

# ***Payment Instruments and Mental Accounting: Irrational Consumption of ACG Merchandise on Bilibili***

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**Abstract.** Payment methods now play an increasing role in reshaping mental accounting—especially with regard to ACG merchandise—within a fast-growing part of the cultural economy. A case study of Bilibili Membership Mall is used here to represent Gen Z ACG consumer behavior in China; the analysis relies on both transactional data and survey responses to explore, in some detail, the interaction of digital payments with fandom-related psychology. This study applies mental accounting ideas to the pain-of-paying concept and analyzes specifically, with regard to ACG merchandise, how mobile or credit payment instruments may lead to irrational consumption choices. The work identifies positive roles played by such payment methods: they help to lower consumption barriers, to make consumption more complete, and to promote second-hand use, for these mechanisms also run the risk of creating system-wide problems. With regard to mental accounting distortions or overindebtedness, speculative leveraging on secondary markets, and socially sustained irrational spending. To counter such risks, the present analysis advocates a coordinated governance model—based on platform-level control of payments, secondary-market rules, and localized digital literacy efforts. It examines how modes of payment affect mental accounting and thus expands behavioral finance in ways useful for thinking about the long-term viability of the ACG consumer market.

**Keywords:** ACG Merchandise Consumption, Payment Instruments, Mental Accounting, Pain-of-Paying, Consumer Over-Indebtedness

## **1. Introduction**

### **1.1. Research context and motivation**

The global market for anime, comics, and games (ACG) merchandise has expanded rapidly in recent years. ACG merchandise refers to physical products derived from anime, comic, and game intellectual property. It has become an important category of consumption for young people. In 2024, China's anime goods market reached roughly 597.7 billion yuan (about 82 billion US dollars). Items such as badges, blind boxes, and acrylic stands have emerged as prominent categories within China's consumer economy. China's goods economy reached 168.9 billion yuan in 2024, up 40.63% from the year before [1]. The market for second-dimensional intellectual property goods jumped from 5.3 billion yuan in 2016 to 102.4 billion yuan in 2023, almost 20 times bigger [1].

Mobile payment has fundamentally altered consumers' mental accounting and their cognitive processing of money. Mental accounting is the way people put money into different mental accounts and track it. According to Thaler's mental accounting theory, people often separate gains and combine losses. They put money into different mind accounts based on where it comes from, how it is stored, and what it will be used for [2]. Mobile payments, such as WeChat Pay and Alipay, and credit tools, such as Huabei and Baitiao, make paying much less painful. Studies reveal that people spend 15% to 25% more when they use digital payments instead of cash [3]. Limited items, hidden items, and IP collaborations push up prices in the second-hand market. Some products even sell for 39 times their original price [4]. Driven by fear of missing out (FOMO) and reduced payment pain, consumers frequently exceed predetermined budgets.

Such a consumption pattern is now responsible for certain money troubles among young people and for peer comparison or other social issues. It is therefore necessary to analyze—on an individual level—how payment methods affect mental accounting in consumption, and young people may be helped to spend sensibly and to preserve the health of the IP products market.

## 1.2. Literature review

Mental accounting theory—originally proposed by Thaler—suggests that people classify their money into separate mental accounts (with particular budgets) and distinguish between acquisition and transaction utility [2]. Prelec and Loewenstein found substantial differences in the pain of paying according to method, while Soman, Raghubir, and Srivastava proved that credit cards help to ease such pain compared to cash [5-7]. With regard to mobile payments, Shah et al., working with over 25,000 US households, have linked digital forms of payment to both increased spending and costly credit-taking [3, 8]. From a neuroscientific standpoint, it is clear that mobile payments relieve pain-of-paying and may trigger a "pleasure-of-paying" effect (via reward-linked brain activity) [9]. Still, even though many of these findings are quite solid, they leave out the emotional, social, and speculative character of ACG merchandise consumption.

With growing interest in the subject, the literature is still somewhat limited. Many investigations deal with the relation between payment and spending on general goods. Very little attention has been given to the effect of such methods upon mental accounting in Goods consumption. Most of the studies treat mental accounting as something unchanging or rigid. They neglect that in ACG consumption, people's minds are highly emotional and elastic. With regard to Goods consumption, spending tends to be associated with emotional accounts. The budget ceiling applicable here is far greater than for standard spending accounts. Also, little is known about how credit instruments may relate to restricted releases or to second-hand speculation in general. The question of whether credit promotes misleading mental accounts — and thus enables overspending under an illusion of affordability — has not been sufficiently examined. Among practical measures aimed at improving digital literacy for ACG consumers, few have been discussed in the literature. A focus on broad retail contexts has tended to ignore niche cultural practices, with consequent limitations on the usefulness of findings for the ACG sector.

## 1.3. Theoretical framework and research design

The present work treats Bilibili Membership Mall as a case, and develops a model that relates payment methods, mental accounting (or its breakdown), irrational expenditure, and post-purchase results. Using both secondary material and Internet discussion, it outlines the main dangers involved and offers ideas for governance of sustainable ACG consumption.

## 2. Case background: Bilibili Membership Mall

Bilibili Membership Mall has become one of the main platforms for licensed ACG merchandise in China, starting in 2017. As of 2023, it has sold IP derivatives totaling CNY 510 million, and its platform GMV is close to USD 300 million by 2025 [1]. The Mall accepts not only cash (in the form of WeChat or Alipay) but also credit-linked items — Huabei or Baitiao — with ~45% of transactions being credit or installment - based. One typical example is the 2023 limited - edition Keqing Qipao badge (Genshin Impact), now priced at CNY 59 and sold out in three seconds. On Xianyu, resale values have gone beyond CNY 2, 000 ( $\approx 34 \times$ ), with many buyers using Huabei installments. Such speculation has normalized credit over – reliance, as shown by expressions such as "eating Goods debt." Secondary-market fluidity helps the primary market but may encourage wild speculation. Platform features of particular interest are summarized in Table 1 [1].

Table 1. Profile of ACG merchandise consumption on Bilibili Membership Mall

| Attribute          | Key Data                                      |
|--------------------|-----------------------------------------------|
| Core users         | Gen Z (15–30), students & young workers       |
| Product types      | Badges, acrylic stands, keychains, plush toys |
| Price range        | CNY 10–100 (standard); >CNY 100 (limited)     |
| Payment mix        | WeChat Pay, Alipay, Huabei, Baitiao           |
| Credit usage       | ~45% of orders                                |
| Secondary market   | Xianyu                                        |
| Market size (2024) | CNY 168.9 bn                                  |

## 3. Mechanisms and effects of payment methods on mental accounting

### 3.1. Positive externalities of digital payment

#### 3.1.1. Lowering transaction barriers and expanding access

Mobile payments and credit instruments have considerably reduced the payment barrier for Goods consumption. More young consumers with limited disposable income can now take part in IP culture consumption. In the cash era, buying a high-priced luxury good required paying a large amount of cash right away. This caused severe pain in the paying. Many fans gave up because they did not have enough money. Mobile payments' one-click function and credit payment's buy now, pay later feature reduce payment pain to a minimum. This facilitates the allocation of ACG spending to discretionary entertainment accounts.

According to research, spending behavior is significantly impacted by digital payments. Digital payment has a bigger effect than cash payment [3]. The cashless effect indicates that individuals tend to spend more when using digital payment. Compared with cash, digital payment reduces the mental anguish of paying [7]. In Goods consumption, this effect is amplified by consumers' emotional attachment to ACG characters. Platform data shows that after Huabei installments were introduced, average order value climbed by roughly 35%. Products priced above 200 yuan grew the most [8]. This payment convenience not only expands the consumer base for IP goods. It also gives

content creators and rights holders a more stable income. This helps ACG culture grow and become more inclusive.

### **3.1.2. Emotional integration and consumption immersion**

A frictionless mobile payment system encourages immersion and emotional involvement on the part of the consumer. It leaves their emotional condition undisturbed. From the standpoint of mental accounting, separation of payment from consumption—whether by gift or prepaid card—helps to isolate spending in a prepaid account. That isolation reduces sensitivity to individual transactions. Mobile payment features such as "password - free payment" and "print - and - pay" make it hard to distinguish between payment and consumption mentally. As a result, Goods buying tends to be experienced as emotional, not as mere money spending.

New research demonstrates that mobile payment may create a pleasure of paying effect. Its smooth and easy procedure can trigger positive feelings during buying. EEG studies give neural evidence that mobile payment not only reduces the pain of paying but also generates the pleasure of payment. This "emotionalization" of mental accounting makes consumption smoother. It increases consumer loyalty to IPs and their sense of belonging to the community. It also gives emotional power to the deeper development of ACG culture. Some research on AI payment systems also demonstrates this effect among Gen Z [10].

### **3.1.3. Liquidity enhancement and investment mental accounting**

The convenience of mobile and credit payments also helps the second-hand goods market grow. On platforms like Xianyu, customers can use Alipay's escrow service to complete high-value resales fast. This low-friction experience leads some consumers to put Goods into an investment collection mind account instead of a pure consumption spending account.

Xianyu's 2023 report demonstrates that second-hand ACG goods transaction volume increased by 250%/year over year [1]. The second-hand market makes rarity evident and gives liquidity to high-value collectibles. This can strengthen primary demand [1]. About 30% of sellers said they bought Goods hoping to resell them for a profit. This "investmentization" of mental accounting carries speculative risk. But it also gives Goods liquidity. Consumers can sell when they need money. This reduces the danger of eating dust (buying and not using). It also gives the IP goods market a price discovery mechanism.

## **3.2. Systemic risks and behavioral distortions**

### **3.2.1. Mental accounting imbalance and over-indebtedness**

The cashless nature of mobile payment and the delayed pain of credit payment greatly disturb consumers' mental accounting balance. This leads to self - control failure and too much debt. In mental accounting theory, consumers frequently set budget limits for each account. But when the pain of paying is substantially reduced, this mental budget controller runs functioning [11]. Research indicates that mobile payment use increases delinquency in credit cards, mortgages, and student loans [8]. Shah et al. found that current and future payment methods significantly affect spending behavior. Digital payment has a bigger effect than cash payment [3]. Also, frictionless payment adds a new mind account that did not exist before. It makes people feel they have more free money than they actually do.

With respect to Goods consumption, these effects are stronger. Survey evidence tells us that about 62% of ACG consumers have spent money on Goods not originally planned due to easy payment. Some 28% have had "eating Goods debt". Of greater concern is the fact that tools such as Huabei employ interest-free installments to obscure the boundary between now and later debt. That boundary is weakened when one uses future earnings to fund present pleasures. This gives rise to a "debt spiral" [8]. Such arrangements take advantage of consumers' inability to control themselves, calling for both regulation and education.

### **3.2.2. Speculative bubbles and payment instrument misuse**

Consumer mental accounting is disturbed by the interplay of payment forms with second-hand speculation. Such disturbances lead to speculative bubbles. On sites such as Xianyu, one sees scalpers using Huabei cash-out options for limited Goods. They sell them—often many times—above the initial price. That form of leverage converts ordinary cultural goods into objects of financial speculation.

Research on speculative bubbles in collectible markets has found similar patterns. The scarcity of some collectibles often causes second-hand prices to rise [4]. Some consumers have paid over 80,000 yuan for a team-badge-themed mahjong set on a second-hand trading site. Driven by FOMO, consumers use credit payments to buy at inflated prices. They put the spending into an investment mind account. But they ignore the real cultural value. Second-hand prices fall sharply when the bubble bursts, for example, when IP popularity declines. Many high-priced buyers face big losses. Also, payment tool misuse leads to a vicious borrow-to-repay cycle. Some consumers, trying to repay old debt, use new credit lines to buy more goods, hoping to recover losses. In the end, they fall into a financial crisis [8]. This market disorder under distorted mental accounting not only damages consumer rights. It also disrupts the healthy development of the IP goods market.

### **3.2.3. Social comparison and community-driven overspending**

In Goods communities, social pressure and community comparison are exacerbated by painless payments. This results in mental accounting's socialization and hijacking. Residents of good communities are viewed as leaders and are respectful of the community. They own rare goods, such as hot-selling items or sea-view items. People who own common goods are pushed to their advantage.

Research on fan consumption has found that FOMO is the strongest driver of impulse buying [4]. Under this social pressure, consumers keep using mobile payment to buy high-priced goods to keep "face." They put spending into a "social investment" mindset, even when it is beyond their financial means. Survey data show that about 40% of Goods community consumers have bought Goods beyond their budget because they did not want to be looked down on. This "socialization" hijacking of mental accounting not only increases financial pressure. It also leads to anxiety, depression, and other mental health problems. It seriously harms the well-being of young consumers.

## **4. Governance strategies for sustainable ACG consumption**

### **4.1. Platform-level payment interventions and quota mechanisms**

This paper proposes a three-part payment intervention system: platform, payment institution, and user, in order to address mental account imbalance and excessive debt. First, secondary-market

platforms and credit providers should establish a mandatory cooling-off period for ACG merchandise purchases.

The rational consumption reminder should be demonstrated by force when a user's monthly goods spending exceeds a predetermined limit (eg, 2,000 yuan). The payment should be delayed by 24 hours. Research indicates that making credit card transactions more visible helps people spend less [5]. Second, payment platforms should allow users to set mental account budgets for different spending categories. When Goods spending gets close to the budget limit, the system should send a warning and limit credit payment use. Using smartphones to help with mental accounting can help consumers spend less [12]. Third, for minors and university students, credit payment functions like Huabei and Baitiao should be turned off by default. Or they should have per-transaction or daily restrictions. This can stop them from falling into debt traps due to weak self-control. Shah et al. found that digital financial literacy significantly and positively moderates individual spending. This means education and institutional protection work together [13]. Fourth, platforms should provide a "consumption bill visualization" feature. It should show users Goods spending as a share of monthly income in chart form. This helps users rebuild the boundaries of their mental accounts.

#### **4.2. Regulation of secondary markets and speculative activities**

To deal with second-hand speculation and payment tool misuse, this paper proposes a multi-pronged approach to stop speculative bubbles.

First, second-hand trading platforms should set up a Goods transaction price monitoring mechanism. Items with a premium over 500% of the original price should be automatically marked as high-risk speculative items. The use of credit payment methods like Huabei to buy them should be limited. The second-hand market's positive role in enhancing primary demand should be kept. But it should not become a speculative casino. Second, platforms should stop scalpers from using automated scripts to buy in bulk. They should use real-name purchase limits to make sure Goods go to real fans. Third, when it comes to consumer financial protection, financial regulators ought to incorporate good speculation. Payment institutions ought to be prohibited from offering installment payments or leveraged financing for second-hand speculation. This prevents credit tool misuse. Fourth, a self-regulatory body for the IP derivative second-hand market should be established by industry associations. It ought to prohibit harmful speculation. Additionally, it ought to frequently issue market risk warnings. Customers should also make a routine statement about the importance of goods in a cultural consumption mind account rather than an investment mind account.

#### **4.3. Digital financial literacy and community-based guidance**

To deal with irrational spending from community comparison and social pressure, this paper proposes a school-family platform digital financial literacy education system. First, universities and secondary schools should include digital financial literacy in general education courses. They should teach basic concepts like mental accounting and delayed gratification. This helps students see the traps of painless payment. Research has proven that enhancing digital financial literacy can encourage responsible spending through digital payment [14]. Second, parents should pay attention to their children's consumption of goods. They should guide them to develop healthy consumption values. They should avoid using Goods as the only way of emotional compensation [15]. The emotional attachment consumers feel toward ACG characters should be recognized. But it should not lead to financial harm. Third, ACG platforms such as Bilibili have an obligation to guide communities. They may issue formal guides about rational spending practices. They may bring in

KOLs to explain how one might keep a budget. Such measures help form a culture of living within one's means.

Interactive financial literacy tools—such as mental accounting simulators—might be developed by platforms, with an eye to improving users' budgeting skills. They make it possible to check (in a virtual context) how given payments affect one's overall spending. Such checks help to build self-discipline and to avoid the emotional capture of social comparison.

## 5. Conclusion

### 5.1. Key findings

This study uses Goods consumption on the Bilibili Membership Mall as a case. It deeply explores how payment methods affect mental accounting in Goods consumption. Mobile and credit payments facilitate ACG consumption by reducing payment pain, enhancing immersion, and supporting secondary-market liquidity. However, they also cause deeper problems: mental account imbalance and too much debt, second-hand speculation and payment tool misuse, and irrational spending driven by community comparison. These problems seriously threaten the financial health and psychological well-being of young consumers.

Through mental accounting, this study demonstrates that digital payment has a significant impact on spending behavior. A bank account can move money from a secure savings account to a spending budget by moving it to a payment app. This reduces the mental barrier to spending. These impacts are exacerbated by emotional attachment, community dynamics, and second-hand speculation in the consumption of goods. Beyond conventional mental accounting frameworks, the emotionalization and socialization of mental accounting in ACG consumption are a unique phenomenon.

### 5.2. Research significance

The present study has considerable value both theoretically and practically. From a theoretical point of view, it applies mental accounting ideas to the new niche of ACG Goods consumption. It gives an account of how mobile or credit-based payment eases the formation of mental account boundaries (i.e., pain of paying). This enlarges the conceptual scope of studies on digital behavior.

Practically, the study provides decision-making evidence for ACG platforms to improve payment design and prevent user over indebtedness. It gives direction for financial regulators on how to regulate credit payment instruments in cultural consumption. It also gives social value by encouraging rational youth consumption and healthy growth of the ACG cultural business. The tactics suggested platform payment intervention, second-hand market regulation, and digital financial literacy education offer actionable paths for many stakeholders.

### 5.3. Limitations and future research

The present work is mainly based on secondary data and public case analysis—not on direct consumer surveys. Future investigations may profit from questionnaires, controlled experiments, or physiological methods such as EEG for an examination of how cash or mobile/credit payments relate to mental accounting and budgeting in ACG consumption. Comparative studies of IP types (domestic vs. Japanese) and of virtual items (NFTs)—whether in the metaverse—are certainly worth pursuing. Given the strong moderating role of digital literacy with respect to spending/payment linkages, it is timely to design and test literacy-specific remedies. Finally, with AI-driven

personalization developing rapidly, researchers should assess whether algorithmic suggestions ease the pain of paying and what ethics this implies.

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