Social Presence and Purchase Intention In Live Streaming Shopping: Mediating Role Of Trust and Psychological Distance

Udgam Mishra*

Faculty of Management, Tribhuvan University, Nepal; https://orcid.org/0000-0003-0671-0700

Abstract: The study examines the interconnected relationships between social presence, trust, psychological distance, and purchase intention for live-streaming shopping. Using a survey of 390 live-streaming shopping consumers based in Nepalese urban areas the study analyzed relationships between variables. The research data was gathered through structured surveys which later underwent structural equation modelling (SEM) analysis for testing the proposed relationships. Research findings demonstrate how social presence boosts consumer trust illustrating the necessity of personal connections to establish trust within online transactions. The presence of social elements failed to minimize psychological distances between consumers or affect their purchase intentions directly. The research results showed no support for trust and psychological distance as mediators between social presence and purchase intention. The study shows that social presence remains vital for developing consumer trust yet alternative factors such as emotional connection and perceived value surpass it in influencing actual purchase intentions within live-streaming shopping platforms. This study presents meaningful findings to market researchers and provides guidance for upcoming investigations in modern online buying domains.

Keywords: Social Presence, Trust, Psychological Distance, Purchase Intention, Live Streaming Shopping

Introduction

The fast digitalization of retail markets introduced live-streaming shopping as the latest e-commerce format. The interactive e-commerce format unites traditional online shopping with real-world perceptions (LI, 2023). More than fifty percent of worldwide survey participants selected live streamed sports events and concerts as preferred content on video streaming platforms according to Statista (2024). Data shows that Chinese consumers desire to watch such content on streaming services at a rate of 65% whereas the Dutch market comprises only 35% of respondents who want to stream live content. The quick growth demonstrates a fundamental behavioral change since online buyers actively use live-streaming platforms to make purchasing choices in real-time (Lin et al., 2023). Closer consumer-seller connections link both to increased purchase decisions on live shopping platforms such as Taobao Live and TikTok Shop and Amazon Live (Chen & Yang,

2023). Social presence stands as a major motivation for consumers to join live-streaming shopping activities due to their sensed connection with human contacts and interactions within digital spaces (Li et al., 2024). Research on social presence in purchase decisions assumes great significance because modern consumers want active and dependable shopping encounters. The mechanisms by which social presence shapes purchase decisions require deeper investigation because this important factor increases in importance.

The COVID-19 pandemic functioned as a driver that modified shopping behaviors while speeding up digital shopping acceptability (Jiang & Stylos, 2021). The restrictions imposed on public shopping led customers to begin e-commerce transactions which enhanced their contact with brands and offered convenient options for shopping (Schau et al., 2024). The online entertainment format transformed into a mass communication tool that helped businesses reach potential buyers while uniting entertainment experiences with online retail activities (Chae, 2024). The transformation of retail operations introduced a new challenge that needs solving. By presenting shopping through live streams the natural connection between consumer and seller becomes diminished which makes it difficult for people to trust influencers and brands (Wan & Jiang, 2023). Buyers maintain emotional and financial responsibility in taking real-time purchase decisions at a distance through which they must establish trust indicators. The need for action in this field arises because researchers need to know why trust and psychological distance affect consumer conduct in live-streaming environments according to Huang et al. (2023). The ongoing growth of live-streaming shopping demands the identification of key variables which affect purchase decisions to allow brands maximum success with this method. Study demand reveals the necessity to understand the relationship between social presence effects on trust establishment because of rising digital shopping trends in rapidly advancing modern retail operations.

Live-streaming shopping requires thorough examination of social presence because it serves both theoretical foundations and pragmatic applications. Current research on social presence has mainly studied its effects through e-learning (Salimon et al., 2021), social media (Gandhi & Kar, 2022), and virtual environments (Dubosc et al., 2021) but provides scant information about e-commerce applications (Chen et al., 2023). The relationship between social presence and purchase intention through trust remains an unexplored area of research despite widespread interest in trust as an online purchase driver. The concept of psychological distance remains insufficiently studied as a component of live streaming shopping research despite being crucial for consumer perceptions and buying choices. Future research tackling these knowledge deficiencies will establish better understanding of how consumers behave in the evolving digital marketplace (Huang et al., 2023).

Theoretical Framework and Hypothesis Development
Social Presence Theory (SPT) offers a comprehensive understanding of how individuals perceive and interact with others in digital environments (Bickle et al., 2019). Originally proposed by Short, Williams, and Christie (1976), the theory was primarily focused on communication technologies, positing that communication effectiveness

depends on the degree to which participants feel psychologically present with one another (Hawkins & Vandervelde, 2023). In live-streaming shopping, social presence refers to the extent to which consumers feel a sense of warmth, immediacy, and interpersonal interaction with the seller, brand, or influencer (Huang et al., 2024). This interaction, which occurs through real-time video feeds, creates a connection that mimics traditional face-to-face engagement, enhancing the consumer experience and influencing purchasing decisions.

SPT suggests that the higher the perceived social presence, the more likely individuals feel emotionally involved and engaged in the interaction (Mallmann & Maçada, 2021). In live-streaming commerce, video, voice, and interactive features create a sense of "being there" with the host, enhancing the consumer's confidence in purchasing decisions (Shi et al., 2023).

Social Presence and Trust

The relationship between social presence and trust is central to understanding consumer behavior in live-streaming commerce (Ming et al., 2021). Trust has long been identified as a key factor in online purchase decisions (Oh et al., 2018). Social Presence Theory posits that when individuals perceive a higher level of social presence, the interaction feels more personal and authentic, which fosters trust (Weng et al., 2024). In live-streaming shopping, consumers are likely to trust the seller more if they interact with a real person rather than a faceless entity. The warmth and authenticity conveyed through live video can reduce uncertainties and make consumers feel more comfortable making financial investments (Bleier et al., 2019). This trust is crucial in live-streaming shopping, where consumers make quick, real-time decisions. The higher the social presence, the greater the perceived authenticity and credibility of the seller, which strengthens the trust between the consumer and the seller (Beldad et al., 2016). This trust ultimately enhances the likelihood of purchase decisions. Based on the above discussion, the following hypothesis is presented:
H1: Social presence positively influences consumer trust in live-streaming shopping.

Social Presence and Psychological Distance

Psychological distance refers to the perceived separation between individuals, manifesting in several dimensions: temporal, spatial, social, and hypothetical (Trope & Liberman, 2007). Social presence is critical in reducing psychological distance by enhancing the feeling of proximity and connection between the consumer and the seller (Darke et al., 2016). In traditional e-commerce, customers often feel disconnected from the seller due to the lack of direct interaction. In live-streaming shopping, a live host and real-time communication bridge this gap, allowing consumers to feel like they are interacting in a shared space, reducing the psychological distance (Chen et al., 2024). This reduction in distance is crucial because closer psychological proximity to the seller or brand fosters a greater sense of emotional engagement and involvement, positively influencing purchase intention. By creating a sense of immediacy and presence, live-streaming shopping minimises the barriers that typically exist in traditional online shopping (Duan, 2021),

leading to more connected and engaged consumers who are more likely to act on their purchasing intentions. Based on the above debate, we propose the current hypothesis:

H2: Social presence negatively influences psychological distance in live-streaming shopping.

Trust and Purchase Intention

Trust is a key driver of online purchase intention, and in live-streaming shopping, it plays a pivotal role in determining whether a consumer follows through with a purchase (Wongkitrungrueng & Assarut, 2020). According to the Social Presence Theory, consumers are more likely to trust the interaction when they feel a sense of human connection (Lu et al., 2016). Trust increases the likelihood of purchase and mitigates the risks associated with online transactions, often perceived as more uncertain and distant than in-person shopping (Pappas, 2016). In the live-streaming context, trust is built through the authenticity and credibility conveyed by the seller during the live interaction. When consumers trust the seller, they are more likely to feel confident in making purchasing decisions on the spot (Hong & Cho, 2011). Trust thus acts as a mediating factor between social presence and purchase intention, as consumers are more likely to act on their intentions when they trust the seller or brand. Based on above discussion, the following hypothesis is presented:

H3: Trust positively influences purchase intention in live-streaming shopping.

Psychological Distance and Purchase Intention

Psychological distance affects consumer decision-making by influencing how consumers perceive the risks and rewards of a purchase (Park, 2019). Greater psychological distance leads to more abstract thinking, while reduced psychological distance leads to more concrete and immediate decision-making (Kim et al., 2013). Consumers are more likely to make concrete, immediate purchase decisions as psychological distance decreases because the experience feels more real and present (Maglio, 2020). When consumers perceive the seller as distant due to a lack of social presence or engagement, they are likelier to feel less committed to the transaction. Conversely, as psychological distance decreases through social presence, consumers feel more connected and engaged, increasing their likelihood of purchasing the promoted product (Huang et al., 2023).

Based on the above discussion, the following hypothesis is presented:

H4: Psychological distance negatively influences purchase intention in live-streaming shopping.

Social Presence and Purchase Intention

Social presence is crucial for enhancing consumer engagement and driving purchase intentions in digital environments (Zahid et al., 2024). The interaction becomes more engaging and emotionally charged when social presence is high in live-streaming shopping (Li et al., 2022). The perceived connection with the host or brand increases consumer confidence, reduces hesitation, and encourages immediate purchase decisions. Live-streaming platforms that provide real-time interaction between consumers and hosts create

an immersive environment where a stronger emotional connection to the products being showcased fosters purchase intentions (Xu et al., 2024). This emotional investment leads to higher purchase intentions, as consumers are more likely to act on their feelings of engagement and involvement. Based on the above debate, the following hypothesis is presented:

H5: Social presence positively influences purchase intention in live-streaming shopping.

The mediating role of trust

Trust is a well-established construct in the context of online consumer behaviour (Punyatoya, 2019). When considering live-streaming shopping, trust is pivotal in reducing the perceived risks associated with digital transactions, which can be more uncertain and less tangible than traditional face-to-face interactions. While offering the excitement of real-time interaction, live-streaming shopping still challenges consumers as they must trust the seller, the platform, and the promoted product (Wongkitrungrueng & Assarut, 2020). The effectiveness of trust as a mediator lies in its ability to bridge the gap between consumers' perception of the interaction and their willingness to engage in a purchase (Limbu et al., 2012). In live-streaming shopping, trust is developed through visible cues such as the seller's transparency, consistency in communication, and the perceived expertise and likability of the presenter (Chen & Zhang, 2023). Better by the social presence created through live interactions, these cues allow the consumer to lower their perceived risk, creating a sense of comfort and security (Tsai et al., 2021). Consumers are more likely to act on their purchasing intentions when they engage with a trustworthy and credible brand or influencer. Based on the above discussion, the following hypothesis is presented:

H6: Trust mediates the relationship between social presence and purchase intention in live-streaming shopping.

Mediating Role of Psychological Distance

Psychological distance is a multifaceted construct influencing how consumers perceive their relationship with a seller or brand (Darke et al., 2016). It encompasses spatial distance (the feeling of being far away from the seller), temporal distance (the perceived delay between decision and action), social distance (the perceived closeness or detachment from the seller), and hypothetical distance (the perceived likelihood of the purchase outcome (Trope & Liberman, 2007). In live-streaming shopping, psychological distance refers to how "distant" the consumer feels from the seller despite being engaged in real-time communication (Zhu et al., 2023). The psychological distance can reduce the likelihood of purchasing, as distant or impersonal experiences create a sense of uncertainty and detachment (Fusar-Poli et al., 2022). Consumers may hesitate to engage in a financial transaction when they feel the interaction lacks emotional depth or intimacy (Lu et al., 2024). This hesitation can manifest in delayed decision-making, avoidance, or the abandonment of shopping carts. Live-streaming shopping, however, reduces the psychological distance by providing real-time interaction and immediate feedback (Zhu et al., 2023). As psychological distance decreases, the consumer is more likely to evaluate the purchase regarding

immediate rewards and emotional satisfaction rather than abstract long-term consequences (Connors et al., 2021). When consumers perceive a lower level of psychological distance, they are more likely to trust the seller because they feel more connected and involved in the transaction, increasing their purchase intention (Febrianti & Hidayat, 2022). Based on the above discussion, the following hypothesis can be presented:

H7: Psychological distance mediates the relationship between social presence and purchase intention in live-streaming shopping.

Research Method

A quantitative research design was adopted, utilising a cross-sectional survey approach to investigate the relationship between social presence, trust, psychological distance, and purchase intention in live-streaming shopping. A structured questionnaire was developed to gather data from respondents, focusing on the key constructs of the study. Purposive sampling was employed to select respondents who have experienced live-streaming shopping from Biratagar, the capital city of Koshi Province, Nepal. The sample size consisted of 390 respondents. Data was collected through a self-administered online survey consisting of a series of Likert-scale questions. The survey was divided into four main sections: Social Presence, Trust, Psychological Distance, and Purchase Intention. Each item was measured using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The measurement scale for social presence, trust, psychological distance and purchase intention were adapted from Sung & Mayer (2012), Körber (2019), Liu & Wang (2024) and Thamizhvanan & Xavier (2013) respectively

The collected data was analysed using Structural Equation Modeling. SEM was chosen because it allows for testing direct and indirect relationships between the variables (Fan et al., 2016), including the mediating effects of trust and psychological distance on the relationship between social presence and purchase intention. The analysis was performed using SPSS AMOS, a specialised software for SEM. The reliability and validity of the measurement scales were tested through Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Additionally, the model fit was assessed using several fit indices, including the chi-square goodness-of-fit statistic, the Comparative Fit Index (CFI), the Goodness Fit Index (GFI), and the Root Mean Square Error of Approximation (RMSEA).

Result and Discussion

The demographic profile of the respondents reveals a higher proportion of male participants (53.4%) compared to females (23.7%). In terms of age distribution, the majority of respondents fall within the 18–25 years category (23.9%), followed by those aged 36–45 years (20.9%), 26–35 years (19.2%), and 46 years and above (13%). Regarding educational attainment, the largest proportion of respondents hold a graduate degree (30.8%), followed by those with a master's degree (21.3%), an undergraduate degree (17.8%), high school or below (4.2%), and above a master's degree (3%). The monthly income distribution indicates that 30.6% of respondents earn between $1,001 and $2,000, while 21.3% earn above $3,000, and 16% fall within the $2,000–$3,000 range. A smaller proportion report earnings between

$500 and $1,000 (7.3%) and less than $500 (1.8%). Lastly, marital status data show that most respondents are single (56.1%), whereas 22.9% are married.

Table 1. Demographic Samples

Demographic variable	Category	Frequency (n)	Percentage (%)
Gender	Male	270	53.4
	Female	120	23.7
Age Group	18–25 years	121	23.9
	26–35 years	87	19.2
	36–45 years	106	20.9
	46 and above	66	13
Educational Level	High School or below	21	4.2
	Undergraduate degree	90	17.8
	Graduate degree	156	30.8
	Master	108	21.3
	Above Master	15	3
Monthly Income	Less than $500	9	1.8
	$500–$1,000	37	7.3
	$1,001–$2,000	155	30.6
	$2,000-$3000	81	16
	Above $3000	108	21.3
Marital Status	Single	284	56.1
	Married	106	22.9

Measurement model

The reliability analysis presented in Table 2 evaluates the internal consistency and convergent validity of four key constructs: Social Presence, Trust, Psychological Distance, and Purchase Intention. The assessment is based on factor loadings, Cronbach's Alpha (α), Composite Reliability (CR), and Average Variance Extracted (AVE), all of which are essential indicators of construct reliability and validity in structural equation modelling (Fornell & Larcker, 1981) .

For Social Presence, the factor loadings range from 0.85 to 0.96, indicating strong individual item reliability. The Cronbach's Alpha (α) value of 0.94 suggests high internal consistency, while the Composite Reliability (CR) of 0.95 further confirms the construct's reliability. The AVE of 0.80 exceeds the recommended threshold of 0.50, ensuring adequate convergent validity. Similarly, Trust demonstrates robust reliability, with factor loadings between 0.84 and 0.90. The Cronbach's Alpha (0.93) and CR (0.94) confirm high internal consistency, while the AVE of 0.76 indicates that the construct explains a substantial portion of the variance in its indicators. Psychological Distance also exhibits strong psychometric properties, with factor loadings ranging from 0.85 to 0.90. Its Cronbach's Alpha (0.93) and CR (0.94) indicate a high level of reliability, and the AVE of 0.76 suggests that the construct effectively captures the variance of its associated items.

Lastly, Purchase Intention demonstrates strong reliability, with factor loadings between 0.82 and 0.89. Cronbach's Alpha of 0.92 and CR of 0.93 confirm the construct's internal consistency, while the AVE of 0.73 meets the accepted threshold for convergent

validity. All four constructs exhibit strong internal consistency, with Cronbach's Alpha and CR values exceeding the commonly recommended threshold of 0.70. Furthermore, the AVE values for each construct are above the 0.50 benchmark, confirming good convergent validity. These results indicate that the measurement model is reliable and valid, ensuring the appropriateness of these constructs for structural analysis.

Table 2. Reliability and validity testing

Construct	Item Code	Factor Loading	Cronbach's Alpha (α)	CR	AVE
Social Presence	SP1	0.85	0.94	0.95	0.80
	SP2	0.89			
	SP3	0.88			
	SP4	0.90			
	SP5	0.96			
Trust	T1	0.87	0.93	0.94	0.76
	T2	0.84			
	T3	0.88			
	T4	0.89			
	T5	0.90			
Psychological distance	PD1	0.88	0.93	0.94	0.76
	PD2	0.87			
	PD3	0.90			
	PD4	0.87			
	PD5	0.85			
Purchase intention	PI1	0.86	0.92	0.93	0.73
	PI2	0.88			
	PI3	0.83			
	PI4	0.82			
	PI5	0.89			
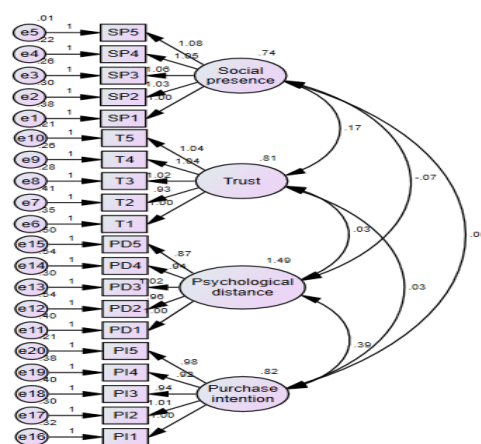
Figure 1. Confirmatory factor analysis model

Structural Model

The structural model evaluation is based on key goodness-of-fit indices, including CMIN/df, GFI, CFI, and RMSEA, which assess the model's overall fit to the observed data (Hu & Bentler, 1999). The Chi-square divided by degrees of freedom (CMIN/df) = 2.124, which falls within the acceptable range (≤ 3), indicating a good model fit with reasonable parsimony. The Goodness-of-Fit Index (GFI) = 0.916 exceeds the recommended threshold of 0.90, suggesting that the model adequately explains the variance in the dataset. Furthermore, the Comparative Fit Index (CFI) = 0.973 is well above the commonly accepted cutoff of 0.90, demonstrating a strong comparative fit against the null model. Additionally, the Root Mean Square Error of Approximation (RMSEA) = 0.054 is below the 0.08 threshold, signifying a good fit with minimal error in approximation. These fit indices collectively confirm that the structural model exhibits an acceptable and strong fit to the data, supporting its validity for hypothesis testing and theoretical interpretation.
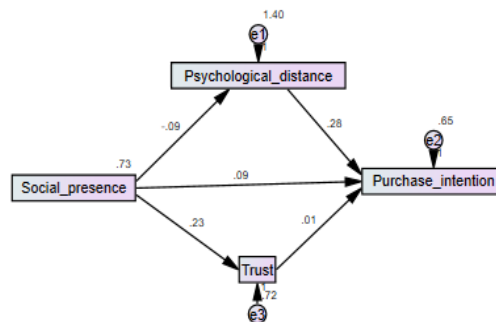

Figure 2. Structural Model result

Table 3. Hypothesis Summary

Hypothesis	Proposed Relationship	β	SE	t-value	p-value	Conclusion
H1	SP -> T	0.232	0.050	4.633	< 0.001	Supported
H2	SP -> PD	-0.094	0.070	-1.338	0.181	Not Supported
H3	T -> PI	0.012	0.048	0.244	0.807	Not Supported
H4	PD -> PI	0.279	0.035	8.034	< 0.001	Not Supported
H5	SP -> PI	0.088	0.049	1.781	0.075	Not Supported

The path analysis results indicate that social presence significantly enhances consumer trust in live-streaming shopping ($\beta = 0.232$, SE = 0.050, t = 4.633, p < 0.001), thereby supporting H1. In contrast, the hypothesised negative influence of social presence on psychological distance ($\beta = -0.094$, SE = 0.070, t = -1.338, p = 0.181) was not statistically significant, leading to a rejection of H2. Furthermore, the effect of trust on purchase intention was negligible and non-significant ($\beta = 0.012$, SE = 0.048, t = 0.244, p = 0.807), indicating that H3 is not supported. Although psychological distance significantly predicted purchase intention ($\beta = 0.279$, SE = 0.035, t = 8.034, p < 0.001), the positive relationship observed contradicts the hypothesized negative effect, thereby failing to support H4. Finally, the direct effect of social presence on purchase intention was positive ($\beta = 0.088$, SE

= 0.049, t = 1.781, p = 0.075) but only marginally significant, resulting in a lack of support for H5.

Table 4. Mediation table

Hypothesis	Proposed Relationship	Direct Effect (β)	Indirect Effect (β)	Total Effect (β)	p-value	Conclusion
H6	SP->T->PI	0.232	0.012	0.232 × 0.012 = 0.003	0.807	Not Supported (No significant indirect effect)
H7	SP->PD->PI	-0.094	0.279	-0.094 × 0.279 = -0.026	0.181	Not Supported (No significant indirect effect)

The mediation analysis results indicate that neither H6 (Trust as a mediator between social presence and purchase intention) nor H7 (Psychological distance as a mediator between social presence and purchase intention) are supported. In the case of H6, while the direct effect of social presence on trust is significant (β = 0.232), the indirect effect of trust on purchase intention is not statistically significant (β = 0.012, p = 0.807), resulting in an insignificant total indirect effect (β = 0.003). Similarly, for H7, although the relationship between psychological distance and purchase intention is significant (β = 0.279), the direct path from social presence to psychological distance is not significant (β = -0.094, p = 0.181), yielding a non-significant total indirect effect (β = -0.026). Consequently, both hypotheses fail to establish mediation, as neither trust nor psychological distance significantly mediate the relationship between social presence and purchase intention in live-streaming shopping.

Discussion

This study examined the relationships between social presence, trust, psychological distance, and purchase intention in live-streaming shopping. H1 was supported, indicating that social presence positively influences consumer trust, which aligns with recent studies such as those by Attar et al. (2023) and Huang et al. (2024). These studies emphasise that social presence enhances the connection between consumers and hosts, fostering trust in the live-streaming shopping environment. However, H2, hypothesising that social presence negatively influences psychological distance, was not supported. This result contrasts with Huang et al. (2023), who found that higher social presence reduces psychological distance and encourages consumer engagement. H3, where trust did not significantly influence purchase intention, aligns with findings from Wistedt (2024), who reported that trust in e-commerce does not always directly translate into higher purchase intention. Similarly, H4, where psychological distance positively influences purchase intention, is similar to the findings of Lee (2024)

H5 found no significant direct effect of social presence on purchase intention, which suggests that social presence alone is insufficient to drive purchase decisions. This finding is familiar with studies of Zahid et al. (2024), which emphasised the direct impact of social presence on purchase intention in the apparel business.

Finally, H6 and H7, which proposed trust and psychological distance as mediators between social presence and purchase intention, were not supported. These results suggest that the mediating roles of trust and psychological distance are less significant and more complex. In conclusion, while social presence positively impacts trust, the direct and indirect effects on purchase intention remain unclear, reflecting the complexity of consumer behaviour in live-streaming shopping.

Conclusion

This study aimed to explore the relationships between social presence, trust, psychological distance, and purchase intention in live-streaming shopping, a rapidly growing area in e-commerce. The findings indicated that social presence significantly enhances consumer trust, which aligns with existing literature emphasizing the importance of interpersonal connection in online environments. However, contrary to expectations, social presence did not reduce psychological distance, nor did it directly influence purchase intention. Additionally, the study found no significant effects of trust or psychological distance on purchase intention, suggesting that other factors may play a more critical role in driving consumer decisions in live-streaming shopping contexts.

Moreover, the proposed mediating effects of trust and psychological distance were not supported, pointing to the complexity of consumer behavior in live-streaming shopping. These results highlight that the influence of social presence on purchase intention is not as straightforward as previously assumed. Future research should consider exploring other potential mediators, such as emotional engagement, product attributes, or perceived value, to offer a more nuanced understanding of consumer behavior in live-streaming shopping. Overall, this study contributes to the growing body of knowledge on live-streaming commerce and offers valuable insights for marketers looking to enhance consumer engagement and purchase intention in this emerging shopping platform.

Limitations and Future Research Directions

Despite providing valuable insights, this study has several limitations. First, the research focused exclusively on consumers from urban areas in Nepal, limiting the generalizability of the findings to other geographical regions or rural populations. Future studies could expand the sample to include participants from diverse locations to enhance the external validity of the results. Second, the study relied on a cross-sectional design, which limits the ability to infer causal relationships. Longitudinal studies could provide a better understanding of how social presence, trust, and psychological distance evolve over time and their impact on purchase intention. Third, other factors, such as emotional engagement, product characteristics, or consumer's previous experience with live-streaming shopping, were not considered in the current study but may play a significant role in influencing purchase intention. Future research could explore the role of these factors and their interactions with social presence. Lastly, while the study examined trust and psychological distance as mediators, other potential mediators, such as perceived value or involvement, could be explored in future studies to provide a more comprehensive understanding of the underlying mechanisms in live-streaming shopping.

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