IJCEAS

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: XVI, Issue: 1, Year: 2026, pp. 1181-1205

The Effect of The Relationship Between Streamer and Viewer on the Viewer's Buying Behavior

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Received: 26.11.2025, Accepted: 28.04.2026
DOI Number: 10.5281/zenodo.20800559

Abstract

This study investigates the factors influencing purchase intention on live streaming platforms, focusing on parasocial interaction, streamer's communication style, entertainment, engagement, personal identification, and product interest. Drawing on survey data from 1,097 Twitch and Kick viewers, the measurement model was validated through confirmatory factor analysis, and the hypotheses were tested using linear regression and parallel mediation analysis. The results show that parasocial interaction, communication style, entertainment, engagement, personal identification, and product interest all positively affect purchase intention. Parasocial interaction influences purchase intention predominantly through an indirect pathway, with product interest serving as the primary mediator and personal identification as a secondary one. These findings underscore the interplay of psychological, social, and technological factors in shaping purchase behavior in digital environments. Practically, the study highlights the need for businesses to leverage transparent communication, interactive content, and emotionally resonant strategies to optimize consumer experiences. Although limited to Twitch and Kick viewers, future research could explore more diverse demographics and longitudinal trends. Overall, the study offers a robust, empirically validated framework for understanding and enhancing consumer engagement on live streaming platforms.

Key words: Twitch, Streaming, Buying Behavior, Influencer Marketing

JEL Code: M31, M37, D12, D91

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1. Introduction

The proliferation of digital technologies has brought significant changes to consumer behavior, particularly in the realm of online buying and live streaming platforms. Platforms such as Twitch and Kick have transformed the digital landscape by integrating entertainment, community engagement, and commerce. These platforms allow for real-time interactions between streamers and viewers, fostering unique relationships that influence consumer decisions and behaviors. This study focuses on understanding the variables that drive purchase intention within the context of live streaming platforms, examining both direct and mediating effects.

Live streaming platforms have emerged as pivotal spaces where streamers, serving as influencers, engage audiences in dynamic and interactive ways. This interaction not only builds trust and emotional connection but also creates opportunities for brands to promote their products effectively. The decision-making process of viewers is shaped by various factors, including parasocial interaction (PSI), streamer communication style, entertainment and engagement, personal identification, and product interest (Hannapha et al., 2025). These variables play significant roles in influencing purchase intention by enhancing viewer engagement and fostering loyalty.

Research has shown that PSI is a critical determinant of consumer engagement. Horton and Wohl (1956) describe PSI as an illusory yet impactful relationship, wherein audiences perceive media figures as personal acquaintances. This dynamic is particularly relevant in live streaming contexts, where real-time communication amplifies these bonds, encouraging trust and influencing purchasing behaviors. Similarly, product interest and personal identification act as mediators, linking PSI and other variables to purchase intention. These mediators highlight the psychological and emotional dimensions of consumer behavior, emphasizing their importance in shaping decisions.

Streamer communication style, characterized by empathy, transparency, and adaptability, significantly impacts trust and viewer satisfaction. Streamers who actively engage with their audiences through inclusive and interactive approaches are more likely to foster loyalty and influence purchase decisions. Entertainment and engagement further enhance the live streaming experience, creating an immersive environment that captivates viewers. Entertainment, through engaging and emotionally resonant content, elicits positive emotions that drive purchasing behavior. Meanwhile, engagement, active viewer involvement, builds a sense of community and co-presence, reinforcing loyalty and commitment to the platform.

This study aims to fill the gap in understanding how these variables collectively shape purchase intention on live streaming platforms. By employing a combination of Linear Regression Analysis and Mediation Analysis, this research examines the direct and indirect effects of these variables. The findings contribute to the growing body of literature on consumer behavior in digital environments and

provide actionable insights for businesses seeking to optimize their marketing strategies on live streaming platforms.

2. Literature Review

Live streaming represents the simultaneous capture, broadcast, and view of video content over the internet in real-time. This mode of media delivery is distinguished by its capacity to enable direct viewer participation, foster engagement, and satisfy informational needs. Furthermore, the inherent social connectivity and concurrent nature of live streaming significantly enrich the viewer's experience, offering a more immersive and interactive environment compared to traditional pre-recorded content. Also, it allows for real-time interaction between streamers and viewers, enhancing the sense of presence and community among users. This form of streaming has been integrated into social commerce, leveraging its interactive nature for product introduction and promotion (Chen and Liao, 2022). Starting in 2015, these retailers began utilizing live video streaming (LVS) as a novel approach to engage consumers and maintain the competitiveness of their offerings. LVS allows for real-time online broadcasts, enhancing both consumer-to-business and business-to-business interactions (Zhang, Qin, Wang & Luo, 2020).

Twitch is a leading live streaming platform that has notably evolved beyond its original gaming-centric focus. It provides a unique space where viewers can interact with streamers and each other in real-time, fostering a sense of community and belonging. The platform is characterized by its blend of "hot and cool media," combining high-fidelity video with interactive chat functionalities. This encourages viewer participation and engagement, allowing for a deeper connection with the content and the community. Streamers on Twitch benefit from a variety of monetization methods, primarily through community support via subscriptions, donations, and the platform's currency, "bits." The success of streamers on Twitch relies heavily on their ability to engage with their community and develop parasocial relationships, creating a sense of intimacy and belonging among viewers (Houssard, Pilati, Tartari, Sacco & Gallotti, 2023).

The interactive structure of Twitch not only enables real-time communication between streamers and viewers but also strengthens the relational dynamics that underpin persuasive influence in digital environments. As previously discussed, the development of parasocial interaction fosters emotional closeness, trust, and perceived intimacy between streamers and their audiences (Horton & Wohl, 1956; Dibble et al., 2016; Labrecque, 2014). This relational bond increases viewers' attachment and loyalty, thereby enhancing their responsiveness to product-related messages delivered during live broadcasts. In such contexts, streamers function not merely as content creators but as influential opinion leaders whose recommendations can shape viewers' attitudes and purchase intentions.

Building upon this relational foundation, the commercialization of live streaming platforms naturally aligns with broader digital marketing strategies. As viewers develop trust and identification with streamers, product promotions embedded within live streams become more persuasive and effective (Hu et al., 2017; Hamilton et al., 2014). This dynamic explains why brands increasingly collaborate with content creators to reach highly engaged audiences. In line with this transformation, influencer-driven promotional activities have gained strategic importance across various sectors, particularly in markets where consumers demonstrate strong responsiveness to digital endorsements (Ertogrul, Kilicsiz, & Bozanta, 2021). Influencer marketing has become a pivotal component of digital marketing strategies worldwide. While the gaming industry globally leverages influencers to engage with audiences, in Turkey, influencer collaborations are predominantly centered around sectors such as fashion, beauty, and technology. Studies have shown that Turkish consumers are highly receptive to influencer endorsements in these areas, with a significant impact on their purchasing decisions. For instance, a study analyzing Instagram influencers in Turkey found that the majority operate within lifestyle and fashion categories, indicating a strong focus on non-gaming sectors (Ertogrul, Kilicsiz & Bozanta, 2021).

Additionally, research on influencer marketing's effectiveness in promoting international trade products, further emphasizing the dominance of product and e-commerce-focused collaborations (Meral & Özbay, 2022). These findings suggest that, unlike the global trend where gaming holds a substantial share, in Turkey, influencer marketing is more effectively utilized in non-gaming sectors, reflecting the unique consumer behavior and market dynamics of the region.

Influencer marketing is a strategic approach that involves collaborating with individuals who possess a significant and engaged following on social media platforms to promote products, services, or brands. These individuals, known as influencers, leverage their credibility and reach to affect the purchasing decisions of their audience. Influencer marketing is defined as "a strategy for enlisting influencers to promote products and facilitate consumer purchase decision-making (Pan, Blut, Ghiassaleh & Lee, 2024).

Consumer online buying behavior is a multidimensional process influenced by a range of psychological, social, technological, and cultural factors. This behavior encompasses the attitudes, decision-making processes, and actions consumers undertake to purchase goods and services in an online environment. The rapid growth of e-commerce has significantly transformed traditional buying patterns, necessitating a deeper understanding of these behavioral dynamics (Pena-García et al., 2020). Over the past two decades, online buying has grown from a niche activity to a dominant market force, driven by advancements in technology and changes in consumer preferences (Ma & Wang, 2024). Understanding these shifts is crucial for businesses seeking to adapt to the competitive digital marketplace.

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Grasping the nuances of consumer online buying behavior is crucial for businesses aiming to thrive in the digital marketplace. It enables companies to tailor their marketing strategies, enhance user experience, and improve customer satisfaction. By understanding the online consumer's journey, businesses can optimize website design, personalize communication, and offer products that meet the specific needs and preferences of their target audience. This understanding also aids in predicting market trends, managing customer relationships, and ultimately driving sales and profitability (Pena-García et al., 2020).

Social factors encompass the influences that society, including family, friends, social networks, and cultural norms, exert on an individual's purchasing decisions. In the context of online buying behavior, these factors play a pivotal role in shaping consumer preferences and actions. Recommendations and opinions from peers can significantly impact online purchasing decisions. Positive reviews and testimonials from friends or social media connections often enhance trust in a product or service, leading to increased purchase intentions. Conversely, negative feedback can deter potential buyers (Bucko, Kakalejčík & Ferencová, 2018).

Psychological factors pertain to the internal characteristics and cognitive processes that influence an individual's online purchasing behavior. How consumers perceive online information, including website design, product images, and descriptions, affects their buying decisions. Clear, high-quality visuals and detailed, accurate descriptions can enhance perceived value and trustworthiness. Underlying needs and desires drive consumers to seek out and purchase products online. Understanding these motivations, whether they are utilitarian (e.g., convenience, necessity) or hedonic (e.g., pleasure, novelty), is crucial for marketers (Nuradina, 2022).

Technological factors involve the tools and platforms that facilitate online shopping and how their characteristics influence consumer behavior. User-friendly interfaces, intuitive navigation, and responsive design enhance the shopping experience, leading to higher conversion rates. Complex or poorly designed websites can frustrate users, resulting in abandoned carts (Bucko, Kakalejčík & Ferencová, 2018). With the increasing use of smartphones, mobile-optimized websites and applications are essential.

Consumers expect seamless experiences across devices, and the lack thereof can negatively impact purchasing decisions (Khandelwal & Singh, 2023). The availability of secure, diverse, and convenient payment methods, such as digital wallets and installment plans, influences consumer trust and purchase likelihood. Ensuring transaction security is paramount to gaining consumer confidence (Chen, 2023). The quality of internet connectivity and technological infrastructure in a region affects consumers' ability to engage in online shopping. In areas with limited access, online purchasing may be less prevalent (Liao, 2023). Beyond social, psychological, and technological influences, several other factors play a role in online buying behavior. An individual’s economic situation, including income level

and economic stability, directly impacts purchasing power and decisions. Economic downturns or personal financial constraints can lead to more cautious spending (Khandelwal & Singh, 2023).

The decision-making process is a structured approach by which individuals or organizations identify and select among alternatives to achieve specific objectives. This process typically involves recognizing the need for a decision, gathering pertinent information, evaluating options, and choosing the most appropriate course of action. According to research, decision-making is characterized as the act of choosing between two or more courses of action (de Andreis, 2020).

The decision-making process in online purchasing refers to the cognitive and behavioral steps consumers undertake when selecting and buying products or services via the internet. This process typically encompasses stages such as problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. Understanding this process is crucial for e-commerce platforms aiming to enhance user experience and satisfaction (Møller-Hansen, 2013).

Parasocial interaction is a concept that elucidates the illusory yet impactful relationship between media personas and their audiences. As described by Horton and Wohl (1956), PSI fosters a sense of mutual awareness and intimacy, wherein viewers perceive media figures as personal acquaintances or "real friends". In the context of live streaming, PSI emerges when broadcasters adapt their communication styles, such as addressing audience comments or employing inclusive conversational tones, to create a semblance of reciprocity (Dibble et al., 2016). This dynamic fosters emotional connections that enhance user engagement and loyalty (Labrecque, 2014).

The importance of PSI is underscored by its ability to influence consumer behavior on social and digital platforms. Research indicates that PSI strengthens personal attachment to media figures, driving higher engagement and fostering brand loyalty (Brown, 2015). Within live video streaming, this connection enhances broadcasters' ability to sustain viewer attention and cultivate a loyal audience base (Hu et al., 2017). Additionally, PSI contributes to viewers' self-definition processes, aligning their values and beliefs with those of the broadcasters, which further amplifies engagement and retention (Trepte, 2006).

Product interest is defined as the degree of curiosity and engagement that consumers exhibit toward products featured in live streaming platforms. Within the tourism live streaming context, product interest reflects the extent to which viewers are motivated to explore, evaluate, and potentially purchase the advertised offerings. According to Lv et al. (2022), product interest is a crucial psychological construct that emerges from the interactive and immersive nature of live streaming, where elements such as entertainment, informativity, and social interaction collectively influence consumer attitudes and behaviors. This dynamic is further

supported by Cheah et al. (2019), who highlight that product interest often drives immediate and impulsive purchasing decisions, particularly when live streams are designed to capitalize on limited-time promotions.

Streamer's communication style refers to the verbal and non-verbal strategies used by streamers to engage and influence their audiences during live broadcasts. According to Sheth (1975), communication style is a multidimensional framework involving task orientation, interaction orientation, and self-orientation. In live streaming contexts, this includes elements such as responding to audience comments, adopting an inclusive tone, and leveraging visual and verbal cues to build rapport. These techniques enhance the perceived authenticity and relatability of streamers, making their content more appealing and trustworthy (Williams & Spiro, 1985). The communication style of a streamer is a key determinant of audience engagement, retention, and satisfaction. Interaction-oriented communication styles, which prioritize direct engagement with viewers, have been shown to strengthen emotional connections and loyalty (Williams & Spiro, 1985).

Entertainment, in the realm of live streaming, is characterized by the elements of content and interaction that provide viewers with enjoyment, amusement, and emotional relief. According to Martins et al. (2019), entertainment serves as a medium to evoke positive emotions, offering viewers a sense of escapism and engagement. In live streaming, this construct encompasses dynamic visual presentations, interactive features, and creative storytelling techniques. These elements collectively enhance the viewer's overall experience, making the stream not only informative but also enjoyable (Chen & Lin, 2018).

Engagement can be defined as the active involvement of users within digital environments, particularly social media platforms, where individuals engage in behaviors such as commenting, sharing, liking, and content creation. This active engagement is characterized by functional, emotional, and communal dimensions, reflecting users' interactions with digital content and other participants. In the context of social media, engagement extends beyond passive consumption to include collaborative and interactive behaviors, fostering a sense of community and co-presence among users (Lim et al., 2015). These participatory actions are essential for enhancing user experience, promoting engagement, and driving platform sustainability.

In the context of live streaming platforms, personal identification plays a pivotal role in shaping viewer engagement, trust, and ultimately, purchase intention. When viewers perceive streamers as relatable or admirable, they are more likely to internalize the streamer's values and form an emotional connection. This bond enhances the effectiveness of product endorsements, as the viewer's trust in the streamer translates into trust in the products they promote. Moreover, personal identification contributes to a sense of belonging and loyalty within the digital community, reinforcing long-term engagement and viewer retention (Tian & Hoffner, 2010).

3. Hypothesis Development

According to Lv et al., (2022) product interest has positive effects on buying desire and continuous watching intention on live streaming as a mediator. According to Hu et al., (2017), parasocial interaction has positive effects in video game streaming. Due to this information, this study aims to test the mediation effects of product interest on the relationship between parasocial interaction and purchase intention.

H_1: Product Interest mediates the effect of Parasocial Interaction on Purchase Intention

According to Hu et al., (2017) parasocial interaction (PSI) has strong influences on broadcaster identification for video games streaming and it also affects continuous watching intention. As described before, PSI fosters a sense of mutual awareness and intimacy, wherein viewers perceive media figures as personal acquaintances or "real friends". According to this intangible friendship, this research aims to test how this friendship affects Product Interest among viewers. Therefore, it is hypothesized that:

H_2: Parasocial Interaction positively affects Product Interest

According to Lv et al., (2022) product interest has positive influence on buying desire and it promotes immediate buying behavior. Viewers who exhibit an interest in streamers are more likely to develop positive attitudes toward them, which can subsequently transfer to the products being advertised, thereby enhancing viewers' purchasing desires. Furthermore, viewers' interest in live-streaming content suggests a favorable reaction. When viewers hold positive attitude toward the content, their perception of related products improve, ultimately strengthening their purchase intentions. Thus, it is hypothesized that:

H_3: Product Interest positively affects Purchase Intention

According to Hu et al., (2017), parasocial interaction has positive effects in video game streaming. Parasocial interaction is characterized by an illusory sense of mutual awareness and intimacy with media personas. Individuals perceive themselves as engaging in face-to-face interactions despite the absence of reciprocal communication. Those involved in parasocial relationships often report feelings of closeness and intimacy, frequently regarding media personas as "real friends". This friendship-like bond, in turn, fosters personal attachment, greater investment in the relationship, and increased loyalty toward media figures. Thus, it is hypothesized that:

H_4: Parasocial Interaction positively affects Purchase Intention

According to Liao, et al. (2023), streamers' interaction-oriented communication style affects a consumer's purchase intention. Also, while studies have established that the way salespeople communicate with consumers plays a pivotal role in shaping purchase behaviors (Williams & Spiro, 1985), there is limited understanding of how salespeople's communication styles influence

purchase intention within the context of live streaming commerce. Communication style has positive effects on sales, and communication style should be considered as one of the behavioral dimensions which are affecting sales (Williams & Spiro, 1985). In the light of this information, it is hypothesized that:
H_5: Streamer's Communication Style positively affects Purchase Intention

According to Lv et al., (2022), entertainment refers to an advertisement's capacity to evoke enjoyment and foster positive consumer attitudes by providing escapism, diversion, or emotional relief. In the context of live streams, the primary goal of entertainment is to evoke happiness, humor, or alleviate stress among viewers. Previous research has demonstrated that the entertainment aspect of smartphone advertisements enhances consumers' focused attention and facilitates a state of flow (Kim & Han, 2014). Thus, it is hypothesized that:
H_6: Entertainment positively affects Purchase Intention

According to Lim et al., (2015) participation directly influences social presence, while communal engagement has a direct impact on channel loyalty. The relationship between emotional engagement and channel loyalty is mediated through channel commitment. Similarly, social presence contributes to channel loyalty, with its effect also mediated by channel commitment. This study aims to test the effects of channel loyalty caused by communal engagement, on Purchase Intention.
H_7: Engagement positively affects Purchase Intention

According to Hu, M., Zhang, M., & Wang, Y. (2017), personal identification was positively associated with continuous watching intention. This continuous intention aligns with previous research, which highlights that psychological bonds between individuals and groups are a critical factor influencing loyalty behavior in virtual communities. Thus, it is hypothesized that:
H_8: Personal Identification positively affects Purchase Intention

According to Hu, Zhang & Wang (2017), personal identification mediates the relationship between parasocial interaction and continuous watching intention. Additionally, Peng et.al. (2024) demonstrated that PSI is positively correlated with purchase intention. Therefore, it is hypothesized that:
H_9: Personal Identification mediates the effect of Parasocial Interaction on Purchase Intention

Parasocial interaction has been found to be positively related to personal identification (Hu et al., 2017; Wei et al., 2022). This study aims to find that parasocial interaction has positive effects on personal identification.
H_{10}: Parasocial Interaction positively affects Personal Identification

4. Methodology

In this research, the effect of the relationship between streamers and viewers, on viewers' purchase intention is aimed to test and analyze how viewers act through this relationship between streamer and viewer. For hypotheses testing, five-point Likert-type scale is utilized to enable individuals to express the extent to which they agree or disagree with a given statement. The questionnaire consisted of eight sections, and 27 Likert-type scaled questions measuring the constructs related to live streaming experiences and consumer purchase intent. The first section included four demographic questions assessing participants' gender, age, education level, and perceived income status via nominal type items. The second section measured parasocial interaction and consisted of three items evaluating the perceived mutual awareness and interaction between the viewer and the broadcaster (Hu et al., 2017). The third section assessed the entertainment dimension of live streaming through five items, focusing on enjoyment, relaxation, and perceived entertainment value (Lv et al., 2022). The fourth section examined the streamer's communication style and included seven items measuring perceptions of helpfulness, friendliness, cooperativeness, and efforts to establish personal relationships with viewers (Williams & Spiro, 1985). The fifth section measured audience engagement using two items that assessed viewers' sense of belonging and engagement within the audience group (Lim et al., 2015). The sixth section evaluated personal identification with the streamer and consisted of four items examining value alignment, admiration, and identification with the broadcaster (Hu et al., 2017). The seventh section assessed product interest through three items measuring viewers' interest in and impressions of products recommended during live streaming (Lv et al., 2022). Finally, the eighth section measured purchase intention using three items evaluating participants' intentions and expectations regarding purchasing products or services recommended by the streamer (Sun et al., 2019). Since all scale items originated from English-language sources, a back-translation procedure was applied prior to data collection (Brislin, 1970). The researcher translated the items into Turkish, and a second bilingual translator, blind to the original items, then back translated this form into English. The back-translated version was compared with the original, and discrepancies were resolved by the authors.

Before data collection, ethics approval for the questionnaire has been obtained from the University's Scientific Research and Publication Ethics Committee (May 2024). Using voluntary response convenience sampling, the questionnaire of the study was distributed digitally via Google Forms, which was shared in live streamings on Twitch between May 2024 and November 2024, a total of 4,313 participants attended the study. After eliminating erroneous data, 1,097 valid responses were obtained. The identification of invalid data was based on patterns such as consecutive identical answers and inconsistencies in demographic information, ensuring the reliability of the final dataset. The participants were active viewers of the Twitch and Kick platforms who regularly follow live streaming content.

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To determine the reliability of the constructs, Reliability Analysis was performed in SPSS Statistics Program. Cronbach's Alpha coefficient of "Entertainment" is α=0.792, "Parasocial Interaction" is α=0.794, "Streamer's Communication Style" is α=0.861, "Engagement" is α=0.867, "Personal Identification" is α=0.841, "Product Interest" is α=0.909, "Purchase Intention" is α=0.904. As it is seen, except two subscales, all others are bigger than 0.8 which means the test is highly reliable (İslamoğlu & Altunışık, 2018, p. 156; Gürbüz & Şahin, 2018, p. 155). According to the test results, collected data can be seen as highly reliable (see Table 1).

Table 1. Reliability Analysis of Variables

Items	MSA Values	Cronbach's Alpha Coefficient
ENT 1	0.893	α=0.792
ENT 2	0.950	
ENT 3	0.908	
ENT 4	0.957	
ENT 5	0.933	
PARASOC1	0.913	α=0.794
PARASOC2	0.872	
PARASOC3	0.937	
COMSTYLE 1	0.948	α=0.861
COMSTYLE 2	0.956	
COMSTYLE 3	0.928	
COMSTYLE 4	0.937	
COMSTYLE 5	0.921	
COMSTYLE 6	0.923	
COMSTYLE 7	0.975	
ENGAGE 1	0.911	α=0.867
ENGAGE 2	0.905	
PERIDE 1	0.947	α=0.841
PERIDE 2	0.923	
PERIDE 3	0.931	
PERIDE 4	0.964	
PRODINT1	0.949	α=0.909
PRODINT2	0.939	
PRODINT3	0.951	
INT1	0.953	α=0.904
INT2	0.920	
INT3	0.935	
Overall MSA(KMO)	0.920	

ENT: Entertainment, PARASOC: Parasocial Interaction, COMSTYLE: Communication Style, ENGAGE: Engagement, PERIDE: Personal Identification, PRODINT: Product Interest, INT: Purchase Intention
Source: Authors' calculations

To assess the construct validity of the scale, principal component analysis and exploratory factor analysis were conducted using the promax rotation method. The analysis revealed that the Kaiser-Meyer-Olkin (KMO) sampling adequacy value was 0.920, indicating that the sample size was sufficient for factor analysis (see Table 2).

Table 2: Exploratory Factor Analysis of the Study

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Uniqueness

INT2	1.185						0.328
INT3	1.132						0.415
INT1	1.068						0.582
PRODINT1	1.060						0.405
PRODINT3	0.953						0.429
PRODINT2	0.902						0.389
COMSTYLE2		0.982					0.893
COMSTYLE3		0.942					0.414
COMSTYLE6		0.932					0.881
COMSTYLE4		0.899					0.581
COMSTYLE5		0.887					0.996
COMSTYLE1		0.769					0.495
PERIDE2			1.045				0.330
PERIDE4			0.827				0.650
PERIDE3			0.756				0.546
PERIDE1			0.717				0.630
PARASOC2				1.066			0.286
PARASOC1				0.774			0.514
PARASOC3				0.688			0.789
ENGAGE1					1.050		0.232
ENGAGE2					1.027		0.414
ENT1						0.637	0.238
ENT2						0.602	0.406
ENT3							0.206
ENT4							0.724
ENT5							0.095
COMSTYLE7							0.607
Eigenvalues	14.094	3.748	2.109	1.848	1.517	1.317	
Variance Explained (%)	18.4	14.6	8.5	6.3	6.2	5.7	
Total Variance Explained (%)	59.6						

Note: Applied rotation method is promax.
Source: Authors' calculations

As shown in Table 2, the six extracted factors jointly accounted for 59.6% of the total variance (18.4%, 14.6%, 8.5%, 6.3%, 6.2%, and 5.7%, respectively). Five of the seven hypothesized constructs loaded cleanly onto their respective items, whereas product interest and purchase intention loaded onto a single component. Following MacCallum, Widaman, Zhang, and Hong (1999), who note that factor solutions should be interpreted in light of theory rather than accepted on purely statistical grounds, these two constructs were retained separately and their distinctiveness was subsequently tested through confirmatory factor analysis. The Kaiser-Meyer-Olkin value (.920) and a significant Bartlett's test of sphericity ($p < .001$) confirmed the suitability of the data for factor analysis (Kaiser, 1974), and factors were extracted using the criterion of eigenvalues greater than one.

Confirmatory Factor Analysis

Although the exploratory factor analysis suggested a six-factor solution in which product interest and purchase intention converged onto a single component, these two constructs were retained as conceptually distinct. To verify the measurement structure and to test the distinctiveness of the constructs more rigorously, a confirmatory factor analysis (CFA) was conducted using maximum likelihood estimation in JASP (version 0.19.2.0). The seven-factor measurement model demonstrated an acceptable fit to the data: $\chi^2(303) = 1463.72$, $p < .001$; CFI = .935; TLI = .925; RMSEA = .059 (90% CI [.056, .062]); and SRMR = .054 (Hu & Bentler, 1999).

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Convergent validity and reliability were evaluated through standardized factor loadings, composite reliability (CR), and average variance extracted (AVE), as presented in Table 3. All standardized loadings were positive and statistically significant ($p < .001$). Composite reliability values ranged from .778 to .910, exceeding the recommended threshold of .70 and indicating strong internal consistency. The AVE exceeded the .50 criterion for five of the seven constructs. For entertainment (AVE = .441) and the streamer's communication style (AVE = .464), AVE fell marginally below this threshold; however, because their composite reliabilities were well above .70, convergent validity can still be regarded as adequate (Fornell & Larcker, 1981).

Discriminant validity was assessed using the heterotrait-monotrait ratio of correlations (HTMT; Henseler et al., 2015), as reported in Table 4. Twenty of the twenty-one construct pairs yielded HTMT values below .70, well under the conservative threshold of .85. The only elevated value occurred between product interest and purchase intention (HTMT = .877), which nonetheless remained below the more lenient .90 threshold recommended for conceptually proximal constructs (Henseler et al., 2015). To examine this relationship further, the latent correlation between the two constructs was estimated using 5,000 bootstrap samples. The estimated correlation ($r = .875$) produced a 95% confidence interval of [.844, .901] that did not include 1.00, indicating that the two constructs are statistically distinguishable (Anderson & Gerbing, 1988). Conceptually, product interest reflects viewers' curiosity about and attention toward the featured products, whereas purchase intention captures their behavioral readiness to buy. The two constructs were therefore retained as separate in the subsequent analyses, although their strong association is acknowledged as a limitation of the study.

Table 3. Confirmatory Factor Analysis Results (Measurement Model)

Construct	Item	Std. Loading	CR	AVE
Parasocial Interaction	PARASOC1	.785	.804	.570
	PARASOC2	.816		
	PARASOC3	.675		
Entertainment	ENT1	.849	.778	.441
	ENT2	.786		
	ENT3	.873		
	ENT4	.584		
	ENT5	.344		
Streamer's Communication Style	COMSTYLE1	.780	.848	.464
	COMSTYLE2	.671		
	COMSTYLE3	.812		
	COMSTYLE4	.741		
	COMSTYLE5	.548		
	COMSTYLE6	.595		
	COMSTYLE7	.689		
Engagement	ENGAGE1	.910	.868	.766
	ENGAGE2	.843		
Personal Identification	PERIDE1	.766	.850	.581
	PERIDE2	.841		

	PERIDE3	.700		
	PERIDE4	.731		
Purchase Intention	INT1	.819	.906	.761
	INT2	.916		
	INT3	.883		
Product Interest	PRODINT1	.875	.910	.770
	PRODINT2	.887		
	PRODINT3	.871		

Note. CR=composite reliability; AVE=average variance extracted. All standardized loadings are significant at $p < .001$.
Source: Authors' calculations

Table 4. Discriminant Validity (HTMT)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
1. Parasocial Interaction	—						
2. Entertainment	.535	—					
3. Communication Style	.623	.614	—				
4. Engagement	.600	.612	.629	—			
5. Personal Identification	.469	.687	.663	.635	—		
6. Purchase Intention	.386	.503	.479	.466	.581	—	
7. Product Interest	.400	.575	.498	.487	.626	.877	—

Note. Values below the diagonal are heterotrait-monotrait (HTMT) ratios.
Source: Authors' calculations

Finally, common method bias was assessed using Harman's single-factor test. An unrotated principal component analysis in which all 27 items were constrained to a single factor accounted for 39.1% of the total variance, which is below the 50% threshold, indicating that common method bias is unlikely to be a serious concern in this study (Podsakoff et al., 2003).

Frequency and percentage values of the sample according to gender, age, education level, and socioeconomic status are presented in Table 5.

Table 5. Demographic Information of the Sample

		Frequency	**Valid Percentage (%)**
Gender	Female	74	6.7
	Male	1011	92.2
	Other	9	0.8
	Do Not Prefer to Respond	3	0.3
Age	18-24	662	60.3
	25-34	390	35.6
	35-44	29	2.6
	45-54	4	0.4
	55 and Above	12	1.1

Education Level	Primary	4	0.4
	Middle School	5	0.5
	High School	233	21.2
	University	766	69.8
	Master's degree	68	6.2
	Doctoral Degree	21	1.9
Socioeconomic Status	Lower Economic Status	182	16.6
	Lower Middle Economic Status	313	28.5
	Middle Economic Status	433	39.5
	High Middle Economic Status	135	12.3
	High Economic Status	34	3.1

Source: Authors' calculations

The demographic characteristics of the participants indicate that the sample was predominantly male (92.2%). Many respondents were in the 18–24 age group (60.3%), suggesting a largely young participant profile. In terms of educational background, most participants held a bachelor's degree (69.8%). Regarding perceived income status, the largest proportion of participants identified themselves as belonging to the middle economic group (39.5%). Overall, these findings show that the sample mainly consisted of young, male participants with undergraduate education and a self-reported middle-income status.

Global statistics on live streaming platforms indicate a predominantly male user base, with approximately 60–70% of users identifying as male and 30–40% as female (Statista, 2025). This pattern closely aligns with the findings of the present study, where male participants constitute 92% of the sample. Although the proportion of male users in this study appears higher than global averages, it remains consistent with the broader gender imbalance observed across live streaming platforms, particularly those rooted in gaming culture. Therefore, the gender distribution of the sample can be considered reflective of the general audience structure. However, this overrepresentation should be acknowledged as a potential limitation when generalizing the findings to more gender-balanced populations

For the normality test, skewness and kurtosis values are examined. According to Tabachnick and Fidell (2013), if skewness and kurtosis values are between -1.5 and +1.5, data is accepted to be distributed normally. After the examination of skewness and kurtosis values, it is seen that normality conditions are met. Therefore, parametric tests are used during the process of data analysis.

The collected data were analyzed in several stages using SPSS Statistics 20.0 and JASP 0.19.2.0. First, the reliability of the constructs was assessed through

Cronbach's alpha coefficients. Construct validity was then examined by exploratory factor analysis with promax rotation, followed by confirmatory factor analysis (maximum likelihood estimation) to verify the measurement model. Convergent validity was evaluated through composite reliability (CR) and average variance extracted (AVE), while discriminant validity was assessed using the heterotrait-monotrait (HTMT) ratio of correlations together with bias-corrected bootstrap 95% confidence intervals (5,000 samples) for the latent correlations. Common method bias was examined using Harman's single-factor test. To test the direct-effect hypotheses (H_2-H_8 and H_{10}), linear regression analyses were conducted with purchase intention and the relevant constructs as the dependent and independent variables. Finally, the mediating roles of product interest and personal identification (H_1 and H_9) were examined through a parallel mediation model, in which parasocial interaction served as the predictor, product interest and personal identification as parallel mediators, and purchase intention as the outcome; the model was estimated by maximum likelihood with standardized coefficients, and the significance of the indirect effects was determined using bias-corrected bootstrap 95% confidence intervals based on 5,000 samples.

5. Findings

Hypothesis Testing and Analysis

In this study, the dependent variable, Purchase Intention, was analyzed considering the effects of the independent variables Product Interest, PSI, Streamer's Communication Style, Engagement, and Personal Identification using Linear Regression Analysis, in line with the study's hypotheses. Each independent variable was analyzed separately with the dependent variable through Linear Regression Analysis. Additionally, this study includes mediating variables; Product Interest and Personal Identity which was tested using mediation analysis. For statistical analysis, SPSS 20.0 and JASP 0.19.2.0 software programs were utilized.

For the hypothesis "Product Interest positively affects Purchase Intention," the Linear Regression Analysis yielded an R-value of .760, a B-value of .814, and a ß-value of .760. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 1493.911. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .760). H_3 is supported.

For the hypothesis "Parasocial Interaction positively affects Purchase Intention." The Linear Regression Analysis yielded an R-value of .303, a B-value of .357, and a ß-value of .303. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 110.847. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .303). H_4 is supported.

For the hypothesis "Streamer's Communication Style positively affects Purchase Intention," the Linear Regression Analysis yielded an R-value of .384, a B-value of .484, and a ß-value of .384. The ANOVA significance value was

calculated as 0.0001, with an ANOVA F-value of 184.940. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .384). H_5 is supported.

For the hypothesis "Entertainment positively affects Purchase Intention," the Linear Regression Analysis yielded an R-value of .375, a B-value of .567, and a ß-value of .375. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 179.355. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .375). H_6 is supported.

For the hypothesis "Engagement positively affects Purchase Intention," the Linear Regression Analysis yielded an R-value of .388, a B-value of .424, and a ß-value of .388. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 193.683. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .388). H_7 is supported.

For the hypothesis "Personal Identification positively affects Purchase Intention," the Linear Regression Analysis yielded an R-value of .476, a B-value of .593, and a ß-value of .476. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 320.499. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .476). H_8 is supported.

For the hypothesis "Parasocial Interaction positively affects Product Interest," the Linear Regression Analysis yielded an R-value of .317, a B-value of .349, and a ß-value of .317. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 122.445. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .317). H_2 is supported.

For the hypothesis "Parasocial Interaction positively affects Personal Identification," the Linear Regression Analysis yielded an R-value of .359, a B-value of .340, and a ß-value of .359. The ANOVA significance value was calculated as 0.0001, with an ANOVA F-value of 162.082. These results indicate that the hypothesis is statistically significant ($p < 0.05$, ß: .359). H_{10} is supported. According to the results, it can be said that personal identification, engagement, entertainment, streamer communication style, and PSI positively affect the purchase intention of individuals watching live streams for products endorsed by streamers.

IJCEAS

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: XVI, Issue: 1, Year: 2026, pp. 1181-1205

Table 6. Results of Hypothesis Testing

Hypothesis	Independent Variables	R Value of Regression	B Value of Coefficient	ß Value of Coefficient	VIF Value	Significance Value of ANOVA	F Value of ANOVA	Result
H_3	Product Interest>Purchase Intention	0.760	0.814	0.760	1.000	0.0001	1493.911	Supported
H_4	Parasocial Interaction	0.303	0.357	0.303	1.000	0.0001	110.847	Supported
H_5	Streamer's Communication Style	0.384	0.484	0.384	1.000	0.0001	184.940	Supported
H_6	Entertainment	0.375	0.567	0.375	1.000	0.0001	179.355	Supported
H_7	Engagement	0.388	0.424	0.388	1.000	0.0001	193.683	Supported
H_8	Personal Identification	0.476	0.593	0.476	1.000	0.0001	320.499	Supported
H_2	Parasocial Interaction>Product Interest	0.317	0.349	0.317	1.000	0.0001	122.445	Supported
H_{10}	Parasocial Interaction>Personal Identification	0.359	0.340	0.359	1.000	0.0001	162.082	Supported

Source: Authors' calculations

IJCEAS

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
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To test the mediating roles of product interest (H_1) and personal identification (H_9), a parallel mediation model was estimated in JASP, specifying parasocial interaction as the predictor, product interest and personal identification as parallel mediators, and purchase intention as the outcome. All coefficients were standardized, and the significance of the indirect effects was evaluated using bias-corrected bootstrap 95% confidence intervals based on 5,000 samples (see Table 7).

Parasocial interaction significantly predicted both mediators (PSI→product interest, β = .339; PSI→personal identification, β = .387; both p < .001), and both mediators in turn predicted purchase intention (product interest→purchase intention, β = .731; personal identification → purchase intention, β = .092; both p < .001). The specific indirect effect of parasocial interaction on purchase intention through product interest was positive and significant (β = .248, 95% CI [.201, .292]), supporting H_1, whereas the indirect effect through personal identification was smaller but also significant (β = .035, 95% CI [.017, .056]), supporting H_9. The direct effect of parasocial interaction on purchase intention remained significant but small (β = .044, 95% CI [.007, .083]), and the total indirect effect (β = .284, 95% CI [.235, .331]) substantially exceeded it. These findings indicate that parasocial interaction influences purchase intention predominantly through an indirect pathway consistent with partial mediation.

Table 7. Parallel Mediation of Parasocial Interaction on Purchase Intention

Path	β	95% Bootstrap CI	p
Path coefficients			
PSI → Product Interest	.339	[.278, .396]	< .001
PSI → Personal Identification	.387	[.326, .445]	< .001
Product Interest → Purchase Intention	.731	[.687, .770]	< .001
Personal Identification → Purchase Intention	.092	[.044, .140]	< .001
PSI → Purchase Intention (direct)	.044	[.007, .083]	.023
Indirect effects			
PSI → Product Interest → Purchase Intention	.248	[.201, .292]	< .001
PSI → Personal Identification → Purchase Intention	.035	[.017, .056]	< .001
Total indirect effect	.284	[.235, .331]	< .001
Total effect			
PSI → Purchase Intention	.328	[.267, .382]	< .001

Note. Standardized coefficients (β) from a parallel mediation model estimated by maximum likelihood; confidence intervals are bias-corrected bootstrap intervals based on 5,000 samples. PSI = parasocial interaction.
Source: Authors' calculations.

6. Conclusion

The study aimed to investigate the impact of the relationship between streamers and viewers on purchase intention within live streaming platforms,

specifically focusing on variables of PSI, streamer's communication style, entertainment, engagement, personal identification, and product interest. The analysis uncovered significant findings that contribute to the broader understanding of consumer behavior in digital environments, particularly within the context of live streaming commerce.

The results indicate that all independent variables analyzed (PSI, streamer communication style, entertainment, engagement, and personal identification) have statistically significant positive effects on purchase intention. These findings underscore the importance of fostering engaging and meaningful relationships between streamers and their audiences. For instance, PSI emerged as a critical driver, reinforcing the notion that viewers' perception of intimacy and reciprocity with streamers enhances their willingness to act on product endorsements. This dynamic, highlights the psychological mechanisms underlying digital marketing strategies, where perceived authenticity and personal connection can significantly influence consumer behavior.

Moreover, the mediating role of product interest and personal identification provides nuanced insights into the decision-making process of viewers. The mediation analysis revealed that PSI indirectly affects purchase intention through these mediators, emphasizing their pivotal role in shaping consumer attitudes and behaviors. Specifically, product interest amplifies viewers' curiosity and engagement with advertised products, while personal identification strengthens the emotional bond between viewers and streamers, fostering trust and loyalty. These findings suggest that successful influencer marketing strategies must consider the interplay between these mediating factors to optimize their effectiveness.

Streamer's communication style also demonstrated a substantial impact on purchase intention, reaffirming the importance of interaction-oriented and empathetic communication in live streaming environments. Streamers who actively engage with their audiences through inclusive and transparent communication build trust and credibility, thereby enhancing their influence over viewers' purchasing decisions. Similarly, entertainment, characterized by dynamic and emotionally engaging content, was found to positively influence purchase intention by fostering immersion and eliciting positive emotions. This highlights the dual role of live streaming as both a marketing tool and a source of enjoyment for audiences.

Engagement, defined as the active involvement of viewers in live streaming activities, emerged as another key determinant of purchase intention. Fostering a sense of community and co-presence not only enhances engagement but also strengthens viewers' emotional connection to the content and platform. These findings align with existing literature, which underscores the role of communal experiences in driving loyalty and advocacy within digital environments.

The implications of this study extend beyond the realm of live streaming platforms, offering valuable insights for e-commerce businesses and marketers aiming to leverage influencer marketing effectively. The research highlights the

need for comprehensive and integrated strategies that address the psychological, emotional, and social dimensions of consumer behavior. Businesses should prioritize building authentic relationships with their audiences, fostering a sense of community, and delivering entertaining and value-driven content to sustain long-term engagement and loyalty.

In conclusion, this study advances the understanding of the factors influencing purchase intention within live streaming platforms. By demonstrating the significance of PSI, communication style, entertainment, engagement, and personal identification, the research provides a robust framework for businesses to design effective influencer marketing strategies. The integration of mediating variables such as product interest and personal identification further enriches this framework, offering actionable insights for enhancing consumer engagement and driving e-commerce success in the digital age.

Despite its contributions, this study has several limitations that point to avenues for future research. First, the sample was drawn from active Twitch and Kick viewers and was predominantly young and male, which restricts the generalizability of the findings to broader and more gender-balanced audiences; future studies should incorporate more diverse platforms and demographic groups. Second, the cross-sectional design captures behavior at a single point in time and cannot reflect the evolving nature of viewer-streamer relationships, so longitudinal approaches would be valuable. Third, reliance on single-source, self-reported data introduces potential biases, which future work could mitigate through objective behavioral measures or experimental designs. Finally, the model focuses on a limited set of variables; subsequent research could broaden it to include factors such as streamer attractiveness, trustworthiness, interactivity, perceived uncertainty, streamer expertise, and product type, as well as cultural conditions and emerging technologies (e.g., AI and VR), and could examine long-term effects on brand loyalty and repeat purchasing.

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