

The Influence of Characteristics of E-Commerce Anchors Information Source on College Students' Purchase Intention

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Abstract

The exponential growth of technology has led to the emergence of e-commerce as a prominent trend in contemporary society. Currently, the majority of viewers who engage with hosts' livestreamed shopping content are concentrated in the demographic below the age of 24, with college students representing the primary consumers of this phenomenon. However, there is a paucity of research on the consumption of content targeting this specific demographic. In this context, this study examines the influence of the characteristics of information sources of e-commerce anchors on college students' purchase intentions, with closeness serving as a moderating variable. The results of questionnaire surveys yielded the following conclusions: ① The four characteristics of e-commerce anchors information sources – professionalism, credibility, interactivity, and attractiveness have been found to have a significant positive effect on college students' purchase intentions. ② Closeness plays a positive moderating role between the professionalism and attractiveness of information source characteristics and college students' purchase intentions, while the credibility and interactivity of anchor information sources do not significantly moderate college students' purchase intentions. These findings offer managerial insights for merchants and college student consumers.

Keywords: e-commerce anchors, information source, purchase intention

1. Introduction

The growth of the internet, coupled with the advent of new technologies such as big data, cloud computing, and artificial intelligence, has led to the emergence and continuous expansion of internet users, laying the foundation for the development of the online industry. According to I Digital, the scale of China's e-commerce market reached 4.9 trillion yuan in 2023, representing a year-on-year growth rate of 35.2%. During the 2023 Singles' Day event, the most successful anchor, Li Jiaqi, achieved sales in excess of 25 billion yuan.

The majority of users of online services are concentrated in the college student demographic. The data from the iMedia Research Center's "China Online Industry Research Report for the First Quarter of 2021" indicates that the majority of online users in China are young people, with those aged 24 and below accounting for 49.0% of users. Amongst this cohort of users aged 24 and below, a significant proportion of college students can be identified, who exhibit both the intention and behaviour of consumption. Consequently, it is imperative to conduct in-depth research on the impact of information source characteristics of e-commerce anchors on consumer purchase intentions, with a particular focus on college students.

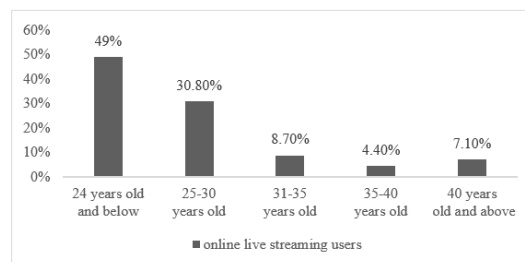


Figure 1. Age Distribution of Online Users

The current research on the sources of information for e-commerce anchors primarily focuses on the ordinary consumer group, without specifically discussing college students, who represent a distinct consumer demographic. However, college students constitute a unique consumer group. They tend to have more disposable time, a lower income, and a greater inclination towards entertainment. Consequently, when watching livestreams for shopping purposes, they are more inclined to spend time selecting anchors who demonstrate professional expertise, high credibility, individual charm, and interactive entertainment. Consequently, the influence of various dimensions of anchor information sources on college students' purchasing intentions may differ from those observed in more generalized studies. To address this gap, this study takes college student consumers as its research subjects and explores how the characteristics of e-commerce anchors' information sources influence college students' purchasing intentions.

The advent of online has led to a growing necessity for individuals to comprehend the social dynamics within the digital realm. However, there is currently a dearth of literature that specifically examines the role of the relationship between information sources and recipients in influencing consumer behavior through the characteristics of information sources. This study introduces a novel moderating variable, closeness, to address this gap in the literature. The concept of closeness is derived from consumers' perception of the degree of relationship between themselves and the anchor as the information source. When college student consumers perceive a closer relationship with the anchor, they are likely to trust the anchor more, thereby strengthening the influence of the anchor's information source characteristics on college students' purchasing intentions. Consequently, this study proposes a novel moderating mechanism for investigating the influence of information source characteristics on college students' purchasing intentions, with a particular focus on the impact of e-commerce anchors' information source characteristics.

2. Literature Review and Hypotheses

2.1 Characteristics of E-Commerce Anchors' Information Sources

The concept of information sources is commonly encountered in marketing research, typically referring to the point of origin for information transmitted through some tangible medium. Within the framework of marketing communication models, an information source denotes the sender of the information, wielding control over the process of information dissemination and exerting influence on the attitudes, perspectives, or evaluations of the information recipients. Given the parallels between the dynamics of online and the dissemination of online information, the attributes of hosts can be construed as characteristics of the information sender, thereby constituting the characteristics of e-commerce anchors' information sources.

In the field of information sources, Ohanian (1990) put forth a widely accepted three-dimensional model of information source characteristics (credibility, expertise, attractiveness). In the context of this study, the credibility of anchors' information sources can be defined as the perceived trustworthiness of the anchors by information recipients. The expertise of anchors' information source pertains to the anchors' professional competence, which is based on their knowledge and experience with relevant products. The attractiveness of anchors' information source refers to the evaluation of the anchors' personal charisma by information recipients.

However, contemporary online differs from traditional information dissemination methods in that it creates a virtual space where anchors and viewers can engage in face-to-face, real-time interactions. Accordingly, Meng et al. (2020) posit that Ohanian's (1990) three-dimensional model of information source characteristics may not fully apply to the study of emerging internet celebrity information sources. The authors propose the addition of a fourth dimension to the existing three-dimensional model of information source characteristics, namely interactivity. The interactivity of anchors' information sources refers to the perceived degree of interaction and communication between the anchors and the audience during livestreams. This study builds upon the perspective of Meng et al. (2020) on internet celebrity information sources by further dividing the dimensions of characteristics for e-commerce anchors into credibility, expertise, interactivity, and attractiveness.

Kelman (1961) proposed that the characteristics of the information source can induce changes in the attitudes and evaluations of the information recipient through three psychological mechanisms: internalisation, compliance, and identification. In a study by Liu et al. (2020), it was demonstrated that when information recipients receive product information from highly credible information sources, they perceive both the anchor and the promoted brand products as trustworthy, thus increasing their willingness to make purchases. Furthermore, Wang (2012) posits that the increasing complexity of various types of products today, coupled with consumers' limited knowledge and time constraints, makes it challenging for them to conduct objective evaluations of brand products. Consequently, when information recipients receive product information from anchors with high levels of expertise, they tend to experience a sense of compliance based on their recognition of

the professional competence of the information source. This compliance makes them more likely to adopt a positive attitude and consequently enhances their likelihood of purchase. Qi and Yang (2021) propose that when information recipients engage with livestreams hosted by anchors with high interactivity, frequent interaction between the anchor and the information recipient occurs. This not only enhances the information recipients' understanding of product information but also engenders a sense of immersion, which positively influences purchase intentions and behaviour. Meng et al. (2020) posit that when information recipients engage with livestreams hosted by anchors with high attractiveness, characterised by refined appearance and charismatic personality, they are more likely to experience feelings of pleasure and excitement. Consequently, this has a positive impact on their purchasing behaviour. Therefore, we propose the following hypothesis:

Hypothesis 1: The credibility of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.

Hypothesis 2: The professionalism of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.

Hypothesis 3: The interactivity of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.

Hypothesis 4: The attractiveness of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.

2.2 Closeness

Existing marketing research indicates that information recipients form psychological and emotional connections with information senders (Thomson, 2006; Moulard et al., 2015). This connection influences recipients' attitudes toward the information dissemination process and the seriousness with which they interpret the information. The optimal method to measure this connection is by measuring closeness (Aron, 1986). Closeness can be defined as the degree of intimacy individuals feel in their interactions with others (Collins & Feeney, 2004). It is evident that different social relationships exhibit varying degrees of closeness. For example, the closeness between close friends is distinct from that between acquaintances. This intimacy primarily arises from a progressively reciprocal process of self-disclosure. In this process, individuals experience a sense of being recognized, understood, and cared for by the other party (Reis & Shaver, 1987). When applied to the context of live streaming, factors influencing closeness include the degree of care and assistance consumers perceive from the e-commerce anchors during the broadcast.

Currently, with the continuous upgrading of consumption patterns, consumers' social needs and self-esteem needs have become more prominent. They seek to establish emotional relationships with others and gain social recognition. E-commerce anchors with high closeness not only meet consumers' emotional needs but also serve as the best product recommenders to help consumers understand product information. During the live broadcast, consumers perceive the care and assistance from the e-commerce anchors, which strengthens their purchase intentions. In early literature, closeness was used to study attribution changes in behavioral psychology, but it was generally not considered a primary influencing factor. For instance, Deri et al. (2019) and Polenick et al. (2015) used closeness as a moderating factor in other types of relationship studies. Accordingly, this paper defines closeness in the context of the study as the degree of trust and intimacy consumers feel towards e-commerce anchors, and examines its moderating role in the relationship between the characteristics of the e-commerce anchors' information source and college students' purchase intentions.

Liu Zhongyu et al. (2020) believe that compared to the "choice difficulty" experience in offline shopping and the "trust crisis" with unfamiliar online sellers, consumers are more willing to rely on e-commerce anchors with high closeness to avoid the "choice dilemma." Such e-commerce anchors are perceived akin to close friends or family members by consumers. Additionally, since e-commerce anchors often use their expressions and behaviors to attract fans with similar preferences (Wang Jie, 2012), consumers watching a high-perceived-closeness e-commerce anchor not only chat with a like-minded streamer but also find like-minded individuals to share their thoughts with. This creates a feeling of social validation and satisfies their self-esteem needs, leading to a more positive attitude toward the information dissemination process by the e-commerce anchors (Aron et al., 1991; Taillon et al, 2020). Consequently, the characteristics of the e-commerce anchors' information source have a stronger influence on consumers' purchase intentions. Therefore, when college student consumers watch a high-perceived-closeness e-commerce anchor, they listen more attentively to the product introductions, trust the e-commerce anchor more, and are more willing to interact frequently with the e-commerce anchor. This, in turn, enhances the influence of the e-commerce anchors' information source characteristics on the college students' purchase intentions. Based on this, the study proposes the following hypothesis:

Hypothesis 5: Closeness positively moderates the relationship between the credibility of e-commerce anchors' information sources and the purchase intentions of college student consumers.

Hypothesis 6: Closeness positively moderates the relationship between the professionalism of e-commerce anchors' information sources and the purchase intentions of college student consumers.

Hypothesis 7: Closeness positively moderates the relationship between the interactivity of e-commerce anchors' information sources and the purchase intentions of college student consumers.

Hypothesis 8: Closeness positively moderates the relationship between the attractiveness of e-commerce anchors' information sources and the purchase intentions of college student consumers.

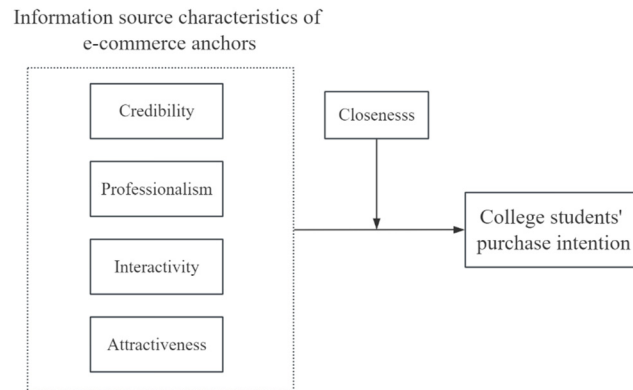


Figure 2. The Proposed Conceptual Model

3. Research Methodology

3.1 Sample and Data Collection

This study used the questionnaire survey method, using the Questionnaire Star website to create and distribute the survey questionnaire. A total of 370 questionnaires were distributed for the study, of which 350 were returned. After excluding incomplete and systematically completed questionnaires, 261 valid questionnaires were obtained, resulting in an effective rate of 74.6%. To test for response bias in the research sample, an independent samples t-test was conducted. The results indicated that $t > 0.05$, indicating no significant differences in covariates (gender, grade, monthly disposable income). This suggests that there was no response bias in the questionnaire sample.

Table 1. Demographic data. (N=261)

Feature	Measure	Frequency	Ratio	Feature	Measure	Frequency	Ratio
gender	man	72	27.6%	income	<1000 yuan	14	5.4%
	woman	189	72.4%		1000-1500 yuan	102	39.1%
grade	freshman	9	3.5%		1500-2000 yuan	73	28.0%
	Sophomore	40	15.3%		2000-3000 yuan	49	18.8%
	junior	55	21.1%		3000-5000 yuan	17	6.5%
	senior	114	43.7%		>5000 yuan	6	2.3%
	master	43	16.5%				

3.2 Measurement

To ensure the reliability and validity of the questionnaire, established scales were used in this study. The dimensions of e-commerce anchor information sources were measured using the scale developed by Lu Meng, Fengjun Liu, et al. (2020), consisting of 15 items in four dimensions: credibility, professionalism, interactivity, and attractiveness. Purchase intention was measured using the three-item scale developed by Dodds et al. (1991). A 5-point Likert scale was used to measure these five dimensions, with 1 indicating 'strongly disagree' and 5

indicating 'strongly agree'. The specific measurement items are shown in Table 3.

Closeness is assessed using a single-item visual representation, adapted from Aron et al. (1992), that represents perceived interpersonal connection. For this study, the item is modified to read 'Please select the picture below that best describes the relationship between you and the host you watch most often'. The survey contains seven pictures, each with two overlapping circles, illustrating the different levels of intimacy between the respondent and the host. The circle on the left is labelled 'self', while the one on the right is labelled 'Anchors'.

4. Data Analysis

4.1 Reliability and Validity Analysis

Reliability primarily measures the stability of the measuring instrument. The study conducted reliability tests on 261 samples using SPSS 26.0. The results show that the Cronbach's α coefficient for the credibility dimension of network celebrity hosts' information sources is 0.811, for professionalism 0.862, for interactivity 0.811, for attractiveness 0.820 and for purchase intention 0.812. The Cronbach's alpha coefficients for all variables are above 0.800, indicating good reliability of the measurement tools used in this study.

Validity primarily measures the reliability of the measuring instrument. The study utilized SPSS 26.0 to test the discriminant validity and convergent validity among model variables. A commonly used method in academia for validity analysis is exploratory factor analysis, which generally begins by determining whether the variables are suitable for factor analysis through the Kaiser-Meyer-Olkin (KMO) measure. As shown in Table 2, the overall KMO value for the sample is 0.894, and the corresponding p-value for Bartlett's sphericity test is 0.000. Hence, it can be determined that the data is suitable for factor analysis.

Table 2. KMO Value and Bartlett's Sphericity Test

KMO sampling suitability quantity		0.894
Bartlett sphericity test	Approximate chi-square	3147.01
	freedom	171
	significance	0.000

A principal component analysis of the sample was conducted, yielding five main factors with a cumulative variance contribution rate of 73.056%, which is significantly higher than the 60% threshold. This demonstrates the strong explanatory power of the five main factors for this study. A factor loadings analysis was performed on each item, with factor loadings after rotation all above 0.5, indicating a high level of construct validity for each factor, meeting the research requirements. This indicates that the measurement instruments employed in this study are reliable and effective.

Table 3. Variable measurement items (n = 261)

Variable	Dimension	Measurement items	Document	Factor loading	Reliability
Characteristics of E-commerce Anchors Information Source	credibility	The anchor has a high reputation in the field.	Meng Lu et al (2020)	0.803	Cronbach's $\alpha=0.811$, Cronbach's $\alpha=0.862$ Cronbach's $\alpha=0.811$
		The anchor has a large fans.		0.871	
		The anchor's product commentary is authentic.		0.800	
		The product description provided by the host is completely consistent with the actual product.		0.811	
	professionalism	The anchor has rich professional knowledge		0.739	
		The anchor has special professional skills		0.767	
	interactivity	The anchor has extensive experience in using the recommended products.		0.759	
		The anchor's presentation of the products in the studio was superb.		0.792	
		The anchor has maintained a good interactive relationship with you.	0.774		
		The interactive activities designed by the anchor, such as merchandise seconds kill, can successfully let you participate in them	0.784		

	The anchor actively responds to the barrage comments posted by the audience.	0.811	
attraction	The anchor's appearance is attractive to you	0.619	
	The anchor's words are humorous.	0.803	Cronbach's α =0
	The anchor's behavior is interesting.	0.786	.820
	You agree with the values output by anchors.	0.510	
Closeness	Please choose the picture that best describes your relationship with the anchor from the following pictures.	Aron et al. (1992) 0.689	—
	You will recommend the products recommended by the anchor to others.	0.501	
Purchase intention	You are very likely to consider purchasing the products recommended by the anchor.	DODDS et al. (1991) 0.517	Cronbach's α =0
	Are you willing to purchase the products recommended by this anchor?	0.533	.812

4.2 Hypothesis Testing

4.2.1 Regression Analysis of the Relationship between Characteristics of E-Commerce Anchors Information Source and Purchase Intentions of College Student Consumers

Utilizing the four factors of credibility, professionalism, interactivity, and attractiveness of e-commerce anchors Information source as independent variables, with closeness as the moderating variable, and purchase intentions of college student consumers as the dependent variable, a regression analysis was conducted. The linear regression results revealed that the p-values associated with each independent variable in the model were all less than 0.01, indicating significant relationships between the independent variables and the dependent variable. This suggests that the characteristics of e-commerce anchors Information source positively influence purchase intentions among college student consumers. These analytical findings validate the hypotheses 1, 2, 3, and 4 of the study.

Additionally, the coefficient for the interaction between anchors Information source characteristics and closeness was 0.066, with a p-value less than 0.01, validating the positive moderating effect of closeness on the relationship between characteristics of anchors Information source and purchase intentions among college student consumers. Furthermore, the VIF values for all variables in the model were less than 5, indicating the absence of multicollinearity issues, thus confirming the robustness of the model. The regression results yielded an R-squared value of 0.855, indicating that 85.5% of the variation in purchase intentions can be explained by the four variables of credibility, professionally, interactivity, and attractiveness. This demonstrates a high level of model fit, making the study of the impact of e-commerce anchors information source characteristics on purchase intentions scientifically rigorous and reliable.

Table 4. Linear regression analysis results (n=261)

Variable	Non-standard coefficient		Standardized Coefficients	VIF	R ²	Adjust R ²	F
	B	standard error	Beta				
constant	-0.072	0.072	—	—			
credibility	0.257	0.020	0.283**	1.729			
professionalism	0.238	0.020	0.273**	1.901			
interactivity	0.256	0.020	0.287**	1.701			
attraction	0.252	0.023	0.261**	1.941	0.855	0.852	39.416**
closeness	0.129	0.008	0.095**	1.226			
Information source characteristics × closeness	0.052	0.014	0.066**	3.782			

Note. Dependent Variable: Purchase Intention of College Students **p<0.01, two-tailed test.

4.2.2 Closeness Moderation Effect Test

To further investigate the moderating effect of closeness on the relationship between each variable and purchase intentions of college student consumers, this study followed the method used by Preacher and Hayes (2008). Using the SPSS Process plugin, with a sample size of 5000 and Model 1, the moderation effect of perceived intimacy on the relationship between characteristics of e-commerce anchors information source and purchase intentions of college student consumers was validated through bootstrap analysis within a 95% confidence interval.

The results indicate the following: ①The coefficient of the interaction term between anchors information source credibility and closeness is 0.029 ($P=0.1985$), which is not significant. The confidence interval for this interaction term, with LLCI=-0.0153 and ULCI=-0.0732, includes 0, suggesting that closeness does not significantly moderate the impact of anchors information source credibility on purchase intentions of college student consumers. Therefore, Hypothesis 5 is not supported. ②The coefficient of the interaction term between anchors information source expertise and closeness is 0.0502 ($P=0.0174$), which is significant. The confidence interval for this interaction term, with LLCI=0.0089 and ULCI=0.0915, does not include 0, indicating that closeness positively moderates the impact of anchors information source expertise on purchase intentions of college student consumers. Therefore, Hypothesis 6 is supported. ③The coefficient of the interaction term between anchors information source interactivity and closeness is 0.00095 ($P=0.6007$), which is not significant. The confidence interval for this interaction term, with LLCI=-0.0261 and ULCI=0.0451, includes 0, indicating that closeness does not significantly moderate the impact of anchors information source interactivity on purchase intentions of college student consumers. Therefore, Hypothesis 7 is not supported. ④The coefficient of the interaction term between anchors information source attractiveness and closeness is 0.0652 ($P=0.000$), which is significant. The confidence interval for this interaction term, with LLCI=0.0301 and ULCI=0.1003, does not include 0, indicating that closeness positively moderates the impact of anchors information source attractiveness on purchase intentions of college student consumers. Therefore, Hypothesis 8 is supported.

4.2.3 Hypothesis Verification and Discussion

This chapter processes and analyses the sample data of credibility, professionalism, interactivity, attractiveness of anchor information sources, perceived intimacy and college students' consumer purchase intention to test the research hypotheses, and the results are shown in Table 5.

Table 5. Test results of research assumptions

number	hypothesis	Test result
H1	The credibility of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.	support
H2	The professionalism of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.	support
H3	The interactivity of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.	support
H4	The attractiveness of e-commerce anchors' information sources positively influences the purchase intentions of college student consumers.	support
H5	Closeness positively moderates the relationship between the credibility of e-commerce anchors' information sources and the purchase intentions of college student consumers.	not support
H6	Closeness positively moderates the relationship between the professionalism of e-commerce anchors' information sources and the purchase intentions of college student consumers.	support
H7	Closeness positively moderates the relationship between the interactivity of e-commerce anchors' information sources and the purchase intentions of college student consumers.	not support
H8	Closeness positively moderates the relationship between the attractiveness of e-commerce anchors' information sources and the purchase intentions of college student consumers.	support

The study proposed eight hypotheses, six of which were validated through testing, while two were not supported.

Hypotheses 1, 2, 3, and 4 were confirmed, indicating that the characteristics of e-commerce anchors information source (credibility, professionalism, interactivity, and attractiveness) have a significant positive impact on college students' purchase intentions. This finding aligns with the discussions in the literature review and hypotheses. Hypothesis 5 was not supported, suggesting that closeness does not significantly moderate the relationship between the credibility of e-commerce anchors information source and college students' purchase intentions. This may be related to the specific nature of the college student consumer group, which is generally more rational and highly educated. Even if they perceive a close relationship with the anchor, they are unlikely to blindly trust the anchor's words.

Hypothesis 6 was confirmed, indicating that closeness positively moderates the relationship between the professionalism of e-commerce anchors information source and college students' purchase intentions, consistent with the literature discussions. Hypothesis 7 was not supported, suggesting that closeness does not significantly moderate the relationship between the interactivity of e-commerce anchors information source and college students' purchase intentions. This may be due to the college student consumer group's preference for entertainment. When college students watch highly interactive livestreams, the immediate interactive segments organized by the anchor can induce feelings of joy or excitement, satisfying their entertainment needs, thus diminishing the moderating effect of closeness. Hypothesis 8 was confirmed, indicating that closeness positively moderates the relationship between the attractiveness of e-commerce anchors information source and college students' purchase intentions, consistent with the literature discussions.

5. Conclusion and Recommendations

5.1 Research Findings

This study, in the context of the new economic landscape of livestream e-commerce and the predominantly young audience of livestream viewers, focuses on college student consumers. It constructs a research model to investigate the impact of livestream e-commerce anchors information source characteristics on college students' purchase intentions. Through statistical analysis of 261 valid questionnaires, the following conclusions were drawn:

- (1) During sessions, all four characteristics of e-commerce anchors information source—professionalism, credibility, interactivity, and attractiveness—have a significant positive impact on the purchase intentions of college student consumers.
- (2) During sessions, closeness positively moderates the relationship between the professionalism and attractiveness of anchors information sources and the purchase intentions of college student consumers. However, it does not significantly moderate the relationship between the credibility and interactivity of anchors information sources and purchase intentions. This indicates that establishing an intimate relationship with college student consumers is crucial during livestream e-commerce sessions. While closeness does not enhance the impact of anchors credibility and interactivity on the purchase intentions of college student consumers, it does strengthen the influence of anchors professionalism and attractiveness, thereby increasing the likelihood of purchase behavior.

5.2 Managerial Implications

For anchors and merchants, the marketing insights from this study suggest strengthening the interactivity of livestreams to engage college student consumers. Additionally, enhancing their own professional qualities can increase the perceived intimacy of college student consumers, thereby narrowing the distance in customer relationships.

As for college student consumers, the insights entail approaching livestream shopping with objectivity. They should not blindly trust the anchor's rhetoric due to a perceived sense of intimacy. Instead, they should assess the credibility and professionalism of the anchor's statements and compare product information provided by the anchor with publicly available information to make rational purchasing decisions.

5.3 Limitations

This study focuses on the influence of characteristics of e-commerce anchors information sources on college students' purchase intention, and empirically demonstrates the moderating role of closeness. However, there are some limitations in this study, and these shortcomings can be continued in subsequent studies and provide some research directions.

- (1) In this study, when examining the influence of online influencers' information source characteristics on purchase intentions among college students, only closeness was considered as a moderating variable. However,

there may be other moderating variables such as affordability ranges, trust, and product categories that were not taken into account. These unexamined moderating factors could be incorporated into future research on online influencers' information source characteristics to provide a more comprehensive analysis.

(2) This study only investigates the moderating role of closeness and does not consider mediating effects. However, consumer purchasing behavior is a complex process, and the influence of characteristics of e-commerce anchors information sources on college students' purchase intention may not be purely direct; it could also be mediated by factors such as perceived risk. Therefore, in future research, incorporating unexamined mediating variables into the study model can enhance theoretical richness.

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Obtained.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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References

- Aron, A., & Aron, E. N. (1986). *Love and the expansion of self: Understanding attraction and satisfaction*. Hemisphere Publishing Corp/Harper & Row Publishers.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of personality and social psychology*, 63(4), 596.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology*, 60(2), 241.
- Collins, N. L., & Feeney, B. C. (2004). An attachment theory perspective on closeness and intimacy. In *Handbook of closeness and intimacy* (pp. 173-198). Psychology Press.
- Deri, S., Stein, D. H., & Bohns, V. K. (2019). With a little help from my friends (and strangers): Closeness as a moderator of the underestimation-of-compliance effect. *Journal of Experimental Social Psychology*, 82, 6-15.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers'

- product evaluations. *Journal of marketing research*, 28(3), 307-319.
- Fengjun, L., Meng, L., Siyun, C., & Kun, D. (2020). Can I arouse you? A study on the influence mechanism of the characteristics of different types of live online celebrity information sources on consumers' purchase intention. *Nankai business review*, (01), 131-143
- Hongmei, Q., & Kailin, Y. (2021). Research on the Influence of Information Source Characteristics of Knowledge online celebrity on User's Payment Behavior. *Price: Theory and Practice*, (07), 141-144+166.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). Communication and persuasion.
- I Digital. (2024). *2023 China Direct Broadcast E-commerce Industry Research Report*. Retrieved from <https://baijiahao.baidu.com/s?id=1792302326966510399&wfr=spider&for=pc.2024.03.01>.
- iMedia Entertainment Industry Research Center. (2021). *China's online live streaming industry research report for the first quarter of 2021*. Retrieved from <https://www.iimedia.cn/c400/78734.html>.2021.05.19
- Jie, W. (2012). Mechanism of the Impact of Information Source Characteristics on Brand Communication Effectiveness and Marketing Implications. *Modern Business*, (30), 88-89. <https://doi.org/10.14097/j.cnki.5392/2012.30.101>
- Kelman, H. C. (2017). *Processes of opinion change*. In *Attitude change* (pp. 205-233). Routledge.
- Meng, L., Fengjun, L., Siyun, C., & Kun, D. (2020). Research on the Impact of online celebrity Live Broadcast on Consumers' Purchase Intention and Its Mechanism. *Journal of Management*, (01), 94-104.
- Moulard, J. G., Garrity, C. P., & Rice, D. H. (2015). What makes a human brand authentic? Identifying the antecedents of celebrity authenticity. *Psychology & Marketing*, 32(2), 173-186.
- Ohanian, R. (1991). The impact of celebrity spokespersons' perceived image on consumers' intention to purchase. *Journal of advertising Research*.
- Polenick, C. A., Martire, L. M., Hemphill, R. C., & Stephens, M. A. P. (2015). Effects of change in arthritis severity on spouse well-being: The moderating role of relationship closeness. *Journal of Family Psychology*, 29(3), 331.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. Duck (Ed.), *Handbook of Personal Relationships* (pp. 367-389).
- Taillon, B. J., Mueller, S. M., Kowalczyk, C. M., & Jones, D. N. (2020). Understanding the relationships between social media influencers and their followers: the moderating role of closeness. *Journal of Product & Brand Management*, 29(6), 767-782.
- Thomson, M. (2006). Human brands: Investigating antecedents to consumers' strong attachments to celebrities. *Journal of Marketing*, 70(3), 104-119.
- Yang, Q., Zhang, K., Xiaomin, W., & Meng, L. (2018). Research on the Impact of Information Source Characteristics of "online celebrity" on Consumers' Purchase Intention: A Moderated Intermediary Model. *Operation and Management*, (11), 65-68. <https://doi.org/10.16517/j.cnki.cn12-1034/f.2018.11.021>
- Zhongyu, L., Xianghao, Z., & Wei, L. (2020). Formation Mechanism of Consumer Purchase Intentions under Influencer Live Streaming: An Analysis Based on Grounded Theory. *China Business and Market*, (08), 48-57. <https://doi.org/10.14097/10.14089/j.cnki.cn11-3664/f.2020.08.005>

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