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Does similarity matter? Investigating the relationship between live streamer' communication style similarity and user purchase intentions during live streaming

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Abstract

This study investigates the influence of communication style similarity between streamers and viewers on purchase intention within the framework of similarity attraction theory and cognitive-emotional system theory. Live marketing, utilizing online streamers for real-time interaction with consumers, has become a prominent sales strategy. A quantitative approach was employed, using questionnaire data collected from live marketing audiences. The survey measured communication style preferences of both viewers and streamers, along with viewers' perceived level of quasi-social interaction during the live stream, immersive experience, and purchase intention. The research demonstrates that when a streamer's communication style aligns with a viewer's preference, viewers perceive a stronger sense of quasi-social interaction. This heightened sense of connection fosters a more immersive live streaming experience, ultimately leading to a greater purchase intention. Furthermore, the study reveals that viewers with a higher need for cognitive closure-the desire to minimize ambiguity-experience an amplified effect of both communication style similarity and immersive experience on their purchase intention. This research contributes to the evolving body of knowledge on live marketing communication. By highlighting the importance of communication style matching between streamers and viewers, the findings offer valuable guidance to live streaming platforms and companies. Tailoring streamer communication styles to align with target audience preferences can enhance audience engagement, create a more immersive experience, and ultimately drive higher conversion rates.

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1. Introduction

Live steaming technologies and online sales platforms are maturing, making live marketing a new online sales strategy (Gong, Zhao, Ren, & Hao, 2022). Through trial usage and experience sharing on live platforms, streamers make product information more vivid and three-dimensional, encouraging customers to buy (Xin, Hao, & Xie, 2023). Live marketing is a new traffic trend, and "live+" empowering industry connection growth is the focus of major e-commerce sales platform layouts, garnering industry and academic attention (Chen, Yan, Zhao, & Bian, 2023).

Live marketing's primary feature is real-time user-streamer interaction. Empirical research on Chinese users' live habits indicated that streamers' communication styles are more essential than content (Lu, Xia, Heo, & Wigdor, 2018). According to Sheth (1975), communication style is the format, ceremony, or demeanour, adopted. Communication style explains sales disparities and is context-dependent, with a customer-oriented communication style being the most important (Williams & Spiro, 1985). Salespeople must adapt their communication style to their consumers (Miles, Arnold, & Nash, 1990; Weitz, 1981). Through qualitative research, Manning (1987) believed that salespeople should try to imitate and maintain consistency with their customers' communication styles to increase sales, but they did not explain why. In conclusion, many researchers have shown the importance of matching salespeople's communication styles with their customers, but there is still a lack of empirical research on the quantitative relationship between this matching and customers' purchase intentions, especially in live marketing. A comprehensive framework for describing how streamer-user communication style affects buying intentions is still lacking.

First, the similarity attraction idea states that individuals like similar people. This essay examines the substantive reasons why broadcasters' comparable communication styles might boost their appeal and how they impact viewers' propensity to buy. Interpersonal attraction causes good cognitive and emotional reactions (Byrne & Griffitt, 1973). This essay presents two cognitive and emotional concepts—perceived interaction and pleasure—to explain how communication style similarity affects purchasing intent. In live streaming marketing, this article examines the inherent explanatory role of users' perceived interaction and immersion experience in the relationship between broadcasters' and users' communication style similarity and users' willingness to purchase, focusing on quasi-social interaction and immersion experience. According to Rubin and McHugh (1987), media consumers connect quasi-socially with media personalities they like.Both media and cognition are involved (Horton & Richard Wohl, 1956). Immersion experience is a condition of psychological fulfilment in which people are entirely engrossed in their work, cheerful, and time passes swiftly (Csikszentmihalyi, 1997). Second, this paper examines quasi-social interaction and immersion. According to the cognitive and emotional systems theory, an individual's cognitive and emotional units interact as a system, and processing crucial social information in cognition frequently arouses emotions (Walter & Shoda, 1995). This article hypothesizes a relationship between quasi-social interaction and immersion experience, which are cognition and emotion concepts, thereby addressing the first key question: how does communication style similarity influence willingness to purchase?

In addition, Li, Guan, Chong, and Hou (2018) and Hou, Guan, Li, and Chong (2020) have noted that personal characteristics might influence live streaming viewers' behavior. In uncertainty, cognitive closure is the desire and incentive to discover a clear explanation (Kruglanski, 2013). High cognitive closure leads to less systematic processing and more peripheral cue-based heuristic reasoning (Kashdan et al., 2018; Neuberg, Judice, & West, 1997). Thus, cognitive closure demands may modulate peripheral signals' effects on purchase intention. Thus, this research must additionally examine how cognitive closure affects "communication style similarity, quasi-social interaction, and immersive experience-purchase intention." In conclusion, empirical research determines the intrinsic mechanism and boundary conditions of how the streamer and user's communication style affect the user's purchase intention, providing decision-making guidance for improving live broadcast companies' traffic monetization capabilities in Chinese live marketing and promoting the sustained and healthy development of live marketing research by enriching

2. Literature Review

2.1. Similarity in Communication Style

Sheth (1975)defines a streamer's communication style as their framework and routine for communicating with consumers. Bass' leadership approach inspired a communication style categorization (Sheth, 1975). Since it has conceptual and experiential backing, this research uses Sheth's three-dimensional communication style framework, which divides styles into task-oriented, interaction-oriented, and self-oriented styles. According to the customer grid theory, customers have two sales needs: to buy satisfactory products and focus on the products, and to receive sincere, enthusiastic, and thoughtful service from salespeople, focusing on the sales persons' attitude. Cai, Wohn, Mittal, and Sureshbabu (2018) discovered that e-commerce live broadcast viewers had utilitarian and hedonic objectives. These two goals match task-oriented and interaction-oriented communication styles. Research has also shown that a seller's self-oriented communication style hinders sales (Ahearne, Atefi, Lam, & Pourmasoudi, 2022; Williams & Spiro, 1985) and cannot achieve sales goals unless the seller operates monopolistically (Liao, Chen, Qi, Li, & Yu, 2023; Miles et al., 1990). Thus, this research examines task-oriented and interaction-oriented communication. Task-oriented communicators prioritize efficiency and cost. Interaction-oriented communicators focus on personal and societal issues and may disregard the work at hand. Live streamers and consumers' communication styles correspond to some extent (Trant et al., 2019).

2.2. Substantial Intrinsic Motivation for Communication Style Similarity to Influence Purchase Intention

In recent years, social psychologists have argued that similarities help people understand one other (Padgett & Wolosin, 1980). Internal resemblance can boost consumer trust in salespeople and readiness to

follow their advice, according to similarity studies in consumer psychology (Al-Natour, Benbasat, & Cenfetelli, 2011). Li and Mao (2015)studied the interaction between virtual health consultation systems and users and found that using network slang similar to the user can improve users' perceived transparency, engagement, trust, and enjoyment of the interaction process, as well as their willingness to use again and satisfaction. In experimental research, past studies (Trant et al., 2019; Zhou et al., 2022) found that similar communication styles between healthcare providers and patients can improve patient satisfaction. Conversely, a mismatch between salespeople and consumers' communication styles might make customers defensive, impeding sales goals (Soldow & Thomas, 1984). Based on this, the user's propensity to buy increases when the streamer's communication style matches theirs.

Parasocial interaction perception can create an illusion for viewers that they are having face-to-face conversations with media figures, treating media figures as their friends, and getting as close as possible to them in reality (Kim & Song, 2016). In the live sales model, the number of users is often sizable, and users can observe streamers from all angles, while streamers can only perceive users through their text comments, likes, followings, and purchases. In this scenario, the interaction between the streamer and the user may be one-way or one-to-many. Hu, Zhang, and Wang (2017) believe that the interaction between streamers and users has the characteristics of para-social interaction, and if streamers perceive the presence of users and adjust their communication style or body language to create an illusion of two-way communication, they will trigger users' perception of parasocial interaction (Dibble, Hartmann, & Rosaen, 2016). In addition, Rubin and Step (2000) demonstrated that parasocial interaction reflects the essence of human-like interaction and is influenced by the perception of similarity and interpersonal attraction in traditional interpersonal relationships. The audience perceives parasocial interaction stronger when the media figure's interpersonal similarity and attraction are higher (Rubin & Step, 2000).

Users in quasi-social interactions with media stars feel intimate and see them as "real friends" (Xiang, Zheng, Lee, & Zhao, 2016). Intimacy reduces uncertainty and consumer concerns, improving purchase intention (Li et al., 2018). According to Park and Lennon (2006) perceived quasi-social engagement in television shopping broadcasts boosts purchasing. Experimental research by Lee and Watkins (2016) found that perceived quasi-social interaction between YouTube viewers and video bloggers increases their readiness to buy luxury goods. This study reveals that in live-streaming marketing, the host's attractiveness to users and users' quasi-social interaction perception increase with communication style similarity. This lessens customers' uncertainty about buying the host's recommended products, increasing purchase intention.

According to Csikszentmihalyi (2000), an immersive experience is a psychological condition in which a person is fully absorbed and forgets time and self-awareness while engaging in a challenging activity. This state often brings delight and pleasure. According to an extensive study, the more similar two people are, the stronger their attraction and the more meaningful their interaction. Immersive experiences benefit from interactivity. Meaningful social connection can be joyful and absorbing (Animesh, Pinsonneault, Yang, & Oh, 2011; Barrera & Shah, 2023;Xu, Wu, & Li, 2020).

Many studies have found that immersive experiences can positively affect purchasing intentions through user enjoyment, satisfaction, and loyalty. When people explore shopping websites and have an immersive experience, their inner sense of enjoyment increases, which enhances their purchasing intention (Kim, Lee, & Bonn, 2017). Empirical research by Ettis (2017) shows that immersive experiences enhance website visits and browsing duration, and they predict user purchase behavior. According to Shim, Forsythe, and Kwon (2015), brand website users' immersion experiences improve their sensory and emotional experience, which increases brand loyalty and user purchasing behavior. This article argues that the more the host and user communicate similarly, the stronger their attraction, and the more likely the user is to interact with the host (Ertemel, Civelek, Eroğlu Pektaş, & Çemberci, 2021; Kang, Manthiou, Sumarjan, & Tang, 2017). The user will immerse themselves and establish a purchasing intention to prolong the experience. Given the previous deduction, this article suggests the following hypothesis:

H_1: Quasi-social interaction and immersive experience play a mediating role in the process of communication style similarity affecting user purchasing intention, that is, quasi-social interaction and immersive experience are two intrinsic motivations that influence purchasing intention in the communication style similarity.

2.3. Further Relationship between Quasi-Social Interaction and Immersive Experience

Walter and Shoda (1995) proposed the cognitive-emotional system theory, which suggests that an individual's cognitive and emotional units interact as system. An individual will activate certain cognitive or emotional units in response to an event or situation, resulting in the production of specific behaviour. Events or contexts can affect an individual's behavior by activating cognitive or emotional units, which can in turn affect other units. Westbrook and Oliver (1991) argue that there is a certain progressional relationship between cognition, emotion, and behavior.

Users interact with goal-oriented media characters in quasi-social interactions (Rubin & McHugh, 1987). Frederick, Lim, Clavio, and Walsh (2012) explain the cognitive relationship between media personalities and users. The cognitive-emotional system people use to link with media celebrities includes quasi-social interaction. Immersive experience is a cognitive-emotional unit that induces good feelings. Under the

cognitive-emotional system, the streamer's similar communication style encourages users to process positive information, form a positive evaluation of the streamer, strengthen the relationship linkage with the streamer, and increase their perception of quasi-social interaction in live streaming. Positive cognition will also induce an immersive, positive emotional state, making the user more likely to follow the streamer's advice and buy. We suggest the following hypothesis:

H_2: Quasi-social interaction and immersive experience serve as chain-mediated effects between communication style similarity and purchasing intention: that is, communication style similarity enhances users' perception of quasi-social interaction, further triggering immersive experience, which in turn affects their purchasing intention.

2.4. Cognitive Closure Requires Consideration of the Impact of the Mechanism of Action

Cognitive closure is a concept in social cognitive psychology. According to Kruglanski (2013), "the desire to find a clear answer to a question, regardless of the answer, is better than confusion and uncertainty." Cognitive closure is an individual's motivation to come up with an answer when faced with ambiguity, and it is relatively stable cognitive characteristic. Numerous studies have shown that when making decisions, people use two information processing paths: the central path, which involves making analytical decisions based on product specifications, materials, performance, and other central cues, and the peripheral path, which involves making heuristic decisions based on the attractiveness, credibility, and emotional appeal of the information source (Neuberg et al., 1997). In addition, Reinhard and Messner (2009) found that emotions have a significant impact on advertising effectiveness only when the subject's need for cognitive closure is high.

It can be inferred that under the context of live streaming marketing, the user's immersion experience, as an emotional state, may be modulated by the need for cognitive closure, and the higher the individual's need for cognitive closure, the more significant the effect of immersion experience on purchase intention. Similarly, the host and user's communication style similarity, acting as a type of marginal cue, could indirectly influence purchase intention through a marginal path, with the strength of this path influenced by the individual's level of cognitive closure. Therefore, the following hypothesis is proposed:

H_3: The higher the user's need for cognitive closure, the greater the effect of their immersion experience when watching live streaming on purchase intention, and the stronger the chain effect of communication style similarity on purchase intention.

3. Methodology

3.1. Questionnaire Design

To ensure the accurate measurement of variables, this study has undertaken the following steps: First, we selected mature scales from domestic and foreign literature and performed a repeated "translation-back-translation" process. Then, in combination with the specific characteristics of live marketing, we consulted experts and scholars in the field of marketing to repeatedly scrutinize and modify the semantics and expression of the scales, to ensure the content validity of the scales. Secondly, we disseminated instructions that emphasized the use of all collected information and data for academic research, adhered to confidentiality principles, and repeatedly advised individual lacking experience in clothing sales-related live streaming not to complete the questionnaire. We also set reverse items on the questionnaire to prevent the occurrence of habitual response bias. Thirdly, to avoid the occurrence of central tendency bias (where respondents tend to choose neutral options), all questionnaires were scored using a 6-point Likert scale: "1" indicating strongly disagree; "2" indicating disagree; "3" indicating somewhat disagree; "4" indicating somewhat agree; "5" indicating agree; "6" indicating strongly agree. Through data retrieval from the "Taobao Live" system, this study found that clothing products are the most sold and have the best sales performance on the live streaming platform. Therefore, this study has set the survey scenario to include live sales of clothing products.

The streamer's communication style scale is based on Williams and Spiro (1985) research and consists of two subscales: interactive communication style and task-oriented communication style. The streamer's interactive communication style scale includes six items, such as "The streamer is very easy-going." "The streamer likes to help customers," and "The streamer likes to talk to people." The streamer's task-oriented communication style scale includes four items such as "The streamer works very hard to complete this sale," "The streamer's top priority is to help me complete the purchase," and "The streamer hopes to complete this sale." The user's communication style scale also refers to Williams and Spiro (1985) research and is divided into two subscales: interactive communication style and task-oriented communication style. We set the user's communication style items one-to-one, corresponding to the streamer's communication style items, for convenience in calculating similarities in later analysis. The user's interactive communication style scale includes six items, such as "I am very easy going when communicating in the live broadcast room," "I generally like to help others," as well as "I like to talk to people." The user's task-oriented communication style scale includes four items, such as "When watching the live broadcast, I will work hard to complete the purchase task," "When watching the live broadcast, my main concern is to complete the purchase task," and "When watching the live broadcast, I want to complete the purchase as efficiently as possible." The "Quasi-Social Interaction Scale" refers to Lee and Watkins (2016), which includes the following five questions: "I look forward to watching this live stream," "I feel like this streamer is an old friend," "I hope to meet this streamer

in real life," "If this streamer appeared on other media, I would also watch it," and "Communicating with this streamer makes me feel comfortable, like being with friends." The Immersive Experience Scale refers to Huang, Huang, Chou, and Teng (2017), which includes four questions: "When watching live streams, I concentrate my attention on the content." While watching live streams, viewers often report feeling a loss of track of time, a sense of control, and a high level of enjoyment. The Need for Cognitive Closure Scale, developed by Liu, Zhang, and Liang (2007), includes 42 statements that assess an individual's preference for clear and predictable situations. Statements include: "I don't like uncertain situations," "I tend to make important decisions at the last minute," and "I usually make important decisions quickly and confidently." The Purchase Intention Scale, developed by Mitchell and Olson (1981),measures a viewer's likelihood to buy a product recommended by a live streamer. It consists of three questions, such as: "I would consider purchasing the product recommended by the host" and "I am very likely to purchase the product recommended by the host."

Due to the potential impact of gender, age, education level, and income level on the purchasing willingness of live streaming users, this article includes them as control variables in the questionnaire for measurement. Prior to the official launch, a pre-test was conducted on the initial questionnaire. We randomly invited 48 undergraduate students to complete the questionnaire and discuss the issue it presented. Based on their feedback, appropriate modifications were made to the questionnaire. Afterwards, data were tested for reliability and validity, with items being removed if they negatively impacted the measurement of the variables, resulting in a Cronbach's Alpha coefficient greater than 0.12 after deletion. Ultimately, the Cronbach's Alpha coefficients for each scale were all greater than 0.7, and the KMO value was greater than 0.7, indicating good reliability and validity. The scale passed the Bartlett's sphericity test with a significance level of $P<0.001$, resulting in a final version of the questionnaire. The main survey group for this study was female college students who have experience watching live broadcasts of clothing products. In universities in East China (Shanghai), South China (Foshan), West China (Chengdu), North China (Beijing), and Central China (Zhengzhou, Wuhan, Changsha), questionnaires were collected through both online and offline methods to ensure the breadth and efficiency of questionnaire collection. At the same time, we tried our best to ensure the random selection of samples and avoid the snowball questionnaire collection method during the questionnaire collection process. We collected a total of 703 questionnaires after more than two months of questionnaire collection. Considering the number of items, we considered filling out the questionnaire for too short or too long of a time to be an abnormal filling phenomena. We ensure the validity of the questionnaire by deleting 23 online questionnaires that took less than 2 minutes or more than 10 minutes to complete. We also removed 21 questionnaires that omitted important scale items or contained obvious errors (such as reverse items selected in the same way as positive items, or all options being the same). The effective questionnaires totalled 410. The sample statistics are shown in Table 1."

Table 1. Demographic characteristics.

Variables	Item	Frequency	Percent
Gender	Male	88	21.46%
	Female	322	78.54%
Age	Under 18	8	1.95%
	18-30	305	74.39%
	30-45	72	17.56%
	above 45	25	6.10%
Income	Under 1,000	21	5.12%
	1,000-2,000	90	21.95%
	2,000-4,000	145	35.37%
	4,000-6,000	92	22.44%
	Above 6,000	62	15.12%
Education	Under high school	25	6.10%
	College	96	23.41%
	Bachelor	232	56.59%
	Above master	57	13.90%

The similarity in communication style between streamers and users serves as a representation of this similarity. The calculation of similarity refers to the method used by Trant et al. (2019) to calculate the similarity of communication styles between medical staff and patients, and compares several common similarity calculation methods. The representative and easy-to-calculate Euclidean distance of 13 is selected to calculate the similarity. The formula for calculating Euclidean distance is shown in Formula 1, where x_i and y_i represent the measurement items of the user's and streamer's communication styles, respectively. In this study, the communication style scale for users and streamers, respectively, consists of ten items, i.e., $i \in [1,10]$. The larger the Euclidean distance, the smaller the similarity. We obtain the corresponding similarity value by converting the Euclidean distance, as shown in Formula 2.

$$Dis(x,y) = \sqrt{(\sum(x_i - y_i)^2)} \quad \text{Formula 1}$$

$$sim(x,y) = \frac{1}{1+Dix(x,y))} \quad \text{Formula 2}$$

4. Results of Studies

Common method bias is defined as the artificial correlation between predictor and criterion variables induced by the same data source, or rather, the same measurement setting, project context, and project attributes. The study's use of a self-reported questionnaire survey approach could potentially introduce frequent method bias issues. Before analyzing the questionnaire's reliability and validity, this study employed Harman's single-factor technique to check for common method bias in the data. We performed unrotated exploratory factor analysis on all of the variables. The findings revealed that the first principal component with an extracted eigenvalue greater than 1 explained 30.484% of the variance, meeting the criterion of less than 40% critical value, and that there was no phenomenon of a single factor explaining the majority of the variance, indicating that the common method bias problem had little effect on the validity of this study.

The consistency, stability, and accuracy of a scale's measurement results, reflecting the stable and consistent true characteristics of the subjects under examination, define its reliability. The validity of a scale refers to the degree to which the scale accurately measures the intended object of measurement, and whether the measured results reflect the degree of content that is being examined.

In this study, we used SPSS 24.0 to calculate the Cronbach's alpha coefficient of the variables, as shown in Table 2. Each variable had a Cronbach's alpha coefficient greater than 0.7, indicating that the scale is reliable. The sample's sufficiency test resulted in a KMO (Kaiser-Meyer-Olkin)score of 0.831 and substantial Bartlett sphericity test findings (P<0.001), suggesting that the variables were eligible for factor analysis. In this study, variables were subjected to principal component analysis to extract data based on eigen values greater than one. After applying maximum variance orthogonal rotation, eight factors were identified: user interactive communication style, user task-oriented communication style, streamer interactive communication style, streamer task-oriented communication style, perceived quasi-social interaction, immersion experience, cognitive closure needs, and purchase intent. The factor loadings of the various items on their major components for these 8 factors were all significantly bigger than the factor loadings on other components, with the minimum factor loading greater than 0.5 (see Table 2), demonstrating that the scale has good discriminant validity.

Table 2. Reliability analysis.

Variables	Load factor	Scale reliability	AVE	CR
User interactive communication style	0.715	Cronbach's α=0.881	0.602	0.911
User task-oriented communication style	0.701	Cronbach's α=0.891	0.701	0.901
Streamer interactive communication style	0.711	Cronbach's α=0.914	0.647	0.917
Streamer task-oriented communication style	0.831	Cronbach's α=0.912	0.781	0.936
Perceived quasi-social interaction	0.618	Cronbach's α=0.734	0.621	0.886
Immersion experience	0.712	Cronbach's α=0.851	0.601	0.859
Cognitive closure needs	0.721	Cronbach's α=0.881	0.600	0.913
Purchase intention	0.689	Cronbach's α=0.856	0.680	0.834

We employed a two-step approach to access the reliability and validity of the measurement model. First, a mini-program was used to calculate Average Variance Extracted (AVE) and Composite Reliability (CR). All CR values exceeded 0.834, indicating high internal consistency. Additionally, all AVE values exceeded 0.5, demonstrating strong convergent validity. Furthermore, the square root of each variable's AVE exceeded the correlation coefficient between variables, confirming discriminant validity. We conducted a confirmatory factor analysis using Amos software with a maximum likelihood approach to evaluate the model's structural validity. The fit indices (χ^2/df = 2.969, RMSEA = 0.056, NFI = 0.909, IFI = 0.921, GFI = 0.908, CFI = 0.92, and PNFI = 0.699) indicate a good model fit and strong persuasiveness.

4.1. Hypothesis Testing

This study first uses Baron and Kenny's stepwise regression analysis method to test the mediating effect of quasi-social interaction and immersive experience on the relationship between communication style similarity and purchase intention. Table 3 displays the analysis results. Before conducting the regression analysis, multicollinearity was checked, and the results showed that(Variance Inflation Factor) VIF was less than 2, indicating that there were no significant multicollinearity problems between variables and regression analysis could be carried out. We include gender, age, education level, and income level may affect the purchase intention of live streaming users, we included them as control variables in the linear regression model.

Table 3. Multiple linear regression analysis.

Variables	Perceived quasi-social interaction	Immersion experience		Purchase intention						
	Model1	Model2	Model3	Model4	Model5	Model6	Model7	Model8	Model9	Model10
Gender	0.041	0.019	0.016	0.012**	0.013	0.028*	-0.011	0.004	0.018	0.019
Age	0.039*	0.006	-0.05	-0.059	-0.128	-0.107	-0.076	-0.062	-0.119	-0.081
Education	-0.021	-0.055	-0.026	-0.082	-0.048	-0.034	-0.07	-0.06	0.003	-0.021
Income	0.008	-0.02	-0.013	0.029	0.038	0.051	0.026	0.031	0.046	0.043
Communication style similarity	0.0049**	0.058**		0.068**			0.044**	0.045**		
Perceived quasi-social interaction			0.507**		0.558**		0.451**			
Immersion experience						0.528**		0.408**	0.539**	0.549**
Need for cognitive closure									0.191**	0.152**
IE*NCC										0.195**
R^2	0.132	0.16	0.263	0.178	0.251	0.231	0.318	0.285	0.248	0.29
Adjusted R^2	0.123	0.154	0.257	0.171	0.244	0.221	0.312	0.276	0.24	0,272
F	16.959**	23.361**	43.781**	26.811**	40.811**	34.721**	47.644**	40.672**	33.501**	33.951**

Note: * p< 0.05, ** p < 0.01, IE*NCC: Immersion experience * Need for cognitive closure.

We performed a regression analysis in the first stage to determine the association between communication style similarity and purchase intention, as illustrated in Model 4. Communication style similarity had a significant beneficial impact on purchase intention (β=0.068, P<0.01). In the second step, regression analyses on social interaction and immersive experience were conducted separately, with communication style similarity serving as the independent variable, as shown in Models 1 and 2. Similar communication styles significantly improve social contact (β=0.049, P<0.01) and immersive experience (β=0.058, P<0.01). In the third step, a regression analysis was performed on the link between purchase intention, communication style similarity, and quasi-social interaction, as illustrated in Model 7. The study found that communication style similarity (β=0.044, P<0.01) and quasi-social contact (β=0.451, P<0.01) continue to have a significant beneficial impact on purchase intention. However, the regression coefficient of communication style similarity on purchase intention falls (0.044 < 0.068), suggesting that quasi-social interaction mediates the relationship between communication style similarity and purchase intention. We conducted a regression analysis on the the association between purchase intention, communication style similarity, and immersive experience, as shown in Model 8. The study found that communication style similarity (β=0.045, P<0.01) and immersive experience (β=0.408, P<0.01) still have a significant favorable impact on purchase intention. The effect of communication style similarity on purchase intention is reduced(0.045<0.065), suggesting that immersive experience mediates this relationship. These findings support Hypothesis 1.

Lau and Cheung (2012) noted that the analysis of multiple mediation models typically requires the use of structural equation models due to their complex paths and numerous variables. The Bootstrap method is a good way to test multiple mediation effects. This study used Model 6 of the PROCESS plugin in SPSS to test the chain mediation effect of quasi-social interaction and immersive experience.

We first validated the chain mediation model, which shows that communication style similarity influences purchase intention through quasi-social interaction and immersive experience. The fit indices (χ^2/df=2.969; RMSEA=0.056<0.08; GFI=0.908>0.9) indicated a good model fit.

Bootstrap analysis with 5000 resamples (presented in Table 4) further confirmed the hypothesized mediation effects. Both quasi-social interaction (β=0.016, P<0.01; 95% CI: [0.010, 0.024]) and immersive experience (β=0.009, P<0.01; 95% CI: [0.004, 0.014]) significantly mediated the relationship between communication style similarity and purchase intention, supporting H1. Additionally, the chain-mediated effect (β=0.005, P<0.01; 95% CI: [0.002, 0.009]) was significant, corroborating H2.

Table 4. The mediating effect analysis.

Mediation paths	Indirect effects	Lower bound	Upper bound	P-value
Total indirect effects	0.030	0.021	0.040	0.00
Communication style similarity → Perceived quasi-social interaction → Purchase intention	0.016	0.010	0.024	0.00
Communication style similarity → Immersion experience → Purchase intention	0.009	0.004	0.014	0.00
Communication style similarity → Perceived quasi-social interaction → Immersion experience →Purchase intention	0.005	0.002	0.009	0.00

A multiple regression analysis was conducted to investigate the moderating effect of cognitive closure demands on the connection between immersive experience and purchase intention. The data for cognitive closure needs and immersive experience variables were first centralized, and then an interaction term between cognitive closure needs and immersive experience was created to eliminate the problem of multicollinearity. Purchase intention was chosen as the dependent variable, with gender, age, education level, and income level serving as control factors in the model. Model 9 was created by combining cognitive closure demands with immersive experiences. We finally added an interaction term to the model, resulting in Model 10. Model 10 (see Table 4) shows that the interaction term between cognitive closure needs and immersive experience is significantly and positively related to purchase intention (β=0.195, P<0.01). This suggests that cognitive closure needs play a positive moderating role in the relationship between immersive experience and purchase intention.

5. Discussion

This study uses empirical research to address two major questions. To begin, it explains the underlying mechanism by which the similarity in communication styles between streamers and users influences the users' purchasing intentions. The similarity in communication patterns between broadcasters and consumers improves users' perceptions of quasi-social contact with the streamers, further engendering an immersive experience during live streaming and, as a result, increasing their desire to make purchases. Second, it investigates the boundary conditions of the aforementioned influencing process. Individuals' levels of cognitive closure positively regulate the association between immersive experience and purchasing intention, while also

boosting the mediating effect of communication style similarity on purchase intention. In other words, the higher an individual's level of cognitive closure, the greater the impact of immersive experience during live streaming on purchasing intention, and the stronger the chain of influence from streamer-user communication style similarity on purchasing intention.

5.1. Contributions and Implications

This study holds theoretical significance in the research on communication style similarity in live streaming marketing. Firstly, in similarity research, scholars often focus on common dimensions such as attitudes, backgrounds, values, and appearances (Banikiotes & Neimeyer, 1981; Liu et al., 2023; Na, Changhui, & Xiaoxiao, 2020;Park & Lin, 2020). However, by incorporating the dimension of communication style, this study expands the scope and content of similarity research. It offers a comprehensive explanatory framework, from the perspective of similarity attraction theory, to identify the potential mechanisms through which communication style similarity influences purchasing intention. Thus, it provides a valuable contribution to the study of how the alignment between the communication styles of streamers and users in live streaming marketing affects purchasing intention.

Secondly, in communication style research, scholars often overlook the explanation of underlying mechanisms that influence consumer behavior (Evans, 1963; Miles et al., 1990; Trant et al., 2019;Weitz, 1981). However, this study employs the cognitive-affective system theory to elucidate the overall logic and multiple meanings of mediating variables. It providesa more comprehensive and in-depth explanation of the mechanism through which communication style similarity in live streaming marketing influences purchasing intention. Furthermore, it further expands the application of the cognitive-affective system theory in the field of consumer behavior and the effectiveness of marketing communication in the context of live streaming, providing a new theoretical foundation.

Finally, this study investigates the moderating effect of cognitive closure, an individual factor, within the chain-mediated model. By examining how cognitive closure influences the strength of the mediated path, the study establishes boundary conditions for the model, enriching its theoretical framework. Notably, this research extends the understanding of the cognitive-affective system theory. While prior studies primarily focused on the independent effects of external factors like events and situations (Hsu & Lin, 2016; Xie, Heddy, & Vongkulluksn, 2019), this work delves into the influence of individual factors. It further analyzes the interplay between individual and contextual factors in the cognitive-affective system, offering a more nuanced perspective.

There are several practical implications for the research. Live streaming platforms and streamers should fully stimulate customers' perceptions of quasi-social interaction and immersive experiences during live streaming, guiding them towards positive cognitive and affective experiences. On one hand, streamers can enhance users' perceptions of quasi-social interaction by increasing their similarity to users and enhancing their attractiveness. This can be achieved by using common catchphrases and internet slang commonly used by the target audience, expressing attitudes and values that resonate with users, and showcasing a high level of knowledge and professionalism related to the product. On the other hand, both streamers and platforms should strive to foster users' immersive experiences. Streamers should increase real-time interaction with users during the live streaming process, pay attention to real-time feedback on user behaviors such as entering the live stream, liking, following, commenting, and making purchases, and utilize various incentives to enhance user engagement. Live streaming platforms should focus on clean and familiar interface designs, use commonly recognized icons, provide clear and straightforward functional navigation, and increase users' sense of control over the system, thereby evoking positive cognitive and affective experiences during live streaming.

5.2. Limitations and Future Research Directions

This study looks at how perceived quasi-social interaction and immersive experience play a role as mediating factors between communication style similarity and purchase intention, it acknowledges the potential for other cognitive and affective mechanisms. Communication style similarity, as a situational cue, might trigger additional cognitive factors like self-consistency, streamer identification, social distance, and trust, as well as affective factors like liking and arousal, that could influence purchase intention. Additionally, this research explores a single individual factor as a moderator. Future research could extend this work by examining these potential mediating and moderating variables to gain a more comprehensive understanding of the influence of communication style similarity on purchase intentionand other potential moderating factors (such as product type and level of purchase decision involvement) that play a role in the chain of mediating paths, thereby further enriching the theoretical model. This study employed a cross-sectional survey method, which can only examine the concurrent relationships between variables. Additionally, data collection relied on self-report questionnaires, which may result in respondents withholding certain truthful information. Moreover, the study itself is susceptible to various unexpected factors, such as environmental disturbances and fluctuations in emotional states, which can influence the research outcomes. Future research could employ multiple measurement methods, such as eye-tracking experiments and event-related potential analysis, to achieve more precise measurements of the variables. Exploring longitudinal tracking or conducting contextual experiments could also provide insights into deeper causal relationships among the variables.

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