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When We are Alike: Homophily in Livestream Commerce

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When We are Alike: Homophily in Livestream Commerce

Abstract

Purpose

Homophily, a prominent phenomenon in social networking, profoundly shapes user behaviors on social media but has not been well studied in the livestream commerce context. This research investigates its moderation role in leveraging the effects of key livestream commerce factors—perceived expertise of live streamers and perceived interaction during live streaming—on audience trust, a critical determinant of purchase intentions.

Design/methodology/approach

A survey was conducted among livestream shoppers on Taobao. A sample of 313 responses was analyzed. SPSS (version 29) was used for general statistical analysis. The partial least squares structural equation modeling (PLS-SEM) approach with SmartPLS 4.1 software was employed to assess our research model and hypotheses.

Findings

The results reveal noteworthy differential effects of homophily: it negatively moderates the expertise-trust association but positively moderates the interaction-trust relationship. When the audience perceives strong homophily with live streamers, their trust in these live streamers becomes increasingly contingent on the level of interaction, while the effect of perceived expertise diminishes.

Originality

The insights on the differential effects of homophily are novel to the literature. These findings extend theoretical understanding of the homophily effect and provide valuable guidance for live .eking
.ce; Homophily; Trust; Perce. streamers, marketers, and platforms seeking to reinforce audience trust and drive purchase intentions in livestream commerce.

Keywords: Livestream commerce; Homophily; Trust; Perceived expertise; Perceived interaction

1. Introduction

Livestream commerce, also known as livestream shopping or retailing, has emerged as a popular and highly effective sales channel, revolutionizing traditional e-commerce retail practices (Ameen et al., 2023; Ang et al., 2018; Xie et al., 2022). Within this format, live streamers, also known as livestream hosts, anchors, or influencers, utilize live video presentations to showcase products and engage with audiences in real-time dialogues, aiming to drive sales. Audiences, on the other hand, actively participate in livestream sessions and interact with both live streamers and fellow viewers through real-time text messages (Chen et al., 2017; Plangger et al., 2021; Xie et al., 2022). As a result, live streamers can be remarkably effective in driving sales. For instance, Austin Li, a prominent influencer on Taobao Live, achieved an astounding \$1.7 billion in sales during a dedicated 12-hour livestream session for the pre-sale event of "Double 11 Shopping Festival" in 2021 (Champagne, 2022). In 2018, Li sold 15,000 lipsticks in less than five minutes while competing in a sales challenge against Alibaba's CEO Jack Ma, in Alibaba's "Ten Years, Ten People" event (Zhou et al., 2022).

The rise of livestream commerce has spurred a growing body of research investigating critical features that impact its effectiveness. For instance, previous research examined livestream features, such as vividness, interactivity, and diagnosticity, linking them to customer satisfaction and subsequently loyalty (Bao and Zhu, 2022). Additionally, studies have highlighted the effects of live streamers' characteristics, such as their expertise (Chen *et al.*, 2022) and real-time interaction (Alam *et al.*, 2023), on sales performance. Further research has explored customers' perceived values (e.g., symbolic, utilitarian, and hedonic values) in livestream shopping and their impact on customer trust and engagement (Asante *et al.*, 2024; Wongkitrungrueng and Assarut, 2020).

This study focuses on homophily, a significant social phenomenon in livestream commerce. Homophily, defined as "the tendency of individuals to associate with similar others" (Lawrence and Shah, 2020), is widely observed in both conventional communication and social media, profoundly affecting user attitudes and behaviors (Ertug *et al.*, 2022). It is a fundamental characteristic of social networking—social media communities commonly form around shared similarities (Casaló *et al.*, 2007; Zaglia, 2013). Unlike traditional celebrity endorsements, influencers are typically ordinary social media users who attract and maintain followers by sharing personal experiences and leveraging their commonality with their audience (Ladhari *et al.*, 2020; Zaglia, 2013). Social media users particularly value and are drawn to influencers with whom they can relate (Sánchez-Fernández and Jiménez-Castillo, 2021).

Despite its significance, homophily remains largely absent in the livestream commerce research, barring Chen *et al.* (2022) who examined perceived similarity as a precursor to swift guanxi—swiftly formed relationships that buyers perceive with sellers (Ou *et al.*, 2014). In broader social media research, such as social media influencer literature, homophily has received more attention. Studies have focused on its direct effect on outcome variables such as influencer credibility (Ladhari *et al.*, 2020) and influencer marketing effectiveness (Gupta *et al.*, 2022). For instance, Gupta *et al.* (2022) confirmed the direct effect of homophily between social media influencers and their followers on the persuasiveness of influencers' product promotions. Considering this focus, recent research on influencer marketing has called for the exploration of the interplay of homophily with key communication factors (Ertug *et al.*, 2022). Given the prevalence and significance of the

homophily phenomenon, studying its role in livestream commerce, particularly its moderating effects on other critical variables, could contribute invaluable insights.

To this end, this study probes into the role of homophily in livestream commerce. Drawing from existing literature on livestream commerce and the sociological theory of homophily, we model the impacts of two crucial livestream commerce factors—the perceived expertise of live streamers and perceived interaction during live streaming—on audience trust and purchase intention, and then theorize the moderation role of perceived homophily between audience and live streamers in these effects. Through a survey of Taobao livestream shoppers, we report positive effects of perceived expertise and interaction on trust, and importantly, the differential moderation by homophily on these two factors: homophily negatively moderates the effect of perceived expertise but positively moderates that of perceived interaction. When the audience perceives high homophily with live streamers, their trust in livestream shopping becomes increasingly influenced by the perceived interaction and the effect of the live streamer's perceived expertise is mitigated.

This research contributes to the livestream commerce literature and the homophily literature. It is one of the first to examine homophily in livestream commerce, extending this crucial concept and emphasizing its implications in this context. It enriches our understanding of the consumer-live streamer relationship and the effectiveness of livestream commerce. Moreover, while previous social media studies modeled the direct effects of homophily, this study adds to a comprehensive view of its effects by studying its interplay with communication factors. Furthermore, the theoretical analysis and empirical results regarding the differential moderations of homophily on the effects of perceived expertise of live streamers and perceived interaction during live streaming

offer substantive knowledge on the homophily effects. Managerially, our findings offer actionable guidance for live streamers, marketers, and platforms seeking to enhance audience trust and sales.

2. Literature Review

We review two streams of literature, i.e., research on livestream commerce and research on homophily, for our investigation of homophily in livestream commerce. Livestream commerce research has investigated factors that influence its effectiveness, with an emphasis on the significant role of live streamers' expertise and audience interaction on sales performance (Hu and Chaudhry, 2020; Yang *et al.*, 2023). Meanwhile, homophily research has outlined its critical role in social connections and influence within social media (Smith *et al.*, 2005; Zhang *et al.*, 2018).

2.1 Livestream commerce

Livestream commerce, a digital sales approach combining live video with real-time audience engagement, has rapidly evolved in recent years, reshaping e-commerce retailing (Xue and Liu, 2022). At the core of livestream commerce are live streamers who leverage live video presentations to engage audiences and promote products (Xie *et al.*, 2022). Ongoing research in livestream commerce has explored multifaceted factors influencing audience attitude and the performance of livestream commerce. Table 1 summarizes key empirical studies in this domain.

[Insert Table 1 about Here]

For instance, research on live streaming interfaces and functionalities explored the role of bullet-screen information (real-time viewer comments overlaid on videos; Wang *et al.*, 2022) and real-time interaction (Bao and Zhu, 2022; Breuer *et al.*, 2021) during livestream commerce. Studies on

audience dynamics have examined factors such as swift interpersonal relationships between live streamers and audiences (Guo *et al.*, 2021) and audiences' cognitive responses to livestream content (Ng *et al.*, 2022). In addition, research on product-related factors revealed how perceived values influence audience trust (Wongkitrungrueng and Assarut, 2020) and how diverse product presentation approaches of live streamers significantly affect their sales effectiveness (Chen *et al.*, 2022; Wongkitrungrueng *et al.*, 2020).

Particularly, the literature highlights the importance of live streamers' expertise and audience interaction in determining the success of livestream commerce. It is reported that professional knowledge exhibited by live streamers can help establish them as credible and trustworthy information sources (Hu and Chaudhry, 2020). Live streamers' expertise contributes to their opinion leadership and fosters favorable audience attitudes and intentions to follow and make purchases (Al-Emadi and Ben Yahia, 2020; Chen *et al.*, 2022; Liao *et al.*, 2023; Trivedi and Sama, 2020). Additionally, interaction plays a pivotal role in cultivating connections during livestreaming (Yang *et al.*, 2023). When live streamers engage with their audiences, they not only address product queries but also fulfill audiences' social and entertainment needs (Huang and Ma, 2024). Moreover, real-time interaction among viewers during live streaming enables the exchange of peer opinions, fostering a sense of community and building audience trust in livestream shopping (Smith *et al.*, 2005).

2.2 Homophily

The sociological theory of homophily posits its critical role in social interactions and their outcomes (Ertug *et al.*, 2022; Lawrence and Shan, 2020). The theory suggests that individuals are

naturally inclined to associate with similar others. These similarities, forming the basis of homophily, can be either attributed to features, such as gender, ethnicity, and age, or achieved characteristics, such as values, preferences, education or other life experiences (Lawrence and Shah, 2020; McPherson *et al.*, 2001). While some studies dissect and examine specific dimensions of homophily (Lawrence and Shah, 2020), most studies use an aggregate measure to assess homophily for focal individuals (Bunderson, 2003; Ertug *et al.*, 2022).

The management literature has extensively studied homophily and its consequences across the individual, dyad, team, organizational, and macro levels. A recent review by Ertug *et al.* (2022) summarizes two key mechanisms underlying the homophily effects. On the one hand, as prescribed by similarity-attraction theory (Byrne, 1971), homophily fosters smooth communication, coordination, positive affection, and attraction. On the other hand, it is associated with diminished diversity in knowledge and resources in social contacts. Consequently, the dominant effect of these mechanisms shapes the outcomes of social interactions, yielding either positive or negative effects (Wax *et al.*, 2017). For example, salespersons tend to share mutual gazes with customers who are similar (Arndt *et al.*, 2020) and their similarity increases sales effectiveness (Crosby *et al.*, 1990). However, homophily in social circles discourages the formation of social enterprise (Qureshi *et al.*, 2016).

In the social media context, influencer marketing studies have examined and established homophily as a determinant of influencer effectiveness (Ladhari *et al.*, 2020; Lee and Watkins, 2016; Lou and Yuan, 2019). For instance, Lee and Watkins (2016) confirmed that homophily bolsters parasocial interaction between the audience and YouTube video bloggers of luxury brands.

Moreover, homophily increases followers' trust in influencers (Kim and Kim, 2021; Ladhari *et al.*, 2020; Lou and Yuan, 2019). In livestream commerce, Chen *et al.* (2022) studied and reported that perceived similarity, along with perceived familiarity, likeability, and expertise, significantly influence the development of swift guanxi.

Additionally, influencer marketing research has discussed several constructs related to social influence, such as identification, conformity, and social presence. Unlike homophily, which emphasizes existing similarities in features (Ertug et al., 2022; Lawrence and Shah, 2020), identification and conformity involve adapting oneself within a social context. Identification refers to the psychological processes where an individual aligns with specific groups or role models, adopting their values, attributes, or behaviors as their own (Jenkin, 2014; Tajfel, 1982). Conformity pertains to changing one's behavior or beliefs to align with those of others (Cialdini and Goldstein, 2004; Lascu and Zinkhan, 1999), even if such behaviors contradict their personal beliefs or convictions (Trusov et al., 2010; Wang et al., 2012). Social presence refers to audiences' perception of being together with others in a mediated environment (Ledbetter and Meisner, 2021). While it does not inherently require interpersonal similarities, it is found to be enhanced by homophily (Nowak, 2013; Park et al., 2021). Our study focuses on homophily because it is grounded in sociodemographic similarities that facilitate easy communication and strong bonds (Figeac and Favre, 2023), without necessitating changes in personal identity or behavior (Ertug et al., 2022; Lawrence and Shan, 2020). This makes it suitable for our study on livestream commerce.

Despite its prominence and substantial impact, homophily and its effects remain underexplored in livestream commerce research. More notably, the extant literature on homophily has primarily

examined its direct effects on performance outcomes (Ertug *et al.*, 2022; Kim and Kim, 2021; Lawrence and Shan, 2020), but has rarely discussed its moderating role in altering the effects of communication factors.

3. Research Model and Hypotheses

This research inquiries into the influencing factors on audience trust and purchase intention in livestream commerce with a specific focus on homophily. Figure 1 presents our research model. Based on the livestream commerce literature, we formulate a base model, which depicts the impact of the perceived expertise of live streamers and perceived interaction during live streaming on audience trust in livestream shopping, which in turn influences purchase intention. Then, drawing on the sociological theory of homophily, we theorize the moderation effects of homophily on the impact of perceived expertise and perceived interaction on audience trust.

[Insert Figure 1 about Here]

3.1 Perceived expertise and audience trust

Live streamers' expertise in livestream commerce refers to the level of their professionalism in conveying high-quality product knowledge and offering useful consumption insights to their audience during product recommendations and sales (Al-Emadi and Ben Yahia, 2020; Guo *et al.*, 2022). Previous studies have underscored the importance of salespersons' expertise as a critical source of their credibility (Hughes *et al.*, 2019; Lou and Yuan, 2019). First, their knowledge about products and services contributes substantively to the overall quality of these offerings, influencing consumers' evaluations of products and their shopping experiences (Wongkitrungrueng and Assarut, 2020). In addition, salespersons' expertise serves as a prominent cue used by audiences

in their information assessment (Cheng *et al.*, 2023; Goldsmith *et al.*, 2000). Information provided by experts is perceived as more trustworthy than that from non-experts (Chaiken and Maheswaran, 1994).

In the context of social media, users seek expert opinions and high-quality information from social media influencers, especially when evaluating products or services for purchase considerations (Casaló *et al.*, 2020). Similarly, expertise is a crucial trait of live streamers (Lee and Wan, 2023; Wiedmann and von Mettenheim, 2020). Livestream commerce empowers live streamers to dynamically showcase their expertise during their product presentations. Live streamers who exhibit greater expertise can wield stronger opinion leadership. They effectively assist their audiences in finding suitable products, which builds and reinforces their audiences' trust in livestream shopping (Eisend and Langner, 2010). We hypothesize:

H1. The perceived expertise of live streamers is positively associated with audience trust in livestream shopping.

3.2 Perceived interaction and audience trust

Perceived interaction of live streaming refers to the extent of communication that audiences perceive with live streamers and fellow viewers during live streaming sessions. Real-time interaction is a vital element in livestream shopping (Deng *et al.*, 2023). Unlike conventional ecommerce, where consumers navigate product web pages independently, livestream commence features dynamic, real-time interaction, enhancing the shopping experience with high-quality information sharing and a sense of community (Maity and Dass, 2014). Specifically, live streamers

actively interact with audiences through various approaches (e.g., bullet screens) and promptly respond to product queries, thus fostering authenticity and immediacy (Alam *et al.*, 2023; Ma *et al.*, 2022) and nurturing a sense of trust (Asante *et al.*, 2024; Kim and Park, 2013). Moreover, as live streamers share personal experiences and opinions in real-time interactions, they fulfill audiences' psychological needs for socialization and entertainment, thereby cultivating a trustworthy bond (Asante *et al.*, 2024; Park and Lin, 2020). Audiences, on the other hand, engage in real-time interactions with both the live streamer and fellow viewers, forming a sense of community (Schneider *et al.*, 2019). Witnessing fellow viewers expressing interest in the recommended product, asking relevant questions, and sharing comments enhances audience confidence and trust in live streamers' recommendations (Berger, 2014).

Marketing research has highlighted that interactions among online sellers, shoppers, and within shopper communities can decrease consumers' perceived risk, cultivate their trust in sellers, and improve their engagement motivation (Farivar *et al.*, 2021; Gao *et al.*, 2023; Hilvert-Bruce *et al.*, 2018; Xue *et al.*, 2020; Zhao and Lu, 2012). Likewise, real-time interactions on live-streaming platforms offer viewers high-quality product information and nurture strong social connections, enhancing audience trust in livestream shopping. We hypothesize:

H2. Perceived interaction of live streaming is positively associated with audience trust in livestream shopping.

3.3 Audience trust and purchase intention

The concept of trust involves a willingness to take potential risks with another party, based on the expectation that the partner will be reliable and act with integrity (Mayer *et al.*, 1995; Morgan and Hunt, 1994). The trust and purchase intention correlation has been robustly documented in the marketing literature (Hampson *et al.*, 2021; Kim *et al.*, 2008; Lu *et al.*, 2016). For instance, Kim *et al.* (2008) reported that customers' perceived trust in online retailers is a key antecedent to their purchase intention in the context of electronic commerce. Similarly, studies on social media influencers have established that trust stimulates followers' confidence in influencers' product knowledge and recommendations, consequently impacting their purchase intentions (Farivar and Wang, 2022; Guo *et al.*, 2022; Kim and Kim, 2021; Thomas *et al.*, 2024).

In the domain of livestream commerce, trust assumes a critical role for several reasons. Unlike traditional shopping environments, virtual settings lack physical avenues for consumers to assess products firsthand and they rely on information provided by sellers and peer customers. This subjects them to a higher level of risk (Wang and Head, 2007). Additionally, in livestream commerce, the audience is presented with a limited window for product evaluation, with transactions occurring in real-time. Establishing trust is essential for viewers to feel confident in making purchase decisions with fleeting information and within time constraints (Wongkitrungrueng and Assarut, 2020). We hypothesize:

H3: Audience trust in livestream shopping is positively associated with their purchase intention.

3.4 Moderation effect of homophily

The diverse styles and personalities of live streamers attract a broad audience, resulting in varying levels of perceived homophily. These differing degrees of perceived homophily can significantly shape the influence of communication factors—specifically, the perceived expertise of live streamers and the perceived interaction—on audience trust in livestream shopping.

First, perceived homophily between audiences and live streamers may attenuate the positive effect of perceived live streamer expertise on audience trust. High levels of homophily cultivate a sense of relatability, prompting audiences to view live streamers more as peers than as distant or transactional salespersons (Claro *et al.*, 2020; Hsu, 2023). This relatability shifts audiences' expectations and trust-building mechanisms, reducing the emphasis on cognitive evaluations of expertise and instead prioritizing shared identity and relational connections (Hsu, 2023; Pentina and Taylor, 2010). The shared identity, characterized by aligned values and perspectives, can lead audiences to perceive that the streamer inherently understands their needs and preferences. This perceived understanding diminishes the reliance on expertise as a primary driver of trust. Moreover, high homophily fosters relational bonds, which audiences may value more than the streamer's authoritative knowledge as a foundation for trust (Leonhardt et al., 2020; Li et al., 2024). These bonds create an emotional connection that reorients trust from being primarily knowledge-based to being grounded in shared experiences and emotional alignment (De Salve et al., 2018; Ladhari et al., 2020). We hypothesize:

H4a. Homophily with live streamers negatively moderates the relationship between perceived expertise and audience trust, such that the positive effect of perceived expertise on audience trust diminishes when homophily is high.

Additionally, perceived homophily may positively moderate the impact of perceived interaction on audience trust. The homophily mechanism, as highlighted by Ertug *et al.* (2022), underscores its pivotal role in enhancing communication quality and fostering positive affect. High levels of homophily create a sense of personal resonance, shared perspectives, and mutual understanding during the communication process. This resonance encourages audiences to engage more deeply in interactions with live streamers during livestream shopping, heightening the perceived relevance and authenticity of both audience-streamer and audience-audience interactions (Kim *et al.*, 2018; Yu and Liao, 2023). Moreover, homophily shifts interactions from being purely transactional to relational, emphasizing emotional alignment and shared identity. Such interactions have a dual effect: they foster meaningful communication between streamers and audiences as well as cultivate a sense of community among the audience (Gao *et al.*, 2023; Xie *et al.*, 2022). This sense of community strengthens mutual understanding and shared experience, reinforcing emotional connections that act as a foundation for trust (Nejad and Amini, 2024). We hypothesize:

H4b. Homophily with live streamers positively moderates the relationship between perceived interaction and audience trust, such that the positive effect of perceived interaction on audience trust is more pronounced when homophily is high.

4. Methodology

4.1 Data collection

A survey was conducted with the audience of Taobao Live in China. Taobao Live is known as the origin of livestream shopping (Asia Media Centre, 2023) and its data and audience have been

commonly engaged in prior livestream commerce studies (Bao and Zhu, 2022; Chen *et al.*, 2022; Guo *et al.*, 2021; Zhang *et al.*, 2022). A questionnaire with three sections (screen questions, measurement items, and demographic information) was developed in English based on established measures in the literature and was subsequently translated into Chinese by a bilingual researcher. To verify the precision of the translations, the Chinese version was back-translated into English by another researcher and cross-checked with the original English version. The finalized Chinese questionnaire was used in the survey to guarantee comprehension among participants.

A pilot study with 15 participants was conducted to solicit feedback on the clarity of the questions and any potential issues. Minor modifications were made to refine the questionnaire accordingly. Advertisements were sent out through WeChat groups and moments to invite shoppers on Taobao Live to fill out the survey questionnaire. Participants were asked to think about their most recent livestream shopping session on Taobao Live while responding to the questionnaire.

A total of 345 participants completed the questionnaire within a two-week period. The questionnaire includes two screening questions to identify individuals with prior experience in Taobao livestream shopping. Out of the 345 responses, 9 were excluded because they answered "No" to the screening questions. Additionally, 23 responses were omitted for being completed in less than 30 seconds, a measure taken to ensure data integrity. This leaves a sample of 313 valid responses for analysis. Table 2 outlines the demographic profile of the sample: 39.3% were male (n=123), and 60.7% were female (n=190). A majority of respondents (72.8%) fell within the 18 to 25 age range (n=228). Moreover, 48.6% held bachelor's degrees (n=152) and 41.9% held master's degrees (n=131). Employment status revealed that 51.4% were working full-time (n=161), while

42.2% were not (n=132). Our sample is representative of the general livestream commerce customers.

[Insert Table 2 about Here]

4.2 Measures and control variables

To operationalize our constructs, we utilized established measurements from existing literature (Guo et al., 2022; Kim and Kim, 2021; Liu et al., 2023; Ma et al., 2022; Wongkitrungrueng and Assarut, 2020). Measurement items for each construct were pretested for adapting the livestream shopping context. This research involved five key variables: perceived expertise, perceived interaction, homophily, trust, and purchase intention. Table 3 summarizes all measurement items. Following the existing research (Ma et al., 2022), we deemed perceived interaction as a secondorder reflective construct, comprising two sub-constructs; audience-streamer interaction and audience-audience interaction. The measurement items for audience-streamer interaction were adapted from Ma et al. (2022) and Yang et al. (2023), and those for audience-audience interaction were from Libai et al. (2010) and Ma et al. (2022). In addition, we adapted perceived expertise from Guo et al. (2022) and Ohanian (1989) and homophily from Kim and Kim (2021) and Todri et al. (2021). The items of trust were drawn from Guo et al. (2021) and Wongkitrungrueng and Assarut (2020). We adapted purchase intention from Liu et al. (2023) and Lu et al. (2021). All items were assessed with a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7).

[Insert Table 3 about Here]

In addition, to accommodate undisclosed heterogeneity, we integrated a range of control variables. These include key demographic variables such as gender, age, educational background, and occupational status. We also controlled steamer experience level and their value offering, reported by respondents.

5. Results

We analyzed the data using SPSS (version 29) for general statistical analysis and to assess potential common method variance. The research model was evaluated using the partial least squares structural equation modeling (PLS-SEM) approach with SmartPLS 4.1 software (Sharma *et al.*, 2022). This component-based method does not necessitate multivariate normal data and is better suited for small sample sizes (Hulland, 1999). Additionally, PLS-SEM is adept at modeling complex relationships and is suitable for explorative-predictive research, aligning with our study (Hair *et al.*, 2021; Wetzels *et al.*, 2009). Furthermore, perceived interaction was treated as a second-order reflective-reflective construct. In line with the guidelines in the literature (Sarstedt *et al.*, 2019), we applied the repeated indicator approach, which assesses the second-order construct using all the indicators from the corresponding lower-order constructs.

5.1 Measurement model

This study assessed the measurement model for internal consistency reliability, and convergent and discriminant validity (Hair *et al.*, 2021). Table 4 summarizes the results. Internal consistency reliability for all constructs was assessed using composite reliability (CR), Cronbach's alpha (CA), and Rho_A, all of which surpassed the threshold of 0.65. Factor loadings for all measurement items were above the 0.70 threshold (Sarstedt and Cheah, 2019), affirming the reliability of the

construct scales. The average variance extracted (AVE) for each construct exceeded the 0.50 benchmark, confirming convergent validity. The square roots of AVE for each latent variable significantly exceed the correlation coefficients with other constructs, indicating good discriminant validity (Fornell and Larcker, 1981). Meanwhile, the heterotrait–monotrait ratio (HTMT) values were below 0.85 for all constructs, highlighting the clear differentiation between the constructs (Henseler *et al.*, 2014). In summary, the analysis results validated the reliability and validity of the measurement model.

[Insert Table 4 about Here]

We further assessed non-response error by comparing early and late responses (Armstrong and Overton, 1977), and found no significant differences in respondent compositions. Therefore, non-response bias is not a major concern in our study. Additionally, we conducted Harman's single-factor test to evaluate common method bias (Podsakoff *et al.*, 2003). The results indicated that no single construct accounted for more than 50% of the variance, confirming no significant common method bias in our dataset. Lastly, our analysis confirmed low multicollinearity, with all variance inflation factor (VIF) values under the critical threshold of 5 (Hair *et al.*, 2021), affirming the robustness of the data.

5.2 Structural model

We tested the structural model after assessing the adequacy of the measurement model. Fig. 2 illustrates the results. Table 5 provides comprehensive evidence supporting the hypotheses.

[Insert Figure 2 about Here]

[Insert Table 5 about Here]

The explanatory power of our research model was estimated by employing the coefficient of determination (R^2), effect size (f^2), and cross-validated redundancy (Q^2). The model substantially explains 63.2% and 66.4% of the variance in audience trust (R^2 = 0.632) and purchase intention (R^2 = 0.664), respectively, signifying strong explanatory power (Sharma *et al.*, 2022). Lower f^2 values in this study, in line with Cohen (2009), indicated reasonable impact sizes for our latent components. In addition, we adopted the PLSpredict and CVPAT methods in this study to evaluate predictive model performance (Hair *et al.*, 2021). All Q^2 values are greater than zero, validating the predictiveness of the model.

Specifically, the findings demonstrated that both perceived expertise (β = 0.307, p < .001) and perceived interaction (β = 0.278, p < .001) have significant, positive effects on audience trust, which significantly impacts purchase intention (β = 0.445, p < .001). These results support hypotheses H1, H2, and H3. In essence, enhancing the key attributes of live streamers leads to a notable increase in audience trust, and an increase in trust enhances purchase intention.

In addition, our results reveal significant moderation effects of homophily. The simple slope analysis was conducted to visualize the moderation (see Fig. 3). In detail, homophily negatively moderates the relationship between perceived expertise and audience trust (β = -0.137, p < .05), suggesting that higher levels of homophily will weaken the positive effect of perceived expertise on audience trust. H4a is supported. In contrast, homophily positively moderates the relationship between perceived interaction and audience trust (β = 0.176, p < .01), indicating higher levels of homophily will strengthen the positive effect of interaction on trust. H4b is supported. Therefore,

our results underscore the heterogeneous moderating effects of homophily in shaping the connections between the different attributes of livestream commerce and audience trust, providing valuable insights into livestream shopping.

[Insert Figure 3 about Here]

6. Discussions

This study inquires into the effect of homophily in livestream commerce. Drawing from the sociological theory of homophily and building on extant livestream commerce literature, it investigates the moderating role of homophily in altering the effects of key livestream commerce factors—perceived expertise of live streamers and perceived interaction of live streaming—on audience trust and subsequently purchase intentions. A survey was conducted among livestream shoppers on Taobao. The results confirm the relationships in our base model, i.e., perceived expertise of live streamers (H1) and perceived interaction (H2) positively affect audience trust in livestream shopping, which in turn contributes to purchase intention (H3). These results are in line with those in the livestream commerce literature (Chen *et al.*, 2022; Deng *et al.*, 2023; Gao *et al.*, 2023; Zhang *et al.*, 2022)

More important is the interesting differential effects of homophily. It negatively moderates the expertise-trust association (H4a) but positively moderates the interaction-trust relationship (H4b). When the audience perceives strong homophily with live streamers, their trust in livestream shopping becomes increasingly contingent on the level of interaction, while the effect of perceived expertise diminishes.

6.1 Theoretical implications

This study makes notable contributions to both the livestream commerce literature and homophily research. Firstly, it pioneers the investigation of homophily in the context of livestream commerce, enriching our understanding of its effectiveness and expanding the scope of homophily research. While existing research in livestream commerce has examined critical factors such as livestream functional features (Bao and Zhu, 2022), live streamer characteristics (Alam *et al.*, 2023; Chen *et al.*, 2022), product values and presentation modes (Wongkitrungrueng and Assarut, 2020), the prominent social phenomenon of homophily has been overlooked. By placing homophily at the forefront of livestream commerce research, this study significantly enhances our comprehension of live streamer effectiveness.

Secondly, the theoretical contribution of this study lies in its exploration of the interplay between homophily and communication factors in cultivating audience trust in livestream commerce. The management literature has extensively examined the direct effects of homophily across various social and organizational levels (Bunderson, 2003; Lawrence and Shah, 2020). However, research on its interplay with other factors at the individual and dyad levels has been limited (Ertug *et al.*, 2022; Qureshi *et al.*, 2016). Social media research, in particular, has predominantly focused on the direct effects of homophily, urging a deeper understanding of its moderating effects on other key variables (Ertug *et al.*, 2022; Kim and Kim, 2021). This study, by investigating the moderation role of homophily in the effects of communication factors, provides a more comprehensive perspective on this phenomenon.

Furthermore, the study introduces valuable substantive knowledge regarding homophily effects, uncovering a nuanced pattern of moderation. It highlights the negative moderation of homophily on the expertise-trust association and the positive moderation on the interaction-trust relationship. In instances of strong homophily with live streamers, audience trust becomes increasingly dependent on the level of interaction, while the impact of perceived expertise diminishes. This fresh insight aligns with audience tendencies to prioritize relatability and peer communication in scenarios characterized by high homophily.

6.2 Practical implications

Live streamers, brands, social media and digital marketers, and livestream retailing platforms can benefit from this study to build audience trust and drive sales. First, to effectively capture their audiences' homophily, live streamers should understand their audiences thoroughly, including demographics, interests, and values. This understanding enables them to create relevant shared content and engage in more interactions that reflect their similarities during live streaming. When the live streamer understands their audiences well and showcases products that align with their viewers' interests or needs, it could enhance their trust and increase their purchase intention. Meanwhile, live streamers should adopt a balanced strategy to demonstrate expertise while facilitating genuine interactions, reflecting homophily with their audiences. Although the streamers' expertise in their presentation is crucial, we suggest that streamers should engage more in personalized interactions, such as Q&A sessions, to highlight shared attributes or interests, rather than solely showcasing expertise. This dual approach can maximize audience trust and enhance the effectiveness of live streaming.

Second, our findings suggest that brands and social media marketers seeking streamer partnerships should select streamers who display high homophily with their followers. This type of live streamers, more experienced in building relationships with their audiences during live streaming sales, can create an ideal conversion rate from viewers to customers. Furthermore, for digital marketers responsible for cultivating and managing live streamers, we suggest developing training programs for streamers at different stages to help them customize their presentation styles with homophily during product demonstrations. For example, marketers could focus on guiding streamers to introduce products by reflecting the shared values, interests, or backgrounds so that audiences could subtly build a trusting relationship with live streamers and potentially increase purchase intention. Additionally, it is critical to train live streamers on strategically tailoring their expert knowledge and engaging with homogenous audiences, which can significantly enhance the effectiveness of live streaming.

Lastly, based on our findings, we suggest that livestream retailing platforms develop two features to enhance their operations. Firstly, platforms can improve their algorithms to better facilitate interaction based on homophily. This algorithm upgrade would enable the matching of viewers with live streamers who share similar traits or interests and further promote the creation of interest-based communities, such as forums or exclusive group chats. Such community features facilitate interactions between live streamers and their homogenous audiences, thereby fostering trust relationships and enhancing sales effectiveness. Secondly, platforms can offer holistic analytics features to help streamers better understand their audiences. For instance, this analytics tool can provide insights into the audience's viewing preferences and interactions with other live streamers.

This upgraded feature will benefit live streamers for optimizing their content to better fit their audience's preferences.

6.3 Limitations and future research

As with all empirical studies, this research has a few limitations. We acknowledge the following limitations of this study to suggest future research. First, our sample was limited to participants in China; our findings can be further validated with a more diverse sample (e.g., a cross-cultural sample). Second, our study focused solely on Taobao Live platform, while various live streaming platforms (such as Amazon Live or TikTok Live) have emerged in recent years. It would be interesting for future research to compare these different platforms to confirm our findings. Furthermore, we used "intention" as a proxy for actual behavior. Although it is an effective and commonly applied proxy in the business literature (Alam *et al.*, 2023; Babiran *et al.*, 2024; Farivar and Wang, 2022), we suggest that future research can directly measure actual behavior.

Additionally, interaction in livestream commerce is multi-dimensional. This study categorizes interaction based on the parties involved, including sub-constructs of audience-streamer interaction and audience-audience interaction (Ma *et al.*, 2022; Yang *et al.*, 2023). However, there are alternative ways to assess the multi-dimensional aspects. These include examining different informational dimensions such as product information, monetary information, and dynamics of other users' purchases, each of which may differentially affect audiences' utilitarian and hedonic values (Wongkitrungrueng and Assarut, 2020). Future research could explore alternative methods for measuring interaction dimensions, potentially providing deeper insights into the dynamics of livestream shopping.

Furthermore, as one of the first studies discussing homophily in the domain of livestream commerce, we primarily focus on the moderating effect of homophily with two key livestream commerce factors. Given the inherently dynamic nature of human behavior during live streaming, we recommend that future scholars conduct longitudinal studies to examine how the interaction effect between streamers' characteristics and homophily on audience trust dynamically evolves might vary ac, and practitioners in sp. over time. Lastly, our study did not focus on specific product or service categories. We call for future research to explore if our findings might vary across different types of goods, which can provide nuanced insights for marketers and practitioners in specific industries.

Reference

- Al-Emadi, F.A. and Ben Yahia, I. (2020). Ordinary celebrities related criteria to harvest fame and influence on social media. *Journal of Research in Interactive Marketing*, 14(2), 195–213.
- Alam, S.S., Masukujjaman, M., Makhbul, Z.K.M., Ali, M.H., Omar, N.A., and Siddik, A.B. (2023). Impulsive hotel consumption intention in live streaming E-commerce settings: Moderating role of impulsive consumption tendency using two-stage SEM. *International Journal of Hospitality Management*, 115, 103606.
- Alibaba Group. (2024). *Alimama: Marketing Technology Platform*. Available at: https://www.alimama.com/index.htm (Accessed: 29 November 2024).
- Alvarez, K., and Van Leeuwen, E. (2011). To teach or to tell? Consequences of receiving help from experts and peers. *European Journal of Social Psychology*, 41(3), 397-402.
- Ameen, N., Hosany, S., and Taheri, B. (2023). Generation Z's psychology and new-age technologies: Implications for future research. *Psychology & Marketing*, 40(10), 2029-2040.
- Ang, T., Wei, S. and Anaza, N.A. (2018). Livestreaming vs pre-recorded: How social viewing strategies impact consumers viewing experiences and behavioral intentions. *European Journal of Marketing*, 52(9/10), 2075–2104.
- Armstrong, J.S. and Overton, T.S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(3), 396–402.
- Arndt, A.D., Khoshghadam, L. and Evans, K. (2020). Who do I look at? Mutual gaze in triadic sales encounters. *Journal of Business Research*, 111, 91–101.
- Asante, I.O., Jiang, Y., and Miao, M. (2024). Exploring the motivating factors for using live-streaming and their influence on consumers' hedonic well-being: The mediating effect of psychological engagement. *Psychology & Marketing*, 41(1) 27-44.
- Asia Media Centre (2023). *The rise of live shopping in China*. Available at: https://www.asiamediacentre.org.nz/news/on-the-radar-the-rise-of-live-shopping/#:~:text=29%20March%202023-,China%20has%20become%20the%20centre%20f or%20one%20of%20the%20fastest,online%2C%20especially%20over%20the%20pandemic. (Accessed: 04 October 2023).
- Dabiran, E., Farivar, S., Wang, F., and Grant, G. (2024). Virtually human: anthropomorphism in virtual influencer marketing. *Journal of Retailing and Consumer Services*, 79, 103797.
- Bao, Z. and Zhu, Y. (2022). Understanding customers' stickiness of live streaming commerce platforms: An empirical study based on modified e-commerce system success model. *Asia Pacific Journal of Marketing and Logistics*, 35(3), 775–793.
- Berger, J. (2014). Word of mouth and interpersonal communication: A review and directions for future research. *Journal of Consumer Psychology*, 24(4), 586–607.
- Breuer, C., Rumpf, C., and Boronczyk, F. (2021). Sponsor message processing in live broadcasts—A pilot study on the role of game outcome uncertainty and emotions. *Psychology and Marketing*, 38(5), 896-907.
- Bunderson, J.S. (2003). Team member functional background and involvement in management teams: Direct effects and the moderating role of power centralization. *Academy of Management Journal*, 46(4), 458–474.
- Byrne, D. (1971). The Attraction Paradigm. New York, NY: Academic Press.
- Casaló, L.V., Flavián, C., and Guinalíu, M. (2007). Promoting consumer's participation in virtual brand communities: A new paradigm in branding strategy. *Journal of Marketing Communications*, 14(1), 19–36.

- Casaló, L.V., Flavián, C. and Ibáñez-Sánchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, 117, 510–519.
- Cialdini, R. B., and Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, 55, 591-621.
- Claro, D.P., Ramos, C., Gonzalez, G.R., and Palmatier, R.W. (2020). Dynamic effects of newcomer salespersons' peer relational exchanges and structures on performance. *International Journal of Research in Marketing*, 37(1), 74-92.
- Chaiken, S. and Maheswaran, D. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology*, 66(3), 460–473.
- Champagne, I. (2022). China's top e-commerce influencer Li Jiaqi disappeared for three months, but the 'Lipstick king' is back, SmartCompany. Available at: https://www.smartcompany.com.au/marketing/social-media/china-lipstick-king-li-jiaqi-returns-after-mysterious-disappearance/ (Accessed: 17 October 2023).
- Chen, H., Zhang, S., Shao, B., Gao, W., and Xu, Y. (2022). How do interpersonal interaction factors affect buyers' purchase intention in live stream shopping? The mediating effects of swift guanxi. *Internet Research*, 32(1), 335-361.
- Chen, Y.M., Liu, H.H., and Chiu, Y.C. (2017). Customer benefits and value creation in streaming services marketing: A managerial cognitive capability approach. *Psychology & Marketing*, 34(12), 1101-1108.
- Cheng, Z., Plangger, K., Cai, F., Campbell, C.L., and Pitt, L. (2023). Charting value creation strategies B2B salespeople use throughout the sales process: Learning from social media influencers. *European Journal of Marketing*, 57(3), 718-744.
- Cohen, J. (2009). Statistical Power Analysis for the behavioral sciences. New York, NJ: Psychology Press.
- Crosby, L.A., Evans, K.R. and Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3), 68-81.
- Deng, F., Lin, Y. and Jiang, X. (2023). Influence mechanism of consumers' characteristics on impulsive purchase in e-commerce livestream marketing. *Computers in Human Behavior*, 148, 107894.
- De Salve, A., Guidi, B., Ricci, L., and Mori, P. (2018). Discovering homophily in online social networks. *Mobile Networks and Applications*, 23(6), 1715–1726.
- Eisend, M. and Langner, T. (2010). Immediate and delayed advertising effects of celebrity endorsers' attractiveness and expertise. *International Journal of Advertising*, 29(4), 527–546.
- Ertug, G., Brennecke, J., Kovács, B., and Zou, T. (2022). What does homophily do? A review of the consequences of homophily. *Academy of Management Annals*, 16(1), 38-69.
- Farivar, S. and Wang, F. (2022). Effective influencer marketing: A social identity perspective. *Journal of Retailing and Consumer Services*, 67, 103026.
- Farivar, S., Wang, F. and Yuan, Y. (2021). Opinion leadership vs. para-social relationship: Key factors in influencer marketing. *Journal of Retailing and Consumer Services*, 59, 102371.
- Figeac, J., and Favre, G. (2023). How behavioral homophily on social media influences the perception of tie-strengthening within young adults' personal networks. *New Media & Society*, 25(8), 1971–1990.
- Fornell, C. and Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

- Gao, W., Jiang, N. and Guo, Q. (2023). How do virtual streamers affect purchase intention in the live streaming context? A presence perspective. *Journal of Retailing and Consumer Services*, 73, 103356.
- Goel, S., Mason, W., & Watts, D. J. (2010). Real and perceived attitude agreement in social networks. *Journal of Personality and Social Psychology*, 99(4), 611–621.
- Goldsmith, R.E., Lafferty, B.A. and Newell, S.J. (2000). The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising*, 29(3), 43–54.
- Guo, L., Hu, X., Lu, J., and Ma, L. (2021). Effects of customer trust on engagement in live streaming commerce: Mediating role of swift guanxi. *Internet Research*, 31(5), 1718-1744.
- Guo, Y., Zhang, K. and Wang, C. (2022). Way to success: Understanding top streamer's popularity and influence from the perspective of source characteristics. *Journal of Retailing and Consumer Services*, 64, 102786.
- Gupta, P., Burton, J.L. and Costa Barros, L. (2022). Gender of the online influencer and follower: The differential persuasive impact of homophily, attractiveness and product-match. *Internet Research*, 33(2), 720–740.
- Hair Jr, J., Hair Jr, J.F., Hult, G.T.M., Ringle, C.M., and Sarstedt, M. (2021). A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications.
- Hampson, D.P., Gong, S., and Xie, Y. (2021). How consumer confidence affects price conscious behavior: The roles of financial vulnerability and locus of control. *Journal of Business Research*, 132, 693-704.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Hilvert-Bruce, Z., Neill, J. T., Sjöblom, M., and Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, 84, 58-67.
- Hsu, L.C. (2023). Enhancing relationship strategies with the live stream influencers. *Marketing Intelligence & Planning*, Vol. 41 No. 2, pp. 141-155.
- Hu, M. and Chaudhry, S.S. (2020). Enhancing consumer engagement in e-commerce live streaming via relational bonds. *Internet Research*, 30(3), 1019–1041.
- Huang, L. and Ma, L. (2024). A protective buffer or a double-edged sword? Investigating the effect of "parasocial guanxi" on consumers' complaint intention in live streaming commerce. *Computers in Human Behavior*, 151, 108022.
- Huang, Y., Shen, C., & Contractor, N. S. (2013). Distance matters: Exploring proximity and homophily in virtual world networks. *Decision Support Systems*, 55(4), 969–977.
- Hughes, C., Swaminathan, V., and Brooks, G. (2019). Driving brand engagement through online social influencers: An empirical investigation of sponsored blogging campaigns. *Journal of Marketing*, 83(5), 78–96.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195–204.
- Jenkins, R. (2014). Social identity. Routledge.
- Kim, D.J., Ferrin, D.L. and Rao, H.R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544–564.
- Kim, D.Y. and Kim, H.Y. (2021). Trust me, trust me not: A nuanced view of influencer marketing on social media. *Journal of Business Research*, 134, 223–232.

- Kim, S., Kandampully, J. and Bilgihan, A. (2018). The influence of EWOM communications: An application of online social network framework. *Computers in Human Behavior*, 80, 243–254.
- Kim, S. and Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33(2), 318–332.
- Ladhari, R., Massa, E., and Skandrani, H. (2020). YouTube vloggers' popularity and influence: The roles of homophily, emotional attachment, and expertise. *Journal of Retailing and Consumer Services*, 54, 102027.
- Lascu, D.N., and Zinkhan, G. (1999). Consumer conformity: Review and applications for marketing theory and practice. *Journal of Marketing Theory and Practice*, 7(3), 1-12.
- Lawrence, B.S. and Shah, N.P. (2020). Homophily: Measures and meaning. *Academy of Management Annals*, 14(2), 513–597.
- Ledbetter, A.M., and Meisner, C. (2021). Extending the personal branding affordances typology to parasocial interaction with public figures on social media: Social presence and media multiplexity as mediators. *Computers in Human Behavior*, 115, 106610.
- Lee, D. and Wan, C. (2023). The impact of mukbang live streaming commerce on consumers' overconsumption behavior. *Journal of Interactive Marketing*, 58(2–3), 198–221.
- Lee, J.E. and Watkins, B. (2016). YouTube vloggers' influence on consumer luxury brand perceptions and intentions. *Journal of Business Research*, 69(12), 5753–5760.
- Leonhardt, J.M., Pezzuti, T., and Namkoong, J.-E. (2020). We're not so different: Collectivism increases perceived homophily, trust, and seeking user-generated product information. *Journal of Business Research*, *112*, 160–169.
- Li, L., Chen, X., and Zhu, P. (2024). How do e-commerce anchors' characteristics influence consumers' impulse buying? An emotional contagion perspective. *Journal of Retailing and Consumer Services*, 76, 103587.
- Liao, J., Chen, K., Qi, J., Li, J., and Yu, I.Y. (2023). Creating immersive and parasocial live shopping experience for viewers: The role of streamers' interactional communication style. *Journal of Research in Interactive Marketing*, 17(1), 140-155.
- Libai, B., Bolton, R., Bügel, M.S., de Ruyter, K., Götz, O., Risselada, H., and Stephen, A.T. (2010). Customer-to-customer interactions: Broadening the scope of word of mouth research. *Journal of Service Research*, 13(3), 267-282.
- Liu, Z., Li, J., Wang, X., and Guo, Y. (2023). How search and evaluation cues influence consumers' continuous watching and purchase intentions: An investigation of live-stream shopping from an information foraging perspective. *Journal of Business Research*, 168, 114233.
- Lou, C. and Yuan, S. (2019). Influencer marketing: How message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*, 19(1), 58–73.
- Lu, S., Yao, D., Chen, X., and Grewal, R. (2021). Do larger audiences generate greater revenues under pay what you want? Evidence from a live streaming platform. *Marketing Science*, 40(5), 964-984.
- Ma, X., Zou, X., and Lv, J. (2022). Why do consumers hesitate to purchase in live streaming? A perspective of interaction between participants. *Electronic Commerce Research and Applications*, 55, 101193.
- Maity, M. and Dass, M. (2014). Consumer decision-making across modern and traditional channels: E-commerce, m-commerce, in-store. *Decision Support Systems*, 61, 34–46.

- Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709–734.
- McPherson, M., Smith-Lovin, L. and Cook, J.M. (2001). Birds of a feather: Homophily in Social Networks. *Annual Review of Sociology*, 27(1), 415–444.
- Morgan, R.M. and Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Nejad, M. G., & Amini, M. (2024). Designing profitable seeding Programs: The effects of social network properties and consumer homophily. *Journal of Business Research*, 173, 114496.
- Ng, M., Law, M., Lam, L., and Cui, C. (2023). A study of the factors influencing the viewers' satisfaction and cognitive assimilation with livestreaming commerce broadcast in Hong Kong. *Electronic Commerce Research*, 23(3), 1565-1590.
- Nowak, K.L. (2013). Choosing Buddy Icons that look like me or represent my personality: Using Buddy Icons for social presence. *Computers in Human Behavior*, 29(4), 1456-1464.
- Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*, 19(3), 39–52.
- Ou, C.X., Pavlou, P.A., and Davison, R.M. (2014). Swift guanxi in online marketplaces: The role of computer-mediated communication technologies. *MIS Quarterly*, 38(1), 209–230.
- Park, H.J. and Lin, L.M. (2020). The effects of match-ups on the consumer attitudes toward internet celebrities and their live streaming contents in the context of product endorsement. *Journal of Retailing and Consumer Services*, 52, 101934.
- Park, J.Y., Back, R.M., Bufquin, D., and Nutta, M.W. (2021). Attraction, social presence, sociability, and booking intentions: The moderating role of homophily. *Journal of Hospitality & Tourism Research*, 45(6), 1044-1068.
- Pentina, I., and Taylor, D.G. (2010). Exploring source effects for online sales outcomes: The role of avatar-buyer similarity. *Journal of Customer Behaviour*, 9(2), 135-150.
- Plangger, K., Hao, J., Wang, Y., Campbell, C., and Rosengren, S. (2021). Exploring the value of shoppable live advertising: Liveness and shoppability in advertising media and future research avenues. *Journal of Advertising Research*, 61(2), 129-132.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., and Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Qureshi, I., Kistruck, G.M. and Bhatt, B. (2016). The enabling and constraining effects of social ties in the process of institutional entrepreneurship. *Organization Studies*, 37(3), 425–447.
- Sánchez-Fernández, R., and Jiménez-Castillo, D. (2021). How social media influencers affect behavioural intentions towards recommended brands: The role of emotional attachment and information value. *Journal of Marketing Management*, 37(11–12), 1123–1147.
- Sarstedt, M., Hair, J.F., Cheah, J.-H., Becker, J.-M., and Ringle, C.M. (2019). How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal*, 27(3), 197-211.
- Schneider, D., Klumpe, J., Adam, M., and Benlian, A. (2020). Nudging users into digital service solutions. *Electronic Markets*, 30, 863-881.
- Sharma, P.N., Liengaard, B.D., Hair, J.F., Sarstedt, M., and Ringle, C.M. (2022). Predictive model assessment and selection in composite-based modeling using PLS-SEM: Extensions and guidelines for using CVPAT. *European Journal of Marketing*, 57(6), 1662–1677.
- Smith, D., Menon, S. and Sivakumar, K. (2005). Online peer and editorial recommendations, trust, and choice in virtual markets. *Journal of Interactive Marketing*, 19(3), 15–37.

- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, *33*(1), 1–39.
- Thomas, V.L., Fowler, K., and Taheran, F. (2024). How social media influencer collaborations are perceived by consumers. *Psychology & Marketing*, 41(1), 168-183.
- Todri, V., Adamopoulos, P. and Andrews, M. (2021). Is distance really dead in the online world? The moderating role of geographical distance on the effectiveness of electronic word of mouth. *Journal of Marketing*, 86(4), 118–140.
- Trivedi, J. and Sama, R. (2019). The effect of influencer marketing on consumers' brand admiration and online purchase intentions: An emerging market perspective. *Journal of Internet Commerce*, 19(1), 103–124.
- Trusov, M., Bodapati, A.V., and Bucklin, R.E. (2010). Determining influential users in Internet social networks. *Journal of Marketing Research*, 47(4), 643–658.
- Wang, D., Luo, X.R., Hua, Y., and Benitez, J. (2022). Big arena, small potatoes: A mixed-methods investigation of atmospheric cues in live-streaming e-commerce. *Decision Support Systems*, 158, 113801.
- Wang, X., Yu, C., and Wei, Y. (2012). Social media peer communication and impacts on purchase intentions: A consumer socialization framework. *Journal of Interactive Marketing*, 26(4), 198–208.
- Wang, F. and Head, M. (2007). How can the web help build customer relationships? An empirical study on e-tailing. *Information & Management*, 44(2), 115-129.
- Wax, A., DeChurch, L.A. and Contractor, N.S. (2017). Self-organizing into winning teams: Understanding the mechanisms that drive successful collaborations. *Small Group Research*, 48(6), 665–718.
- Wetzels, M., Odekerken-Schröder, G. and van Oppen, C. (2009). Using PLS PATH modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly*, 33(1), 177–195.
- Wiedmann, K.-P. and von Mettenheim, W. (2020). Attractiveness, trustworthiness and expertise social influencers' winning formula? *Journal of Product & Brand Management*, 30(5), 707–725.
- Wongkitrungrueng, A. and Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556.
- Wongkitrungrueng, A., Dehouche, N. and Assarut, N. (2020). Live streaming commerce from the sellers' perspective: Implications for online relationship marketing. *Journal of Marketing Management*, 36(5–6), 488–518.
- Xie, C., Yu, J., Huang, S.S., and Zhang, J. (2022). Tourism e-commerce live streaming: Identifying and testing a value-based marketing framework from the live streamer perspective. *Tourism Management*, 91, 104513.
- Xue, J. and Liu, T. (2022). Investigating the live streaming sales from the perspective of the ecosystem: The structures, processes and value flow. *Asia Pacific Journal of Marketing and Logistics*, 35(5), 1157–1186.
- Xue, J., Liang, X., Xie, T., and Wang, H. (2020). See now, act now: How to interact with customers to enhance social commerce engagement? *Information & Management*, 57(6), 103324.
- Yang, Q., Huo, J., Li, H., Xi, Y., and Liu, Y. (2023). Can social interaction-oriented content trigger viewers' purchasing and gift-giving behaviors? Evidence from live-streaming commerce. *Internet Research*, 33(7), 46-71.

- Yu, C. and Liao, W. (2023). Professionalism and homophily bias: A study of airbnb stay choice and review positivity. *International Journal of Hospitality Management*, 110, 103433.
- Zaglia, M.E. (2013). Brand communities embedded in social networks. *Journal of Business Research*, 66(2), 216-223.
- Zhang, H., Fam, K.S., Goh, T.T., and Dai, X. (2018). When are influentials equally influenceable? The strength of strong ties in new product adoption. *Journal of Business Research*, 82, 160-170
- Zhang, M., Liu, Y., Wang, Y., and Zhao, L. (2022). How to retain customers: Understanding the role of trust in live streaming commerce with a socio-technical perspective. *Computers in Human Behavior*, 127, 107052.
- Zhao, L. and Lu, Y. (2012). Enhancing perceived interactivity through network externalities: An empirical study on micro-blogging service satisfaction and continuance intention. *Decision Support Systems*, 53(4), 825–834.
- e at: 1. 1t%20with,1 J23). Zhou, V. and Tobin, M. (2022). The mysterious reappearance of China's missing megainfluencer, Rest of World. Available at: https://restofworld.org/2022/the-return-of-austinli/#:~:text=In%20a%202018%20stunt%20with,Festival%202018%20in%20Shanghai%2C%2 0China (Accessed: 10 November 2023).

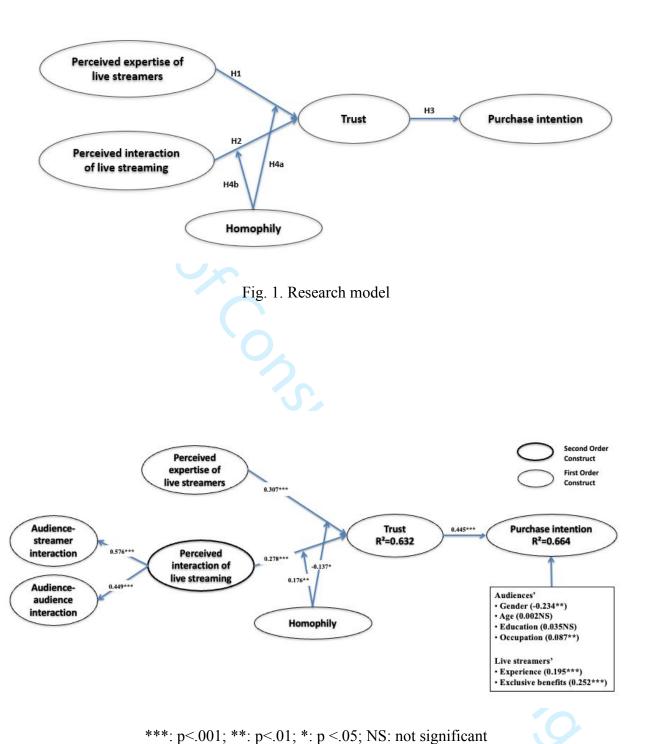


Fig. 2. Structure model

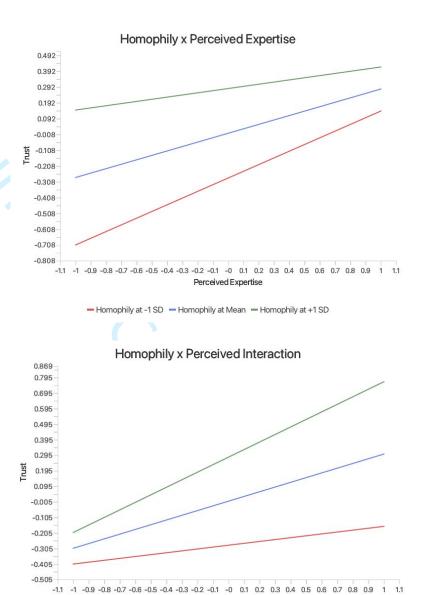


Fig. 3. Simple slope analysis

- Homophily at -1 SD - Homophily at Mean - Homophily at +1 SD

Perceived Interaction

Study	Context	Influencing factors	Dependent and mediating variables	Key findings relevant to this study			
		Interaction, vividness, diagnosticity	Perceived value, satisfaction, stickiness intention toward livestream commerce platforms	Perceived interaction affects perceived value and customer satisfaction toward a live streaming commerce platform, and then customers' stickiness intention.			
Chen et al. (2021)	Survey; Taobao Live	Perceived expertise, similarity, familiarity, and likeability	Swift guanxi, purchase intention	Streamer expertise works as an interpersonal interaction factor to influence audiences' purchase intention.			
Guo et al. (2021)	Survey; Taobao Live	Trust	Swift guanxi, customer engagement	Trust influences swift guanxi, and then customer engagement.			
Lee and Wan (2023)	Experiment	Influencer variables (e.g., attractiveness), content type, and platform variables (e.g., product info.)	Perceived values, impulse consumption and purchase intention, overconsumption behavior	Livestream variables affect perceived values.			
1 120 <i>et al.</i> (2022) Survey		Streamer interaction orientation	Immersion, parasocial interaction, purchase intention	Streamer interaction orientation positively influences viewer immersion and parasocial interaction. Streamer expertise moderates the relationship between interaction orientation and viewer immersion.			
Wang et al. (2022)	Interview and survey	Atmospheric cues (guidance info., bullet info., and parasocial interaction)	Brand experience, purchase intention	Atmospheric cues influence viewers' dynamic brand experience.			
Yan <i>et al.</i> (2022) Survey perceived		Influencer credibility, perceived entertainment, trust	Attitude toward influencer ads; urge to buy impulsively	Influencer credibility, perceived entertainment, and trust influence attitude toward influencer ads.			

Yang et al. (2023)	Survey; Douyin	Social-interaction- oriented content; broadcaster popularity	Purchasing behavior; gift-giving behavior	Social-interaction-oriented content affects purchasing and gift-giving behaviors and these effects are moderated by broadcaster popularity.		
Zhang et al. (2022)	Survey; Taobao Live	Active control, synchronicity, two- way communication, personalization, visibility	Trust in streamers, trust in products, continuance intention	Social enabler factors (e.g., two-way communication) enhances trust in streamers, which leads to trust in products and continuance intention.		
This study	Survey; Taobao Live	Streamer expertise, interaction, homophily	Trust, purchase intention	The differential moderation effects of homophily: it negatively moderates the expertise-trust association but positively moderates the interaction-trust relationship.		

Table 1. Key empirical studies on influencing factors in livestream commerce

Table 2. Demographic profile

Variables	Items	Frequency	Percentage (%)
	Male	123	39.3
Gender	Female	190	60.7
	Prefer not to say	0	0
	18-25	228	72.8
	26-35	61	19.5
Age	>35	18	5.8
	Prefer not to say	6	1.9
	High school and below	18	5.8
7.	Undergraduate	152	48.6
Education	Graduate and above	131	41.9
	Prefer not to say	12	3.8
	Full-time working	161	51.4
Vork status	Not full-time working	132	42.2
	Prefer not to say	20	6.4
	Total	313	100

Table 3. Variable measurement items

Perceived expertise (A	dapted fro	om Guo <i>et al.</i> , 2022; Ohanian, 1989)					
PE1 This streamer is an expert on promoting sales in live streams.							
PE2 This streamer is experienced in live streaming and sales.							
PE3 This streamer is knowledgeable about products he/she promotes.							
PE4 This streamer provides substantial information regarding products.							
Perceived interaction (Adapted f	rom Libai et al., 2010; Ma et al., 2022; Yang et al., 2023)					
	SI1	Through live streaming, I can interact with the live streamer in real time.					
Audience-streamer	SI2	When shopping in live streaming, the streamer can reply to my questions and comments in time.					
interaction	SI3	When shopping in live streaming, the streamer's reply is closely related to my question.					
	SI4	When shopping in live streaming, the streamer's reply can meet my needs.					
A 1' 1'	AI1	In live streaming, I can interact with other audiences.					
Audience-audience interaction	AI2	In live streaming, audiences can share their own shopping experience.					
interaction	AI3	In live streaming, audiences can communicate with each other about their product experience.					
Homophily (Adapted 1	from Kim	and Kim, 2021; Todri <i>et al.</i> , 2021)					
H1		The values of this live streamer closely resemble mine.					
H2		The personality of this live streamer closely aligns with mine.					
Н3							
Trust (Adapted from C	Buo et al., Z	2021; Wongkitrungrueng and Assarut, 2020)					
T1		I trust the information provided by this live streamer.					
T2		I believe that this streamer is trustworthy.					
T3 I have faith that the products I receive will be as described and showcased by the live strea							
Purchase intention (Ac	dapted fror	n Liu <i>et al.</i> , 2023; Lu <i>et al.</i> , 2021)					
PI1		I am likely to make purchases through this live streamer.					
PI2	I intend to make purchases through this live streamer.						
PI3		I would consider making purchases through this live streamer in the future.					

Table 4. Assessment of measurement model

Constructs	Item	FL	VIF	CR	CA	Rho_A	AVE	1	2	3	4	5
	PE1	0.823	2.345		0.884	0.892	0.744	0.862				
1. Domoniyad ayanatiga	PE2	0.808	2.014	0.920								
1. Perceived expertise	PE3	0.879	2.501									
	PE4	0.935	4.246									
	SI1	0.746 (0.812+)	2.126		0.919	0.920	0.674	0.763				
	SI2	$0.776 (0.800^{+})$	2.100									
	SI3	$0.849 (0.852^{+})$	2.174									
2. Perceived interaction*	SI4	$0.826 (0.801^{+})$	2.007	0.935					0.821			
	AI1	$0.807 (0.824^{+})$	1.669									
	AI2	0.887 (0.909*)	2.671									
	AI3	0.848 (0.893+)	2.507									
	H1	0.925	3.266									
3. Homophily	H2	0.918	3.074	0.939	0.903	0.903	0.837	0.750	0.730	0.915		
	H3	0.902	2.515									
	T1	0.926	3.285									
4. Trust	T2	0.930	3.395	0.950	0.921	0.921	0.864	0.790	0.731	0.760	0.929	
	T3	0.931	3.499									
	PI1	0.910	2.822					0.786	0.767			
5. Purchase intention	PI2	0.933	3.633	0.938	0.900	0.901	0.834			0.812	0.837	0.913
9	PI3	0.897	2.549					4				

Note: *: second-order construct (reflective-reflective); *: second-order construct loadings; N=313; FL=factor loading; VIF=variance inflation factor; CR=composite reliability; CA=Cronbach's alpha; AVE=average variance extracted. The bold numbers on the diagonal are the square root of the AVE of the corresponding variable.

Table 5. Assessment of structural model

Hypothesized								
relationships	Path Coefficient	Significance (p-value)	95% CI	f^2	\mathbb{R}^2	Q^2	Conclusion	
H1: PE \rightarrow T (+)	0.307***	0.000	[0.181, 0.435]	0.103	0.632	0.613	Supported	
H2: PIA \rightarrow T (+)	0.278***	0.000	[0.142, 0.410]	0.086			Supported	
H3: $T \rightarrow PI (+)$	0.445***	0.000	[0.332, 0.563]	0.236	0.664	0.626	Supported	
H4a: H * PE \rightarrow T (-)	-0.137*	0.027	[-0.264, -0.016]	0.022			Supported	
H4b: H * PIA \rightarrow T (+)	0.176**	0.005	[0.046, 0.299]	0.041			Supported	

Note. PE=perceived expertise; PIA=perceived interaction; T=trust; PI=purchase intention; H=homophily. .001; **: p<.01; *: p<.05.

CI=confidence interval. ***: p<.001; **: p<.01; *: p<.05.

Response Letter to the Reviewers' Comments (JCM-03-2024-6668.R1) "When We are Alike: Homophily in Livestream Commerce"

We sincerely thank the editors and reviewers for your review and valuable feedback, which have significantly helped us improve the quality of the manuscript. In this revision, we have carefully addressed the review comments and made corresponding revisions throughout the paper. We respond to each comment and summarize our revisions below. The reviewers' comments are in italics.

Response to Associate Editor

Review Comment:

We have now received two positive reviews of your manuscript. To expedite the publication process, we aim to make this the final round of revisions.

Please focus on Reviewer #2's comments should you choose to revise and resubmit.

- 1. Reviewer #2 suggests reconsidering the use of "indirect effects of homophily" throughout the manuscript. As your analysis focuses on a moderating effect, the term "indirect" may be confusing.
- 2. Please correct the typographical error where "H5" appears towards the end of the manuscript.
- 3. Reviewer #2 recommends strengthening the argument for the selection of settings 4a and 4b, given their importance to your research.

We look forward to receiving your revised manuscript. Thank you for your continued engagement with this work.

Response:

Thank you for your review and the valuable guidance and support throughout this process. We have carefully revised the manuscript to address Reviewer 2's comments. In summary:

- We have replaced "indirect effect" with "moderating effect".
- We have corrected the typographical error, replacing "H5" with "H4b".
- We have strengthened the arguments for H4a and H4b.

For further details, please refer to our specific replies to Reviewer 2's comments. We hope that this revision is satisfactory.

Thank you once again for your thoughtful feedback and continued support.

Response to Reviewer 2 *Review Comment:*

The manuscript provides novel and interesting insights into the timely and growing phenomenon of livestreaming commerce through the focus on homophily. Overall, the author(s) have done a great job on this paper and have done well in addressing the comments of previous reviewers. I have a few issues to consider:

1. One of the key contributions that is mentioned quite a few times throughout the paper refers to the need to further examine the indirect effects of homophily. Despite this, the study does not

test this, and an indirect effect is not examined. Only the direct effects of the IV on mediator, mediator on DV, and interaction on mediator are reported.

Response:

Thank you for bringing this to our attention. We agree with you and apologize for the inaccuracy in the description. In response, we have revised all instances of "indirect effect" to "moderating effect".

Review Comment:

2. There is quite a bit of build up to the hypothesis development of the main effects (which though good are not the most interesting part of the paper), while the logic behind the hypotheses for the interaction effects (the most substantial contribution of the paper) are lacking. A bit more clarity on the logic for the expectations of 4a and 4b would benefit the paper.

Response:

Thank you for this valuable feedback. In this revision, we have strengthened the arguments for H4a and H4b and further clarified their underlying logic. Structurally, we have separated the arguments for H4a and H4b, presenting each hypothesis in its dedicated section rather than combining them as in the previous version. This revised approach ensures greater clarity and focus in articulating the rationale for each hypothesis. The section now reads as follows:

"The diverse styles and personalities of live streamers attract a broad audience, resulting in varying levels of perceived homophily. These differing degrees of perceived homophily can significantly shape the influence of communication factors—specifically, the perceived expertise of live streamers and the perceived interaction—on audience trust in livestream shopping.

First, perceived homophily between audiences and live streamers may attenuate the positive effect of perceived live streamer expertise on audience trust. High levels of homophily cultivate a sense of relatability, prompting audiences to view live streamers more as peers than as distant or transactional salespersons (Claro *et al.*, 2020; Hsu, 2023). This relatability shifts audiences' expectations and trust-building mechanisms, reducing the emphasis on cognitive evaluations of expertise and instead prioritizing shared identity and relational connections (Hsu, 2023; Pentina and Taylor, 2010). The shared identity, characterized by aligned values and perspectives, can lead audiences to perceive that the streamer inherently understands their needs and preferences. This perceived understanding diminishes the reliance on expertise as a primary driver of trust. Moreover, high homophily fosters relational bonds, which audiences may value more than the streamer's authoritative knowledge as a foundation for trust (Leonhardt et al., 2020; Li et al., 2024). These bonds create an emotional connection that reorients trust from being primarily knowledge-based to being grounded in shared experiences and emotional alignment (De Salve et al., 2018; Ladhari et al., 2020). We hypothesize:

H4a. Homophily with live streamers negatively moderates the relationship between perceived expertise and audience trust, such that the positive effect of perceived expertise on audience trust diminishes when homophily is high.

Additionally, perceived homophily may positively moderate the impact of perceived interaction on audience trust. The homophily mechanism, as highlighted by Ertug et al.

(2022), underscores its pivotal role in enhancing communication quality and fostering positive affect. High levels of homophily create a sense of personal resonance, shared perspectives, and mutual understanding during the communication process. This resonance encourages audiences to engage more deeply in interactions with live streamers during livestream shopping, heightening the perceived relevance and authenticity of both audiencestreamer and audience-audience interactions (Kim *et al.*, 2018; Yu and Liao, 2023). Moreover, homophily shifts interactions from being purely transactional to relational, emphasizing emotional alignment and shared identity. Such interactions have a dual effect: they foster meaningful communication between streamers and audiences as well as cultivate a sense of community among the audience (Gao *et al.*, 2023; Xie *et al.*, 2022). This sense of community strengthens mutual understanding and shared experience, reinforcing emotional connections that act as a foundation for trust (Nejad and Amini, 2024). We hypothesize:

H4b. Homophily with live streamers positively moderates the relationship between perceived interaction and audience trust, such that the positive effect of perceived interaction on audience trust is more pronounced when homophily is high." (pp.14-15)

Review Comment:

3. A few minor points: a) tautology in the first sentence of the lit review, b) provide a brief explanation on bullet-screen the first time mentioned for those unfamiliar with the term, c) general check for grammar/spelling/consistency (e.g., H5 mentioned on p. 20).

Response:

Thanks for bringing these to our attention. We have revised the manuscript as follows:

- a) We have revised the first sentence of the literature review to
 - "We review two streams of literature, i.e., research on livestream commerce and research on homophily, for our investigation of homophily in livestream commerce." (p.6)
- b) In this revision, we added a concise explanation of bullet-screen when it is first mentioned:
 - "...bullet-screen information (real-time viewer comments overlaid on videos; Wang *et al.*, 2022)..." (p.6)
- c) We have thoroughly checked the manuscript, corrected typos, and replaced "H5" with "H4b".

Review Comment:

- 1. Originality: Does the paper contain new and significant information adequate to justify publication?: The paper does a good job of bringing homophily into the picture.
- 2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: Understanding of the literature is adequate though, as mentioned in the comments below, the line of argument regarding the interaction effect (which is the most interesting and original component of this paper) is lacking.

3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: Methodology seems appropriate and well designed •

Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: Results are clear. Though, throughout the paper the indirect effect is claimed as a contribution though no indirect effect is reported.

- 4. Practicality and/or Research implications: Does the paper identify clearly any implications for practice and/or further research? Are these implications consistent with the findings and conclusions of the paper?: For the most part yes. Though there is a claim on p. 23 that collaboration between streamers can generate more revenue, something that was not tested. Additionally, is that information of other streamers' audiences available to all streamers or is it private to the individual streamer? I'm personally not familiar with Taobao, but the data is very limited on Twitch.
- 5. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: Yes, with the exception of bullet-screen which could use some further explaining.

Response:

Thank you for your careful review and constructive comments! We have revised the manuscript based on your suggestions and provided detailed responses above. We hope the revisions meet your expectations.

For point 2, we have strengthened the arguments for the interaction effects (H4a and H4b). Please see our response above for details.

For point 3, we have revised the inaccurate description of the indirect effect to the moderating effect. Please see our response above for details.

For point 4, thanks for pointing this out to us. We have removed this sentence in this revision.