

The Emotional Premium Mechanism of Virtual Economy Marketing: Based on a Case Study of Sanrio Co-branded Mobile Game

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ABSTRACT

With the rapid rise of the virtual economy in the global consumer market, its influence and commercial value continue to be highlighted. In the diversified marketing strategy of virtual products, brand IP linkage has become an important means to efficiently attract users, achieve traffic aggregation and value appreciation. This type of strategy can often achieve a "1+1>2" marketing effect by integrating the fan base and emotional identity of both IPs. However, the existing research mostly focuses on the development model and macro trend of the virtual economy itself, and there is still a lack of systematic and in-depth discussion on how linkage marketing catalyzes the formation mechanism of emotional premium. To this end, this paper takes the typical linkage case of "Honor of Kings × Sanrio (2025)" as the research object, and combines SOR theory and Maslow's hierarchy of demand theory to construct a theoretical model of emotional premium generation, aiming to reveal the transformation path and premium logic of emotional value in virtual consumption. Through case studies and in-depth interviews with 20 participating players, the third-order coding method is used to extract core categories such as "IP emotional attachment", "scarcity anxiety" and "social drive", and explain the internal mechanism of emotional premium in the "motivation-mechanism-behavior" chain. The results show that the emotional premium mainly stems from the emotional attachment and non-functional value of the player's identification with the IP, and its formation is driven by the dual driving of external mechanism design (such as limited time scarcity, lottery mechanism) and internal psychological processes (such as collecting desire and social needs). This paper finally provides targeted strategic suggestions for game developers, IP licensors, regulatory authorities and consumers from the two levels of theoretical construction and practical application, so as to help optimize consumer behavior and market norms in the virtual economy.

KEYWORDS

Virtual economy; Emotional premium; SOR; Maslow demanded

1 Introduction

In recent years, "IP linkage" has become the core operating strategy in the domestic mobile game market. For example, animation IPs such as Hello Kitty and My Melody, which are part of the Japanese IP brand Sanrio, have linked with domestic brands in various fields. In the field of mobile games, it has successfully brought the Sanrio co-branded series of products into the virtual economy through the revenue and impact generated by co-branded activities with leading mobile games such as "Honor of Kings" and "Identity V". On April 28, 2025, the "Honor of Kings" & Sanrio linkage skin was launched, and the turnover exceeded 100 million on the same day, under the influence of which the turnover in April was 3.089 billion, an increase of 17.9 percentage points from 2.62 billion in March, and the turnover in May also increased by 2.89 percentage points compared with April during the event sales period. It can be seen that the linkage activities have achieved excellent revenue results, and the reason for the sales of virtual co-branded products is due to the design of the brand's sales mechanism and the buyer's consumption psychology, on this basis, the typical phenomenon of "philatelic consumption" has been spawned - players generate repeated consumption to collect a full range of linkage characters and props, and the payment amount is significantly higher than the actual use value of the goods, forming an "emotional premium".

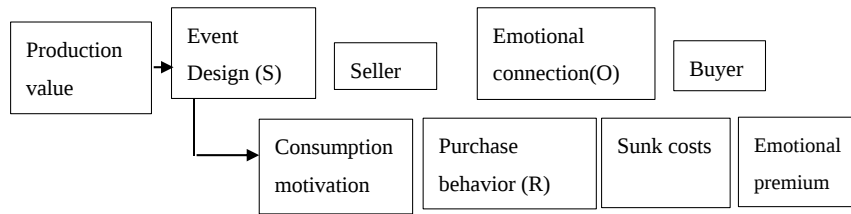
Although there are domestic studies focusing on IP co-branded consumption and virtual product consumption, there are three gaps: first, the causal relationship between "virtual consumption" and "emotional premium" is not clear; second, there is a lack of systematic analysis of the psychological mechanism of linked consumption; Third, the study of virtual economy is not related to the psychology of consumption collection and is not substituted into the co-branding scenario. Based on the case of "Sanrio X Honor of Kings" mobile game, this study uses SOR theory, Maslow's demand theory and empirical analysis to reveal the generation logic of emotional premium in virtual consumption and fill the above research gaps.

2 Theoretical framework

2.1 The transmission role of SOR theory in virtual economy co-branding scenarios

This study takes the SOR (stimulus-body-response) model as the core framework to construct an analysis chain of how to transform emotional premium, and clarifies the core conceptual boundary between virtual economy consumption and

"emotional premium" (overpayment willingness brought about by emotional value).



SOR variable relationship diagram

Figure 1

(1) In terms of stimulus layer (S), it is mainly composed of product design and consumer design. In terms of product design, in previous studies, Hu Junming et al. stated that S (stimulus) is based on explicit character design symbols and implicit narrative design symbols. In the scenario of Sanrio co-branding with domestic mobile games, the addition of linkage elements makes consumers have a willingness to buy - the "cute design" of co-branded products is the core value of its IP; The background stories, promotional videos, lines and theme songs of the linkage characters are necessary means to attract the attention of consumers. In terms of consumption design, direct sales, lottery, blind boxes, points exchange system and other consumption designs can attract players to consume, and the consumption design of such activities is based on the business strategy of game manufacturers. For example, in Honor of Kings & Sanrio2025, the acquisition method of the two linkage skins needs to be combined with "lottery" and "point exchange", while the acquisition of Identity V & Sanrio2024 linkage skins is limited to direct sales. For the design of these two consumer activities, the consumption design of direct sales is the most common, if consumers make philatelic consumption, they must be based on their own likes to buy, including accessories of favorite products; For example, one interviewee said: "I like Yao, so I want to collect skins linked to Yao and Sanrio, including other add-ons that I draw or redeem, such as kill effects, buttons, etc." It also includes inducing players to engage in philatelic consumption - players have been obtaining their accessories before drawing the final prize, not purchasing them of their own will, and obtaining the accessories of the product without their own will (for example, the Honor of Kings lottery to give away the rest of the skins seems to be a gift, but it is actually similar to clearance processing, converting part of the consumer's sunk cost into value).

(2) In terms of body layer (O), Zhang Hebing emphasized that perceived value can play a decisive role between perceived quality and purchase intention. This paper argues that after consumers receive the stimulation of product design and consumer design, they will undergo psychological transformation based on product quality and acceptance of consumer design, which is also an important path for the final birth of emotional premium. Assuming that there is a major premise of successful linkage product design and publicity, what can play a key role in consumers' consumption decisions is consumers' acceptance of consumer activity design (body response). Among the 20 consumers interviewed in depth, the acceptance of direct sales products is 100%, while the acceptance of lottery design is only 70%, of which about half of the respondents said that the acceptance is determined based on their own "Europe" and "non", and if their lottery expenses are lower than the estimated value of the product itself, it will increase the acceptance of lottery consumption, and vice versa.

(3) In terms of the response layer (R), it is reflected in the material output and psychological output of consumers after purchasing co-branded virtual products. This paper specifically analyzes virtual consumption behavior and psychology. In terms of material output, it is reflected in the fact that before the player obtains the "ultimate item", the cost of the investment will be converted into the rest of the derivatives except the "ultimate item", which has actually been converted into a necessary link. In terms of psychological output, the first is the consumer's willingness to share, which refers to the fact that consumers share and forward the results of obtaining goods to relatives and friends through game interface design or their own screenshots, or spread them on social platforms, such as Moments, Xiaohongshu, Douyin and its comment area, etc. Regardless of whether the consumer is "European" or "non-European", once consumer information is disseminated, it will cause survivor bias, which may attract a new wave of potential consumers.

2.2 Emotional explanation of Maslow's needs in the virtual economy

Maslow's needs from the traditional perspective are a bottom-up hierarchical theory of human physical and emotional instincts. However, from the perspective of virtual consumption, Maslow's demand will tend to be flat, meeting multiple levels of demand in a non-linear and non-hierarchical way.

2.2.1 Physiological needs

In the traditional explanation of Maslow's theory, human physiological needs mainly come from water, food, air, and sleep to maintain the most basic survival needs. In the virtual consumption scenario, such physiological needs are mainly covered by the "audio-visual stimulation" and "psychological stimulation" that consumers need, which is embodied in high-quality game props, such as character skins, which have unique and high-quality modeling, animation, special effects and sound effects, and these can directly act on the consumer's brain to get mental satisfaction and meet their physiological needs; In the study, consumers who said they preferred lottery consumer design all expressed the excitement of "gambling luck" at the same time as the lottery, which is similar to the process of obtaining satisfaction, thus forming a closed loop of behavioral addiction. Regardless of "Europe and Africa", when the final acquisition of game props, the physiological needs of consumers will be met to varying degrees, combined with the interview sample, almost all consumers will share it, which is also a way to meet their needs.

2.2.2 Safety requirements

The security needs from the original perspective are interpreted as personal safety, property security, moral protection and family safety, etc., and in the virtual consumption scenario, it is embodied as a visible virtual resource that accumulates virtual goods to enhance the value of one's account, although its actual value may not meet psychological expectations, but from the perspective of consumers, it is like a value preservation asset, whether it is sold or for one's own use. For the lottery points redemption system consumption model, this undoubtedly provides a "fair" output path, such as if the guarantee mechanism is not transparent, consumers can easily lose their sense of consumer security without seeing their own acquisition progress, so that they feel that the investment has not been reported, which also comes from the safety needs of consumers in virtual consumption scenarios.

2.2.3 Social needs

In traditional society, the need for social interaction is reflected in family affection, love, friendship and affiliation. From the perspective of virtual consumption, a precious, rare, limited-time game prop will increase the player's group identity and sense of belonging, and it will become a social currency or identity identity. Taking this research case as an example, during the Sanrio linkage of Honor of Kings, the hero popularity of "Yao" and "Angela" was pushed to a climax, "Before entering the game, you have to keep clicking on the interface of choosing Yao, and you can't grab it if you don't keep clicking" An interviewee said, and after being selected, all players in the game will notice the new skin, and there will be a different kind of satisfaction. Interview data shows that almost all respondents have shared their lucky draw experience on social media platforms, and nearly half of the respondents have made repeated purchases to give to relatives and friends, which satisfies the social needs of virtual consumption.

2.2.4 Respect needs

Status, achievement, fame and recognition are all human needs for respect, including being respected by others and self-respect. In the virtual economy, what others do not have has their own, this "different" mentality will show the sense of self-satisfaction and self-respect in the virtual scene, and this sense of superiority brought by social comparison is a huge driving force for obtaining virtual props.

2.2.5 Self-actualization needs

As mentioned earlier, having limited game props will bring players a sense of self-esteem in virtual scenarios, and the demand for self-realization comes from players wanting to become "avatars" in the virtual world. By purchasing and matching skins for this "avatar", players are actually building their ideal selves. In reality, satisfying the need for self-actualization is likely to be a difficult task, because it involves personal ideals, revenge, and becoming the desired person. However, in the virtual scene, the difficulty of self-realization will decrease exponentially, and this sense of self-realization comes from the fact that from "buying and matching skins" to "building an ideal self", to using this method to show one's aesthetic taste and creativity, and the perfect experience of collecting a whole set of skin props can achieve full collection achievements, etc., this "sense of completeness" and "sense of ending" are a kind of self-realization for players with collecting habits.

3 Research content

3.1 Research methodology

3.1.1 Case analysis method

Select typical cases of "Honor of Kings" × Sanrio (2025) to collect linkage activity rules, in-game data (character collection rate, consumption amount distribution) and player community text (forums, social media comments) to summarize the behavioral characteristics of philatelic consumption.

3.1.2 In-depth interview method

Semi-structured interviews were conducted with 20 players who participated in Sanrio's linkage mobile game consumption, focusing on consumption motivation, emotional experience and decision-making process, supplementing qualitative data.

3.1.3 Third-order coding method

Extract the initial concepts such as "emotional attachment" and "scarcity perception" through open coding, sort out the logic of "IP symbol → emotionally triggered → consumption behavior" by the main axis, and selectively code the action path of "IP resonance → scarcity design → sunk cost → emotional premium".

3.2 Interview data analysis

3.2.1 Open Coding

Table 1

Initial concept	frequency	Representative Original Statement (Example)
[IP Emotional Attachment]	12	"Just because it is a linkage, I will spend so much money to buy it, I like Sanrio" (P5); "Just like Sanrio" (P20)
[Product Quality Driven]	10	"Based on skin quality, not related to linkage" (P2); "Favor the quality of the skin itself" (P6)
[Collection Completion Driver]	9	"I have a collecting habit and want gold letters" (P5); "Collect only what you like" (P17)
[Social Sharing - Showing Off]	15	"If it is very European, it will show off" (P5); "Posting Moments" (P6)
[Social Sharing-Discussion/Complaining]	8	"will be discussed in the Xiaohongshu comment area" (P8); "Xiaohongshu complains because the explosion rate is very low" (P20)
[Gift consumption]	7	"I gave a set to a friend" (P15); "Give to oneself" (P14)
[Scarcity anxiety]	15	"I feel anxious and only once I will definitely buy" (P3); "Limitation is valuable" (P7)
[Sunk Cost Perception]	5	"Spending money is lost because of the lottery guarantee" (P1); "Excess costs will be incurred" (P18)
[Gambling psychological stimulation]	9	"Like to gamble" (P7); "I like the feeling of the lottery and be a gambling dog" (P12)
[Mechanism Transparency Requirements]	4	"I want to publicize the lottery probability in a more obvious place" (P3)
[Emotional Premium Acceptance - Great Value]	3	"Great value for money, although bad luck" (P14)
[Emotional Premium Acceptance - Worth]	10	"Value for money" (P2, P7, P9, P14, P15); "Because liking is worth it" (P16)
[Emotional premium acceptance - not worth it]	7	"Value for money" (P1); "Not worth it, or expensive" (P4)
[Derivatives Bundle Purchase]	17	"There is a button" (multiple verbal confirmations)
[Derivatives are insensitive/resistant]	3	"No, not interested" (P15); "The canopy is just a pretense, it's useless" (P7)
[Direct Sales Preferences]	10	"Direct sales, realistic consideration of cost" (P14); "Direct sales, gambling psychology that doesn't like lottery draws" (P10)
[Lottery Preferences]	9	"Lottery, exciting gambling" (P18); "I prefer the lottery, and direct sales are also fine" (P20)
[Utility consumption] (focus only on the skin itself)	12	"It depends on the skin itself and whether you play it or not" (P13); "It has nothing to do with the linkage, it depends on the design" (P14)
[Experiential consumption] (enjoyment process)	5	"I like the lottery, I can swipe points, I like the feeling of the lottery" (P16); "I enjoy going to the lottery and am addicted to drawing" (P20)

3.2.2 Axial Coding

3.2.3 Selective coding & theoretical model construction

Theoretical model:

Table 2

Main category	corresponding initial concept	Relationship and role description
Consumption Motivation	【IP Emotional Attachment】	The internal power source that drives players to consume. It contains multiple complex motivations such as emotion (IP love), function (quality), and psychology (collection, socialization).
	【Product Quality Driven】	
	【Collection Completion Driver】	
	【Social Sharing - Showing Off】	
	【Social Sharing-Discussion/Complaining】	
Mechanism Perception	【Gift consumption】	The player's response to an external stimulus (S) designed by the game manufacturer. Mechanics such as raffles and time limits can trigger anxiety, excitement, or negative perceptions due to their opacity.
	【Scarcity anxiety】	
	【Gambling psychological stimulation】	
Value Assessment	【Mechanism Transparency Requirements】	After consumption, players are a psychological process of making trade-offs between emotional satisfaction and monetary costs. This is the decision-making process of whether the emotional premium is finally formed. The criteria for judging "value or not" vary from person to person, and can be divided into emotion-oriented and function-oriented.
	【Sunk Cost Perception】	
	【Emotional Premium Acceptance - Great Value】	
	【Emotional Premium Acceptance - Worth】	
Behavioral Pattern	【Emotional premium acceptance - not worth it】	Under the above motivations, perceptions and evaluations, the specific behavioral tendencies (R) that the player finally exhibits. For example, whether to accept bundles and which purchase method you prefer directly determines the success or failure of your business strategy.
	【Utility consumption】	
	【Experiential consumption】	
	【Derivatives Bundle Purchase】	
	【Derivatives are insensitive/resistant】	
	【Direct Sales Preferences】	
	【Lottery Preferences】	

The emotional premium in mobile game IP linkage is the final result formed by the combination of internal consumption motivation and external mechanism stimuli, filtered through individual value evaluation.

(1) Origin: Players have an initial desire to consume due to their emotional attachment to IP, recognition of product quality, desire to collect, or social needs (motivation).

(2) Catalysis: The limited-time scarcity and lottery mechanism (stimulus) designed by game manufacturers effectively amplifies this desire, and by creating anxiety and gambling excitement, players are motivated to increase their willingness to pay and accept bundled derivatives.

(3) Decision-making: During the consumption process, players will constantly evaluate the value. Even if rationally considered "not worthwhile" (functional value dissatisfaction), the purchase will eventually be completed due to emotional satisfaction, social show-off, or a strong motivation to complete the collection, resulting in an emotional premium.

(4) Differentiation: The player group is differentiated in this path: emotion-driven players (such as Sanrio fans) are more likely to generate premiums; Function-driven players (who value the skin itself more) are more sensitive to mechanics and have less room for premium.

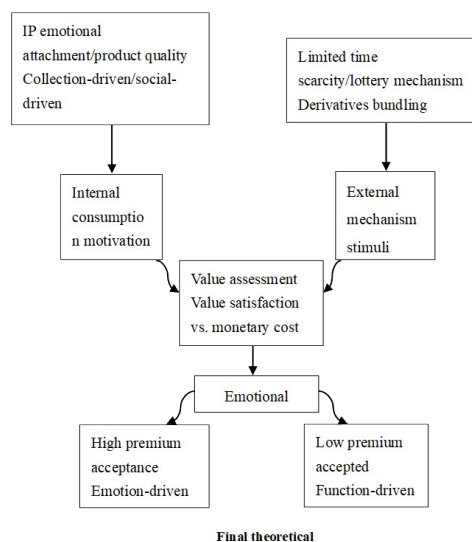


Figure 2

4 Discussion of results

4.1 Research conclusions

Based on the SOR theoretical framework and Maslow's demand theory, this study conducts a third-order coding analysis of 20 players who participated in the "Honor of Kings" × Sanrio (2025) linkage activities, and deeply explores the generation logic of emotional premium in virtual consumption, and draws the following core conclusions:

4.1.1 The core source of emotional premium is emotional attachment rather than functional value, and there is a significant differentiation of player groups

This study confirms that the essence of emotional premium is the excess consideration paid by players for the value of "emotional companionship" carried by the IP. Interview data shows that 12 players clearly stated that they "spend because they like Sanrio", and their consumption decisions are mainly driven by emotions. In contrast, the other 10 players are more focused on product quality-driven, and their value evaluation criteria are more rational. This reveals the differentiation between "emotion-driven" and "function-driven" within the player base, with the former being the main source of emotional premium. For example, the statement of respondent P5 that "I will spend so much money to buy it just because it is linkage, I like Sanrio" is a typical representative of the former; Respondent P2's "based on skin quality, not related to linkage" represents the latter.

4.1.2 Philatelic consumption is a compound behavior driven by the triple drive of "emotion-mechanism-social", and the sunk cost effect plays a key catalytic role in it

The study found that philatelic consumption is not a single collection behavior, but stems from:

(1) Emotionally driven: love for IP (IP emotional attachment) and obsession with completing the collection (collection completion drive, 9 people);

(2) Mechanism-driven: the psychological stimulation of gambling brought by the lottery mechanism (9 people) and the scarcity anxiety caused by limited-time sales (15 people) work together, effectively amplifying the desire to consume;

(3) Social-driven: Social sharing-showing off (15 people) and gift consumption (7 people) meet the social and respectful needs of players.

Crucially, the inherent "sunk cost" feature of the lottery mechanism (5 mentions) forces players to keep investing before obtaining the target items, and treats derivatives (such as buttons, canopies) as additional compensation for their investment, thus bundling more non-essential goods (17 people bought derivatives).

4.1.3 Cross-cultural IP successfully realizes emotional penetration through "universal emotional symbols + localized interactive design", effectively reducing cultural discounts

Sanrio's characters (e.g., Hello Kitty, Kuromi) have a "cute" core that is a universal emotional symbol that transcends cultural barriers. In this research case, Honor of Kings was successfully localized with high-quality skin modeling, animations, and sound effects (product quality-driven), allowing even players who are not core Sanrio fans (feature-driven) to generate purchases based on their recognition of the product itself. In the interview, 12 players said that even if the linkage elements are removed, their acceptance will not change, confirming the combination of "cute" design and high-quality localization execution, effectively weakening the cultural gap that pure Japanese IP may bring and achieving widespread emotional penetration.

4.2 Theoretical contributions and practical enlightenment

4.2.1 Theoretical value

This study constructs an integrated analysis framework of "IP emotional value-activity mechanism design-consumer psychology-emotional premium", refines the application of SOR model in virtual consumption scenarios, and clarifies the causal path between variables. The nonlinear explanation of Maslow's demand theory is introduced, revealing how virtual products can meet the social, respectful and self-realization needs of players at the same time, and providing new theoretical perspectives and case support for the research of "emotion-driven consumption". Through rigorous qualitative analysis, the formation mechanism of "emotional premium" is revealed, and the empirical gap on the causal relationship between virtual consumption and emotional premium is filled in domestic research.

4.2.2 Practical implications

For game manufacturers: they should deepen the integration of IP and game characters, deepen emotional narratives rather than simple labeling; Optimize the design of the lottery mechanism, while ensuring commercial benefits, provide a more transparent and guarantee mechanism friendly solution, so as to alleviate players' "sunk cost" anxiety and negative perception, and maintain long-term user relationships.

For IP licensors (such as Sanrio), they should fully trust and rely on the development capabilities of local partners, focus on providing core "emotional symbol" assets, and jointly complete product localization innovation to achieve effective grafting of cultural emotions.

For regulators: This study reveals the complex psychological mechanism behind "emotional consumption", provides a "psychological portrait" for identifying potential over-marketing behaviors (such as using anxiety to induce consumption), and helps to introduce more refined industry norms, protect consumer rights and interests, and guide the healthy development of the virtual economy.

For consumers: when there is consumption demand in the virtual consumption scenario, we should have an in-depth understanding of the consumption mechanism, reconsider the consumption behavior, and avoid being induced by the active consumption mechanism to carry out impulsive consumption, excessive consumption and other bad consumption behaviors.

5 Limitations and prospects

There are still some limitations to this study:

First of all, the samples are all from the players of the first linkage, and although the sample size (20 people) has reached the saturation of qualitative research, there may be limitations in generalization. Future studies can expand the sample size and introduce questionnaire survey methods for quantitative verification to further test the generality of the conclusions of this study.

Secondly, this study focuses on Sanrio IP with "emotional companionship" as the core, and its conclusion is unclear whether it applies to other types of IP (such as passionate competition and hardcore science fiction). In the future, comparative cases, such as "Identity V"× Sanrio, "Honkai Impact 3", ×EVA and other cases, can be selected to explore the differences in the emotional premium generation mechanism under different IPs or different game types.

Finally, this study did not analyze the demographic characteristics of players, such as gender, age, and income. Future studies can introduce these variables as moderating variables to explore the differences in the willingness of different groups to pay emotional premiums.

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