

Face, Identity, and Compensatory Consumption: Mechanisms of Irrational Consumption among Rural-to-Urban Migrant Youth in Livestream E-commerce

Yingtao Wang

*Department of Psychology, Renmin University of China, Beijing, China
wyt2105868539@163.com*

Abstract. This paper takes the irrational consumption of rural-urban migrant youth in live-streaming e-commerce as the research object, and explores the relationships among stimuli from live-streaming platforms, pressures of identity construction and consumption responses. Guided by the S-O-R model, this study integrates the identity theory and face theory to conduct qualitative coding on interview data collected from 17 youths with rural-urban migration experience. The findings reveal that low-price promotions in live-streaming rooms, streamers' sales pitches and algorithmic push notifications shorten consumers' decision-making time, and convert originally vague demands into immediate purchasing impulses. For migrant youth, these stimuli frequently overlap with identity insecurity, face concerns, peer comparison and demands for emotional regulation arising from urban integration, which further manifest as impulsive purchases, symbolic purchases and compensatory consumption. Interviews also indicate that satisfaction obtained after consumption is usually short-lived, and may be followed by regret, financial strain and persistent anxiety. Based on the above findings, this paper puts forward intervention suggestions from three dimensions: individual self-awareness, calm reminders on platforms and social integration support. This study argues that irrational consumption in live-streaming e-commerce is not merely triggered by low prices, but arises from the combined effects of the digital consumption environment and identity pressures faced by migrant youth.

Keywords: rural-urban migrant youth, live-streaming e-commerce, irrational consumption, identity recognition, compensatory consumption

1. Introduction

1.1. Expansion of irrational consumption in the internet era and live-streaming sales

Amid the wave of digitalization, live-streaming e-commerce, a new business model integrating real-time interaction and instant purchases, is reshaping consumers' decision-making logic and behavioral patterns [1]. China stands as a major market in this sector. Data released by CNNIC [2] shows that the number of online shopping users in China reached 976 million by June 2025,

accounting for 86.9 percent of all internet users; the number of e-commerce live-streaming users hit 597 million by December 2023, making up 54.7 percent of the total internet population [2]. Meanwhile, live-streaming shopping fits well with the online usage habits of young groups. Liu and Zhang [3] note that users aged 18 to 30 account for 80 percent of respondents who engage in live-streaming shopping, proving young people have become key participants in live-streaming e-commerce.

Within this consumption scenario, purchasing decisions no longer rely primarily on rational comparison and demand evaluation, but are more susceptible to streamers' charisma, live-stream room atmosphere, limited-time promotions and immediate sensory stimuli [4]. For this reason, irrational consumption occurs far more frequently in live-streaming e-commerce. According to iResearch [5], 49.5 percent of live-streaming e-commerce users list impulsive consumption as one of their prominent problems. Consumers often place emotional orders influenced by the live-stream atmosphere, buying a large number of unplanned goods with ambiguous practical needs. This indicates that live-streaming sales are fostering a consumption culture characterized by instant gratification, emotional motivation and pursuit of symbolic meanings.

1.2. Psychological dilemmas of rural-urban migrant youth amid identity issues, face concerns and pressures

Rural-urban migrant youth, a group emerging amid China's ongoing urbanization drive, are among those deeply affected by this consumption transformation. Referring to the definition of floating population issued by the National Bureau of Statistics of China, the term "rural-urban migrant youth" in this paper mainly refers to permanent residents aged 14 to 35. They have stayed away from their registered permanent residence for more than half a year, reside in an administrative region at or above the county level different from their registered location, and relocate primarily for employment or education. Statistics from the National Bureau of Statistics show that the national floating population reached 385 million by the end of 2021 [6], with young people accounting for a large proportion. They leave counties, towns and rural areas for cities to pursue education, jobs and personal development. This process involves not only spatial relocation, but also the reshaping of social identity and group belonging.

After settling in cities, migrant youth frequently struggle with intertwined psychological dilemmas stemming from identity confusion, uncertain group affiliation and real-life pressures. On one hand, caught between rural traditions and urban culture, they constantly question "Who am I?" and "Where do I belong?", which gives rise to a sense of psychological insecurity [7]. On the other hand, in Chinese society, face is closely tied to personal dignity, social capital and group identification [8]. For migrant youth eager to integrate into urban life, purchasing symbolically meaningful goods has become a common way to maintain dignity, gain recognition and avoid social marginalization [9]. Nevertheless, most members of this group are still pursuing education or have just entered the workplace, with limited and unstable income. Meanwhile, consumerist culture and live-streaming marketing keep amplifying their material desires, creating a persistent tension between limited resources and strong needs for identity recognition.

1.3. Theoretical gaps and research significance

Existing studies have extensively explored the marketing and technical mechanisms of live-streaming e-commerce. Some scholars also point out that consumption serves as a vital means for migrant youth to express themselves and achieve social integration, and have verified the

mechanism that face concerns trigger online impulsive shopping through materialism [4, 10]. However, these two strands of research remain largely disconnected. In particular, few studies elaborate on how live-streaming scenarios activate face anxiety and identity insecurity, and further translate such emotions into irrational consumption. Moreover, the compound impacts of such consumption on migrant youth's financial burden and mental health have not received adequate attention. Against this backdrop, this paper adopts the S-O-R model and analyzes data from 17 semi-structured interviews. It explores how live-streaming settings trigger irrational consumption via face concerns, identity anxiety, social comparison and emotional arousal. The study also discusses post-purchase regret, guilt, financial strain and anxiety, and puts forward corresponding intervention strategies.

2. Formulation of research questions

In consumer psychology, irrational consumption does not merely refer to wrong choices. It describes consumption decisions that deviate from actual demands and budgets, made by consumers driven by emotions, situational factors and social cues. Through real-time interaction, limited-time promotions and feedback from other users, live-streaming e-commerce turns the consumption process into a contextualized and immediate emotional response, which boosts impulsive purchasing behaviors [4]. For rural-urban migrant youth who face limited resources yet strong demands for identity recognition, consumption may serve as a relatively low-cost way to gain social respect and a sense of belonging. Such demands are further amplified especially when live-streaming e-commerce offers goods with low purchasing thresholds but strong symbolic meanings. Therefore, their irrational consumption generally takes the forms of unplanned purchases, frequent cumulative consumption of low-priced goods, and identity-oriented symbolic consumption. Commodities they buy carry not only use value, but also lifestyles, right to speak and social labels. Purchases help consumers express who they are and who they wish to be perceived by others [11, 12].

3. Theoretical background and analytical framework

3.1. The S-O-R model

The S-O-R model holds that external environmental stimuli trigger corresponding behavioral responses through an individual's internal processing of perception, cognition and emotion [13]. This model has been widely applied in studies on consumer psychology and behaviors on digital platforms. In this research, features of the live-streaming environment act as Stimuli (S); emotional arousal, identity anxiety and face concerns induced by such stimuli belong to the Organism (O); final outcomes including impulsive consumption and post-purchase regret constitute Responses (R). This study further refines organism-related variables into face concerns, identity anxiety and social comparison, so as to explain why rural-urban migrant youth are more likely to develop compensatory consumption responses in live-streaming scenarios.

3.2. Social identity and self-identity

Social identity theory states that an individual's self-concept derives not only from personal traits, but also from their affiliated groups and positions within these groups. Group membership provides self-esteem, a sense of meaning and behavioral norms. When social identity is activated, individuals adjust their perception, judgment and behaviors to align with this identity [14]. Identity recognition

carries special significance for rural-urban migrant youth. Ma et al. [9] find that urban belonging significantly raises the consumption level of migrant populations. Tang et al. [15] also point out that consumption gaps among young migrants are closely linked with their attitudes toward adapting to urban culture. Live-streaming e-commerce acts as a key media setting for accessing mainstream lifestyles and activating social identity. Live broadcast rooms constantly display idealized urban lifestyles and general consumption norms, while bullet comments and sales volume feedback imply that following such consumption behaviors conforms to mainstream standards. In this case, consumption is far more than a purchasing activity; it becomes a method for rural-urban migrant youth to strive for identity recognition and group belonging.

3.3. Face culture and symbolic consumption

Against the social context of China, general identity theories alone cannot fully explain how rural-urban migrant youth relieve identity pressure via consumption. Face culture provides interpretive resources more adapted to local conditions. Hwang [8] notes that face refers to an individual's social image in the eyes of others, and it permeates social evaluation and resource distribution. Existing researches prove that face shapes consumers' brand awareness and purchasing decisions, pushing them to select products that enhance their social image or prevent losing face [16, 10]. In live-streaming e-commerce, face-related consumption mostly manifests as daily, affordable and shareable consumption practices. In other words, consumers purchase not merely goods themselves, but also affordable dignity and a sense of belonging.

3.4. Analytical framework

On the basis of the above theories, this paper constructs an analytical framework of "live-streaming situational stimuli—individual psychological mechanisms—consumption behavioral responses—consumption consequences". At the stimulus level, this research mainly examines real-time display, streamer interaction, limited-time promotions and peer feedback within live-streaming e-commerce. At the organism level, it focuses on activated identity demands, face concerns and social comparison among rural-urban migrant youth. At the response level, attention is paid to unplanned purchases, compensatory consumption, symbolic consumption, as well as subsequent emotional and economic outcomes.

4. Research methodology

4.1. Research method and instruments

This study adopts a qualitative research method and conducts semi-structured interviews with rural-urban migrant youth in natural settings to collect their real experiences and subjective perceptions regarding live-streaming e-commerce and daily consumption. Compared with quantitative approaches, qualitative research is better suited to uncover complex psychological mechanisms including identity construction, face anxiety and emotional experiences throughout the consumption process.

The interview outline is structured around consumption contexts, psychological feelings and decision-making procedures. It mainly guides respondents to recall specific instances of purchasing goods they knew were unnecessary, and further probes into situational triggers, hesitation in decision-making, reasons for purchases and post-consumption emotions. For analytical tools, this

study sorts and codes interview data with NVivo 14, combining theory-driven and data-driven strategies. The S-O-R model serves as the initial analytical framework, while new emerging themes from raw data are also taken into account. Constant comparative method is applied to carry out the coding process.

4.2. Research subjects and sampling

Interviewees of this research are young people with rural-urban migration experience, mainly individuals who pursue education or employment in cities after moving from counties, towns or rural areas. Purposive sampling is adopted to recruit participants via the internet and social media platforms. The inclusion criteria are listed as follows: (1) having confirmed rural-urban migration experience; (2) engaging in frequent online shopping or live-streaming purchases; (3) able to recall at least one irrational consumption experience that deviated from their original demands or budgets.

Prior to each interview, researchers informed participants of the research purpose and confidentiality principles, and obtained their consent for audio recording. All collected materials are used solely for academic research. Anonymous codes such as P01 and P02 are assigned to identify interviewees during the research.

Finally, 17 eligible participants are recruited for interviews. Demographic information of the subjects is presented in Table 1.

Table 1. Basic information of participants

Participant ID	Gender	Age	Current Status	Hometown	Current Residence	Mobility Trajectory
P01	Male	22	Master's student	Foshan, Guangdong	Beijing	Moved from Foshan to Beijing for university studies.
P02	Female	24	Master's student	Sichuan	Beijing	Moved from a small county town to Chongqing for high school and later to Beijing for university.
P03	Female	25	Employed	Chifeng, Inner Mongolia	Chifeng, Inner Mongolia	Left Inner Mongolia to attend university in Hainan and later worked in Beijing and Chengdu.
P04	Female	28	Doctoral student	Handan, Hebei	Harbin, Heilongjiang	Moved from Hebei to Harbin for a medical Ph.D. program and is currently in her fifth year.
P05	Female	23	Master's student	Jiangxi	Beijing	Completed all stages of education in Beijing and Tianjin, with no significant rural–urban migration experience, but previously worked in the live-streaming e-commerce industry.
P06	Female	23	Doctoral student	Tai'an, Shandong	Beijing	Moved from Tai'an to Beijing for higher education and has lived there for seven years.
P07	Female	21	Undergraduate student	Changde, Hunan	Wuhan, Hubei	Moved from Changde to Wuhan for university studies.
P08	Female	20	Undergraduate student	Heilongjiang	Zhuhai, Guangdong	Moved from Heilongjiang to Beijing for university studies.

Table 1. (continued)

P09	Female	23	Doctoral student	Quzhou, Zhejiang	Beijing	Moved from Zhejiang to Beijing for university studies and also lived in Beijing for two years during childhood.
P10	Female	21	Undergraduate student	Benxi, Liaoning	Beijing	Moved from a county-level town in Liaoning to Beijing for university studies.
P11	Female	32	Employed	Rucheng, Hunan	Haikou, Hainan	Moved from Hunan to Guangzhou for education and was later transferred to Haikou for a teaching position.
P12	Female	19	Undergraduate student	Pingliang, Gansu	Beijing	Moved from a fifth-tier city to Beijing for university studies.
P13	Male	22	Undergraduate student	Lhasa, Tibet	Beijing	Moved from Lhasa to Beijing for university studies.
P14	Female	21	Undergraduate student	Xinyang, Henan	Beijing	Moved from Xinyang to Beijing for university studies.
P15	Male	22	Undergraduate student	Suihua, Heilongjiang	Beijing	Moved from Suihua to Beijing for university studies.
P16	Female	22	Undergraduate student	Lantian County, Xi'an, Shaanxi	Beijing	Moved from Lantian County, Shaanxi, to Beijing for university studies.
P17	Female	21	Undergraduate student	Zhoukou, Henan	Beijing	Moved from a rural area of Zhoukou, Henan, to Beijing for university studies.

4.3. Research procedures

4.3.1. Interview procedures

Semi-structured interviews are adopted in this research, mostly conducted online, with each interview lasting 30 to 60 minutes. Before the start of each interview, researchers explained the research topic and the basic definition of irrational consumption to respondents to guarantee consistent comprehension among all participants.

The interview content covers three major parts. First, the recollection of specific consumption incidents, including consumption triggers, decision-making processes and key stimulating factors. Second, emotional experiences during consumption decision-making and post-purchase feelings, such as satisfaction, regret and financial pressure. Third, experiences of identity recognition, face anxiety and social comparison underlying consumption behaviors. Researchers raised follow-up questions and offered guidance based on participants' replies to obtain more detailed information and descriptions of psychological processes. All interviews were audio-recorded and transcribed into textual materials promptly after completion.

4.3.2. Data coding and analysis

After interviews finished, audio recordings were transcribed verbatim and imported into NVivo 14 for analysis. Following the fundamental principles of grounded theory, textual materials were coded

in phases in combination with research questions and the theoretical framework. Open coding was implemented first, in which texts were split sentence by sentence for semantic summarization, and initial concepts related to consumption contexts, psychological mechanisms and behavioral responses were extracted. Axial coding was carried out next to classify scattered concepts and establish connections between them, forming multiple categories such as price and preferential stimuli, identity recognition and urban-rural anxiety, as well as consumption decision-making. Finally, selective coding integrated core categories on the basis of the previous two phases, constructing the logical structure of situational stimuli — psychological mechanisms — consumption decision-making.

4.3.3. Coding reliability

Coding work of this study was completed independently by two researchers with experience in qualitative research. Prior to coding, the two researchers held discussions to clarify the research purpose, core variables and coding logic. They drafted a preliminary coding framework and coding manual with raw data, and defined the meaning, connotation and classification criteria of codes at all levels. During the coding process, the two researchers conducted open coding and axial coding separately, and documented their coding thoughts and doubts. After coding, cross-check was applied to test inter-coder reliability, and the Kappa coefficient reached 0.72, indicating favorable coding consistency. For inconsistently coded items, the two researchers reviewed the original data together and revised codes through discussion to improve the rigor and reliability of coding results.

4.3.4. Test for theoretical saturation

As the sample size expanded, interview contents gradually became repetitive with no new core concepts emerging, reaching the theoretical saturation required for qualitative research. The final valid samples included participants with diverse genders, occupational statuses and migration backgrounds, which can comprehensively reflect the general characteristics of rural-urban migrant youth.

5. Analysis of causes and mechanisms

This study extracts key concepts from interview results and integrates them into 80 free nodes. In the axial coding stage, correlations between nodes are further examined to form 10 axial coding concepts, namely price and preferential stimuli, sales pitches and marketing tactics, algorithmic recommendation mechanisms, identity recognition and urban-rural anxiety, face and dignity, financial pressure and insecurity, emotional and psychological compensation, consumption decision-making, post-consumption psychological and financial consequences, as well as reflection and coping strategies. In the selective coding stage, themes with stronger explanatory power are selected in combination with the S-O-R model: three primary categories fall under the Stimulus (S) level (see Table 2), four primary categories belong to the Organism (O) level (see Table 3), and four primary categories are included in the Response (R) level (see Table 4).

Table 2. Primary categories and their elements of stimulus (S) factors

Main Category	Code and Element	Description
Price and Promotional Incentives	S1.1 Price and Value for Money	Participants primarily base their purchasing decisions on price and perceived value, expecting products sold in live-streaming sessions to be reasonably priced and commensurate with their quality.
Price and Promotional Incentives	S1.2 Platform Coupons	Coupons offered through the platform reduce purchase hesitation and encourage prompt ordering.
Price and Promotional Incentives	S1.3 Major Promotional Events	Large-scale shopping festivals and promotional campaigns create a sense of economic value, leading participants to purchase substantial quantities of products.
Price and Promotional Incentives	S1.4 Streamer Coupons and Prize Draws	Streamers distribute time-limited coupons or organize promotional giveaways (e.g., half-price offers or free purchases), increasing consumers' purchase intentions.
Price and Promotional Incentives	S1.5 Live-Stream Price Discounts	Prices in live-streaming sessions are perceived to be substantially lower than those in brick-and-mortar stores, making price savings a key purchasing motive.
Price and Promotional Incentives	S1.6 Promotional Live-Stream Titles	Live-stream titles featuring words such as "discount" or "special offer" attract users' attention and encourage click-through and purchasing.
Price and Promotional Incentives	S1.7 Price Advantages Encourage Stockpiling	Genuine price advantages, such as those offered in popular live-streaming channels, motivate consumers to compare prices and purchase products in bulk.
Price and Promotional Incentives	S1.8 Low Prices as the Primary Driver	Participants explicitly report that the majority of their purchases are motivated by low prices, particularly on platforms such as Douyin.
Price and Promotional Incentives	S2.1 Return Policies and After-Sales Service	Consumer protection measures, such as seven-day no-questions-asked returns, increase purchase confidence and reduce perceived risk.
Sales Appeals and Marketing Strategies	S2.2 Scarcity Appeals	Streamers employ phrases such as "only a few left" or "once it's gone, it's gone," often combined with limited inventory, to create urgency and increase purchase frequency.
Sales Appeals and Marketing Strategies	S2.3 Influencer and Authority Effects	Celebrity and influencer endorsements generate social proof, while their status and personal experiences enhance the credibility of product recommendations.
Sales Appeals and Marketing Strategies	S2.4 Perceived Streamer Authenticity	Non-professional streamers, such as small business owners selling their own products, are perceived as more sincere and trustworthy.
Sales Appeals and Marketing Strategies	S2.5 Bundling Promotions	Incentives such as free gifts after reaching a spending threshold encourage consumers to make additional purchases.
Sales Appeals and Marketing Strategies	S2.6 Streamer Likeability and Affinity	Streamers who maintain emotional stability and foster a warm, personable atmosphere make the live-streaming environment more appealing.
Sales Appeals and Marketing Strategies	S2.7 Responsive Interaction and Product Demonstration	Streamers who actively respond to questions and provide detailed product demonstrations are viewed as more persuasive and credible.

Table 2. (continued)

Sales Appeals and Marketing Strategies	S2.8 Professional Presentation Skills	Clear explanations and polished presentation styles, exemplified by prominent streamers, enhance consumer trust.
Algorithmic Recommendation Mechanisms	S3.1 Platform Traffic Allocation and Consumption	Consumers' purchasing frequency is influenced by how often the platform recommends live streams and how closely the recommended products match their needs.
Algorithmic Recommendation Mechanisms	S3.2 Countdown Timers	Countdown features create a sense of urgency and accelerate decision-making.
Algorithmic Recommendation Mechanisms	S3.3 Limited Availability	Claims of limited stock or limited-time offers stimulate a fear of missing out and encourage immediate purchases.
Algorithmic Recommendation Mechanisms	S3.4 Social Feed-Based Recommendations	Social media platforms such as Xiaohongshu and Douyin embed live-stream advertisements into users' content feeds, triggering purchases outside intentional shopping contexts.
Algorithmic Recommendation Mechanisms	S3.5 Algorithmic Recommendations	Frequent browsing of short-form videos results in repeated recommendations of live-stream sessions, leading users to enter them unintentionally.
Algorithmic Recommendation Mechanisms	S3.6 Algorithmic Recommendations Trigger Demand	Exposure to relevant content or live-stream broadcasts generates spontaneous purchase intentions, such as buying products featured in themed streams.
Algorithmic Recommendation Mechanisms	S3.7 eWOM and Product-Seeding Content	Product recommendation posts, live-stream content, and peer referrals encourage purchases of items such as dietary supplements and skincare products.
Algorithmic Recommendation Mechanisms	S3.8 Big Data-Driven Demand Creation	Continuous algorithmic exposure to similar products from multiple brands creates the perception that consumers need to purchase them.

Table 3. Main categories and constituent elements of organism (O) factors

Main Category	Code and Element	Description
Identity Formation and Urban–Rural Anxiety	O1.1 Identity Transformation	Participants reported a declining attachment to their hometowns, shifting from disliking their place of origin to perceiving smaller cities as less desirable.
Identity Formation and Urban–Rural Anxiety	O1.2 Declining Place Identity	Even relatively developed cities such as Guangzhou were perceived as less attractive than China's first-tier cities, reinforcing aspirations for metropolitan lifestyles.
Identity Formation and Urban–Rural Anxiety	O1.3 Identity Anxiety	Upon entering university, participants sought to present themselves as belonging to large cities and avoided revealing their small-town backgrounds.
Identity Formation and Urban–Rural Anxiety	O1.4 Adaptation of Identity Anxiety	Over time, participants perceived fewer differences between Beijing and their hometowns, accompanied by a decline in consumption aspirations.
Identity Formation and Urban–Rural Anxiety	O1.5 Selective Self-Presentation	During self-introductions, participants mentioned only their prefecture-level city and avoided disclosing their specific county or township of origin.

Table 3. (continued)

Identity Formation and Urban–Rural Anxiety	O1.6 Difficulty Adapting to a New Living Environment	Transitioning to university life required independent living, social adaptation, and adjustment to regional cultural differences, creating feelings of discomfort.
Identity Formation and Urban–Rural Anxiety	O1.7 Appearance Anxiety in Different Urban Contexts	Participants from less developed regions developed concerns about physical appearance, such as skin tone, after repeated exposure to beauty advertisements.
Identity Formation and Urban–Rural Anxiety	O1.8 Cross-Regional Cultural Reference	Relocation across regions exposed participants to different cultural norms and consumption standards, prompting adjustments in purchasing preferences.
Face, Self-Esteem, and Social Interaction	O2.1 Face Consumption and Gaming Socialization	Spending on virtual game items and cosmetic upgrades served as a means of self-presentation and gaining social recognition.
Face, Self-Esteem, and Social Interaction	O2.2 Face Anxiety in Social Settings	Participants tended to conform to friends' purchasing behaviors to avoid appearing overly frugal and sometimes compensated for these expenditures later.
Face, Self-Esteem, and Social Interaction	O2.3 Face Consumption in Professional Contexts	Workplace expectations that "appearance matters" encouraged higher spending on clothing to create favorable impressions.
Face, Self-Esteem, and Social Interaction	O2.4 Consumption as Social Capital	Fashion choices and product recommendations functioned as conversational resources that facilitated social interaction and relationship building.
Face, Self-Esteem, and Social Interaction	O2.5 Conformity Consumption as Social Capital	Participants purchased products owned by their peers, such as tablet computers, even when practical utility was limited.
Face, Self-Esteem, and Social Interaction	O2.6 Preference for Uniqueness	Once products became widely popular, participants lost interest in them to avoid being perceived as merely following trends.
Face, Self-Esteem, and Social Interaction	O2.7 Sensitivity to Others' Evaluations	Purchasing decisions were strongly influenced by friends' opinions and aesthetic judgments.
Face, Self-Esteem, and Social Interaction	O2.8 Brand Consciousness	Participants preferred established international brands for visible products such as footwear, even when domestic alternatives offered comparable quality.
Financial Pressure and Economic Insecurity	O3.1 Frugal Habits and Self-Discipline	Participants emphasized thrift, actively sought discounts, and avoided purchasing non-essential goods.
Financial Pressure and Economic Insecurity	O3.2 Internal Conflict and Self-Restraint	Participants desired a more relaxed lifestyle but tended to impose stricter spending limits on themselves when making personal purchases.
Financial Pressure and Economic Insecurity	O3.3 Family Financial Pressure and Feelings of Unworthiness	Financial expectations and parental attitudes toward educational investment generated guilt and hesitation when spending money.
Financial Pressure and Economic Insecurity	O3.4 Financial Anxiety	Limited living expenses created stress and concern about making ends meet, particularly toward the end of each month.
Financial Pressure and Economic Insecurity	O3.5 High Cost of Living in Major Cities	The elevated cost of living in metropolitan areas reduced purchasing power compared with smaller cities.

Table 3. (continued)

Financial Pressure and Economic Insecurity	O3.6 Budget Constraints and Opposition to Advance Consumption	Participants maintained explicit monthly spending limits and generally rejected debt-financed or future-oriented consumption.
Financial Pressure and Economic Insecurity	O3.7 Work Stress and Health Anxiety	Occupational stress and life transitions heightened concerns about health, increasing interest in health-related products and supplements.
Financial Pressure and Economic Insecurity	O3.8 Caution Toward High-Priced Purchases	Participants avoided impulsive purchases of expensive products and expressed resistance to excessive consumption and financial overextension.
Emotion and Psychological Compensation	O4.1 Emotional Consumption	Negative emotions often prompted participants to purchase food, clothing, or small personal items as a coping mechanism.
Emotion and Psychological Compensation	O4.2 Consumption as Temporary Control and Pleasure	Spending money, particularly in social contexts, generated a temporary sense of control, well-being, and an idealized lifestyle.
Emotion and Psychological Compensation	O4.3 Hedonic Enjoyment from Consumption	Everyday purchases, such as home textiles and cleaning products, provided feelings of comfort, happiness, and life satisfaction.
Emotion and Psychological Compensation	O4.4 Consumption as Self-Reward	Participants rewarded themselves with desired purchases after periods of stress or emotional distress.
Emotion and Psychological Compensation	O4.5 Escalating Consumption Desires	The satisfaction of existing desires often gave rise to new aspirations for higher-value products.
Emotion and Psychological Compensation	O4.6 Stress-Coping Consumption	Life transitions, work-related stress, and emotional difficulties encouraged purchases of products such as skincare items and health supplements as coping strategies.
Emotion and Psychological Compensation	O4.7 Emotional Value Orientation	Younger consumers emphasized the emotional value of products, expecting them to provide both practical utility and psychological satisfaction.
Emotion and Psychological Compensation	O4.8 Emotional Comfort Consumption	Purchases of celebrity merchandise, collectible accessories, and late-night snacks were motivated by the emotional comfort and enjoyment they provided.

Table 4. Main categories and constituent elements of response (R) factors

Main Category	Code and Element	Description
Consumption Decisions	R1.1 Symbolic Consumption	Virtual game items and cosmetic upgrades are purchased primarily for self-presentation and social display.
Consumption Decisions	R1.2 Impulse Buying	Participants make rapid purchasing decisions, sometimes completing the process from entering a live stream to placing an order within minutes.
Consumption Decisions	R1.3 Fan-Inspired and Symbolic Consumption	Consumers purchase products associated with celebrities or influencers as a means of emotional attachment and symbolic identification.
Consumption Decisions	R1.4 Bandwagon Consumption	Observing large numbers of purchases by others encourages participants to follow suit and make similar purchases.

Table 4. (continued)

Consumption Decisions	R1.5 Unplanned Complementary Purchases	Consumers intending to buy a single product often end up purchasing additional related items.
Consumption Decisions	R1.6 Collectible and Symbolic Consumption	Merchandise such as collectibles, figurines, and fandom-related products is purchased for emotional satisfaction and symbolic meaning.
Consumption Decisions	R1.7 Emotion-Driven Ownership Consumption	The desire to possess a product becomes an end in itself, with ownership perceived as a source of happiness and emotional fulfillment.
Consumption Decisions	R1.8 Need-Oriented and Trial Consumption	Participants follow streamers when they have specific purchasing needs and often make exploratory purchases when encountering new products or trends.
Post-Purchase Psychological and Financial Consequences	R2.1 Temporary Feelings of Control and Pleasure	Consumption generates short-term feelings of well-being, self-indulgence, and the experience of living an ideal lifestyle.
Post-Purchase Psychological and Financial Consequences	R2.2 Family Financial Pressure and Feelings of Unworthiness	Parental attitudes toward financial investment create guilt and psychological pressure surrounding personal spending.
Post-Purchase Psychological and Financial Consequences	R2.3 Self-Doubt and Purchase Regret	Participants experience regret after purchasing products that prove unnecessary or unsuitable for actual use.
Post-Purchase Psychological and Financial Consequences	R2.4 Financial Burden of Consumption	High-value purchases impose substantial financial pressure and may consume a significant proportion of personal income.
Post-Purchase Psychological and Financial Consequences	R2.5 Limited After-Sales Recourse	Consumers encounter difficulties obtaining compensation or support after warranty or price-protection periods expire.
Post-Purchase Psychological and Financial Consequences	R2.6 Product Returns as a Corrective Strategy	Products are returned because of quality issues, discrepancies between expectations and reality, or poor user experience.
Post-Purchase Psychological and Financial Consequences	R2.7 High Return Rates	Impulsive purchases frequently result in returns when consumers realize that products are unnecessary or fail to meet expectations.
Post-Purchase Psychological and Financial Consequences	R2.8 Product Idleness and Waste	Purchased items, such as jewelry and clothing, are seldom used, leading to regret and perceptions of wasted consumption.
Reflection and Coping Strategies	R3.1 Seeking Alternative Sources of Gratification	Participants cope with negative emotions through alternative activities, such as gaming or enjoying favorite foods, instead of shopping.
Reflection and Coping Strategies	R3.2 Establishing a Cooling-Off Period	Consumers postpone purchasing decisions by adding products to shopping carts and allowing time for further consideration.

Table 4. (continued)

Reflection and Coping Strategies	R3.3 Expense Tracking for Consumption Management	Electronic budgeting and expense records help participants monitor spending and adjust subsequent consumption behavior.
Reflection and Coping Strategies	R3.4 Preference for Offline Product Experience	After experiencing impulsive online purchases, participants increasingly prefer to examine or try products in physical stores before buying.
Reflection and Coping Strategies	R3.5 Cognitive Restructuring and Value Adjustment	Participants consciously shift their focus from social comparison toward personal needs, advocate living within their means, and avoid wasting time pursuing minor bargains.
Reflection and Coping Strategies	R3.6 Developing a Balanced Self-Concept	Consumers recognize that purchasing quality products within their financial means is sufficient and reject the need to imitate wealthier lifestyles.
Reflection and Coping Strategies	R3.7 Reducing Disposable Funds as Self-Control	Savings plans and financial allocation strategies reduce immediately available spending money and encourage more cautious consumption.
Reflection and Coping Strategies	R3.8 Budget-Based Self-Regulation	Predetermined spending limits for categories such as clothing and online shopping serve as self-imposed constraints against irrational consumption.

5.1. Stimulus level (S): stimuli in live-streaming contexts

According to the interview data, stimuli exerted on respondents in live-streaming rooms mainly derive from three sources: prices and preferential policies, streamers' sales pitches, and algorithmic recommendations. These three factors function in distinct ways, yet jointly shorten the time available for consumers to compare options, pause for consideration and re-evaluate their choices, shifting shopping decisions away from rational assessment toward instant responses. First and foremost, prices and discounts serve as the most direct inducement. Multiple respondents stated that commodities in live-streaming rooms are priced lower than those in physical stores or ordinary e-commerce webpages, while coupons, full-spending reductions and lucky draws lower the psychological barrier to placing orders. For instance, P08 noted that "the live stream offered numerous coupons, so I barely hesitated to buy", and P02 also remarked that "the live stream price was far cheaper than that in physical stores, so I purchased one item". Second, streamers' remarks further generate perceptions of scarcity and urgency. Phrases such as "only several units left", "countdown" and "limited release" are repeated constantly, leaving respondents with the impression that they will suffer a loss if they miss the purchase. P13 pointed out directly that "the countdown makes people feel anxious", and P15 expressed that "if I do not buy this garment, it will be sold out and taken by other buyers". Third, algorithmic recommendations bring live-streaming stimuli into daily life with greater frequency. Some respondents do not search for goods on their own initiative, but receive continuous recommendations from the platform while browsing short videos or product sharing content. As P05 put it, "I scroll through videos frequently, and the platform keeps recommending live streams, so I click in to watch them without conscious thought". Accordingly, stimuli in live-streaming e-commerce are not isolated low-price information, but a continuous consumption scenario formed by the combination of pricing strategies, sales rhetoric and algorithms. This scenario consistently draws attention, creates purchasing demands and accelerates decision-making, constituting a crucial external prerequisite for irrational consumption.

5.2. Organism level (O): mechanisms of face and identity recognition

Live-streaming stimuli affect all consumer groups rather than rural-urban migrant youth exclusively. Nevertheless, interviews reveal that this group's responses to such stimuli are often linked to their identity situations. After relocating to cities, many respondents tend to compare themselves more often with urban classmates, colleagues and ideal lifestyles displayed online, and seek a sense of dignity and belonging through consumption. Statements including "I refused to tell others I came from a small town when I first entered university", "I wanted to act like people native to big cities" and "my desire for consumption grew stronger after moving to a metropolis" appeared repeatedly in coding results, proving that identity recognition and perceptions of urban-rural gaps shape consumption judgments. Face concerns and social interaction constitute another prominent psychological mechanism. Some respondents purchase goods to maintain their external image, integrate into social circles or avoid being labelled unsociable. For example, P04 raised her clothing budget after starting work in a big city, "only to leave a better impression on others". Meanwhile, financial pressures introduce obvious contradictions into such consumption behaviors. On one hand, respondents hope to approach urban lifestyles via consumption; on the other hand, they feel anxious about living expenses, monthly bills or financial support from their parents. Emotional compensation further converts these psychological tensions into purchasing acts. Respondents frequently described live-stream shopping as a temporary way to relieve stress, loneliness or low mood. As P02 said, "I buy things for myself whenever I feel upset". It can thus be concluded that the organism level does not consist of simple impulsive psychology, but an intertwined system of identity anxiety, face pressure, financial insecurity and demands for emotional relief. Live-streaming stimuli take effect precisely because they are embedded in the unfinished urban integration process of migrant youth, and channel these diverse psychological needs into consumption behaviors.

5.3. Response level (R): Behavioral and psychological consequences

The responses of rural-urban migrant youth in live-streaming e-commerce scenarios manifest in two dimensions: characteristics of consumption decision-making, and psychological outcomes after purchase. In terms of consumption decision-making, most behaviors display notable features of impulsive and symbolic consumption. Multiple respondents described experiences such as placing orders within minutes of entering a live stream room, purchasing items beyond their initial shopping intentions while watching broadcasts, desiring celebrity-endorsed products out of admiration for public figures, and following the purchasing choices of other consumers. These phenomena indicate that purchasing acts serve not only as reactions to immediate situational stimuli, but also symbolic responses for shaping self-image and gaining group belonging. Post-purchase psychological and financial outcomes constitute a core focus of this study and the most concentrated theme within the Response (R) dimension. When recounting feelings after consumption, interviewees frequently used statements including regretting purchases right after payment, lacking suitable occasions to use bought goods, finding product quality below expectations, leaving newly purchased items unused, feeling distressed by monthly bills, spending one third of monthly salary on a single garment, and regarding the spent money as wasted. Reflected in these accounts is that the sense of satisfaction brought by live-streaming shopping is usually short-lived, while real experiences after purchase commonly evolve into regret, guilt, disappointment and financial strain. Existing studies have verified that online impulsive purchases are often accompanied by post-purchase regret, and a steady correlation exists between financial burdens and psychological distress [17,18]. Accordingly, when

consumption generates tangible economic pressure, psychological discomfort may further develop into prolonged anxiety and stress.

5.4. Compensatory consumption

Following the analysis of the three tiers of the S-O-R model, the concept of compensatory consumption can be adopted to generalize the irrational consumption of rural-urban migrant youth in live-streaming environments. The Stimulus level elaborates how live-streaming platforms create instant external triggers via low prices, sales pitches and algorithmic recommendations. The Organism level explains why migrant youth are highly susceptible to such stimuli due to their struggles with identity, face concerns and emotional regulation. The Response level demonstrates the resultant purchasing behaviors and their psychological aftereffects. Taken together, irrational consumption in live streaming is far more than simple impulsive buying; it is a form of compensatory consumption centered on pursuing social dignity, group belonging and emotional relief.

5.5. Summary of the causal model

At the Stimulus (S) level, price concessions, sales and marketing tactics, and algorithmic recommendation systems jointly form an intensive external consumption context. At the Organism (O) level, rural-urban migrant youth undergoing identity transformation and urban integration are prone to experiencing activated identity anxiety, face-related pressure, financial insecurity and the need for emotional recovery. At the Response (R) level, individuals exhibit behavioral reactions including impulsive and symbolic purchases, followed by post-consumption outcomes such as remorse, guilt, financial stress and gaps between expectation and reality. These negative experiences may in turn fuel another round of compensatory consumption. It is therefore clear that the irrational consumption of rural-urban migrant youth in live-streaming e-commerce does not stem from isolated factors. Instead, it forms a dynamic process composed of live-stream situational stimuli, mechanisms of face maintenance and identity recognition, as well as consumption behaviors and their subsequent consequences.

6. Intervention mechanisms and governance approaches

The foregoing analysis demonstrates that the irrational consumption of rural-urban migrant youth in live-streaming scenarios arises from multiple interacting factors. Accordingly, interventions shall not be limited to the general goal of raising awareness of rational consumption. Hierarchical governance shall be implemented following the S-O-R framework: reducing excessive inducements at the stimulus end, assisting individuals in recognizing identity anxiety, face pressure and demands for emotional compensation at the organism end, and establishing systems for delayed decision-making, bill notification and psychological support at the response end.

6.1. Individual level: psychological and behavioral interventions targeting identity anxiety and compensatory consumption

(1) Establish visual consumption files to improve self-awareness

Consumption in live-streaming rooms usually takes the form of frequent small-sum and fragmented purchases. Individuals often fail to notice the total accumulated spending in a timely manner, nor can they easily identify the real motivation behind each purchase. To strengthen self-

awareness, individuals may build visual consumption files, classify consumption records into functional consumption, emotional consumption, face-oriented consumption and other categories by product type and price range alongside potential motivations, and generate monthly reports showing the proportion of each consumption type in disposable income. This approach enables consumers to clearly perceive the links between their purchasing behaviors, identity anxiety and mood swings.

(2) Intervention for identity reconstruction and alternative emotion regulation mechanisms to redirect misplaced focus

A major reason why rural-urban migrant youth are prone to live-streaming consumption is that consumption is assigned multiple functions including self-fulfillment, urban integration, social recognition and stress relief. Restricting purchasing behaviors alone cannot address the root cause of the problem. A more feasible solution lies in continuous identity reconstruction intervention, which guides individuals to base their self-worth on academic performance, professional competence, stable interpersonal bonds and non-consumption achievements rather than symbolic consumption. Meanwhile, alternative emotion regulation methods shall be offered to replace compensatory consumption, such as mood journaling, mindfulness practice, low-intensity physical exercise or low-cost social activities.

6.2. Platform level: establish mandatory AI cooling-off systems for AI-assisted decision making

This study finds that respondents are largely influenced by immediate emotions and situational cues with limited time for reflection when placing orders in live-stream rooms. Platforms may embed cooling reminders or delayed confirmation mechanisms into the purchasing process. When users click Buy Now, the system can pop up brief questions such as "What is your main reason for buying this product?" or "Would you still make this purchase if returns were unavailable?". If the system detects risky scenarios including frequent consecutive purchases, impulsive orders placed late at night or obvious emotional consumption, it can impose a short waiting period or recommend alternative activities, helping users regain the time for judgment shortened by the fast pace of live streaming.

6.3. Social level: mitigate structural identity anxiety and root causes of compensatory consumption

(1) Establish a support system for urban integration of migrant youth

The deep-seated cause of irrational consumption among rural-urban migrant youth lies in their sense of instability during identity transition and urban adaptation. Hence governance measures must not focus merely on consumption behaviors, but also reduce identity insecurity in real life. Local governments, universities and communities can set up integration support systems targeting migrant youth, including accessible interest groups, community events, career planning and skill improvement services, as well as group psychological counseling programs. Peer support and sustainable social bonds allow migrant youth to gain a sense of belonging through channels unrelated to consumption.

(2) Develop low-cost public cultural and social spaces

The prevalence of compensatory consumption is largely attributed to the heavy commercialization of most socializing and self-presentation scenarios. Lacking affordable public spaces for interaction, young people are more likely to seek a sense of participation and recognition through shopping. Governments and communities can therefore build easily accessible public cultural and social venues, providing migrant youth with interaction channels independent of

consumption, so that they can obtain social recognition and emotional support in non-material settings.

7. Research conclusions

Based on the S-O-R model, this study analyzes the formation mechanism of irrational consumption among rural-urban migrant youth in live-streaming e-commerce via semi-structured interviews and qualitative coding. The research concludes that price concessions, marketing pitches and algorithmic recommendations form intensive live-stream stimuli. These stimuli affect personal judgment through identity anxiety, face concerns, social comparison and demands for emotional compensation, further triggering impulsive, symbolic and compensatory consumption. After purchase, respondents commonly experience a gap between fleeting satisfaction and subsequent regret alongside financial pressure. It can be concluded that such consumption is not mere impulsive shopping, but a process of compensatory consumption shaped jointly by the digital consumption environment and pressures of identity construction. This research is subject to limitations including a small sample size and reliance on self-reported information from participants. Future studies may adopt experimental methods, longitudinal surveys or behavioral data from e-commerce platforms to further verify the above mechanisms and their causal relationships.

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