still exists in theater. Even though consumers have already experienced both the contents and form, they are willing to pay for the tickets. Ongoing demand for re-released movies could be explained by dividing the consumers into two segments; those who have experienced the movie already, and those who have not experienced the movie previously. First, the repurchasing behavior of an old movie is based on nostalgia. Nostalgia refers to affectionate feeling a person has for the past, especially for a particular time. Reisenwitz, Iyer, and Cutler(2004) tested the influence of nostalgia intensity to a brand attachment, and Marchegiani and Phau(2011) tested attitude towards purchase intention improves as the level of historical nostalgia increases. Based on this, nostalgia might influence those audiences to see the film again in theater. For those who are watching the film for the first time in a theater, the purchasing behavior can be explained by curiosity and reduced risk. Curiosity, a desire to know about something, can positively affect the motivation to purchase(Bernard and Schulze, 2005). Even though more information is available for the re-released movies, compared to newly released movies, it can make the audience more curious about the movie. Hill, Fombell, and

Sirianni(2015) supports this, by saying if a moderate information is given, over minimal information, people are more curious about the product, which leads to increase in purchase intentions. On top of that, Rook and Hotch(1985) found that because prior knowledge of a movie is not enough, viewers try to lower the risk, such as wasting time and money, by searching for additional information(Rook and Hotch, 1985). Re-released movies, on the other hand, has low risk of failure since the content and form has been confirmed by viewers in its' first release. Therefore, demand for old movies might exist for new consumers due to curiosity and lowered risk.

In this sense, predictors related to release timing is included in this study, which was previously not done. These variables indicate that emotions have strong influence in specific release timing.

This research focuses on re-released movies and revealing the antecedents of box office sales based on the factors that are divided into three categories; film characteristics, information sources from previous performance, and release timing related features. Variables included in this study are as follows.

***Genre.*** Movie genre has been an important variable for predicting box office performance. Liu(2006) studied association between movie preference and genre. Specifically, science fiction genre was a significant determinant of the success of a theatrical movie(Litman, 1983). Drama and action genre were significant parameters with different speed in time-to-decide(Sawnhey and Eliashberg, 1996). However, action-adventure genre had a negative relation with movie performance(Litman, 1983).

***MPAA rating.*** Motion Picture Association of America(MPAA) rating has been considered as an important factor that influence the movie performance because it determines the potential size of the crowd(Litman and Kohl, 1989; Prag and Casavant, 1994; Ravid, 1999). Litman and Ahn(1998) and Ravid(1999) indicated that G and PG led to higher box office sales, because it had larger potential audience.

***Ratings.*** Ratings can be measured in two ways; critics' ratings and audience ratings. The effect of critics' rating has been widely tested by previous research(Litman, 1983; Litman and Ahn, 1998; Litman and Kohl, 1989). Critics can help ordinary viewers in choosing

a movie, since they have higher understanding of the content of the movie, can develop an initial opinion of the film, and communicate movie information to audience(Austin, 1983). On top of that, Moon, Bergey, and Iacobucci(2010) studied the effect of viewers' rating on movie performance(i.e. movie revenues and new movie ratings).

*Number of screens.* Previous researchers have found that the number of screens was a significant predictor of box office performance(Elberse and Eliashberg, 2003; Eliashberg and Shugan, 1997; Litman, 1982). This research maximum number of screens from first release is used to represent previous performance.

*Event.* Timing of movie release is important considering competition with other films(Krider and Weinberg, 1998), and seasonality(Radas and Shugan, 1998). In this study, event is used in a different meaning related to special occasions of re-released films. Special occasions represent Nth anniversary of a film or having connection with newly released films(i.e. series movies, same actors/director with new film).

*Duration.* This variable is newly adopted in this study since there



has not been much research conducted regarding re-released movies.

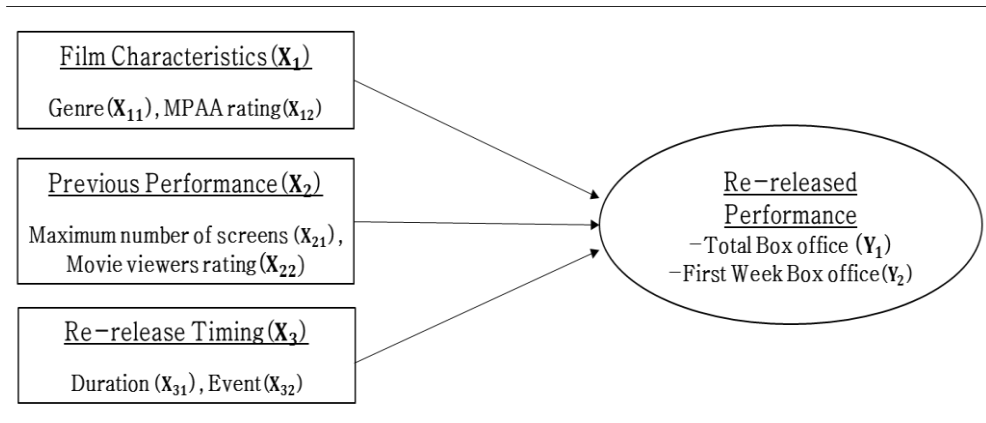
It refers to time it takes to be re-released.

*Box office performance* Most of the studies used box office performance as dependent variable(Chang and Ki, 2005). Chintagunta, Gopinath, and Venkataraman(2010) also used box office performance to analyze the effect of online user reviews.

### Chapter 3. Conceptual Framework and Hypothesis

Using the review of the literature as a basis, this study suggests a conceptual framework of the key factors influencing the success of a re-released movie. This research focuses on the characteristics of a movie( $X_1$ ), previous performance of a movie( $X_2$ ), and re-release timing of a movie( $X_3$ )(see [Figure 1]).

Figure 1. Conceptual Framework



### 3.1. Film Characteristics and Re-released Movie Performance

Movie genre has been an important variable for predicting box office performance. Specifically, science fiction genre(Litman, 1983), drama and action genre all positively affected the success of a theatrical movie(Sawnhey and Eliashberg, 1996), while action-adventure genre negatively affected movie performance(Litman, 1983). This was because action-adventure genre had violence in the movie, leading to less sales for young audience.

In recent Korean movie market, there has not been enough supplies of romance movies, due to low profitability of the genre. However, consumers who prefer romance genre could be willing to watch re-released romance movies. This is in line with prior study, which theorized association between movie preference and genre(Liu, 2006). Also, other genres such as action, animation, fantasy, can be outdated easily since most of these genres are based on technology. As technology develops, audience might lose interest to watch outdated technology movies instead of newly released high-tech movies. However, for romance genres, the demand for old romance

movies could exist since this genre is based on emotions, which does not change much overtime. Classical love stories could still stimulate peoples' emotions, leading to purchase of movie ticket. Therefore, the hypothesis is as follows:

H<sub>1</sub>: Romance movies will positively affect the performance of re-released movies.

As mentioned earlier, Motion Picture Association of America(MPAA) rating has long been considered as an important predictor for the movie performance since it determines the potential size of the crowd(Litman and Kohl, 1989; Prag and Casavant, 1994; Ravid, 1999). Previous studies suggest that Movies rated in G, PG, PG-13 have the largest potential consumers, having positive relationship with the success of box office, whereas ratings with R films should have negative relation with box office sales(Musson, 1969). This result is explained as R films having too much violent scenes. However, Korea has different MPAA rating, which is G, PG12, PG15, R.

Consistent with previous studies and considering the adjusted MPAA ratings, we assume that R rated movies will have small potential audience. On top of that, we assume that PG12 and G rated movies' low plot complexity will not be lead to success of performance. Therefore, PG15 rated movies, which have well established plot, will have better performance compared to other ratings. The hypothesis is as follows:

$H_2$ : PG15 rated movies will positively affect the performance of re-released movies.

### **3.2. Previous Performance and Re-released Movie Performance**

In the previous subsection, we focused on movie characteristics. Here, we consider how previous performance of a movie influence subsequent performance.

When consumers are facing high level of adoption uncertainty, consumers tend to delay their purchase and wait and see what the other people do(Farrell and Saloner 1986). Therefore, it is reasonable

to say that consumers rely on previous performance when making choices. In case of a movie industry, several previous researchers have found that the number of screens was a significant predictor of box office performance(Elberse and Eliashberg 2003; Eliashberg and Shugan 1997; Litman 1982). This means that consumers who are willing to watch a re-released movie might depend on previous box office performance to make a purchase decision. Our reasoning is similar to that of Olsen(2002), who indicate that if consumers perceived a high-quality performance, they will have higher satisfaction, leading to repurchase behavior. Therefore, the hypothesis is as follows:

H<sub>3</sub>: Maximum number of screens from first release will positively affect the performance of re-released movies.

Another factor representing previous performance would be viewers' ratings. Prior research was mostly about the effect of viewers' rating on movie performance(i.e. movie revenues and new

movie ratings)(Moon, Bergey, and Iacobucci, 2010). Moon, Bergey, and Iacobucci(2010) found that examining high ratings by amateurs are valued more compared to experts' ratings in later stage of release. Studies about consumers' satisfaction of product and repurchase behavior has also been conducted. For example, Olsen(2002) studied the effect of high performance and repurchase behavior. They found that higher perceived quality performance leads to higher customer satisfaction, resulting in high repurchase loyalty, which is defined as self-reported repurchase behavior. Other researchers emphasized the significance of satisfaction, quality, and commitment in explaining repurchase intention and behavior(Han and Ryu, 2009; Jonesetal 2000; Ok et al., 2005; Ryu et al., 2008). Mittal and Kamakura(2001) also related satisfaction ratings to actual repurchase behavior. Base on previous studies, movies with higher viewers' rating will more likely to have better movie performance. The hypothesis is as follows:

**H<sub>4</sub>:** Movie viewers' ratings will positively affect the performance of re-released movies.

### 3.3. Re-release Timing and Re-released Movie Performance

Release timing decisions in motion picture industry is important as mentioned earlier. However, there has not been an enough research related to re-release timing. Most of previous research considered the timing of first release. They mainly studied competition with other films(Krider and Weinberg, 1998), and seasonality(Radas and Shugan, 1998). Here, we hypothesize that the more time passed since its' first release, the more box sales it will yield. If a movie is re-released after a decade, consumers will be consisted of two groups; a group of people who have experienced the film already and the other group of people who are new to the film. As mentioned earlier, these groups are purchasing the ticket due to nostalgia and curiosity respectively. In this sense, compared to movies that was recently released, old movies will attract more audience since it includes both groups. Therefore, the hypothesis is as follows:

$H_5$ : The longer the time passed since its' first release(longer the duration), the higher the re-released movie performance.



Several previous studies have used release dates for box office predictions (Basuroy et al., 2003; Litman and Ahn, 1998). The rationale is that a high-attendance-period release attracts more consumers, leading to higher box office performance. However, for re-release movies, according to 2017 movie report from Korean Film Council, specific genre or interest in an actor could be the reason for re-opening a film. When a newly released film has been successful, viewers' interest in the actors or director will increase, leading to higher box office sales for movies with the same actors or director. Therefore, we assume that in special cases, Nth anniversary of a film or high interest in an actor/director due to newly released film, higher box office sales will be yield. The hypothesis is as follows:

$H_6$ : Special events, Nth anniversary of a film or high interest in an actor/director due to newly released film, will have positive impact on movie performance.

## Chapter 4. Research Method

### 4.1. Data Source

This study used data from Korean Film Council([www.kobis.com](http://www.kobis.com)) and the Naver Movie([movie.naver.com](http://movie.naver.com)) web sites. The research was conducted using the 94-movie data that was first released after 2003 and re-released in a theater more than 40 times a week in Korea. Because the data on movies that was released before 2003 were not available, a number of re-released master pieces were excluded from the data. On top of that, only the first re-release data was used, meaning that some movies were re-released more than once.

### 4.2. Variables and Measurement

The variables used in this research is shown in Table 1. The performance of re-released movies, which is dependent variable in this study, is measured by the total box-office sales and first week box office sales in Korean million won. Total Box Office represents

sales occurred during 14days starting from the first day of re-release. Two weeks of re-released performance was measured since report from Korean Film Council uses two weeks as re-release period. First Week Box Office represents sales yield in first week of movie re-release(see Table 1). These two variables are used as dependent variable.

For independent variables, Rating represents the viewers' accumulated rating of the movie, while Maxscreen represents maximum number of the screen in the first release of a movie. Romance and PG15 was used as dummy variable, indicating 1 if its' romance genre or PG15 rated respectively. Event is used as dummy variable representing whether it is re-released on special occasions, such as Nth anniversary of a movie, having same actor/director with newly released movies, new series movie being released. Lastly, Duration is the number of years passed from the first release to re-release and it varies from 1 to 16 years

**Table 1. List of Variables used in the Analysis**

Variables	Measurement
TOTAL BOX OFFICE	Total box office sales of re-released movies, measured in million won
FIRST WEEK BOX OFFICE	First weeks' box office sales of re-released movies, measured in million won
ROMANCE	Dummy variable indicating whether it is romance genre movies
PG15	Dummy variable indicating whether it is rated PG15 in MPAA ratings
RATINGS	Movie viewers' ratings
MAXSCREEN	Maximum share of the screen in the first release of a movie
EVENT	Dummy variable indicating whether it is re-released on special occasions (being Nth anniversary event, being related with newly released movie's director/actor)
DURATION	Number of years passed from the first release to re-release

We developed a regression model comprised of three groups of factors that we anticipated should influence re-released movie performance(dependent variable): (1) film characteristics related variables( $X_1$ ), (2) previous performance related variables( $X_2$ ), and (3) re-release timing related variables( $X_3$ ). We analyzed the impact of the three groups of factors on re-release movie performance to provide comprehensive empirical findings. Thus, we used the following linear regression, in which the dependent variable,  $Y_i$  ( $i = 1,2$ ), representing total box office sales( $Y_1$ ) and first week box office sales( $Y_2$ ). The regression model is as follows:

$$Y_1 = \alpha_1 + \beta_{11}X_{11} + \beta_{12}X_{12} + \beta_{13}X_{21} + \beta_{14}X_{22} + \beta_{15}X_{31} + \beta_{16}X_{32} + \varepsilon_1 \quad (1)$$

$$Y_2 = \alpha_2 + \beta_{21}X_{11} + \beta_{22}X_{12} + \beta_{23}X_{21} + \beta_{24}X_{22} + \beta_{25}X_{31} + \beta_{26}X_{32} + \varepsilon_2 \quad (2)$$

The  $X_{11}$  and  $X_{12}$  represents romance and PG15 rated movies. Next,  $X_{21}$  and  $X_{22}$  represents maximum number of screens and movie viewers' ratings. Lastly,  $X_{31}$  and  $X_{32}$  represents Duration and Event variables respectively.

## Chapter 5. Results of Statistical Analyses

### 5.1. Sample Summary

Summary of the sample is described in Table 2. The sampled movies earned an average of 193.44 million won in the domestic market. The mean of the first-week earnings was 119.83 million won, showing that the performance of the first week accounted for approximately 62% of the total box office receipts. The average number of screen in its' first day of re-release was 57.

Ratings from critics ranged from 3 to 9.33, while ratings from viewers ranged from 6.21 to 9.66, which also had higher mean (critics' average rating was 7.03 and viewers' average rating was 8.71). Average of 7.35 years was taken to be re-released.

Regarding the factor of information source, there were 13(14%) comedy movies, 39(42%) romance movies, 5(5%) fantasy movies, 15(16%) animation movie, 8(9%) action movies, and the rest(14%) was considered as other genre. MPAA rating was distributed evenly,

33(35%) movies were rated PG12, 30(32%) movies were rated PG15, 12(13%) movies were rated as R, and rest being rated as G. Movies released as an event, meaning having a special reason to be re-released, such as having Nth anniversary of the film or having same actor/director with the newly released film, accounted for 20%.

**Table 2. Summary of the 94 Movie Samples**

Variables	M	SD	Min	Max
TOTAL BOX OFFICE (RE-RELEASE)	193.44	414.05	0.02	3257.25
FIRST WEEK BOX OFFICE (RE-RELEASE)	119.83	203.55	0.02	1359.37
FIRST DAY SCREEN (RE-RELEASE)	57.65	51.21	7	262
RATINGS (CRITICS)	7.03	1.20	3	9.33
RATINGS (VIEWER)	8.71	0.57	6.21	9.66
DURATION	7.35	3.94	1	16
COMEDY	0.14	0.35	0	1
ROMANCE	0.42	0.50	0	1
FANTASY	0.05	0.23	0	1
ANIMATION	0.16	0.37	0	1
ACTION	0.09	0.28	0	1
PG12	0.35	0.48	0	1
PG15	0.32	0.47	0	1
R	0.13	0.34	0	1
EVENT	0.20	0.40	0	1

## 5.2. Multiple Regression Analysis

Table 3 shows the estimation results of the regression model with total box office sale and first week box office sale of re-released movies as dependent variable. The model overall was shown significant with less than 0.05 in p-value.

The first model with total box office as the dependent variable shows that PG15, Ratings(viewers' rating), Maxscreen(maximum number of screen in first release) Event(re-released for special occasions), and Duration(time it takes to be re-released) were significant predictors. As in the previous research, PG15 rated movies were shown to be significant, in support of  $H_2$ . However, for Romance movies, it was shown to be insignificant, not supporting  $H_1$ . Maxscreen and Rating variables positively affects box office sales, which is consistent with  $H_3$  and  $H_4$ . This means if a movie has a better previous performance it will be more successful when it is re-released in theater. One interesting finding is that both of re-release timing variables were significant. If a film is re-released in special occasions(Event) or after long period of time(Duration), it will have



higher box office sales. The positive relation of these two variables supports  $H_5$  and  $H_6$  respectively. Since these significant variables were newly used in this study, it indicates that timing is crucial factor in predicting re-release movie performance. Based on the result, we could conclude that  $H_2$ ,  $H_3$ ,  $H_4$ ,  $H_5$  and  $H_6$  were supported, but not  $H_1$  (see Table 3).

The second model predicting the first-week box office performance found the same variables to be significant, with marginally different significance level. Interesting thing about this was that the factors affecting the performance of first week, also affects overall performance (see Table 3).

**Table 3. Regression Estimates of the Movie Performance Regression Model**

Variable Group	Variables	Dependent Variable	
		Total Box Office	First-Week Box Office
	(Intercept)	-1111.2325 ***	-784.3933 ***
Film Characteristics ( $X_1$ )	ROMANCE	71.3762	65.3702
	PG15	136.6446 **	95.2380 **
Previous Performance ( $X_2$ )	RATINGS	117.1502 **	81.4700 **
	MAXSCREEN	0.1881 *	0.1458 *
Re-release Timing ( $X_3$ )	EVENT	145.9422 **	141.1801 ***
	DURATION	15.0331 *	10.1474 *
	F-Statistics	4.132	4.408
	$R^2$	0.2279	0.2352
	Adjusted $R^2$	0.1727	0.1819

\* $p < 0.1$ . \*\* $p < 0.05$ . \*\*\* $p < 0.01$

### 5.3. Additional Analysis

An additional multiple regression analysis with Rescreen(the number of screens in first day of re-release) was conducted. While previous analysis focuses on the performance of a film, this additional analysis focuses on the scale of opening screens of a film. Performance and scale of a movie has different implications. Performance of a film(box office sales) represents consumer demand side. It is not controlled by managers in theater. Scale of a film, on the other hand, depends on managers' decisions. Even though the number of screens is adjusted to demand of viewers in the later stage of movie life cycle(Chang and Ki, 2005), it is the movie managers that first decide on how many screens to open on the first day based on their instinct and experience. It is an important decision since higher number of first day screen will have higher possibility to attract more viewers, resulting in stronger effect of eWOM volume and valence. Therefore, this part of analysis would be meaningful for managers when deciding how many screens to open on the opening day.

The research was conducted using the same method, data and

variables used in previous analysis. However, the dependent variable was changed to Rescreen, which represents the number of screens on the first day of re-released movies.

The result was different from previous analysis(see Table 4). Only Duration, Romance, Ratings, and Event was shown to be significant factors. When managers are deciding the number of screens of a re-released film, they take the genre, viewers' ratings, the time it has passed since the first release, and special occasion for opening into consideration.

**Table 4. Regression Estimates of the number of Re-released Screens**

Regression Results	
Variables	Re-released Screens
(Intercept)	-189.66702 ***
DURATION	2.71745 *
ROMANCE	18.12209 *
PG15	9.64670
RATINGS	23.57539 ***
MAXSCREEN	0.02056
EVENT	28.50133 **
F-Statistics	4.239
$R^2$	0.2242
Adjusted $R^2$	0.1713

\*p<0.1. \*\*p < .05. \*\*\*p< .01

Among these variables, we assumed a U-shaped relationship between the time it takes to be re-released(Duration) and the number of re-released screens(Rescreen). As mentioned earlier, demand for re-released movies in theater still exists for two reasons, reduced risk and nostalgia. People with risk averse characteristics want proven successful previous performance in order to avoid failure. These people might lose an opportunity to watch the film in first release since most movies in Korea have short screening period. Therefore, when the movies are re-released after short period of time, these people have higher possibility to purchase the ticket for the movie. Movies re-released after long period of time, will attract viewers with nostalgia. Combining these two, we assumed that there will be U-shaped relationship between the time it takes to be re-released and the number of re-released screens on opening day.

[Figure 2] illustrates our empirical results of the relationship among Duration and Rescreen according to the regression results in Table 5. The number of screens for re-released movie becomes lower until the Duration reaches approximately 5 years. As mentioned previously, we expect the consumers before 5 years would be late comers of the

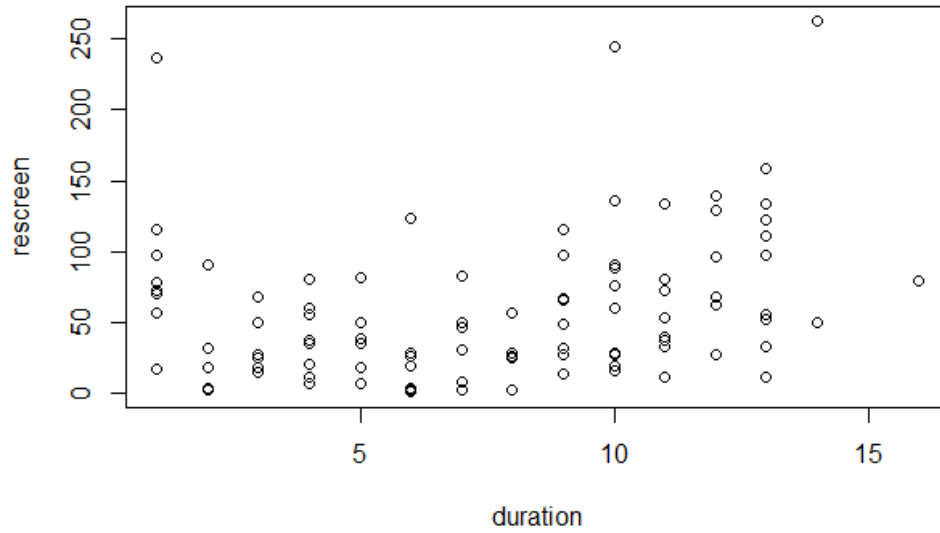
movie. After it passes the lowest threshold, the number of screens began to increase.

**Table 5. U-Shaped Relationship between Duration and the Number of Re-release Screens**

Variables	Regression Results	
	Re-released Screens (Controlled variables only)	Re-released Screens (Duration included)
(Intercept)	-202.7 ***	-112.61462
DURATION (linear)		-9.42504 *
DURATION (quadratic)		0.85260 **
ROMANCE	20.15 **	18.69499 **
PG15	8.482	5.90491
RATINGS	27.84 ***	18.53491 **
MAXSCREEN	0.002378	0.01635
EVENT	24.98 **	25.47108 **
F-Statistics	4.175	4.659
$R^2$	0.19	0.2727
Adjusted $R^2$	0.1445	0.2141

\*p<0.1. \*\*p < .05. \*\*\*p <.01.

Figure 2. U-Shaped Relationship between Duration and the Number of Re-release Screens



## Chapter 6. Discussion and Limitation

Generally, the Motion Picture Association of America rating was important in both models as expected. However, Romance did not have significant effect on re-released movies' box office sales. This result can be possibly explained by consumers' preference of the movie, regardless of genre. This indicates that consumers take other factors more important than genre.

Previous performance variables are perceived to be factors used to reduce uncertainty risks for consumers. This research indicated that the ratings by viewers and the maximum number of screens in first-release was effective predictor for box office sales.

As expected in the study, the re-release timing related variables were significant. Movies re-released due to high interest in actors/director will have higher possibility of having successful performance. On top of that, movies, with longer time it takes to be re-released, will attract more customers due to nostalgia, curiosity

and reduced risk. This result has important implication to managers when selecting which movie to re-release.

Although this study omitted variables such as product budget, sequels, and market power of the distributor in the prediction models, it adopted several independent variables that was not used before, Duration and Maxscreen. Some might say that the maximum number of screens from previous release will not have significant impact on re-release performance, since the number not reflect recent . However, maximum number of screens does not show significant influence. Instead, the time it takes to be re-released shows much more importance. This could be an important implication for mangers when choosing a movie to re-release.

Additional study also has implications when deciding the number of screens on the first day. Based on the result, the number of screens reaches minimum when the movie is re-released after 5to 6 years. First days' number of screens affects the performance of a movie by eWOM. Therefore, it will have implication for managers.

The proposed approach is not without limitations, however. First,



number of samples used in this study is limited. Since the data for movies' box office performance was only available for movies released after 2003, those released before 2003 were not included. Second, it is only based on Korean movie market. Re-releasing a movie is also a trend in Europe and United States of America. Using the same method, future research can expand the market and find the significant predictors of re-released movie performance. Third, it can go further to include other predictors. Taking the effect of eWOM for example, future study could focus on the effect of eWOM on performance of re-released movies.

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## 국 문 초 록

# 재개봉 영화의 성과에 영향을 미치는 요인에 관한 연구: 한국 영화시장을 중심으로

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본 연구는 재개봉 영화의 흥행성과에 영향을 미치는 요인들에 관심을 두고 어떤 요인들이 흥행성과에 유의미하게 영향을 미치는지?를 연구문제 및 가설로 설정하여 실증적으로 검증하고자 하였다. 본 연구에서는 영향요인들을 영화특성(Romance 와 PG15), 이전성과(Maxscreen 과 Ratings), 재개봉 타이밍(Event 와 Duration) 등 크게 세 가지로 분류하였다. 흥행성과를 측정하는 종속변수로는 재개봉 첫 주의 매출과 재개봉기간 동안의 전체매출을 사용하였다. 영화진흥위원회로부터 수집된 자료를 분석하기 위해 본 연구에서는 94 개의 영화데이터를 토대로 하여 다중회귀분석을 실시하였다.

분석결과, 영화관람등급(PG15), 첫 개봉에서 최대 스크린 수(Maxscreen), 관람객 평가(Ratings), 이벤트 개봉(Event), 그리고 첫 개봉에서 재개봉까지의 기간(Duration)이 흥행 성과에 정(+)적으로 유의미한 영향을 미치는 변수인 것으로 나타났다. 반면에, 기존의 연구와는 달리 영화장르(Romance) 변수는 유의미한 정(+)적인 영향을 미치지 못하는 것으로 나타났다. 이와 같은 분석 결과는 향후 흥행성과를 제고하기 위한 관리수단으로 고려하여 반영해야 함을 시사한다고 볼 수 있다.

추가적인 연구부분에서는 재개봉 영화의 스크린 수를 이용하여 영화 매니저들이 첫 재개봉 스크린 수를 설정하는데 영향을 미치는 요인들에 대해 연구를 진행하였다. 첫 개봉 스크린 수는 이후의 영화 흥행성과에 영향력을 갖는다는 의미에서 중요성을 띤다. 이를 위해 앞에서 언급한 독립변수들과 94 개의 영화 데이터를 이용하였고, 종속변수는 재개봉 첫 날의 스크린 수로 설정하였다. 그 결과, 장르(Romance), 관람객 평가(Ratings), 이벤트 개봉(Event), 그리고 첫 개봉에서 재개봉까지의 기간(Duration)이 유의미한 변수라는 결과가 도출되었다. 나아가 첫 개봉에서 재개봉까지의 기간은 재개봉 영화 스크린 수에 대하여 U-모양의 관계를 보이는 것으로 나타났다.



본 연구결과는 영화시장에서 새로운 트렌드인 재개봉 영화의 흥행 성과를 예측하는데 의의가 있다. 또한, 흥행성과에 영향을 미치는 변수들을 고려하여 재개봉영화를 선정하고 첫 재개봉 스크린 수를 결정하는데 활용될 수 있을 것으로 사료된다.

**주요어:** 재개봉영화, 재개봉시점, 재구매행동, 영화 흥행성과, 마케팅 전략

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