

Live-Stream Shopping: Impact of Social Attraction, Social Presence, Parasocial Interaction, and Positive Emotion on Purchase Intention

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ABSTRACT

Purpose: The increasing popularity of live-stream shopping underscores its growing significance in the e-commerce landscape. However, research on the formation of purchase intention within this context remains limited. This study investigates the influence of social attractiveness and social presence on purchase intention, with parasocial interaction as a mediating variable and positive emotions as a moderating variable among Shopee Live users.

Method: This study adopts a quantitative research approach, employing purposive sampling targeting Shopee Live users in Indonesia. Data were collected through an online questionnaire administered via Google Forms and disseminated through social media platforms, including Facebook, Instagram, Telegram, and WhatsApp. A total of 324 valid responses were analyzed using Structural Equation Modeling (SEM) with AMOS 23.

Result: The findings indicate that social attraction does not exert a significant influence on either parasocial interaction or purchase intention. Conversely, social presence positively affects both parasocial interaction and purchase intention. Furthermore, parasocial interaction positively influences purchase intention but does not mediate the relationship between social attractiveness and purchase intention. Instead, it functions as a positive mediator between social presence and purchase intention. Additionally, positive emotions do not moderate the relationship between parasocial interaction and purchase intention.

Practical Implications for Economic Growth and Development: The findings suggest that e-commerce platforms should enhance social presence and parasocial interactions in live-stream shopping to stimulate purchase intention, drive digital transactions, strengthen business competitiveness, foster consumer spending, and support the sustainable growth of the digital economy.

Keywords: *Live Streaming, Parasocial Interaction, Positive Emotion, Purchase Intention, Social Attraction, Social Presence*

INTRODUCTION

Advancements in technology and information have transformed purchasing behavior, shifting from traditional commerce to online transactions through digital platforms. The rapid expansion of the digital population is closely linked to increasing internet accessibility. Over the past decade, internet usage in Indonesia has grown significantly, reaching approximately 141.3 million users (Annur, 2024). According to a survey conducted by Statista (2024), e-commerce is the most frequently utilized digital service, followed by transportation and food delivery. The widespread adoption of e-commerce can be attributed to its advantages over traditional commerce. Unlike conventional transactions, which necessitate physical interaction between buyers and sellers for negotiation and payment, e-commerce eliminates the need for face-to-face meetings. Instead, transactions are facilitated through digital platforms that act as intermediaries, enabling seamless interactions between buyers and sellers (Wilson et al., 2019).



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Table 1. Number of Indonesian E-commerce Site Visits from January to December 2023

E-Commerce	Site Visits
Shopee	2.35B
Tokopedia	1.25B
Lazada	762.4M
Blibli	337.4M
Bukalapak	168.2M

Source: Similarweb (2024)

Based on the data presented in Table 1, Shopee is the most widely used e-commerce platform in Indonesia. According to Similarweb (2024), Shopee recorded the highest number of site visits in 2023, totaling 2.3 billion, significantly surpassing its competitor, Tokopedia, which received only 1.25 billion visits. One of Shopee's most notable features is Shopee Live. A 2023 Populix survey revealed that 69% of respondents identified Shopee Live as the most frequently used live-streaming feature in Indonesia. The increasing popularity of Shopee Live reflects the growing significance of live streaming in e-commerce, making it a subject worthy of further research. Live streaming is a real-time video broadcasting method facilitated through online platforms (Makmor et al., 2024). Through live streaming, streamers present their products via real-time video while consumers engage through instant communication and brief comments. This interaction enhances consumers' understanding of products, strengthens their sense of social presence, and ultimately increases purchase intention (Corrêa et al., 2020).

Despite the rise of live-stream shopping, research on its influence on purchase intention remains limited (Yu et al., 2018; Sun et al., 2019). Xu et al. (2022) noted that the literature on consumer purchase intentions in live streaming is still underdeveloped. One critical factor in this context is social presence, which fosters closer consumer-streamer relationships and improves product comprehension (Kim et al., 2021). Social presence has been identified as a key determinant in the formation of purchase intentions (Huang et al., 2023); however, further investigation is required to understand its role in live-stream commerce (Zhang et al., 2021). Although direct communication with streamers may not always be possible, the virtual environment of live streaming fosters a sense of presence that influences consumer behavior (Liu et al., 2022). Therefore, further exploration is necessary to understand the mechanisms by which social presence affects purchase intention in live-stream marketing.

Beyond social presence, other factors contribute to purchase intention. Social attraction has been found to influence audience attitudes, as consumers are more likely to develop positive perceptions of attractive streamers, thereby increasing purchase intention (Sokolova & Kefi, 2020). Additionally, the impact of parasocial interaction in live-stream shopping remains underexplored (Fu & Hsu, 2023). Thus, this study incorporates parasocial interaction as a mediating variable between social attraction, social presence, and purchase intention. However, purchase intention is influenced not only by mediation factors but also by moderation factors. Studies that simultaneously examine mediation and moderation within a single research framework remain scarce. To address this gap, this study introduces a novel framework in which parasocial interaction functions as a mediating variable, while positive emotion serves as a moderating factor. Moreover, this study contributes to the literature by focusing on Shopee Live users across Indonesia and employing Structural Equation Modeling (SEM) with AMOS version 23 for analysis.

METHOD

This study employs a quantitative research approach, which involves utilizing research instruments for data collection, conducting statistical analyses, and testing established hypotheses. The variables examined include social attraction, social presence, parasocial

interaction, positive emotion, and purchase intention among users of live-stream shopping platforms. A causal research design is applied to assess the relationships among independent, mediating, moderating, and dependent variables. The unit of analysis consists of Shopee Live users across Indonesia.

This study relies on primary data, analyzed using the Structural Equation Model (SEM) with AMOS version 23. The analysis includes validity and reliability tests, goodness-of-fit assessments, structural model evaluations, and outlier detection. The sampling method follows a non-probability sampling approach. The sample size was determined based on Hair et al. (2014), which suggests a range of 190 to 380 respondents for studies with 38 indicators.

Data were collected through an online questionnaire distributed via major social media platforms, including WhatsApp, Instagram, Twitter, and Facebook. The questionnaire was available for a period of three weeks, from November 25 to December 13, 2024.

Table 2. Variables Measurement

Variables	Codes	Statements
Social Attraction (McCroskey et al., 2006)	SA1	The streamer talks like a friend.
	SA2	I enjoy having friendly conversations with the streamer.
	SA3	I find it difficult to befriend streamers.
	SA4	The streamer seems fun to chat with about products.
	SA5	The streamer is friendly and interacts easily.
	SA6	Streamers in live streaming seem easy to get along with.
	SA7	I find it difficult to talk to streamers outside of live streaming.
	SA8	The streamer's communication style differs from that of my friends.
	SA9	I am not interested in socializing with streamers.
	SA10	I can easily befriend streamers outside of live streaming.
	SA11	Streamers are not fun to interact with.
	SA12	The streamer seems unfriendly toward the audience.
Social Presence (Lu, Fan, & Zhou, 2016)	SP1	I experience real interaction during live streaming.
	SP2	The streamer is friendly and easy to engage with.
	SP3	The streamer conveys information in a warm and friendly manner.
	SP4	The streamer is attentive to buyers' questions.
	SP5	Many viewers are interested in the product.
	SP6	Many viewers share product information.
	SP7	Many viewers have purchased the product.
	SP8	Many viewers make purchases during the live stream.
	SP9	I understand the streamer's personality through their comments.
	SP10	I can imagine the streamer's personality based on interactions.
	SP11	Communication via comments feels natural.
	SP12	Comment interactions feel warm and friendly.
Parasocial Interaction (Xiang, Zheng, Lee, & Zhao, 2016)	PSI1	I can clearly see how the streamer promotes the product.
	PSI2	Interacting with the streamer feels like talking to a friend.
	PSI3	I compare my product opinions with those of the streamer and other users.
	PSI4	I trust the product information provided by the streamer.
	PSI5	I enjoy sharing my live streaming experience with others.
	PSI6	The streamer and viewers provide relevant information.
Positive Emotion	PE1	I feel happy while watching live streaming.
	PE2	Watching live streaming makes me feel relaxed.

Variables	Codes	Statements
(Huang et al., 2023)	PE3	Live streaming brings me joy.
	PE4	I am satisfied and happy with my experience.
	PE5	I feel closer to the streamer and other viewers.
Purchase Intention (Zhu et al., 2020).	PI1	Seeing the product makes me consider purchasing it.
	PI2	Watching the live stream increases my likelihood of making a purchase.
	PI3	Live streaming boosts my desire to buy the product.

Source: Compiled by the authors (2024)

Hypotheses Development

Social Attraction and Parasocial Interaction

Social attraction refers to the extent to which an individual perceives similarity with or desires to establish a friendship with another person, such as a streamer. It reflects the audience's sense of affinity, likeness, and compatibility with the streamer (Makmor et al., 2024). In the context of live-stream commerce, social attraction is defined as users' willingness to engage with and feel a sense of closeness to the live-stream host. When viewers identify shared traits with a streamer, they are more likely to develop stronger parasocial interactions, reinforcing their perceived sense of friendship (Kurtin et al., 2018). Social attraction motivates audiences to actively engage with streamers by exchanging thoughts and interests related to the promoted product. The greater the similarity between viewers and a streamer, the more effectively they can relate to and understand the streamer, fostering deeper social interactions during live streaming. Based on this premise, the following hypothesis is proposed:

H1: Social attraction has a positive effect on parasocial interaction

Social Attraction and Purchase Intention

Social attraction refers to the extent to which individuals are perceived as socially appealing in interactions, influencing consumers' perceptions and behaviors toward a promoted product or service. Additionally, a perceived personality match between the audience and the streamer is more likely to facilitate positive and effective interactions. Consequently, the similarity perceived through these interactions can positively influence purchase intention. However, the uncertainty associated with information exchange remains high due to the nature of internet-based interactions, making consumer trust a complex and variable factor (Zhang et al., 2021). Frequent and familiar interactions between trusted parties can strengthen mutual trust, which, in turn, enhances consumer purchase intention. Based on this reasoning, the following hypothesis is proposed:

H2: Social attraction has a positive effect on purchase intention

Social Presence and Parasocial Interaction

Makmor et al. (2024) highlighted that social presence refers to the extent to which individuals perceive a sense of connection with others' intentions and sensory experiences through mediated communication. In the context of live-stream commerce, social presence reflects consumers' perceptions of engaging in shopping experiences shaped by live product demonstrations and real-time streamer interactions (Li & Hua, 2022). Social presence enhances engagement and the authenticity of communication in live streaming, enriching the audience's interactive experience and strengthening their sense of connectedness within the network. During live streaming, audiences and streamers develop a mutual sense of presence, which fosters emotional responses and gradually cultivates parasocial interactions through continued participation in online discussions (Makmor et al., 2024). Based on this premise, the following hypothesis is proposed:

H3: Social presence has a positive effect on parasocial interaction

Social Presence and Purchase Intention

In the context of live streaming, purchase intention refers to consumers' initial intention to buy a product from an online store (Zhu et al., 2020). Social presence in live streaming can enhance consumer comfort, and this positive experience facilitates the formation of purchase intentions (Sun et al., 2019). Additionally, social presence fosters trust by reducing the perceived social distance between the audience and the streamer (Lu et al., 2016). Furthermore, Wongkitrungrueng and Assarut (2020) categorized consumer trust in live-streaming shopping into "trust in sellers" and "trust in products," emphasizing that both forms of trust stem from the social presence experienced through live streaming. This trust subsequently drives consumer engagement behavior, ultimately strengthening their purchase intentions. Based on this reasoning, the following hypothesis is proposed:

H4: Social presence has a positive effect on purchase intention

Parasocial Interaction and Purchase Intention

Parasocial interaction refers to the one-sided psychological relationship individuals develop with distant figures through online platforms. In the context of live streaming, users often form parasocial interactions with streamers as they engage in real-time interactions (Lee & Gan, 2020). These interactions influence consumer purchase intentions, as audiences tend to perceive streamers with high credibility as more persuasive in shaping their attitudes and behaviors when reviewing and recommending products (Pinda, 2021). Establishing a strong parasocial relationship between the audience and the streamer fosters a sense of intimacy, enhancing the audience's perception of the promoted product (Shen et al., 2022). Consequently, this heightened sense of connection increases consumers' purchase intentions in response to product promotions. Based on this rationale, the following hypothesis is proposed:

H5: Parasocial interaction has a positive effect on purchase intention

Mediating Effect of Parasocial Interaction on Social Attraction and Purchase Intention

In the context of live streaming, social attraction plays a crucial role in shaping audience engagement with streamers (Sokolova & Kefi, 2020). When a streamer is perceived as socially attractive, audiences are more likely to develop positive attitudes toward them, fostering parasocial interactions (Tsiotsou, 2015). These interactions enhance emotional investment, increasing the likelihood that viewers will act on the streamer's recommendations, thereby influencing purchase intentions (Lim et al., 2022). Parasocial interactions can significantly shape individuals' interests and behaviors, including their intention to purchase products promoted by streamers they find appealing. In this study, parasocial interaction is examined as a mediating variable in the relationship between social attraction and purchase intention. Accordingly, the following hypothesis is proposed:

H6: Parasocial interaction positively mediates the relationship between social attraction and purchase intention

Mediating Effect of Parasocial Interaction on Social Presence and Purchase Intention

In a live-streaming environment, social presence plays a critical role in fostering engagement between streamers and audiences, enhancing the sense of connectedness within the live-streaming experience (Oh et al., 2018). Prior research indicates that a higher level of social presence in live streaming encourages parasocial interaction by making the interaction feel more authentic and immersive. When viewers perceive the streamer as actively present and

engaged in real-time, they are more likely to experience a sense of intimacy and emotional connection, thereby strengthening parasocial interactions (Kim, 2022). Emotionally engaged audiences are more inclined to trust and act upon a streamer's recommendations. A strong parasocial relationship fosters trust and attachment, increasing consumers' likelihood of purchasing the promoted product. In this study, parasocial interaction is examined as a mediating variable in the relationship between social presence and purchase intention. Accordingly, the following hypothesis is proposed:

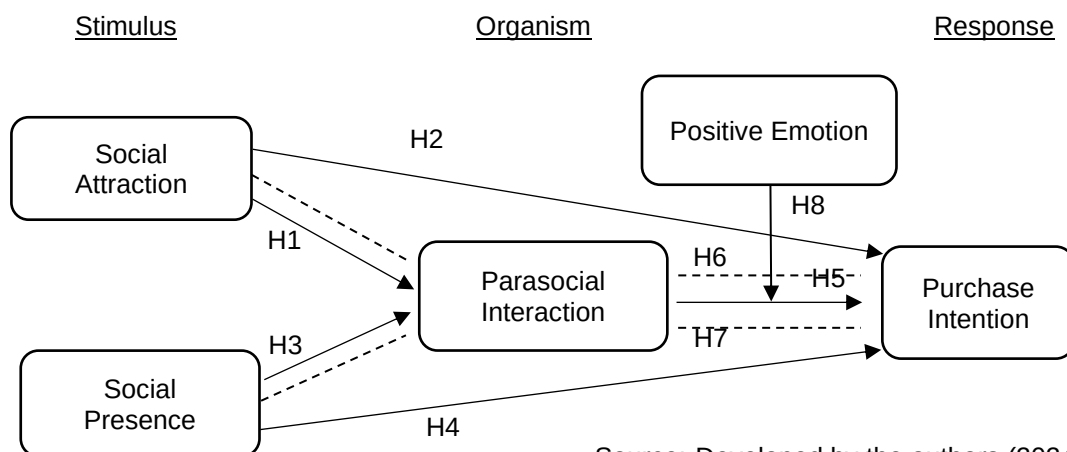
H7: Parasocial interaction positively mediates the relationship between social presence and purchase intention

Positive Emotion as a Moderating Variable

Emotions are involuntary affective states that significantly influence human behavior. Positive emotion is a conscious process encompassing multiple components, including pleasant experiences, facial or physical expressions, evaluations, and behavioral responses to specific conditions (Gable et al., 2010). In the context of live-streaming commerce, parasocial interactions cultivate a sense of closeness and trust between viewers and streamers, generating positive emotions that, in turn, enhance purchase intention (Lim, 2022). A strong parasocial bond with the streamer evokes feelings of pleasure and trust, further increasing the likelihood of purchasing the promoted product. The Affect Infusion Model (Forgas, 1995) provides a theoretical foundation for this relationship, positing that emotions influence judgment and decision-making. Specifically, positive emotions enhance reliance on affective heuristics, thereby increasing purchase intention. Given this theoretical perspective, positive emotion is expected to moderate the relationship between parasocial interaction and purchase intention. Accordingly, the following hypothesis is proposed:

H8: Positive emotion positively moderates the relationship between parasocial interaction and purchase intention.

Figure 1. Research Framework



Source: Developed by the authors (2024)

S-O-R Theory

Mehrabian and Russell's Stimulus-Organism-Response (S-O-R) framework provides a theoretical foundation for analyzing user behavior by explaining how environmental stimuli influence internal cognitive and affective processes, ultimately shaping behavioral responses (Zhu et al., 2020). This model has been widely applied to study purchase intention in live-streaming commerce, incorporating external stimuli that affect consumer decision-making (Gao et al., 2022). Prior research suggests that real-time interactions between viewers and

streamers enhance social presence, fulfilling consumers' psychological needs and shaping their attitudes and behaviors toward purchasing decisions. Consequently, social presence in live-streaming commerce serves as a critical stimulus influencing consumer behavior. Moreover, continuous exposure to streamers fosters social attraction, which in turn facilitates parasocial interactions—a key mechanism driving purchase intention. Existing studies have identified social presence and social attraction as stimuli (Makmor et al., 2024), parasocial interaction as the organism (Vázquez et al., 2020), and purchase intention as the response (Zhu et al., 2020).

RESULT AND DISCUSSION

Demographics of Respondents

The questionnaire was administered via Google Forms and disseminated extensively through various social media platforms, including Facebook, Instagram, and WhatsApp. Responses were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). A total of 327 responses were collected; however, after data filtering, only 324 responses met the eligibility criteria established for this study. The demographic characteristics of the respondents are summarized in Table 3.

Table 3. Demographics of Respondents

Characteristics	Description	Total	Percentage
Gender	Male	86	73%
	Female	238	27%
Age	17-26 Years Old	282	87%
	27-6 Years Old	38	12%
	37-46 Years Old	4	1%
	> 47 Years Old	0	0%
Educational Bacground	Junior High School	8	3%
	High School/ Equivalent	165	52%
	Diploma	12	4%
	Bachelor	130	41%
Occupation	postgraduate	4	1%
	Student	200	62%
	Privat Employee	78	24%
	Civil Servant	10	3%
	Entrepreneur	30	9%
Religion	Other	6	2%
	Islam	274	85%
	Christian	26	8%
	Catholic	12	4%
	Hindu	1	0%
	Buddhist	8	2%
Salary	Confucianism	2	1%
	< IDR 1,000,000	132	41%
	IDR 1,000,001 – IDR 3,000,000	82	25%
	IDR 3,000,001 – IDR 5,000,001	87	27%
	IDR 5,000,001 – IDR 7,000,000	15	5%
	> IDR 7,000,001	8	2%

Source: Processed data (2025)

Based on respondents' demographic data on purchase intention during Shopee live streaming, the majority were female (73%), indicating a higher level of interest in interactive shopping among women. In terms of age distribution, most respondents were between 17–26 years old (87%), followed by those aged 27–36 (12%), suggesting that younger, tech-

savvy consumers with impulsive buying tendencies dominate the live-stream shopping landscape. Regarding educational background, 52% of respondents held a high school diploma, while 41% had an undergraduate degree, indicating a medium to high level of education that may influence purchase decisions, such as the tendency to consider product reviews and streamer interactions before making a purchase. Additionally, 62% of respondents were university students, suggesting that Shopee live streaming appeals to individuals with more flexible time for online shopping activities. In terms of income level, 66% of respondents earned below IDR 3,000,000, indicating that Shopee's live-stream audience primarily consists of middle- to lower-income consumers.

Validity Test

At this stage, Confirmatory Factor Analysis (CFA) was conducted to assess the validity and reliability of the sample used in this study. Construct validity was evaluated based on factor loading values, where an acceptable threshold is 0.50, with an ideal value of 0.70 or higher (Hair et al., 2014). Following the validity test, several indicators were found to have factor loading values below 0.50, specifically SA2, SA3, SA7, SA8, SA9, SA10, SA11, and SA12. The results of the validity test are presented in Table 4.

Table 4. Validity Test Result

Indicators	Estimates	Limit	Conclusion
SA1	0.634	> 0.5	Valid
SA4	0.656		Valid
SA5	0.615		Valid
SA6	0.559		Valid
SP1.1	0.61	> 0.5	Valid
SP1.2	0.643		Valid
SP1.3	0.63		Valid
SP1.4	0.567		Valid
SP1.5	0.534		Valid
SP2.1	0.533		Valid
SP2.2	0.519		Valid
SP2.3	0.605		Valid
SP3.1	0.552		Valid
SP3.2	0.516		Valid
SP3.3	0.536		Valid
SP3.4	0.6		Valid
PSI1	0.537	> 0.5	Valid
PSI2	0.587		Valid
PSI3	0.51		Valid
PSI4	0.565		Valid
PSI5	0.567		Valid
PSI6	0.576		Valid
PE1	0.638	> 0.5	Valid
PE2	0.563		Valid
PE3	0.665		Valid
PE4	0.63		Valid
PE5	0.662		Valid
PI1	0.567	> 0.5	Valid
PI2	0.583		Valid

Indicators	Estimates	Limit	Conclusion
PI3	0.607		Valid

Source: Processed data (2025)

Reliability Test

Reliability is a critical aspect of evaluating research instruments, ensuring the consistency and stability of measurements. This study assesses reliability using two key indicators: Average Variance Extracted (AVE) and Construct Reliability (CR). AVE is employed to evaluate convergent validity, with an acceptable threshold of greater than 0.50 (Fornell & Larcker, 1981). Meanwhile, CR measures the internal consistency of indicators within a construct, with an ideal threshold of greater than 0.70 (Hair et al., 2014). The results of the reliability test for each variable in this study are presented in Table 5 below.

Table 5. Reliability Test Result

Variable	AVE	Limit	CR	Limit	Conclusion
Social Attraction	0.840	> 0.5	0.899	> 0.7	Reliable
Social Presence	0.930		0.958		Reliable
Parasocial Intecation	0.921		0.954		Reliable
Positive Emotion	0.943		0.963		Reliable
Purchase Intention	0.940		0.964		Reliable

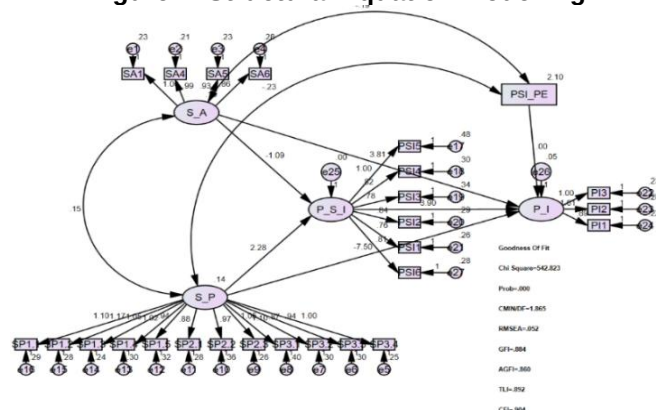
Source: Processed data (2025)

The test results indicate that the Construct Reliability (CR) values for the five variables in this study exceed 0.70, while the Average Variance Extracted (AVE) values are greater than 0.50. These findings confirm that the research instrument demonstrates adequate reliability and validity, making it suitable for use in this study.

Structural Equation Modelling (SEM) Analysis

The Structural Equation Modeling (SEM) analysis process is conducted to examine the causal relationships between constructs after confirming that the measurement model achieves a good fit. In this study, data were analyzed using AMOS version 23, and the results of the Structural Equation Model analysis are presented in Figure 2.

Figure 2. Structural Equation Modelling



Source: Processed data (2025)

Model testing using SEM also requires a normality test and an outlier evaluation. Data is considered normally distributed if the critical ratio (C.R.) values for skewness and kurtosis fall within the range of -2.58 to +2.58. In the initial test with 38 indicators, the data did not meet the normality assumption. However, after refining the model by removing some data points, the second test indicated normal distribution, as the kurtosis C.R. values fell within the acceptable range. Additionally, no multivariate outlier issues were detected, as all Mahalanobis distance values remained below the critical threshold.

Goodness-of-Fit is used to evaluate how well the theoretical model aligns with the research data. A well-fitting model suggests that the structural relationships among the tested variables accurately represent the data. Researchers are not required to meet all goodness-of-fit criteria; instead, a model is considered acceptable if at least one key criterion is satisfied (Hair et al., 2014). Detailed results of the goodness-of-fit assessment are presented in Table 6.

Table 6. Goodness-of-Fit Result

Goodness-of-fit Index	Cut Of Value	Result	Evaluation Model
Probability	≥ 0.05	0	Badfit
CMIN/DF	< 2	1.865	Fit
GFI	≥ 0.90	0.884	Marginal
AGFI	≥ 0.90	0.860	Marginal
NFI	≥ 0.90	0.819	Marginal
RMSEA	< 0.08	0.052	Fit
CFI	≥ 0.90	0.904	Fit
TLI	≥ 0.90	0.892	Marginal
PNFI	0.60 - 0.90	0.730	Fit
PGFI	> 0.60	0.733	Fit

Source: Processed data (2025)

The Goodness-of-Fit test results indicate that while some indicators suggest a good model fit, others fall within the marginal or poor category. The Chi-Square test produces a p-value of 0, suggesting a poor fit. However, the CMIN/DF value of 1.865 indicates a good fit. Certain indicators, such as GFI (0.884), AGFI (0.860), NFI (0.819), and TLI (0.892), fall slightly below the ideal threshold of ≥ 0.90 but remain acceptable under specific conditions. Meanwhile, RMSEA (0.52), CFI (0.904), PNFI (0.730), and PGFI (0.733) indicate a good model fit, as they fall within the recommended value range. Despite some limitations, the model meets the necessary requirements for further analysis.

Hypotheses Testing

Hypotheses testing in this study aims to examine the relationships between variables and evaluate their respective impacts. This analysis consists of three main tests: the direct effect test, which assesses the direct influence of independent variables on dependent variables; the mediation test, which evaluates the role of intermediary variables in these relationships; and the moderation test, which examines how a third variable influences the strength or direction of the relationship between other variables. The detailed results of each test are presented below.

Table 7. Direct Effect Test Result

Direction	Estimate	S.E.	C.R.	P	Result
H1: SA $\rightarrow$ PSI	-0.526	0.625	-0.842	0.400	Rejected
H2: SA $\rightarrow$ PI	-0.052	0.485	-0.107	0.915	Rejected
H3: SP $\rightarrow$ PSI	1.418	0.678	2.092	0.036	Accepted

Direction	Estimate	S.E.	C.R.	P	Result
H4: SP → PI	0.889	0.451	1.973	0.049	Accepted
H5: PSI → PI	0.742	0.107	6.939	***	Accepted

Source: Processed data (2025)

Table 8. Mediating Effect Test Result

Direction	X-Y	X-M	M-Y	Result
H6: SA → PSI → PI	0.915	0.400	0.000	No Mediation (Rejected)
H7: SP → PSI → PI	0.049	0.036	0.000	Partial Mediation (Accepted)

Source: Processed data (2025)

Table 9. Moderating Effect Test Result

Direction	Estimate	S.E.	C.R.	P	Result
PSI → PI	1.214	2.526	0.481	0.631	Rejected
PE → PI	-0.292	1.769	-0.165	0.869	
PSI*PE → PI	-0.006	0.028	-0.205	0.838	

Source: Processed data (2025)

The hypothesis test results indicate varying levels of support for the proposed relationships. The first and second hypotheses, examining the influence of social attraction on para-social interaction and purchase intention, were both rejected ($p = 0.400$ and $p = 0.915$, respectively), suggesting that social attraction does not significantly impact these variables. However, the third and fourth hypotheses, which assess the effect of social presence on para-social interaction and purchase intention, were accepted ($p = 0.036$ and $p = 0.049$, respectively), indicating that social presence plays a significant role in shaping user engagement and purchasing behavior.

The fifth hypothesis, testing the effect of para-social interaction on purchase intention, was strongly supported ($p = 0.000$), confirming its critical role in influencing consumer behavior. The sixth hypothesis, evaluating para-social interaction as a mediator between social attraction and purchase intention, was rejected ($p = 0.915$), while the seventh hypothesis, assessing para-social interaction as a mediator between social presence and purchase intention, was accepted with partial mediation. Finally, the eighth hypothesis, testing the moderating effect of positive emotion between para-social interaction and purchase intention, was rejected ($p > 0.05$), indicating that positive emotions do not significantly alter this relationship.

Discussion

The Influence of Social Attraction on Parasocial Interaction

The hypothesis test results indicate that H1 is rejected, demonstrating that social attraction does not have a positive and significant effect on para-social interaction in Shopee live streaming. This finding aligns with previous research by Purnamaningsih & Rizkalla (2020), which also found no significant relationship between social attraction and purchase intention. Social attraction alone is insufficient to foster a sense of closeness with the audience (Tandayong & Palumian, 2022). In the context of live streaming, a streamer's active engagement—such as responding to questions, providing direct product recommendations, and creating an interactive atmosphere—has a more substantial impact on building para-social relationships than mere personal appeal. Purchasing decisions are often influenced by trust and credibility. Even if a streamer is perceived as socially attractive, the absence of

effective communication or clear product information may hinder the development of para-social interactions that influence purchase intention.

The Influence of Social Attraction on Purchase Intention

The hypothesis test results indicate that H2 is rejected, signifying that social attraction does not influence purchase intention in Shopee live streaming. This finding aligns with Li & Peng (2021), who argue that while social attraction can foster social relationships between streamers and their audiences, low trust can diminish purchase intention. This suggests that although audiences may feel socially attracted to a streamer, without a strong foundation of trust, they are unlikely to be influenced to purchase the promoted product. Furthermore, previous studies have shown that social relationships between streamers and audiences do not always translate into purchasing decisions, particularly when these relationships are superficial and lack a solid basis of trust.

The Influence of Social Presence on Parasocial Interaction

The hypothesis test results indicate that H3 is accepted, confirming a significant positive relationship between social presence and para-social interaction in Shopee live streaming. This finding is consistent with Chen & Liao (2022), who demonstrated that social presence strengthens para-social interactions between viewers and streamers during live streaming. This result suggests that enhancing social presence on live-streaming platforms can foster stronger para-social interactions, ultimately shaping consumer behavior. In live streaming, real-time engagement, facial expressions, and direct responses to audience comments are crucial in increasing social presence. When viewers perceive the streamer as genuinely present, they are more engaged with the content and more likely to develop an emotional attachment to the streamer (Kim, 2022). Additionally, previous studies indicate that a heightened sense of social presence can create a more immersive experience, further enhancing para-social relationships between audiences and streamers.

The Influence of Social Presence on Purchase Intention

The hypothesis test results confirm that H4 is accepted, indicating a positive and significant relationship between social presence and purchase intention in Shopee live streaming. This finding aligns with Huang et al. (2023), which demonstrates that social presence positively influences consumer purchase intentions. Although e-commerce has inherent limitations as a shopping channel, the presence of real-time social interaction can mitigate uncertainties and enhance consumer confidence. Live-streaming commerce facilitates meaningful engagement by providing live product demonstrations, real-time reviews from streamers, and instant responses to audience inquiries. This interactive shopping environment reduces perceived risks and fosters trust, ultimately increasing purchase intention (Liu et al., 2022). Furthermore, previous studies suggest that consumers who experience a heightened sense of social presence during live-streaming shopping are more likely to exhibit stronger purchase intentions (Huang et al., 2023). These findings underscore the importance of social presence in creating a more immersive and trust-enhancing shopping experience in live-streaming commerce.

The Influence of Parasocial Interaction on Purchase Intention

The hypothesis test results indicate that H5 in this study is accepted, confirming a positive and significant relationship between para-social interaction and purchase intention in live streaming on e-commerce platforms. These findings are consistent with the study by Sokolova and Kefi (2020). Previous research has also demonstrated that streamers who are perceived as trustworthy and likable can effectively influence their audience's attitudes and

behaviors toward specific brands (Lou & Kim, 2019). When the relationship between the streamer and the audience becomes stronger, the audience is more likely to perceive the streamer as a credible source of information, thereby influencing their purchase intention (Lee & Watkins, 2016). Consequently, the development of a strong para-social interaction between the streamer and the audience in live streaming fosters a sense of closeness, enhances the perception of the promoted product, and ultimately increases purchase intention.

Mediating Role of Parasocial Interaction on Social Attraction and Purchase Intention

The data analysis results indicate that H6 is rejected, confirming that para-social interaction does not mediate the relationship between social attraction and purchase intention. This finding aligns with the study by Chumley (2024), which also found no significant mediating effect of para-social interaction in this context. Previous research has emphasized the critical role of trust in shaping purchase intention in live streaming. Social attraction toward a streamer does not necessarily translate into trust in the streamer's product recommendations. If the audience is primarily drawn to the streamer's personality or communication style without perceiving a strong sense of credibility, this alone is insufficient to enhance purchase intention.

Mediating Role of Parasocial Interaction on Social Presence and Purchase Intention

The data analysis confirms a significant positive influence of social presence on purchase intention. Additionally, social presence significantly impacts para-social interaction, while para-social interaction strongly influences purchase intention. These results indicate partial mediation, as the path coefficient from social presence to para-social interaction is significant, and the path coefficient from social presence to purchase intention, while controlling for para-social interaction, remains significant. Thus, H7 is accepted. This finding aligns with Kim (2022), who demonstrated that para-social interaction partially mediates the relationship between social presence and purchase intention. While social presence directly influences purchase intention, its effect is further strengthened by para-social interaction. Although para-social interaction enhances this relationship, social presence remains a key determinant of purchase intention, particularly through real-time interactions that foster trust and engagement.

Moderating Role of Positive Emotion on Social Interaction and Purchase Intention

The moderating test results indicate that neither para-social interaction nor positive emotion significantly contributes to purchase intention, either directly or through the moderating effect. This finding suggests that consumers' level of positive emotion is not strong enough to amplify or diminish the influence of para-social interaction on purchase intention.

Lou and Kim (2019) found that positive emotions do not always have a direct or moderating effect on purchase intention. This is because purchasing decisions are often driven by rational factors, such as perceived credibility or product relevance, rather than solely by emotions. Previous studies suggest that para-social interaction is more closely related to social attachment and cognitive connection than to emotional aspects. For instance, Sokolova and Kefi (2020) noted that para-social interaction influences trust and the perceived relevance of information, which are primarily cognitive rather than emotional processes. Therefore, the role of positive emotion as a moderator in this relationship is less significant.

CONCLUSION

This study aims to examine the influence of social attraction and social presence on purchase intention in live streaming on the Shopee e-commerce platform, considering the role of para-social interaction as a mediating variable and positive emotion as a moderating variable.

The hypothesis testing results indicate that social attraction does not significantly influence para-social interaction or purchase intention. In contrast, social presence has a positive impact on both para-social interaction and purchase intention, highlighting its crucial role in Shopee's live-streaming commerce. Additionally, para-social interaction significantly influences purchase intention, underscoring its role in consumer decision-making. Regarding mediation, para-social interaction does not mediate the relationship between social attraction and purchase intention. However, it partially mediates the relationship between social presence and purchase intention, suggesting that social presence affects purchase intention both directly and indirectly through para-social interaction. Lastly, positive emotion does not moderate the relationship between para-social interaction and purchase intention.

This study provides valuable insights for e-commerce platforms, streamers, and marketers. For platform owners and streamers, fostering authentic and engaging interactions can enhance audience engagement and boost purchase intent. Direct responses to questions, interactive sessions, and compelling narratives can help build consumer trust and loyalty. For brands and marketers, leveraging social presence can strengthen para-social interactions, ultimately driving higher purchase intent. Investing in streamer training to enhance communication and social interaction skills may further optimize sales performance in live streaming.

Despite its contributions, this study has several limitations. First, it focuses solely on Shopee's live-streaming feature, which may limit the generalizability of the findings to other platforms. Additionally, it does not account for other influencing factors, such as audience demographics or specific product categories. Future research should explore multiple live-streaming platforms and include more diverse samples to gain a deeper understanding of consumer behavior in live-streaming commerce and provide further insights into emerging trends and digital marketing strategies.

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