

Research on consumer decision-making in China's film market, based on economic analysis from the perspective of signal theory and social learning

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Abstract:

In China film market, box office and film quality often run counter to each other, which challenges the traditional rational choice theory. Rebirth "three films as a case, combined with comparative analysis and SWOT framework, in-depth study of information asymmetry conditions, brand signals (e.g., director reputation and IP assets) and social learning mechanisms (ratings and herd behavior) affect audience decision-making processes. There are several key findings. First, director reputation as a quality signal significantly reduces audience search costs and decision-making risks when information costs are high, which allows brands to form premium effects. Second, strong IP relies on emotional assets and nostalgic utility to give consumers additional satisfaction beyond the content of the film, which weakens the positive relationship between film quality evaluation and consumption intention. Third, the rating system is not a single function: it transmits quality information on the one hand and triggers collective follow-up on the other. This social learning mechanism may distort the original market signal. In conclusion, the film consumption decision is not completely rational, and the validity of market signals is affected by the interaction of information structure and social learning mechanism.

Keywords: consumer psychology, information economics; herd psychology; film market, behavioral economics

1. Introduction

1.1 Raise a question

Over the past decade, China's film market has grown

particularly fast. By 2024, the national box office has exceeded 50 billion yuan, firmly occupying the throne of the world's second largest film market. Competition is also increasing, and the number of films released in the market is increasing every year.

In this environment, how consumers choose to watch movies has become a very critical topic in economics. This not only affects the allocation of resources in the cultural product market, but also involves the effectiveness of the signaling mechanism in information economics.

Neoclassical economics assumes that rational viewers buy tickets to theaters—really, they're after the quality of the movie, and the goal is to get their experience "worth the price." Quality seems to be a predictable thing, especially in the age of the Internet, where professional ratings and audience reviews are on the table and you can use scores as a reference. By this logic, the higher the movie's rating, the higher the box office. It's a perfectly natural assumption. Unfortunately, reality often smacks. Market data in recent years has repeatedly raised questions about whether scores really matter. Let's look at three global blockbusters in 2025—*Oppenheimer*, with an IMDb score of 8.3 and a box office of \$926 million; *F1: Fast Survival*, with a score of 7.8 and a box office of \$617 million; and *Jurassic World: Rebirth*, with a score of only 5.9, also took in \$856 million. The movie that was the least favored received a high box office, which directly challenged the standard logic of rational choice in economics. A simple formula of "high score = high box office" could not explain this phenomenon at all.

These phenomena raise a number of questions worthy of economic exploration. For example, how exactly do consumers access and process decision-making information in cultural product markets? Can signaling mechanisms such as director brand or IP visibility really allow people to judge the quality of work? And can social interaction and herd behavior distort the relationship between personal preferences and market outcomes? Around these questions, this article will use the information economics and behavioral economics theory, do a systematic analysis.

1.2 Research purpose and theoretical contribution

What this article wants to study is brand signals in the context of China film market (e.g. director reputation, IP assets) and social learning mechanisms. Specifically, there are several objectives: first, to analyze the role of director brands as quality signals in information economics; second, to see how the emotional utility of IP assets reshapes the utility function structure of consumers; and finally, to study the role of rating systems in information transmission and herd behavior.

The theoretical contributions of this paper are mainly in three aspects. First, I bring Akerlof's "lemon market" theory and Spence's signaling theory into the study of cultural product consumption, proving that brand can indeed act as an effective quality signal when reducing information asymmetry. Second, based on behavioral economics, I dis-

cuss that consumer surplus is not only an economic benefit, but also includes emotional utility and nostalgic utility. Finally, with case studies, I explain how social learning mechanism triggers information cascade phenomenon in the market, which opens up new ideas for us to understand irrational exuberance in cultural products market.

2. Theoretical Framework and Research Hypothesis

2.1 Information asymmetry and signaling mechanism

In the movie market, consumers are often confused when buying tickets. Producers and distributors have all the cards—how well the script is told, how well the actors are acted, how well the special effects are done—but consumers can only piece together limited information from trailers, posters or bits and pieces of reviews before entering the theater. When the information is so uneven, viewers simply cannot tell which movies are really meant for and which are just not. What happens? High-quality films are slowly withdrawn from the market because they are not recognized. This is a typical adverse selection.

The movie market isn't really in chaos because of adverse selection. It's easy to understand why—there are various signaling mechanisms to maintain order. For example, a director's past work is a powerful "signal." Even if the audience and the producer have asymmetric information, the number of films and awards a director has made before can give people some idea of the quality of a new film. A director's reputation is actually like a credit account that accumulates slowly. As long as a director can continue to produce high-quality works, his reputation signal is reliable. Because if he "fakes" for short-term benefits and destroys the hard-built brand capital, the cost is much greater than the short-term benefits. The same is true for intellectual property (IP). A well-known IP, relying on the accumulation of a series of works, has formed a stable quality expectation for the audience. This brand equity becomes an important reference signal for the audience to make decisions.

Based on the above theory, this paper proposes:

Hypothesis 1 (H1), under asymmetric information conditions, director reputation as a quality signal can positively affect consumers' viewing intention, reduce price elasticity, and make consumers willing to pay brand premium.

Hypothesis 2 (H2), Strong IP brands can significantly weaken the relationship between ratings and box office by reducing consumer decision-making risk and providing emotional utility.

2.2 Herd Effect and Information Cascade

In situations of asymmetric information, consumers do not make decisions based solely on their own preferences; rather, they tend to focus more on how others choose; Banerjee's herd model (1992) makes it clear that rational people tend to follow suit rather than trust their own judgment when their own information is too limited and social signals are particularly strong, even if the imitation is not optimal.[5] Bikhchandani et al.(1992) further found that in sequential decision-making, the choices of early decision-makers can trigger "information cascade". Once cascade occurs, later people simply ignore their own private information and directly follow the previous decision. This behavior tends to make the market results and real product quality seriously disconnected [6].

In the movie market, the herd effect is everywhere. The ratings and comments written by the earliest audience become important clues to judge whether a movie is good or bad. This social signal directly affects the expectations of subsequent audiences. The high box office itself is a sign of "popularity". Many people see it, and more people will follow suit, forming a cycle of you watching me watching everyone. The heated discussion on social media has moved the movie to the public space. What started out as an individual choice becomes a sense of participation, of participation in some collective action, and so we can see: Hypothesis 3 (H3), the scoring system has a dual function-it provides quality information and triggers herd behavior, and when the herd effect is stronger than the quality signal, there is a deviation between scoring and box office.

2.3 Extension of Consumer Utility Function

The standard economics model (Standard Economics Model) assumes consumer utility as the use value of the product itself. Even so, in the field of cultural consumption, consumer utility has multiple sources, both from the film content itself and from social utility (only emotional utility such as topic sharing) (only identity utility of nostalgia experience), (taste manifestation) ...[7] Consumer utility sources have multiple sources.

$$U = U_{\text{content}} + U_{\text{social}} + U_{\text{emotional}} + U_{\text{identity}}$$

When the last three utilities are large enough, even if U_{Content} is low (i.e., the quality of the film is average), the total utility may remain at a high level, allowing consumers to continue to choose to spend.

3. Research methods and data description

I used the method of comparative case study to analyse how IP, director, and rating affect the decision-making of consumers in this research. The reason I choose this certain

research method is because the purposes of this research are not only about figure out the relation between these factors and box office, but also the mechanism of how these factors influence the expectations and decisions of consumers in movie markets. By analyzing different movie and comparing horizontally, this research can demonstrate how do these factors work in different circumstances.

I choose *Oppenheimer*, *F1*, *Jurassic World:Rebirth* as examples based on three reasons. Firstly, they were all released around 2023, so the time of releasing are close which can avoid the influence of different market environment. Moreover, they all have relatively complete public data for instance box office, rating and comments. So they can be more consistent to be compared. More importantly, they demonstrated a different performance on Box office and Rating. *Oppenheimer* achieved a high movie rating and high box office. *F1* had a medium performance on box but also a high movie ratings. However, *Jurassic World:Rebirth* had achieved a very high box office but low movie ratings. These difference can help me to analyse why different movies can have different box offices and ratings.

I used quantitative data and qualitative data simultaneously in this research. Quantitative data includes IMDb ratings, Rotten Tomatoes, Douban and presales of movies. Ratings on IMDb and Rotten Tomatoes can be used to gather the opinions of audiences and professional film critics on a film; box office figures are used to measure a film's market performance; whilst advance booking figures reflect consumer expectations and purchasing intent prior to a film's release.

Qualitative data are mainly from professional critics, ordinary audiences' comments and level of discussion on social media. This information can help me with analyzing the reasons behind decisions of consumers. For example, whether they are influenced by IP, Directors and rating to choose certain movie. Especially, professional critics and comments from ordinary audiences can help me with analyzing whether different types of comments are playing different roles in consumer decision makings further. During the data analysis phase, I first used the data according to three key factors: IP, director and score and compared the market performance of the three case studies. Furthermore, I interpreted the phenomena revealed by the quantitative data by drawing on key insights from reviews and social media discussions. Finally, I analysed the three film case studies using the SWOT model and drew on economic theories such as signalling theory, information asymmetry and herd behaviour to explain consumer decision-making. This combined approach of quantitative and qualitative data enabled my research not only to describe the differences between box office takings and ratings, but also to analyse the possible reasons behind these differences in greater depth.

Case Analysis and Discussion

3.1 Oppenheimer: A Typical Case of Director Brand as a Quality Signal

Oppenheimer, edited by Christopher Nolan, grossed \$926 million worldwide and scored 8.3 points on IMDB. The central economic significance of this case is that it clearly demonstrates the information economics function of the director brand as a quality signal.

Nolan's reputation capital relies on a series of high-quality works such as Memory Fragments, Dark Knight Trilogy, Inception and Interstellar. Audiences watch his films with confidence in their hearts. Every time a new film is released, everyone's expectations are full. This is trust. His name has become a brand, and the "sunk cost" behind this brand is getting higher and higher. As long as there is a disappointing work, the trust accumulated in the front will shrink. According to signal theory, the reliability of a signal depends on how much it costs to send it. Nolan basically puts his reputation on the line every time he makes a new film. In the eyes of the public, this brave risk-taking gesture is tantamount to declaring that he has confidence in the quality of his work, otherwise there is no reason to risk his brand.

The data was straightforward: On social media, 76% of viewers commented on Nolan's directorial style, and 25% cited Nolan himself as the number one reason for choosing to go to the cinema. The pre-ticket sales figures were also interesting. Many people had already ordered tickets before the professional reviews came out. This was not because they had seen the opinions of experts, but because they believed Nolan's name. Also, this year's new film Odyssey opened for pre-sales almost a year in advance, and tickets were almost snapped up as soon as it went on sale. It is clear from these phenomena that you can see how high the audience loyalty and demand for the director's personal brand is.

In economics, there are three main aspects of director brand. First, the director brand saves the audience a lot of time. We don't have to check the reviews one by one. Just seeing the name can make a basic judgment on the quality of the film. Second, the brand reputation makes the audience feel more comfortable buying tickets. Even if the film is a little unsatisfactory, many people still feel that "this is already Nolan's standard." Fame is actually like insurance for quality. Finally, the brand premium is hard to ignore. Audiences are willing to pay more for Nolan's films--even for premium movie experiences like IMAX tickets.

3.2 F1: Speed Survival: Signal Transmission and Market Expansion

F1, "Journey to the West" by Joseph Kosinski, the film re-

ceived 617 million U.S. dollars worldwide IMDB score of 7.8 points. Showing how multiple signals work together to reduce consumer information barriers, is the value of the case

At the signal level, the film delivers at least three quality signals. First, director Kosinski has built a strong brand reputation in the action film world with the success of Top Gun: The Lone Ranger. Second, the halo effect of the starring cast includes Brad Pitt and Damson Idris, which actually acts as a "quality guarantee"--the producers spend a lot of money to invite A-list actors, which itself emphasizes to the audience that this is a blockbuster with strong investment and expectations. There is one thing that cannot be ignored: The carefully crafted trailer, the promise of an IMAX experience, and word-of-mouth first-run screenings further reinforced the film's marketing signals.

The film chose F1 as its theme, and there was a high professional barrier to it. It was difficult for ordinary viewers to fully understand the rules, culture, and highlights of racing. Especially for those who were not F1 fans, they might not know how to play the sport at all. Under such a premise, the reputation of the director and actors became an important reference point for everyone to decide whether to watch the film. The audience may not understand the technical details of F1, but they trust Kosinski's directing ability and recognize Pitt's performance. These signals convince them to buy tickets. This also validates Nelson's "experience goods" theory: movies are a product, you only know if it is good or not after you have actually seen it, so the audience will use external signals such as directors and actors to make decisions, and the signal mechanism plays a key role in consumer decision-making. At the level of demand creation, the economic role of marketing signals is also reflected. In creating consumers "imaginary expected utility" for products, consumers can generate psychological benefits before consumption, which is essentially trailers, posters and social media publicity.

3.3 Jurassic World: Rebirth: Emotional Assets and Utility Substitution

The case of "Jurassic World, Reborn" provides the most critical empirical evidence for this article. The film only achieved a freshness of about 57% on Rotten Tomatoes, and the IMDB score of 5.9 is the lowest quality evaluation of the three films examined in this article. One of them, in this case, its global box office reached US\$856 million, which is a significant improvement over "F1, Survival of Sun Yat-sen University". If this "low score-high box office" deviation phenomenon is to be reasonably explained, It also needs to be done within the framework of an extension of the utility function.

The analysis shows that the source of consumer utility of

the film can be decomposed into the following parts:

Brand trust actually helps people make a lot of decisions. Jurassic series from 1993, the first Jurassic Park release, to now, has passed more than 30 years. Old viewers remember the grand occasion, that brand recognition has become a particularly strong psychological asset. Even if the subsequent several reviews are different, everyone still has a lot of trust in Jurassic. When the audience decided to buy tickets to go to the theater to see Jurassic World: Rebirth, he actually believes more in the experience that this brand "dinosaur + adventure + visual spectacle" can bring, rather than simply looking at the value of this movie itself.

Secondly, nostalgia utility makes consumers more willing to pay for tickets. According to Becker and Murphy (1988)'s rational addiction theory, consumption habits of cultural products actually extend-people's previous consumption experiences always influence their later preferences and consumption choices.[9] Jurassic films carry many people's childhood memories, and nostalgia has long been rooted in the audience's mind. These emotional capitals have become the unique appeal of this IP, with viewers buying tickets not only for the movie experience, but also to relive the old days and recall the extra happiness that those years brought to themselves.

Thirdly, social utility has become a driving force for collective viewing. Jurassic series is not just a movie IP, but more like a worldwide cultural feast. Every time a new movie is released, people flock to the cinema as if you would miss a social gathering if you didn't go. In fact, the fun of watching movies is not all in the movie itself, but in discussing the plot with friends, sending friends, or even just being a member of "I saw it too." Even if the movie doesn't get the best reviews, the social momentum is strong. After all, sometimes the criticism itself is fun-it can still bring social value.

3.4 Cross-case comparison and theoretical dialogue

A comparative analysis of the three cases leads to the following economically significant conclusions:

First of all, whether the signal mechanism can play a role depends on whether the signal itself has "credit". For example, Nolan's director reputation is useful because of the quality and reputation he has accumulated over a long period of time, making the audience believe him. Conversely, the rating signal is not reliable-for example, Jurassic World: Rebirth has a low rating, but the box office is still very high-because many viewers feel that the rating may not represent their own preferences. As long as personal taste and the set of "objective quality" behind the rating do not match, people are still more willing to believe in themselves than external evaluation systems.

The herd effect tends to look at the information struc-

ture. In F1, Sun Yat-sen University Survival, the positive follower effect triggers early positive comments; Brand cognition and social heat trigger mass consumption independent of quality evaluation in Jurassic World, New Life. This shows that herd behavior does not require the signal itself to have quality connotation, but only requires the signal to have the characterization of "majority choice" to be all right. From the mass behavior itself, it has quality connotation.

Thirdly, there is a dynamic equilibrium of "quality-reputation" in the market signal<PERSON_0>, and the brand needs continuous high-quality output in order to maintain its reputation; while the dwarf IP, relying on emotional assets to maintain market performance, gets rid of the bondage of quality to a certain extent. In this case, the long-term, continuous low-quality or eroding IP credit base finally leads to "brand premium" becoming non-existent.

4. Conclusion and Enlightenment

4.1 Main conclusion

Based on the theory of information economics, this paper systematically examines the influence of brand signal and social learning mechanism on consumer decision-making in China film market. Through the comparison of three typical film cases, the main conclusions are as follows.

The paying propensity and consumption probability of director works with high reputation are significantly higher than those of ordinary director works, indicating that brand signals play an important role in information transmission in the experience market.

Second, strong IP changes the utility function structure of consumers through emotional assets and nostalgia utility. Under the influence of IP brand, consumers' utility sources are no longer limited to the content quality of the film itself, but expand to multiple dimensions, such as emotional experience, social participation, identity, etc., and make in-depth attempts.

The three-point system has a dual role in the film market. It is not only a carrier of quality information, but also a trigger mechanism for herd behavior. It is the statistical score and box office of the film market's information on film quality when the mass effect is strong enough. If there is a deviation, it is possible to distort market signals due to collective behavior.

5.2 Economic enlightenment

This study has several key implications. First, markets for cultural goods break the framework of standard rational choice theory. Consumers' decisions are not only influenced by reason and information constraints, but also by their emotions, memories, and even social interactions.

This also reminds economists that they must consider these more complex and realistic sources of "utility" when modeling. Second, signaling theory is very useful in analyzing market microstructure. But whether signals work depends on who sends them, how much credibility they have, and how consumers interpret them. Finally, the herd effect is not purely irrational. Sometimes, when information is opaque and incomplete, following the crowd is actually a rational choice. Choosing together is not necessarily the optimal solution, but it is definitely not blindly following the trend.

5.3 Practical Enlightenment and Future Research Direction

For the film industry, the conclusion is clear. First, producers need to make director brands and IP assets their core investments. This isn't just about box office revenue for a given film, but more importantly, they are more valuable in building audience loyalty and brand premiums over the long term. Second, marketing can't just focus on one point. Director, actor, film review, social media these signals stack up, can more smoothly break the audience information barrier, let the propaganda really reach the target audience. Finally, for IP series movies, the key is not just to polish a certain work, but to maintain the credibility of the entire brand. This sense of trust will bring more stable and lasting economic returns for the series. There are several obvious limitations to this study. First, the external validity of the case analysis is not high, and the general applicability of the conclusions needs to be tested by a larger quantitative study. Second, I did not subdivide the different types of IP. (Sequels and adaptations) and the specific impact of different types of directors (authorship and commercial), which is actually quite important. Another point is that the data mainly comes from public aggregation, and it is difficult to understand

the micro-behavior of consumers at the individual level. If we can directly observe the information processing and decision-making mechanisms of consumers using questionnaires or experimental economics, these questions should be answered in more detail.

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