

The Effect of Audience's Perceived Trustworthy to the Participation Behaviors Based on Live Broadcast

Liping Yan and Ming Xue

School of Business Administration, Shanghai Lixin University of Accounting and Finance, Shanghai, China

Keywords: Perceived Trustworthy, Live Streaming, Social Commerce, Participation Behaviors.

Abstract: Live broadcast is a way to instantly send images and sound to other objects through multiple communication technologies. Live broadcast can bring immersive feelings to the receiver. Recently, with the application of live broadcast in the field of e-commerce, some scholars have begun to pay attention to the impact of live broadcast technology on customer purchase. Based on social capital theory, this study explores the factors affecting audience's perceived trustworthy of broadcasters engaging live streaming activities in social media platforms. The result of investigation 365 samples found that the audience's perceived familiarity, similarity and expertise of live broadcaster have positive association with perceived trustworthy, which subsequently positive affect audiences' intention to recommend, purchase and show "likes".

1 INTRODUCTION

Since 2017, more than 200 live broadcasting platforms emerged in China, and the number of online live broadcast users has reached 398 million. It is expected that the user scale will exceed 500 million in 2019.

Tictok, as one of the leading short video platforms in China, has an average daily user usage time of more than 60 minutes and more than 300 million social clicks. Tictok users involve in various occupations. The proportion of people with medium consumption and above accounted for 33%, and the proportion of people with medium and high consumption reached 27.4%, which can meet the marketing needs of different advertisers. Many advertisers and business choose to use live streaming to promote their brands. During the COVID-19 pandemic, traditional retailing encountered greater pressure, live shopping has become a popular way for consumers to purchase.

The social attributes owned by Tictok have brought huge opportunity to e-commerce. Although live broadcast has huge consumption potential, there are huge obstacles to converting live broadcasting into consumption. Therefore, it has important practical significance for business to investigating the factors that affecting consumers' participation behaviors in social live broadcasting. Some

businesses incorporate sales promotion into live activities. They design unique content to attract users' attention, and then intersperse product promotion and sales in the live broadcast to convert fans into customers. In this process, customers' trust to the broadcaster has become the key to fan conversion. The purpose of this study is to explore the factors that affect customer trust in the context of live broadcast and their influence on customer participation behaviors, including purchase, recommendation, and show likes.

2 THEORETICAL BACKGROUND AND HYPOTHESES

2.1 Social Commerce Live Streaming

Live broadcast is a way to instantly send images and sound to other objects through multiple communication technologies (Sun, 2019). Live broadcast can bring immersive feelings to the receiver (Chen, 2018). Existing research mainly focuses on the application of live broadcasting in the field of e-sports (Cheung, 2011) and video games (SjöBlom, 2016). Recently, with the application of live broadcast in the field of e-commerce, some scholars have begun to pay attention to the impact of live broadcast

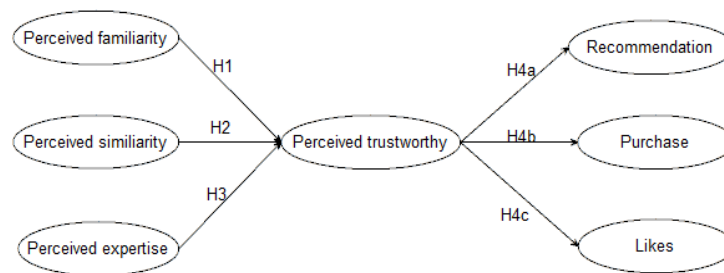


Figure 1: Theoretical framework and hypotheses.

technology on customer purchase (Wongkitrungrueng; Cai, 2018). Social media-based live commerce business refers to e-commerce activities with online sales promotion that support social interactive media (Wongkitrungrueng). For example, sales promotion activities based on Facebook or Tickok platform. Existing research mainly focuses on the influence of social presence and the perceived value of customers on their participation behavior, while few studies focus on the influence of customers' trust in broadcasters on their subsequent participation behavior.

2.2 Social Capital Theory

According to social capital theory, individuals' cognition and relationship that form with others will affect the formation of their trust (Hazleton, 2000). Relationship refers to the intimacy or relationship strength formed by an individual in the interaction with others. For an individual, the relationship with others is its important social capital; cognition refers to common thoughts and feelings formed by the interaction between the individual and others.

Familiarity is related to the dimension of relationship in social capital, which represents the connection between members. Perceived similarity is related to one's cognition. Perceived expertness refers to viewers' perception of broadcasters' ability. Based on the social capital theory, this research proposed hypotheses shown in Figure 1. The theoretical framework starts with audiences' perceived familiarity, perceived similarity, and perceived expertise, and trust is included as an intermediary variable, which in turn affect viewers' intention of recommendation, purchase, and show likes.

2.3 Perceived Familiarity

Familiarity refers to the degree of an individual's understanding of others through interaction, and the information obtained during the interaction, which

can be used to predict the behavior of others. Studies have found that whether in offline or online environments, people always tend to trust the objects they are familiar with (Lu, 2010; Gulati, 1995; Wu, 2005), because familiarity can reduce uncertainty and promote the establishment of trust (Rousseau, 1998). In addition, past research have found that in the virtual community, the more interactions between members, the more members trust the peers (Wu, 2005). The result indicated that there is a positive relationship between familiarity and trust. In the context of live broadcasting, viewers have a higher degree of familiarity means that through continuous interaction, the accumulation of information and understanding of broadcasters is formed. As this degree of understanding deepens, members will establish a stronger relationship of trust. Therefore, this research hypothesizes:

H1: The audience's perception of familiarity with the broadcaster have a positive correlation with trust

2.4 Perceived Similarity

Perceived similarity refers to the characteristics that an individual perceives in common with others, such as interests, values, or demographic characteristics (Lu, 2010). In the context of live broadcast, people watch live broadcast because of the common interests or goals with broadcaster. These common interests and goals, or similar experiences, form the similarity between fans and anchors. Existing research studies have shown that similarity promotes interpersonal trust behavior (Dwyer, 1987; Doney, 1997). In the context of the Internet, past stud found individuals are more inclined to adopt similar suggestions (Ziegler, 2007). In the context of live broadcast, the audience's perception of similarity to the live broadcaster will have a positive impact perceived trust, because individuals can easily establish trust in groups with similar characteristics to themselves. Based on the above discussion, this research proposes

H2: The audience's perception of similarity of the broadcaster is positively associated will trust.

2.5 Perceived Expertise

Perceived expert refers to an individual's awareness of the ability and skills of others. A large number of existing studies have confirmed the impact of expertise on trust. For example, research on reviews has shown that the expertise of reviewer has an important influence on their credibility (West, Broniarczyk). Individuals usually associate the correctness of information obtained from others with their personal expertise in a particular field (Feick, Higie). In the context of online sales, consumers usually face greater shopping risks, and they strive to seek clues so as to reduce the potential risks they face in shopping. Existing studies have confirmed that expert and trust have a positive association (Feick, Higie; Gilly, Graham, Wolfenbarger, Yale; McCracken, 1989; McGinnies, 1980). In the context of live broadcast, we believe that the broadcaster's professional knowledge of the relevant products will have a significant impact on audiences' belief of trust.

H3: The audience's perception of expert of the broadcaster will have a positive impact on their trust.

2.6 Perceived Trustworthy and Participation Behaviors

In the context of e-commerce, customers will face greater risks, so trust becomes extremely important in online consumption. For example, Lu and Wang's study confirmed that customers' trust in e-commerce will have a positive impact on their intention of purchases and recommendation (Gulati, 1995). Also, some studies have confirmed that viewer's trust in the context of virtual communities affects other behaviors, such as likes and recommendations (Porter, 2008). In the context of live broadcasting, we believe that viewers' trust of broadcasters will affect their later adoption of broadcasters' product recommendations, that is, enhance their intention to purchase, and their positive participation behaviors, such as likes and recommendations to others. Based on the above discussion, this research proposes the following hypotheses:

H4a: The audience's perceived trust is positively associated with their willingness to recommend (a), purchase (b), and likes (c)

3 METHORD

3.1 Samples and Data Collection

Specially, we selected users of Tictok in china as a

data source. The questionnaire was set up on Wenjuanxing, a Chinese online market research website, which is able to forward the link of the questionnaire to potential respondents. 398 users were invited to participate in the survey. At last, the final sample after data cleaning was 365, resulting in a valid rate of 91.7%. Table 1 showed the descriptive information of the dataset.

Table 1: Descriptive information of the dataset (n=365).

Measure	Item	Count	%
Gender	female	202	55.3
	male	163	44.7
Age	20 or below	35	9.5
	>20 or ≤30	279	76.4
	>30 and ≤40	49	13.4
	>40 and ≤50	2	0.5
	Above 50	0	0.0
Education	High school or below	0	0.0
	Two-year college degree	125	34.2
	Four-year college degree	217	59.5
	Graduate school or above	23	6.3

3.2 Measures

We measured all items using a 7-point Likert scale ranging from strongly disagree to strongly agree. We choose items from Gefen (Gefen, 2000) to measure perceived familiarity. Perceived similarity was measured using items drawn from Crosby (Crosby, 1990). Items measuring perceived expertise were adapted from Shen et al (Shen, 2010). Trust was measured using items drawn from Pavlou and Fygenson (Pavlou, 2006). Items were adapted from Chen and Wang (Chen, 2017) to measure intention to purchase. We adapted items from Porter (Porter, 2008) to measure intention to recommendation and likes.

3.3 Measurement Validation

As all measures were self-reported, we used Harman's one-factor test to check the common method variance based on Podsakoff and Organ's suggestions (Podsakoff, 1986). We extracted seven factors with eigenvalues greater than 1, and the first factor accounted for 27.6% of the total variance.

To examine the measurement validity of the constructs, confirmatory factor analysis was conducted using AMOS 20.0. The fit statistics of a reduced measurement model revealed adequate fit: $\chi^2 = 401.25$, $df = 321$, $p < 0.001$, $\chi^2/df = 1.25$, CFI =

0.94, TLI = 0.93, NFI = 0.92 and RMSEA = 0.04. The standard loadings of the remaining items were mostly above 0.7. The average variance extracted (AVE) for every construct was above 0.65. We used composite reliabilities (CRs) to evaluate the internal consistency of the measurement model. The result showed that CRs were all above 0.8, indicating the scales had good reliabilities. All Cronbach's alpha values are above the 0.70 threshold, indicating that the scales had high reliabilities.

3.4 Hypotheses Tests

The means and standard deviations of each constructs is shown in Table 2.

Table 2: Summary of measurement scales (n = 365).

Variable	Mean	SD	Cronbach's α
Perceived familiarity	3.68	0.98	0.79
Perceived similarity	3.12	1.06	0.81
Perceived expert	4.03	0.97	0.85
Trust	4.12	1.06	0.76
Intention to recommend	3.06	1.14	0.88
Intention to purchase	2.98	0.95	0.82
likes	3.52	1.13	0.80

The overall fit of the structural model was highly acceptable: $\chi^2 = 463.64$, $df = 346$, yielding a value of $\chi^2/df = 1.34$; CFI = 0.93, TLI = 0.92, NFI = 0.95 and RMSEA = 0.04.

The result showed that perceived familiarity is positively association with trust ($b = 0.27$, $p < 0.001$), then hypothesis H1 was supported.

It was indicated that perceived similarity is significantly related to trust ($b = 0.31$, $p < 0.001$), that is, the hypothesis H2 were supported.

Hypothesis H3 predicted that perceived expertise is positively related to trust. The results indicate that perceived expert is positively associate with trust ($b = 0.14$, $p < 0.05$). The results provide support for H3.

The results demonstrated that trust is positively related to intention to recommendation ($b = 0.28$, $p < 0.01$), purchase ($b = 0.19$, $p < 0.01$) and likes ($b = 0.38$, $p < 0.001$), hence, H4a, H4b and H4c were supported.

4 CONCLUSION

Based on the data collected from the Chinese live broadcast platform Tictok, this study found that the

audience's perceived trust of the live broadcaster plays an important role in their participation behaviors. Specifically, this study combines the formation mechanism of trust and the formation process of consumer participation behavior to study the factors that affect the establishment of trust in the context of live broadcast and how this trust affects consumer behaviors. The main findings of this research are as follows: First, perceived familiarity significantly affects the perceived trust of live broadcasters. Second, the perceived similarity is positively correlated with the trust of broadcaster, the individual's cognition of the characteristics of others is very important. When a person perceives that another person is more like him or her, the more he or she feels that the other person is trustworthy. In addition, the audiences' perception of expertise of the broadcaster has a positive effect on perceived trust, which will in turn have a positive effect on recommendations, purchases and likes.

This research analyzes the influence of viewers' perception of live broadcast on their trust and the influence of trust on their participation behavior intention from the perspective of social capital. The intention of participation behavior here is mainly reflected in the recommendation, purchase and likes of the live broadcast. The results of this study provide implications for retailers and sellers who use live broadcasts for product sales. For example, perceived familiarity has a significant impact on audience' trust, indicating that audiences' emotional dependence on the broadcaster is an important factor. For community managers, cultivating members' familiarity can actually promote audience participation, which is conducive to the survival and development of live broadcasts. How to promote audience familiarity is explained from the perspective of social capital, and the results can also provide practical implications for live broadcast retailers. For example, live broadcasters can use more live broadcast content to promote familiarity with the audience, thereby promoting the establishment of their familiarity, sharing personal experiences, and deepening the audiences' familiarity with the broadcaster. In addition, the focus and refinement of the live content helps to enhance the similarity between members, and when members are familiar with each other and have a high perceived similarity, it can promote trust between them and further strengthen their sense of belonging. This result shows that live broadcast sales can indeed transform members into customers through the transfer mechanism of trust. Therefore, for live broadcast merchants, they should try their best to provide consumers with live stream activities which can

enhance audiences' perceived familiarity, similarity, and expertise.

Specifically, live broadcasters should pay attention to communication and interaction with the audience to help build trust. In addition, setting a more specific and focused live broadcast theme can increase the audience's perceived similarity and professionalism, and can also promote the formation of trust. In addition, the research also found that the audience's perceived expertise of the broadcaster will affect their trust. Therefore, for merchants or live broadcast retailers, broadcaster with rich consumer experience should be hired to speak, and high-quality content can also be published. In order to promote audiences' perception of the expertise of the broadcaster, so as to improve the quality of live content and enhance the audiences' perceived expertise.

REFERENCES

- A. Wongkitrungrueng, and N. Assarut, "The role of live streaming in building consumer trust and engagement with social commerce sellers," *Journal of Business research*, in press.
- A. Chen, Y. Lu, B. Wang, "Customers' purchase decision-making process in social commerce: A social learning perspective," *International Journal of Information Management*, 2017, 37(6), pp.627-638.
- C. C. Chen, Y. C. Lin, "What drives live-stream usage intention? the perspectives of flow, entertainment, social interaction, and endorsement," *Telematics & Informatics*, 2018, 35(1), pp. 293-303.
- C.N. Ziegler, J. Golbeck, "Investigating Interactions of Trust and Interest Similarity," *Decision Support Systems*, 2007, 43(2), pp. 460-475.
- C. E. Porter, and N. Donthu, "Cultivating trust and harvesting value in virtual communities," *Management Science*, 2008, 54(1), pp.113-128.
- D.M. Rousseau, S.B. Sitkin, R.S. Burt, "Not So Different after All: A Cross-Discipline View of Trust," *Academy of Management Review*, 1998, 23(3), pp. 393-404.
- D. Gefen, "E-Commerce: The Role of Familiarity and Trust," *Omega: The International Journal of Management Science*, 2000, 28(6), pp. 725-737.
- E. McGinnies, and C. Ward, *Better Liked Than Right: Trustworthiness and Expertise in Credibility*. *Personality and Social Psychology Bulletin*, 1980, 6, 467-472.
- F.R. Dwyer, P.H. Schurr, S. Oh, "Developing Buyer-Seller Relationships," *Journal of Marketing*, 1987, 51(2), pp. 11-27.
- G. Cheung, J. Huang. "Star craft from the stands: understanding the game spectator, Proceedings of the SIGCHI Conference on Human Factors in Computing Systems," 2011, pp.763-772.
- G. McCracken, "Who is the Celebrity Endorser? Cultural Foundations of the Endorsement Process," *Journal of Consumer Research*, 1989, 16, pp.310-321.
- J. Cai, D.Y., Wahn, A. Mittal, and D. Sureshbabu, "Utilitarian and Hedonic Motivations for Live streaming shopping," 2018 ACM International Conference, pp. 1-8.
- J.J. Wu, and Y.S. Chang, "Toward Understanding Members' Interactivity, Trust, and Flow in Online Travel Community," *Industrial Management & Data Systems*, 2005, 105(7), pp.937-954.
- L. Feick, R.A. Higie, "The Effects of Preference Heterogeneity and Source Characteristics on Ad Processing and Judgments about Endorsers," *Journal of Advertising*, 21, pp. 9-24.
- L.A. Crosby, K.R. Evans, and D. Cowles, "Relationship Quality in Services Selling: An Interpersonal Influence Perspective. *Journal of Marketing*," 1990,54(3), pp.68-81.
- M. SjöBlom, and J. Hamari, "Why do people watch others play video games? An empirical study on the motivations of Twitch users," *Computers in Human Behavior*, 2016, 75, pp. 985-996.
- M.C. Gilly, J.L. Graham, M.F. Wolfinger, and L.J. Yale, "A Dyadic Study of Interpersonal Information Search," *Journal of the Academy of Marketing Science*, 2, pp.83-100.
- P.M. Doney, J.P. Cannon, "An Examination of the Nature of Trust in Buyer-Seller Relationships," *Journal of Marketing*, 1997, 61(2), pp.35-51.
- P.M. West, S.M. Broniarczyk, "Integrating Multiple Opinions: The Role of Aspiration Level on Consumer Response to Critic Consensus," *Journal of Consumer Research*, 25, pp.38-51.
- P.A. Pavlou, M. Fygenson, "Understanding and Predicting Electronic Commerce Adoption: An Extension of the Theory of Planned Behavior," *MIS Quarterly*, 2006, 30(1), pp.115-143.
- P. M. Podsakoff, and D. W. Organ, "Self-reports in organizational research: Problems and prospects," *Journal of Management*, 1986, 12(4), pp.531-54.
- R. Gulati, "Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances," *Academy of Management Journal*, 1995,38(1),pp.85-112.
- V. Hazleton, and W. Kennan, "Social Capital: Reconceptualizing the Bottom Line," *Corporate Communications: An International Journal*, 2000, 5(2), pp. 81-87.
- Y. Sun, X. Shao, X. Li, Y. Guo, and K. Nie, "How live streaming influences purchase intentions in social commerce: An IT affordance perspective," *Electronic Commerce Research and Applications*, 2019,37, pp.1-11.
- Y. Lu, L. Zhao, B. Wang, "From Virtual Community Members to C2C E-Commerce Buyers: Trust in Virtual Communities and Its Effect on Consumers' Purchase Intention," *Electronic Commerce Research and Applications*, 2010, 9(4), pp.346-360.
- Y. C. Shen, C.Y. Huang, C. H. Chu, and H. C. Liao, "Virtual community loyalty," *International Journal of Electronic Commerce*, 2010, 15(1), pp. 49-74.