

Emotional Drive of Anchor Scripts: A Study on the Formation Mechanism of Live-Streaming Impulsive Purchases

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ABSTRACT

The booming development of live-streaming e-commerce has made anchor scripts a key factor influencing consumers' decisions. Impulse buying, a typical behavior in this scenario, is often triggered by immediate emotions. Existing studies mostly focus on the characteristics of scripts or single influencing factors of impulse buying, but rarely conduct in-depth analysis of the internal logic of "script - emotion - purchase". Based on the Emotional Arousal Theory and the S-O-R Model, this paper focuses on how anchor scripts drive impulse buying through emotions, explores the types of emotions (such as pleasure and urgency) triggered by different script strategies (such as emotional expression and scarcity emphasis), and their differentiated impact paths on purchase decisions. It verifies the mediating role of emotions through empirical research, aiming to reveal the formation mechanism of impulsive buying in live-streaming, which not only enriches relevant theoretical research but also provides practical guidance for live-streaming practitioners to optimize script design.

KEYWORDS

Anchor script; Emotional drive; Impulse buying; Live-streaming e-commerce; Formation mechanism

1 Introduction

1.1 Research background and significance

1.1.1 Research background

This research originates from the continuous attention to online shopping phenomena. With the rapid development of live-streaming e-commerce, anchor scripts, as the core element for facilitating transactions, are particularly prominent in driving consumers' impulse buying through emotional mobilization—consumers often make unplanned purchase decisions in a short period due to the guidance of anchors' scripts. However, the logic behind this "script-emotion-behavior" linkage mechanism has not been fully analyzed, and this study focuses more on analyzing the mediating role of emotion in the "script-emotion-behavior" linkage mechanism.

1.1.2 Research significance

This study holds both theoretical and practical value. Theoretically, it reveals the correlation mechanism between anchor scripts and impulse buying from an emotional perspective, filling the gap in the "script-emotion-behavior" chain in existing live-streaming consumption research. By analyzing the process through which scripts trigger emotions such as pleasure and trust, it enriches the application of consumer emotion theory in live-streaming scenarios. Meanwhile, it constructs a mediating model between script characteristics and impulse buying, providing new empirical support and a research framework for consumer behavior theory in the e-commerce live-streaming field. Practically, in response to the booming development of live-streaming e-commerce where impulse buying is a core feature, this study uncovers the emotional mechanism through which scripts stimulate consumers' sense of urgency and excitement to drive impulse buying. It not only provides a basis for anchors to optimize their scripts and platforms to improve conversion efficiency, but also offers references for consumers to make rational decisions, contributing to the healthy development of the industry and the rationalization of consumption.

1.2 Research content and methodology

1.2.1 Research content

Identify the emotional driving elements in anchors' scripts, and extract the core emotion-related elements commonly used in anchors' scripts in live streaming scenarios (such as language style, information presentation method, interactive script, etc.) through content analysis. This study analyzes the mediating role of emotion in impulsive live-streaming purchases, explores the impact of emotions triggered by anchors' scripts on purchase intention and behavior, constructs

a formation mechanism model including scripts, emotions, and purchase behavior, and empirically verifies the model's validity through questionnaires.

1.2.2 Research methodology

The questionnaire survey method is adopted. A questionnaire is designed based on the results of content analysis and distributed via Wenjuanxing (a professional online survey platform in China). It consists of three parts: respondents' basic information, an emotional perception scale for different script elements (e.g., pleasure level, tension level), and an impulsive purchase behavior scale (e.g., immediate purchase intention, actual purchase frequency). A total of 200 valid samples are planned to be collected. Finally, SPSS (Statistical Product and Service Solutions) is used to analyze the correlations between script elements and emotions, as well as between emotions and impulsive purchases. Regression analysis is applied to verify the mediating effect of emotions.

1.3 Literature review

1.3.1 Impulsive purchasing

Rook (1987) was the first to define impulsive purchasing as an unplanned purchase decision made by consumers driven by instantaneous emotions without careful consideration.

Parboteeah et al. (2009) found that factors in the online shopping environment, such as convenience, rich product displays, and interactivity, significantly influence consumers' impulsive purchase decisions.

1.3.2 Factors influencing impulsive purchasing

Based on Hovland's Persuasion Theory, Li Gang and Zhang Qiansha (2022) focused on examining the impact of different types of language persuasion styles of anchors on live-streaming sales in the context of e-commerce live streaming, as well as the heterogeneity of such impacts.

He Xiaomei et al. (2023) proposed that effective marketing scripts can convey product information, highlight the charm of anchors, dynamically establish interactive connections, and guide consumers to make impulsive purchases.

1.3.3 Marketing scripts and live-streaming scripts

Peng Yuhong, Han Huan, and Hao Liaogang (2021) found through their research that the relational bonds in e-commerce live streaming directly and positively affect consumers' online purchase intention, and can further promote this intention through the mediation of customer commitment.

Xie Qinlu and Fang Jiali (2021) pointed out that in live-streaming e-commerce, anchors construct scenarios through discourses such as emotional engagement and price incentives, which can drive consumers' live-stream viewing and consumption behaviors.

1.3.4 Research on relevant models

In 1974, when exploring how the environment influences consumer behavior, Mehrabin and Russell proposed the Stimulus-Organism-Response (SOR) model. This model aims to explain how the environment affects human behavior.

1.3.5 Literature review summary

Although existing studies have confirmed that anchors' scripts can affect consumers' cognition and emotions, thereby influencing purchase intention, they have not clearly explained the mechanism by which the type and intensity of emotions triggered by different types of scripts affect impulsive purchase behavior. At the same time, there is a lack of systematic and comprehensive research on the mediating effect path of emotions between anchors' scripts and consumers' impulsive purchases, as well as the moderating role of factors such as psychological contracts in this process.

2 Analysis of anchors' scripts and emotional expression

2.1 Beauty and skin-care field

In beauty live streams, anchors use infectious scripts and full-fledged emotions to hit the audience's pain points related to beauty and create an immersive experience. They also commonly use five types of characteristic scripts to

precisely mobilize emotions and stimulate purchasing desire.

(1) Emotional Rendering Scripts: Use high - emotion and strong - rhythm iconic language to instantly capture attention and quickly mobilize the audience's purchasing impulse.

(2) Pain - Point Resonance Scripts: Frankly point out the audience's skin problems, trigger empathy, make the audience feel "understood", and then pay attention to the subsequent product recommendations.

(3) Sincere Sharing Scripts: By showing the real usage process, combined with expressions such as "unreservedly sharing private methods", convey sincerity and help the audience establish a sense of trust.

(4) Plot - Deduction and Dialect - Featured Scripts: Often use interesting plots to attract attention, and occasionally incorporate dialects, which not only adds fun but also shortens the distance from the audience, evokes a sense of intimacy, and deepens the audience's impression.

(5) Professional Science - Popularization and Incisive Evaluation Scripts: Rely on professional knowledge to popularize the composition and efficacy of products, and at the same time frankly comment on the advantages and disadvantages of products, winning the audience's conviction with professionalism and a sense of authenticity, and strengthening the sense of trust.

2.2 Food and beverage field

In food and beverage live - streaming, anchors use vivid scripts and abundant emotions to hit the audience's needs for satisfying cravings and trying new things, creating a sense of being present to taste, arousing appetite and promoting purchases. They commonly use four types of characteristic scripts.

(1) Cultural Empathy - type Scripts: By relying on stories and memories, these scripts endow products with emotional connotations. The tone is gentle and the body language is natural, just like having a heart - to - heart talk, evoking warm family memories, triggering empathy and promoting emotion - driven purchase intention.

(2) Passionate and Affordable - type Scripts: Presented in a "roaring" style, they feature a fast rhythm and loud volume, with a focus on highlighting price discounts. Combined with exaggerated facial expressions and gestures, these scripts create a panic-buying atmosphere, capture the audience's attention, and trigger emotions associated with impulsive consumption.

(3) Catchy Rhythm - type Scripts: With brainwashing MC lines as the core, accompanied by funny actions and a fast-paced intonation, these scripts create a cheerful atmosphere, capture the audience's attention, stimulate interest in trends, and boost the popularity of the live-streaming room.

(4) Buddhist - style Humorous Scripts: The attitude is casual and not forceful. Using humorous language to introduce products and interact naturally, they create a relaxed atmosphere, allowing the audience to happily accept the recommendations and mobilize a favorable impression of pressure - free shopping.

2.3 Clothing, footwear and bag field

Nowadays, the number of people shopping for clothing, footwear and bags online is increasing day by day. Anchors have various script styles. Some focus on practical matching, while others highlight trendy designs, attracting audiences with different needs and preferences.

(1) Emotional Resonance - type Scripts: By borrowing their own dressing experiences and relevant expressions, these scripts awaken the audience's longing for scenes, promote emotional resonance, stimulate the desire for confident dressing, and mobilize the purchasing desire.

(2) Pain - Point Solving - type Scripts: Focusing on dressing pain points (such as foot pain from high - heels), these scripts give solutions, respond to needs, mobilize the expectation for practical products, and attract orders.

(3) Cost - effectiveness - emphasizing Scripts: Tending to compare the prices in physical stores and in the live - streaming room, and mention gift benefits, using expressions like "missing out will be a great loss" to increase the sense of scarcity, creating a perception of great value, and mobilizing the audience's urgent emotion of fearing to miss the discount to stimulate orders.

(4) Trend - leading Scripts: Keeping up with fashion trends, positioning the trendy attributes of products, and giving matching suggestions. These scripts stimulate the audience's pursuit of "being at the forefront of trends", mobilize their emotions of pursuing fashion and showing personality, and guide consumption.

(5) Detail - displaying Scripts: Focusing on introducing the details of clothing, footwear and bags, these scripts use concrete descriptions to show the texture ^[2], helping the audience understand the quality, increasing trust, and mobilizing the recognition and longing for high - quality dressing.

3 Analysis of consumers' emotional behavior

In live-streaming e-commerce, the scripts and emotional expressions of anchors in the beauty & skincare, food & beverage, and clothing, footwear & bag categories all accurately trigger specific emotions in consumers to influence their purchase decisions. It is also observed that consumers have a variety of core emotions during live streams, and all these emotions are deeply tied to the anchors' script strategies.

3.1 Beauty and skincare field

When Li Jiaqi points out skin pain points like "the small bumps on your face make you afraid to hold your head up confidently" with straightforward words, he can accurately hit the inferiority and anxiety of consumers caused by their appearance issues. The subsequent product solutions, however, help consumers move beyond the resonance of "my troubles are understood" to smoothly transition into a state of "anxiety relieved" as they realize "problems can be solved", and their expectation for the product naturally arises accordingly. In Cheng Shi'an's live streams, the cultivation of trust and dependence emotions is particularly prominent. She uses sincere lines such as "unreservedly sharing my private hair care methods" and matches them with real hair washing and care scenario demonstrations, allowing consumers to truly feel "treated sincerely". This effectively eliminates consumers' defensive mindset that the anchor is "merely promoting products", leading them to develop a sense of trust similar to that towards a friend. Mao Guangguang's dialect-based lines achieve a similar effect. By leveraging the region-specific sense of familiarity, he narrows the psychological distance with consumers and further strengthens their perception of trust.

3.2 Food and beverage field

In the process of social interaction, there exists an emotional contagion mechanism—that is, when people converse in a certain context, their emotions and behaviors can arouse similar emotions and experiences in others. In the food and beverage field, Dong Yuhui is highly representative in this regard. Starting from emotional resonance, when selling milk, he will slowly tell the "childhood story of mother heating milk". His gentle tone, combined with a sincere expression, subtly links the product to the precious memory of "family warmth". This enables consumers to develop a touching emotion of "paying for memories" amid deep emotional resonance, and also endows the product with emotional significance beyond its practical value. Duoyu and Sister Maomao are good at creating a relaxed and pleasant shopping atmosphere. They promote products in a "Buddhist-style humorous" manner. For example, they recommend fruit juice while eating hot pot, casually saying "Eating hot pot and drinking a cup of JiuRi fruit juice is so comfortable". They also interact naturally with their partners and occasionally make small jokes, allowing consumers to feel pleasant emotions in a stress-free state. This greatly reduces consumers' resistance to "promotional behaviors" and makes them more receptive to product recommendations.

3.3 Clothing, footwear and bag field

Jing Di is skilled at stimulating consumers' emotions of confidence and expectation. She shares her experience of being asked where she bought her Chanel-style jacket when wearing it to a party, and uses the phrase "full of confidence" to guide consumers to imagine themselves being praised for wearing the same style. This stimulates their expectation of improving their image and gaining others' recognition, and fosters a desire to "own the same item". Chen Jie KiKi and Zhou Yangqing focus on strengthening consumers' emotions of recognition for cost-effectiveness. When recommending bags, Chen Jie KiKi clearly compares the "tens of thousands of yuan price in physical stores" with the "three-digit price in the live stream", and adds the benefit of a free matching coin purse, allowing consumers to intuitively feel "it's a good deal". Zhou Yangqing conveys product texture by showing clothing details, such as the three-dimensional rolled neckline of shirts and high-quality shell buttons. This makes consumers recognize that "quality matches the price", further reinforcing their judgment that "the product is worth buying".

4 Questionnaire survey

4.1 Reliability analysis

To verify the internal consistency of the scale in this study, the Cronbach's α coefficient was used to test the reliability

Table 1 Cronbach's reliability analysis

number of terms	sample size	Cronbach's coefficient
21	200	0.854

of the 21-item scale related to the emotional drive of anchors' scripts and live-streaming impulsive purchases, with a total of 200 valid samples collected. The reliability analysis results show that the overall Cronbach's α coefficient of the scale is 0.854. According to the reliability evaluation criteria proposed by Hair et al. (2010), a Cronbach's α coefficient greater than 0.7 indicates good scale reliability, and a value greater than 0.8 represents excellent reliability. In this study, the Cronbach's α coefficient of the scale far exceeds the critical value of 0.8, and the ratio of the number of items to the sample size (21: 200) meets the sample size requirement for reliability testing (usually the sample size needs to be 5-10 times the number of variables). This indicates that the scale used to measure the core variables of "emotional drive of anchors' scripts" and "live-streaming impulsive purchases" has a high degree of internal consistency, strong homogeneity among items, and stable and reliable measurement results, which can support the subsequent data analysis on the "formation mechanism of live-streaming impulsive purchases".

4.2 Validity analysis

Table 2 KMO and Bartlett's test

KMO-value		0.888
	Approximate chi square	989.111
Bartlett sphericity test	df	210
	P-value	0.000

To verify the construct validity of the scales related to "emotional drive of anchors' scripts" and "live-streaming impulsive purchases" in this study, the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Bartlett's test of sphericity were adopted, with the analysis conducted based on 200 valid samples. The result of the KMO test shows that the KMO value is 0.888. According to Kaiser's (1974) criteria, a KMO value between 0.8 and 0.9 indicates that the data is "very suitable" for factor analysis. The KMO value in this study is close to 0.9, which proves that the sample data measuring "the impact of emotional drive from anchors' scripts on live-streaming impulsive purchases" has strong correlation, and the information overlap between variables is high—making it suitable for subsequent construct validity analysis. The result of Bartlett's test of sphericity shows that the approximate chi-square value is 989.111, with degrees of freedom (df) of 210 and the corresponding significance p-value of 0.000 ($p < 0.001$). This rejects the null hypothesis that "the correlation matrix between variables is an identity matrix", indicating that there is a significant correlation between the items measuring the core dimensions of "emotional drive" and "impulsive purchases" in the scale. The data is suitable for factor analysis, which further confirms that the scale has a solid foundation of good construct validity and can be used for subsequent in-depth analysis of the "formation mechanism of live-streaming impulsive purchases".

4.3 Correlation analysis

Table 3 Pearson correlation analysis

	purchase intention	Purchase of Charging Power	Emotional response measurement	Anchor's sense of language elements
purchase intention	1			
Purchase of Charging Power	0.412**	1		
Emotional response measurement	0.364**	0.735**	1	
Anchor's sense of language elements	0.386**	0.703**	0.733**	1

* $p < 0.05$ ** $p < 0.01$

To explore the correlation among four variables—"perception of anchor script elements", "measurement of emotional responses", "impulsive purchase", and "purchase intention"—this study conducted a Pearson correlation analysis based on 200 valid samples. The correlation results show that there are significant positive correlations among all four core variables ($p < 0.01$), which is consistent with the theoretical logic that "anchor scripts influence impulsive purchases through emotional drive". Specifically: The correlation coefficient between purchase intention and impulsive purchase is 0.412 ($p < 0.01$), indicating a moderate positive correlation. This means that in live-streaming scenarios, the stronger the user's purchase intention, the higher the probability of impulsive purchase behavior. The correlation coefficient between purchase intention and measurement of emotional responses is 0.364 ($p < 0.01$), and that between purchase intention and perception of anchor script elements is 0.386 ($p < 0.01$), both showing a weak-to-moderate positive correlation. This suggests that the clearer the user's perception of anchor scripts and the more obvious their emotional responses, the higher their purchase intention will be. The correlation coefficient between impulsive purchase and measurement of emotional responses is the highest, reaching 0.735 ($p < 0.01$). Meanwhile, the correlation coefficients between perception of anchor script elements and measurement of emotional responses, and between perception of anchor script elements and impulsive purchase are 0.733 ($p < 0.01$) and 0.703 ($p < 0.01$) respectively—all indicating strong positive correlations. These results directly confirm that the driving path of "anchor scripts $\rightarrow$ emotional responses $\rightarrow$ impulsive purchases" is

supported by data. Overall, the direction of the correlation among variables fully aligns with theoretical expectations, and all correlation coefficients do not exceed 0.85 (Hair et al., 2010), which initially rules out the problem of multicollinearity and lays a foundation for the subsequent in-depth verification of the "formation mechanism of live-streaming impulsive purchases".

4.4 Linear regression analysis

Table 4 Linear-regression analysis

	Non standardized coefficient		standardized coefficient	<i>t</i>	<i>p</i>	collinearity diagnostics	
	<i>B</i>	standard error	<i>Beta</i>			VIF	tolerance
Constant	1.835	0.196	-	9.358	0.000**	-	-
Anchor's perception of language elements	0.388	0.066	0.386	5.896	0.000**	1.000	1.000
<i>R</i> 2				0.149			
<i>Adjust R</i> 2				0.145			
<i>F</i>				<i>F</i> (1,198)=34.768, <i>p</i> =0.000			
D-Wvalue				1.912			
Note: Dependent variable - purchase intention							
* <i>p</i> <0.05** <i>p</i> <0.01							

In this study, "purchase intention" was taken as the dependent variable and "perception of anchor script elements" as the independent variable. A linear regression analysis was conducted based on 200 valid samples, with the core goal of testing the direct impact of "perception of anchor script elements" on purchase intention, thereby providing basic verification for the overall mechanism of "script → emotion → impulsive purchase". The results of the regression model show the following: Regarding the overall model fit: The coefficient of determination (R^2) is 0.149, and the adjusted R^2 is 0.145. This indicates that in live-streaming scenarios, the perception of anchor script elements can explain 14.5% of the variance in purchase intention. The model fit meets the explanatory power requirements of regression models in social science research (usually, an $R^2 > 0.1$ implies certain explanatory significance), confirming the fundamental impact of script elements on users' purchase intention. The results of Analysis of Variance (ANOVA) show that the *F*-value is 34.768 ($df_1=1$, $df_2=198$) with a *p*-value of 0.000 ($p<0.001$). This demonstrates that the regression model is overall significant, and a linear relationship exists between "perception of anchor script elements" and "purchase intention"—meaning that differences in users' perception of anchor scripts do significantly affect their level of purchase intention. In terms of regression coefficients: The unstandardized coefficient (*B*) for the perception of anchor script elements is 0.388 (standard error = 0.066), the standardized coefficient (*Beta*) is 0.386, the *t*-value is 5.896, and the *p*-value is 0.000 ($p<0.001$). This indicates that after controlling for other potential variables, the perception of anchor script elements has a significant positive predictive effect on purchase intention. Specifically, for every 1 standard deviation increase in users' perception of anchor script elements, their purchase intention increases by 0.386 standard deviations—further supporting the research logic that "high-quality scripts can stimulate users' purchase intention". The results of multicollinearity diagnosis and residual testing show: The Variance Inflation Factor (VIF) for the perception of anchor script elements is 1.000, and the tolerance is 1.000—far below the multicollinearity critical values ($VIF > 10$, tolerance < 0.1), indicating no multicollinearity in the model. The Durbin-Watson (D-W) value is 1.912, close to the ideal value of 2, which means there is no autocorrelation in the model residuals and the regression results are reliable.

5 Discussion

From the perspective of existing data analysis, although the core mechanism of "script - emotion - impulsive purchase" has been verified, it still has room for in-depth exploration. On one hand, the strong correlation coefficient of 0.735 between emotional responses and impulsive purchases indicates that emotion is the "key bridge" connecting scripts and behaviors. However, the current study does not elaborate on the differences in driving effects among different emotions (such as pleasure and a sense of urgency), making it difficult to provide precise guidance for anchors to design targeted scripts. On the other hand, in the linear regression analysis, scripts only explain 14.5% of the variance in purchase intention. This shows that besides scripts, implicit factors in the live-streaming scenario—such as visual presentation and interaction rhythm—may also affect purchase decisions, which are worthy of further exploration. Based on this, future research can advance in two aspects to improve the existing results: first, conduct in-depth analysis on the classification of emotion types; second, expand the variable dimensions by incorporating scenario factors like visual presentation and interaction rhythm into the mechanism model.

6 Conclusion

This study focuses on the linkage mechanism of "script - emotion - impulsive purchase" in live-streaming e-commerce, addressing the gaps in existing research, such as insufficient analysis of the internal logic among the three and unclear emotional mediating paths. By extracting anchor script elements across three categories through content analysis, and combining questionnaire surveys (200 samples) with SPSS analysis, the study verifies the emotional mediating effect, thus possessing both theoretical supplementary value and practical significance. Starting from the three fields, each category has emotion-driven scripts adapted to its characteristics (e.g., pain-point resonance in beauty & skincare, cultural empathy in food & beverage). Emotion serves as the key bridge between scripts and purchases, with different emotions positively influencing decision-making. Empirical results show that the scale has excellent reliability and validity ($\alpha=0.854$, $KMO=0.888$), the four variables are significantly positively correlated, and scripts have a positive predictive effect on purchase intention. This study is of great significance: theoretically, it enriches the theory of consumer emotions in live-streaming scenarios; practically, it guides script optimization, improves conversion rates, and contributes to the healthy development of the industry and the rationalization of consumption. For future research, it is suggested to refine the influence weight of emotions, incorporate variables such as visuals, adopt longitudinal tracking and stratified sampling, explore moderating effects, and extend the research to new scenarios like virtual anchors^[7-8].

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