

# Fan Economy: A Study on Irrational Consumption Behavior in the Context of Social Media

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**Abstract.** The rapid development of the fan economy is based on the historical background of the booming social media, that is, fans tend to chase stars on social media, buy some peripheral products around chasing stars, and are keen to become fans of a certain idol. In this process, irrational consumption behaviors are often based on the attributes of the fan economy. This study aims to use the questionnaire survey method to sort out the irrational consumer behaviors that appear in social media texts and find out the main factors that have a series of impacts on the fan economy. This can partially explain the composition structure of the fan economy and explain possible economic phenomena. As far as the fan economy is concerned, social media has a greater impact on fans' irrational consumption behavior and indirectly participates in guiding fans' behavior. Relevant research can provide some important inspiration for fan economy research.

**Keywords:** Fan Economy; Irrational; Consumption Behavior; Social Media.

## 1. Introduction

What is the fan economy? In China, the fan economy refers to the fact that it combined with fan arts, fan vids, & fan flics, while it also contained the fan levels which may adapt the ARPU (average revenue per unit) to measure the fan value (Liang & Shen, 2016). According to the existing literature, fan work shall be related to the industrial conceptions of fan participation, as the fan financial work has been addressed to convey the fan value (Scott, 2015). If it is going to explore and establish a conceptual framework that encompasses Online Interaction (OI), there are three concepts, para-social relationships (PSR), and virtual fan communities on Weibo, as well as the role these contributing factors, definitely play in enhancing fans' Purchase Intention (PI) toward celebrities' merchandise and media consumption behaviors during the interplay of digital fandom practices (Yang & Shim, 2020). Fan mainly showed its value on consumption, as the fan communities would like to do an idol-oriented consuming, for building the fan loyalty and fan levels (Zhang & Fung, 2017).

In China, the influence of Korean pop culture and American Hollywood has affected much on the local culture industries, as Wanghong or Internet celebrities could take the representative for it (Craig, Lin & Cunningham, 2021). According to the existing media studies involving social media, influencers, & creator industries, there is an issue that local pop stars have built their fan communities, which overlap with the fans of K-pop or Hollywood (Wang, 2022). Based on this phenomenon, this paper aims to find the evidence from the local pop stars and their fan communities, as the case study here employed the TF FAMILY as the focus of the study. TF FAMILY refers to a pop star group that contains more than 30 pop stars, as the 7 major stars have built their fame among Chinese fans. According to the former research, the fan economy showed a complex picture, which may refer to the fact that fans' recommendations could spread quickly, attracting more attention, forming a fission effect, and expanding influence. Irrational consumption would breed, and some fans over-consume to form a trend of blind comparison, which damages personal and family economic interests, as it could convey a study on irrational consumption behavior in the context of social media.

## 2. Literature Review

The so-called fandom issue may set off public deliberations regarding harmful fandom conduct, the dynamic between idols and their fans, the liberty of creative expression within subcultures, and, in a wider sense, the censorship mechanism in China. It manifests how events centered around some

of the idol names have reverberated across various cultural and social matters (Huang, Driessen & Trottier, 2023). Well-designed data visualization enables viewers to leverage their robust visual systems to make sense of data science. On the contrary, poorly designed visualizations may result in confusion and misinterpretation, particularly among those with limited graphical literacy (Franconeri et al, 2021).

What is the fandom? It changes a lot in the era of digital media, as fan production has been affected much by the social media platforms, for instance, fan communities would be strengthened by chatting online (Pearson, 2010). Fandom is related to politics, as it may play a vital role in international relations construction (Dean, 2017). Compared with the youth, the elder fans kept their interests on the side of life course theory (Lee Harrington & Bielby, 2010). The digital fandom showed its features as it could explain the main reasons for the fans' construction in the new era (Booth, 2010). Among the fans, popular music fandom is distinguished from the other kinds of fans, as it may reflect the specialty of the culture industry (Duffett, 2015).

For instance, K-pop fan communities are supposed to back their idols, often engaging in 'fandom collaboration', a strategy where supporters of various bands unite to help each other achieve collective success for their favorite artists (Kang et al, 2022). It is important to identify a small group of influential K-pop fandoms that significantly contribute to cross-fandom collaborations. These fandoms are characterized by high levels of fan interaction, a preference for boy bands, chart-topping artists, and groups with 3-5 years of activity. Our findings also show that major industry events, including comebacks, music awards, and survival shows, are correlated with increased collaborative efforts among fandoms (Luo & Li, 2024).

Based on this, the key questions of this study mainly include three: What characteristics does Irrational Consumption Behavior in the Context of Social Media show, whether Fan Economy relies on idols' guidance of fans in terms of content expression, and to what extent will fans adopt irrational consumption behaviors.

### 3. Methodology & Results

The questionnaire survey method, which employs questionnaires as tools to collect data, is one of the most commonly used social survey methods. In general, the questionnaire survey method has a relatively fixed set of procedures and operational contents. To understand the irrational consumption in the process of star chasing, this study designed a questionnaire to obtain the basic attitudes and opinions of the respondents. These questions mainly include two categories: the first category is basic demographic information, and the second category relies on the Likert scale to collect the respondents' attitudes towards irrational consumption.

According to the analysis, 81.72% of the respondents in the sample are female, and the highest proportion of respondents is under 25 years old, accounting for 90.32%. About 52.69% of the respondents have a "high school" education, and 30.11% have a bachelor's degree. The vast majority of these respondents are from "cities", with a total of 75 people, accounting for 80.65%.

Table 1 Basic demographic information of respondents (N=93)

Name	Elements	Frequency	Percentage(%)	Cumulative Percentage(%)
Gender	Female	76	81.72	81.72
	Male	17	18.28	100.00
	< 25	84	90.32	90.32
Age	25-35	3	3.23	93.55
	> 35	6	6.45	100.00
	High School	49	52.69	52.69
Education	Bachelor	28	30.11	82.80
	Master	4	4.30	87.10
	Others	12	12.90	100.00
Area	Urban	75	80.65	80.65

Rural	18	19.35	100.00
In Total	93	100.0	100.0

Before the formal statistics, this study used statistical methods to calculate the reliability and validity. The reliability coefficient value is 0.939, which is greater than 0.9, indicating that the quality is high. Regarding the "CITC value", the CITC values of the analysis items are all greater than 0.4, indicating that that is good. The reliability coefficient value of the research data is higher than 0.9, which indicates that is good for further analysis.

Table 2 Cronbach's reliability analysis results

Elements	Amount	Cronbach's alpha coefficient
9	93	0.939

The commonality values corresponding to all research items are higher than 0.4, indicating that the information of the research items can be effectively extracted. In addition, the KMO value is 0.903, which is greater than 0.6, and the data can be effectively extracted. In addition, the variance explanation rate of 1 factor is 67.555%, and the cumulative variance explanation rate after rotation is 67.555% > 50%. This means that the information of the research items can be effectively extracted, that is, this verification process is accompanied by the data analysis process which could reflect the relationship among the datum to a certain extent.

Table 3 KMO and Bartlett's test results

	KMO Value	0.903
Bartlett's test of sphericity	Approximate Chi-Square	649.943
	df	36
	p Value	0.000

To further explore the relationship between irrational consumption behavior and the star-chasing process, this study also used the Pearson correlation analysis method for further analysis and discussion. The results of the correlation analysis show that "You have had irrational consumption experience when chasing stars" and the other 9 variables related to fan consumption motivation are significantly negatively correlated, with correlation coefficients ranging from -0.242 to -0.441, indicating that irrational consumption behavior is negatively correlated with consumption motivations such as identity, herd behavior, and emotional projection. In other words, the more individuals identify with these fan consumption motivations, the more likely they are to self-evaluate that they have irrational consumption behavior in the process of chasing stars.

Table 4 Pearson correlation analysis results on irrational purchases.

	Irrational purchases when chasing stars
Buying celebrity-related products is a way for me to express my feelings	-0.441**
I feel a sense of accomplishment in collecting limited-edition celebrity-related products	-0.390**
I like to show off my celebrity-related products and share them with fans	-0.414**
Many fans around me are buying celebrity-endorsed products, so I buy them too	-0.405**
When I see other fans supporting celebrities, I will follow suit	-0.358**
Owning the same products as celebrities makes me feel closer to my idols	-0.242*
I want to show my identity as a "loyal fan" through my purchases	-0.418**
I will buy celebrity-related products even if the price is beyond my budget	-0.383**
I feel anxious when I don't buy new celebrity products	-0.276**

\* p<0.05 \*\* p<0.01

Through Pearson correlation analysis, we know that the variable "Are you willing to make some irrational consumption when chasing stars" is significantly negatively correlated with the other 9 variables around consumption motivations, such as emotional expression, group imitation, and identity recognition, and all reach the significance level of 0.01. Therefore, it can be considered that the more people express irrational consumption willingness, the lower their identification with specific behaviors or psychological motivations such as emotional identification, imitating others, and showing loyalty, which shows that there is a certain degree of psychological deviation between "irrational consumption willingness" and "fan behavior identification".

Table 5 Pearson correlation analysis results on star chasing.

	Willing to make some irrational purchases when chasing stars
Buying celebrity-related products is a way for me to express my feelings	-0.440**
I feel a sense of accomplishment in collecting limited-edition celebrity-related products	-0.482**
I like to show off my celebrity-related products and share them with fans	-0.417**
Many fans around me are buying celebrity-endorsed products, so I buy them too	-0.360**
When I see other fans supporting celebrities, I will follow suit	-0.282**
Owning the same products as celebrities makes me feel closer to my idols	-0.356**
I want to show my identity as a "loyal fan" through my purchases	-0.408**
I will buy celebrity-related products even if the price is beyond my budget	-0.426**
I feel anxious when I don't buy new celebrity products	-0.329**

\* p<0.05 \*\* p<0.01

Through reliability and validity tests and correlation analysis, this study proves that there is no simple linear relationship between the multiple psychological motivations of fan consumption behavior and the surface behavioral response. It is worth introducing mediating variables or conducting structural equation modeling (such as motivation-cognitive regulation-behavioral intention) in subsequent studies. For practical fields such as entertainment marketing and fan economy operations, product promotion based solely on motivational stimulation may not be able to truly mobilize fan consumption. It is also necessary to consider fans' subjective resistance to "irrationality" and rational defense.

## 4. Findings

### 4.1 The complexity of fan consumption behavior: Fan consumption motivation and irrational consumption behavior are negatively correlated

In fact, in the results of the questionnaire survey, fans' consumption motivation was shown to be significantly negatively correlated with irrational consumption behavior; that is, to a certain extent, fans' consumption behavior showed outstanding complexity. This phenomenon is related to the general characteristics of the fan economy, which is more related to the emotional economy and informal economy, and consumption activities show significant impulsiveness and randomness (Liang & Shen, 2016). What is crowdfunding? In fact, in a targeted study, the production of marginalized voices calls for the intervention of the media and uses emotional motivation to stimulate and amplify the factors that promote consumption in fan economy activities, for instance, Kickstarter

and the 'fan-ancing' (Scott, 2015). Are fans always in a passive position in popular culture? That is, they passively accept the dissemination from influencers such as idols. In fact, under the influence of fans, idols will also undergo some corresponding changes, such as catering to fans' requirements (Duffett, 2015).

An important manifestation of emotional economy is that impulsive consumption dominates the mainstream, that is, fans often decide to buy peripheral products because of their love for idols (Mansor et al, 2020). Modernity would like to take out the name of somebody, as it will make the feature fade away, from the perspective of modernity. From this viewpoint, the fan economy would like to show its own features as it will enrich the fan's power in consuming activities. During the survey, fan consumption motivation and irrational consumption behavior are negatively correlated. What did it mean? For instance, the relationship among sports fans showed its specialty, as consumers with a sports team are more affected by the moral motivation (Smith & Stewart, 2007).

For example, the generation of fans' irrational consumption behaviors often depends on fans' understanding and pursuit of idols. Irrational pursuit of idols makes fans panic, which leads to a series of irrational consumption behaviors or deeply affects fans' consumption behaviors. Under the profound influence of idols, fans' consumption behaviors are prone to fall into an irrational vicious circle. In this context, fan consumption behavior urgently needs to be further standardized, that is, to fully understand how fans participate in consumption activities under the guidance of idols, and to construct relevant economic analysis models based on this, to fully understand the social impact that fans' non-ideal consumption behavior may bring.

Multiple motivations for fans' consumption behavior: Current explanatory variables still have gaps in explaining irrational consumption behavior

During the survey, the data collected by the questionnaire has conveyed the fact that fans' consumption is more related to the current explanatory variables. It can be seen that fans' consumption behavior is affected by multiple factors, and the relevant explanatory variables still cannot fully cover the explanatory factors of irrational consumption behavior. Especially for the fan motivation, there is a rule that fans are usually motivated by emotion (Stavros et al, 2014). The fan economy explains consumption behavior in the communication process. On the one hand, the existence of irrational behavior among fans is an objective fact, just as the promotional practice of fan economy cannot be stimulated by emotional motivation alone. On the other hand, fans have a certain degree of irrational behavior. In fact, in the new media environment, fan behavior has become more polarized. For example, the design of some online fan groups has promoted this social phenomenon (Meng, 2024).

Individualized personality will stimulate fans to have more diverse consumption behavior characteristics. In other words, in the development of fan economy, this externalized characteristic has also greatly stimulated the changes in fans' consumption behavior (Wang, Shen & Gao, 2018). Consumer behavior is relatively complex on the aspects of its irrational part, as it may be conveyed by the fact that the irrational consumption behavior of fans has greatly affected the development of the fan economy (Krestyanpol, 2022). For example, even in food consumption, irrational consuming behavior still exists, as the consumers would like to keep pace with the rational consuming activities (Zhu et al, 2023).

In a word, the current explanatory variables still have gaps in explaining irrational consumption behavior; there are multiple motivations for fans' consumption behavior. In fact, in the process of explaining fans' consumption behavior, the accidental occurrence of fans' irrational consumption behavior still depends largely on the emotional labor of fans. To further explain fans' irrational consumption behavior, this study believes that it is possible to try to rely on the basic method of multiple case studies, starting from different types of fans, to understand the key factors that may affect fans' behavior, and try to use some economic theories to explain the occurrence of this behavior.

## 5. Conclusion

As for the development of fan economy, fans will fall into a vicious circle of irrational consumption behavior under the guidance of idols; that is, they often have impulsive consumption behaviors based on emotions. These consumption behaviors often occur involuntarily and are accompanied by complex generation mechanisms. This study obtains data through questionnaire surveys and uses tools to analyze data to further explore the irrational consumption behaviors of fans in the social media environment. This study believes that fan consumption behavior presents significant complexity. There is a significant negative correlation between consumption motivations such as emotional expression, group imitation, and identity recognition, and irrational consumption behavior and willingness. The coexistence of these factors has led to the development of the fan economy, falling into a model based on irrational consumption behavior. From a theoretical perspective, the irrational consumption behavior of fans is the result of the joint action of social media attributes, fan group influence, and individual fan psychology, which is not caused by a single behavioral motivation. In the future, further research can try to expand the case studies, for example, select suitable research subjects from different fields such as film and television, sports, and internet celebrities, compare and analyze the differences in fans' irrational consumption, explore the impact of social media's platform characteristics on fans' irrational consumption behavior, and further combine in-depth interviews and other methods to explore the consumer psychology phenomena behind fan consumption, and try to use targeted intervention strategies to regulate the fan economy.

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