THE 'CHECK OUT' IMPULSE: UNVEILING THE ROLE OF COGNITIVE ASSIMILATION AND AROUSAL IN THE influence OF STREAMERS ON IMPULSE BUYING INTENTIONS ON TIKTOK LIVE

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Abstract

This study aims to analyze the influence of streamer interaction (SI) and streamer attractiveness (SA) on impulsive buying intention (IPI) by considering the mediating roles of cognitive assimilation (CA) and emotional arousal (AR) in the context of TikTok live streaming. The results of data analysis and hypothesis testing reveal that SI and SA have a positive and significant effect on IPI, CA, and AR. Furthermore, CA and AR are found to significantly influence IPI, with AR being the most dominant factor driving impulsive buying intention. The study also shows that CA and AR serve as significant mediators in the relationship between SI, SA, and IPI. These findings confirm that interaction quality, personal attractiveness, and emotional stimulation from streamers play an essential role in shaping the shopping experience that drives spontaneous purchasing decisions on live streaming platforms.

Keywords: Streamer Interaction, Streamer Attractiveness, Cognitive Assimilation, Emotional Arousal, Impulsive Buying Intention, TikTok Live Streaming

INTRODUCTION

Digital globalization has driven a transformation in the way industries market and sell their products. One clear example is the emergence of e-commerce platforms and social media, which have changed how consumers interact with brands and make purchases. Companies can now reach a broader market online and build direct relationships with consumers through various digital channels. In addition, the development of ICT has also encouraged innovation in marketing strategies. According to (Chaffey & Ellis-Chadwick, 2019), digital marketing is the application of digital technologies that create online channels to the market, such as websites, e-mail, databases, and digital TV, along with more recent developments including blogs, feeds, podcasts, and social networks, all of which play an important role in marketing activities. These changes require companies to be more innovative and responsive to the ever-evolving market needs. Flexibility and adaptability have become the key to success in facing challenges and opportunities in the digital era.

Conventional and static marketing through social media alone has begun to lose its appeal as consumer behavior increasingly prioritizes convenience, direct interaction, and engaging shopping experiences. Pleasant and interactive shopping experiences tend to become the preference of modern consumers, especially Millennials and Gen Z. Therefore, the development of live streaming business has emerged as one of the greatest advancements in the digital marketing world. Live streaming has become a marketing strategy that combines live broadcasting with online shopping, creating real-time connections between sellers and consumers (Sawmong, 2022). Live streaming shopping has achieved many positive results but has also led to the phenomenon of impulsive consumer buying (G. Li et al., 2022). First popularized in China through platforms such as Taobao Live, this phenomenon has now spread worldwide, including through TikTok live streaming.

TikTok is a social media platform that allows users to create short videos of up to 3 minutes. Equipped with music, filters, and various creative features, TikTok was initially launched in China in September 2016 under the name Douyin by ByteDance. Although it was briefly banned by the government in July 2019 due to concerns over negative content, TikTok managed to resume operations after improving content moderation and complying with regulations. The COVID-19 pandemic further accelerated TikTok's growth in Indonesia. Since 2020, TikTok has become increasingly widespread by launching features relevant to Indonesian users, such as TikTok Shop, as well as partnering with local brands and creators (Khasanah, 2024).

TikTok Shop is an additional feature released by TikTok on April 17, 2021. It is an innovative form of social commerce that connects sellers and buyers, allowing buyers to directly purchase goods and services offered by sellers interactively and in real-time on the platform provided by TikTok.

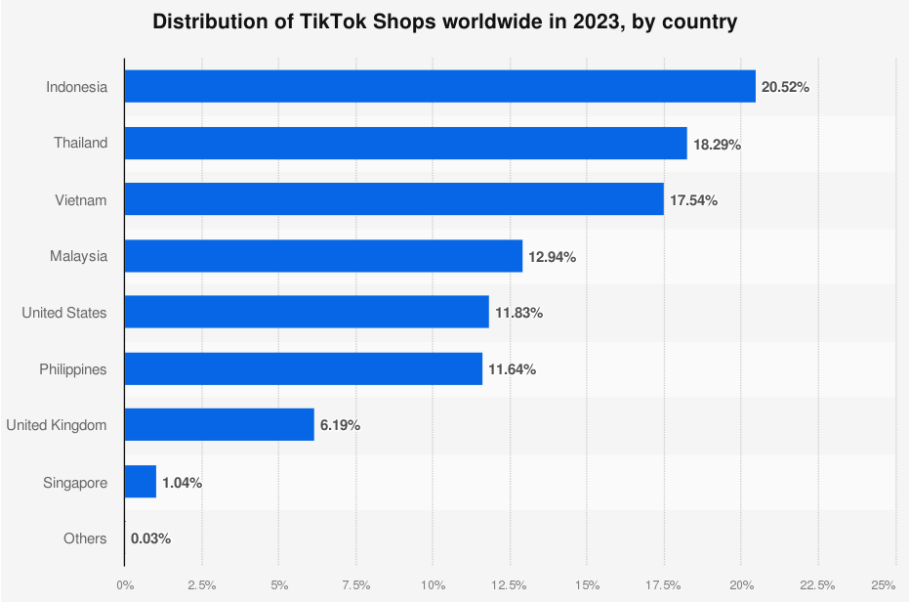

Figure 1.
Distribution of TikTok Shops worldwide in 2023, by country
Source: Statista, 2024

Based on the data in Figure 1, the distribution of TikTok Shops worldwide in 2023 shows that Indonesia ranks first with a percentage of 20.52%. This data indicates that TikTok Shop has been well-received by Indonesian society and holds great growth potential. Business actors in Indonesia can take advantage of features provided by TikTok Shop, such as TikTok Ads, to expand their target audience by advertising their products through TikTok Ads, which are promoted on TikTok Shops. Entrepreneurs in Indonesia can also utilize Live Shopping, a feature available on TikTok Shop, to reach a larger audience by conducting regular live streaming sessions that offer attractive promotions, product demonstrations, and direct interaction with viewers. According to (Priyono & Dian Permata Sari, 2023), Live Shopping is a process in which consumers directly purchase goods, services, and other items from a seller interactively and in real-time without intermediaries through the Internet. Research conducted by (Priyono & Dian Permata Sari, 2023), on the impact of TikTok Shop states that selling on TikTok Shops provides several advantages, including enabling buyers to shop directly on the TikTok social media platform without having to switch to websites or e-commerce applications, and offering the potential to expand the business market due to TikTok's large user base. Among these advantages, one local fashion company that has utilized TikTok Shop as a promotional medium is Erigo.

Erigo was founded by Muhammad Sadad in 2011 under the name *Selected & Co*. In 2013, the company rebranded to Erigo, as the original name had already been used by a brand in the United Kingdom. Erigo has since expanded its product offerings, not only in clothing but also including shoes, slide sandals, bags, and perfumes. The brand has implemented both online and offline strategies, such as actively participating in bazaars, developing an e-commerce website, utilizing social media platforms like Instagram and TikTok, and adopting appealing concepts tailored to their target market, while also collaborating with influencers

and other brands (Nadiya et al., 2023). As of November 2024, Erigo's TikTok account (@erigo.store) had 2.7 million followers. Through the live streaming feature on TikTok Shop, Erigo can market its products in real-time to both new customers and their existing TikTok followers. TikTok Shop provides entrepreneurs with the freedom to creatively promote their products, whether by offering discount vouchers, highlighting product advantages, or educating viewers during live streams about the products being offered.

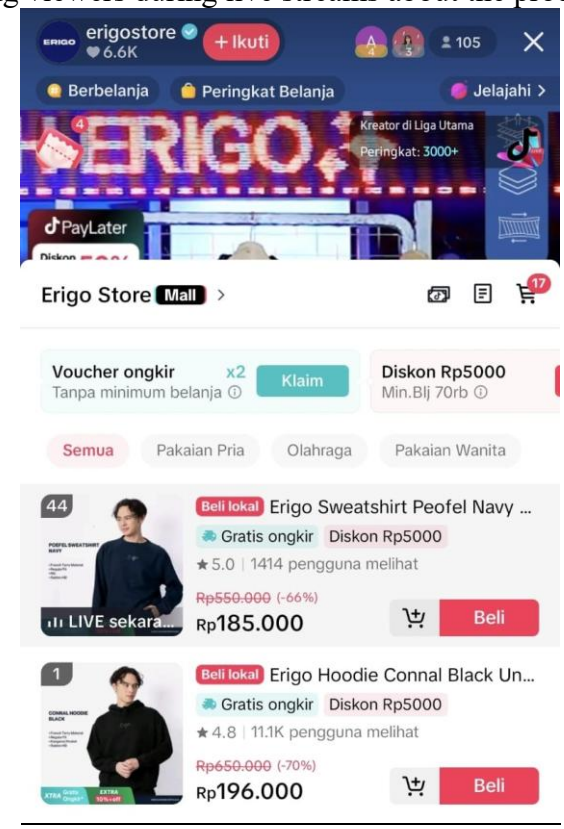

Figure 2.
Erigo Actively Conducting Live Streaming on TikTok
Source: TikTok, 2024

Figure 2 illustrates how Erigo actively markets its products through live streaming on TikTok Shops. Through this live streaming feature, Erigo has implemented one of its marketing strategies to promote and sell its products in real-time to its live stream audience.

Viewers can directly communicate with the streamer or seller and see the desired products in real-time without having to worry whether the product images match those displayed in the seller's product description. The interaction between the streamer and viewers not only helps address viewers' doubts about the product but also enhances the sense of familiarity between them (F. Liu et al., 2022). Consumers or viewers tend to prefer streamers with good reputations or high popularity, as they are perceived to have greater credibility and are more likely to be trusted (Dai & Cui, 2022). Streamers or sellers have a direct influence on viewer behavior. Previous research by (X. Xu et al., 2020) on the factors driving consumer shopping behavior in live streaming commerce revealed that streamer

attractiveness, parasocial relationships, and information quality have a direct impact on cognitive assimilation and viewer arousal.

This study emerges as a response to the phenomenon of live streaming commerce and the differences in findings from previous research. It is particularly interesting to further analyze how streamers or sellers can influence viewer or consumer behavior to increase their impulsive buying intention, as well as how arousal and cognitive assimilation serve as mediators in this relationship. The purpose of this study is to uncover the extent to which streamers play a role in influencing consumer behavior and thereby enhancing consumer purchase intention.

LITERATURE REVIEW

Grand Theory

The grand theory in this research is related to marketing management. According to the American Marketing Association (2017), marketing is a set of activities carried out by individuals or organizations involving the process of creating, communicating, and delivering products or services that provide value to customers, clients, partners, and society as a whole.

Middle Theory

This study employs a deeper approach using consumer behavior theory. Consumer behavior is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy their needs and desires (Solomon et al., 2012). According to (Schiffman et al., 2013), consumer behavior refers to the actions consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will meet their needs.

Live Streaming Commerce

Live streaming commerce is a new way of selling online using streaming technology to create a virtual space that enables sellers and buyers to meet and interact in real-time. Live streaming commerce offers a more dynamic and interactive shopping experience compared to traditional online stores.

Stimulus-Organism-Response (S-O-R) Model

The Stimulus-Organism-Response (S-O-R) theory was introduced by Mehrabian and Russell as a development of the S-R formulation proposed by Woodworth in 1954. The S-O-R model consists of Stimulus (S) as the independent variable, Organism (O) as the mediating variable, and Response (R) as the dependent variable (Mehrabian & Russell, 1974b).

Streamer Interaction

Streamers who adopt an interaction-oriented communication style with viewers can increase viewers' purchase intention. An interactive communication style in live streaming, for example, includes answering questions directly through chat, understanding the questions, and responding promptly to viewers.

Streamer Attractiveness

Streamer attractiveness plays a crucial role in capturing attention, building trust, and driving purchases. We define streamer attractiveness as the personality, appearance, and talent perceived by viewers during live streaming (Ha & Lam, 2016).

Cognitive Assimilation

Cognitive assimilation occurs when individuals process information from a stimulus in their surroundings (Eroglu et al., 2003). For example, when consumers process product information on a website (Z. Jiang et al., 2010).

Arousal

Emotional reactions record the emotional responses individuals experience while interacting with their environment (Chan et al., 2017). Several dimensions are part of emotional states, such as intensity, arousal, excitement, and high activation (Russell & Pratt, 1980).

Impulsive Purchase Intention

Impulsive Purchase Intention (IPI) refers to consumers' tendency to buy products spontaneously without prior planning or consideration. Impulsive buying is often influenced by emotional impulses or external stimuli that create a desire for instant gratification, rather than being based on rational needs or long-term product evaluation.

RESEARCH METHOD

Research Location

This research will be conducted online, considering the use of TikTok Live Streaming as the main object of study. The target respondents are TikTok users in Indonesia who are actively engaged in live streaming, either as viewers or buyers. The data collection will be carried out by distributing questionnaires through social media and online survey platforms.

Population and Sample

Population: The population in this study consists of all TikTok users in Indonesia who have participated in live streaming sessions and have made purchases through TikTok Live Streaming.

Sample: The sample will be determined using purposive sampling, with the following criteria:

1. Have watched TikTok Live Streaming.
2. Have interacted with streamers during live streaming.
3. Have made fashion product purchases via TikTok Live Streaming.

Sample Size: The sample size was calculated using Hair's formula. According to Hair et al. (2010), the ideal sample size is 5 to 10 times the number of indicators. The total number of indicators used in this study is 24. Based on Hair's formula, the minimum required sample size is $24 \times 10 = 240$ respondents.

To ensure stronger statistical power as well as higher precision and effectiveness in the SEM analysis, the researcher decided to use a larger sample than the minimum recommended. Therefore, this study ultimately utilized data from 300 respondents. The use of a larger sample aims to improve the reliability of the model, reduce potential bias, and ensure that the results of the analysis have strong validity and can be generalized

RESULT AND DISCUSSION

Outer Model Evaluation

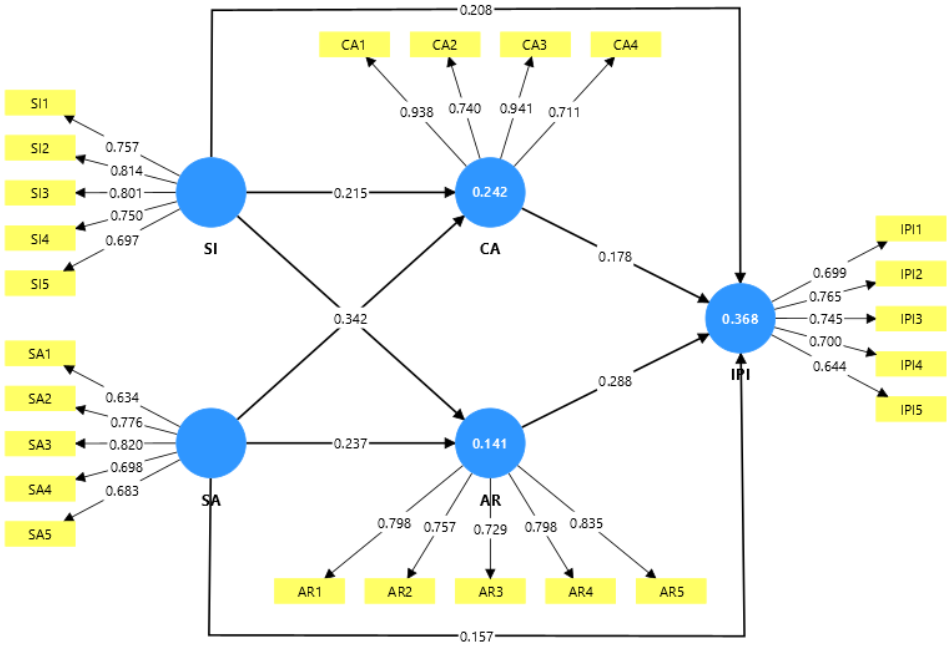

Figure 3.
Outer Loading Evaluation Results before Removing Problematic Indicators

Convergent Validity

The convergent validity of the measurement model is evaluated through the outer loading value of each indicator. A commonly used criterion is that the outer loading value must be greater than 0.70 to indicate that an indicator is valid in measuring its construct. The results of the initial analysis are presented in Table 1.

Table 1,
Convergent Validity Test Results

Variable	Indicator	Question Item	Outer Loading
Streamer Interaction (X1)	Responsive	SI1	0.757
	Informative	SI2	0.814
	Friendly and approachable	SI3	0.801
	Personal	SI4	0.750
	Building connections	SI5	0.697
Streamer Attractiveness (X2)	Physical appearance	SA1	0.634
	Communication	SA2	0.776
	Knowledge	SA3	0.820
	Humor	SA4	0.698
	Personality	SA5	0.683
Cognitive Assimilation	Understanding	CA1	0.938
	Confidence in Information	CA2	0.740

(Z1)	Acceptance of Views	CA3	0.941
	Cognitive Resonance	CA4	0.711
Arousal (Z2)	Enthusiasm	AR1	0.798
	Pleasure	AR2	0.757
	Involvement	AR3	0.729
	Curiosity	AR4	0.798
	Mental Alertness	AR5	0.835
Impulsive Purchase Intention (Y1)	Spontaneity and Urgency	IPI1	0.699
	Sensitivity to Stimulus	IPI2	0.740
	Emotional Drive	IPI3	0.745
	Neglect of Rational Consideration	IPI4	0.700
	Low Self-Control	IPI5	0.644

Source: Attachment of Outer Loading results before removing the indicator

Based on the initial outer loading results (Appendix), the measurement model evaluation was conducted to assess convergent validity. Most indicators showed strong loadings above the recommended threshold of 0.70, confirming their significant contribution to their respective constructs. However, several indicators fell below the threshold and were removed to improve the reliability and validity of the model. Specifically, SA1 (0.634), SI5 (0.697), IPI4 (0.700), and IPI5 (0.644) were eliminated.

In the construct of Cognitive Assimilation, collinearity issues were detected between CA1 and CA3, indicated by high VIF values (CA1 = 17.3; CA3 = 17.7). These indicators overlapped conceptually, as “Mutual Understanding” (CA1) and “Acceptance of Views” (CA3) measured nearly identical aspects, leading to highly correlated responses. Although CA3 had strong loading, it was removed to reduce redundancy and ensure each indicator contributed uniquely.

Finally, indicator AR3 (0.729), despite meeting the minimum loading requirement, was also excluded to achieve a more parsimonious and focused measurement model, emphasizing indicators with the strongest contributions.

After a refining process by removing several indicators that did not meet validity criteria and caused collinearity problems, the final research model was successfully established. Figure 4 presents a visualization of the final structural model used in hypothesis testing.

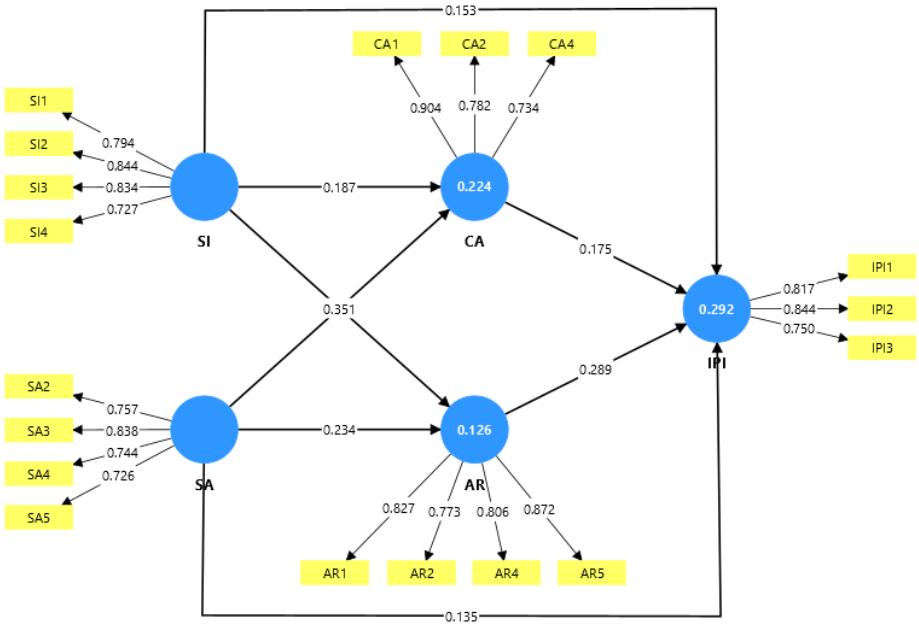

Figure 4.
Outer Loading Evaluation Results after Removing Problematic Indicators

This figure comprehensively displays the relationships between constructs (structural paths), the coefficient of determination (R-Square) for each endogenous variable, and the strength of the relationship between each indicator and its respective construct (outer loading). To analyze the convergent validity of this final model in more detail, the outer loading values for each retained indicator are presented in Table 2.

Table 2.
Convergent Validity Test Results (after Removing Problematic Indicators)

Variable	Indicator	Question Item	Outer Loading
Streamer Interaction (X1)	Responsive	SI1	0.794
	Informative	SI2	0.844
	Friendly and approachable	SI3	0.834
	Personal	SI4	0.727
Streamer Attractiveness (X2)	Communication	SA2	0.757
	Knowledge	SA3	0.838
	Humor	SA4	0.744
	Personality	SA5	0.726
Cognitive Assimilation (Z1)	Understanding	CA1	0.904
	Confidence in Information	CA2	0.782
	Cognitive Resonance	CA4	0.734
Arousal (Z2)	Enthusiasm	AR1	0.827
	Pleasure	AR2	0.773
	Curiosity	AR4	0.806
	Mental Alertness	AR5	0.872

Impulsive Purchase Intention (Y1)	Spontaneity and Urgency	IPI1	0.817
	Sensitivity to Stimulus	IPI2	0.844
	Emotional Drive	IPI3	0.750

Source: Attachment of Outer Loading results before removing the indikator

This purification step is a standard procedure in PLS-SEM modeling to achieve a more robust measurement model. After removing weak indicators and re-running the analysis, the following results were obtained.

For Streamer Interaction (X1), the indicator *Informativeness (SI2)* showed the highest outer loading (0.844), suggesting that respondents were more task-oriented, watching live streams primarily to gain product knowledge rather than for social entertainment.

For Streamer Attractiveness (X2), the indicator *Knowledge (SA3)* had the highest loading (0.838), indicating that credibility, rather than physical appearance or personality, was the main source of attractiveness in live commerce.

In Cognitive Assimilation (Z1), before indicator removal, *Acceptance of Views (CA3)* had the highest loading (0.941). After purification, *Mutual Understanding (CA1)* became the strongest (0.904). This shift shows that both indicators reflect the same underlying process of viewers aligning their thoughts with the streamer's information.

For Arousal (Z2), *Mental Alertness (AR5)* had the highest loading (0.872), implying that streamers can enhance arousal by using attention-stimulating techniques such as asking questions, providing surprising information, or creating urgency.

For Impulsive Purchase Intention (Y1), *Emotional Urge (IPI3)* was initially strongest (0.750), but after removing problematic items, *Stimulus Sensitivity (IPI2)* became the most reliable indicator (0.844). This shows that purification sharpened measurement, with stimulus sensitivity best representing impulsive buying intention.

Overall, the final measurement model demonstrated excellent convergent validity, with all retained indicators showing high and significant loadings above 0.70, confirming that they effectively capture the intended latent constructs and establishing a solid foundation for further validity and reliability testing.

Discriminant Validity

Discriminant validity aims to ensure that each construct in this research model is empirically distinct from the other constructs. This is crucial to demonstrate that each variable measures a unique and non-overlapping concept. To test discriminant validity, this study utilized several criteria, primarily focusing on the Heterotrait-Monotrait Ratio (HTMT) as the most reliable method, which was further confirmed using the Fornell-Larcker criteria. The results of the HTMT are presented in Figure 5.

Discriminant validity - Heterotrait-monotrait ratio (HTMT) - Matrix

	AR	CA	IPI	SA	SI
AR					
CA	0.304				
IPI	0.513	0.490			
SA	0.397	0.586	0.498		
SI	0.351	0.463	0.478	0.626	

Figure 5.
Heterotrait-Monotrait Method (HTMT)

Evaluating discriminant validity is a crucial step to ensure that each construct in the research model measures a unique concept and does not overlap with other constructs. For this purpose, the Heterotrait-Monotrait Ratio (HTMT) method was used as the primary standard. The set criterion requires that HTMT values between constructs remain below the threshold of 0.90.

The analysis results indicate that all constructs in the model meet the discriminant validity criteria very well, as all HTMT values are well below the recommended threshold. The highest HTMT value was observed between Streamer Attractiveness (SA) and Streamer Interaction (SI) at 0.626. Although this is the strongest conceptual relationship, it remains well below 0.90, confirming that the two constructs are statistically distinct and clearly differentiated by respondents.

The lowest HTMT value was found between Cognitive Assimilation (CA) and Arousal (AR) at 0.304, indicating the highest level of conceptual separation. This demonstrates empirically that the cognitive process of understanding and accepting information (CA) is a psychological mechanism distinct from emotional arousal and mental alertness (AR), reinforcing the theoretical foundation that these variables operate as separate mediating pathways.

Overall, both the highest and lowest HTMT values support the conclusion that the measurement model has robust discriminant validity. To provide additional confirmation and strengthen these findings, discriminant validity was further assessed using the Fornell-Larcker criterion, as presented in Figure 6.

Discriminant validity - Fornell-Larcker criterion

	AR	CA	IPI	SA	SI
AR	0.820				
CA	0.235	0.810			
IPI	0.418	0.359	0.805		
SA	0.321	0.445	0.382	0.767	
SI	0.292	0.363	0.368	0.501	0.801

Figure 6.
Fornell-Larcker Method

To further confirm discriminant validity, this study also applied the traditional Fornell-Larcker criterion (Fornell & Larcker, 1981). According to this method, a construct demonstrates discriminant validity if the square root of its AVE is greater than its correlations with other constructs.

The analysis results, presented in Figure 6, show that the Fornell-Larcker criterion is satisfied for all constructs. For example, Arousal (AR) has a square root of AVE of 0.820, higher than its correlations with CA (0.235), IPI (0.418), SA (0.321), and SI (0.292). Similarly, Streamer Attractiveness (SA) has a square root of AVE of 0.767, exceeding its highest correlation with SI (0.501). All diagonal values in the table are the highest in their respective rows and columns, confirming clear discriminant validity.

These consistent findings provide additional support to the HTMT results, indicating that the model exhibits strong and robust discriminant validity. Once all constructs were confirmed as valid and distinct, the next step was to assess the internal consistency of each indicator set through composite reliability testing.

Composite Reliability

Construct reliability evaluation was conducted to assess the internal consistency of each set of indicators, using the composite reliability (rho_c) value as the primary reference. A construct is considered to have good reliability if its value exceeds the recommended threshold of 0.70. The results of the analysis are presented in Table 3.

Table 3.
Composite Reliability and Cronbach's Alpha Results

Variable	Cronbach's Alpha	Composite Reliabilty	Description
Streamer Interaction (X1)	0.813	0.821	Reliable
Streamer Attractiveness (X2)	0.768	0.780	Reliable
Cognitive Assimilation (Z1)	0.734	0.757	Reliable
Arousal (Z2)	0.839	0.853	Reliable
Impulsive Purchase Intention (Y1)	0.728	0.737	Reliable

Source: Attachment of AVE results

The analysis results show that all constructs in this study met these criteria. The composite reliability values for each variable are: Streamer Interaction (X1) at 0.821, Streamer Attractiveness (X2) at 0.780, Cognitive Assimilation (Z1) at 0.757, Arousal (Z2) at 0.853, and Impulsive Purchase Intention (Y1) at 0.737. Since all these values are significantly above 0.70, it can be concluded that all instruments used in this study are consistent and reliable.

Inner Model Evaluation

Variance Inflation Factor Method

After the measurement model was confirmed to be valid and reliable, the analysis proceeded to the structural model evaluation stage (inner model). The first step in this stage was to test for multicollinearity between the predictor constructs. This test is important to ensure that there is no excessive correlation between the independent variables, which could disrupt the stability of the model estimation results. Collinearity is evaluated using the Variance Inflation Factor (VIF) value, where the model is considered free from

multicollinearity problems if the VIF value is below 5. The results of the Variance Inflation Factor (VIF) analysis are presented in Figure 7.

Collinearity statistics (VIF) - Outer model - List

	VIF
AR1	3.260
AR2	3.192
AR4	3.458
AR5	3.585
CA1	2.072
CA2	1.493
CA4	1.518
IPI1	1.428
IPI2	1.609
IPI3	1.370
SA2	1.399
SA3	1.732
SA4	1.512
SA5	1.478
SI1	1.800
SI2	2.110
SI3	1.813
SI4	1.470

Figure 7.
Variance Inflation Factor (VIF) Method

After refining the model by removing the indicators described in the Outer Loading Evaluation, the results of the Variance Inflation Factor (VIF) method are presented in Figure 7. Based on the analysis, all retained indicators showed VIF values below the commonly used threshold of 5.0. The highest VIF value was recorded for indicator AR5, at 3.585, which is still within the acceptable range. Thus, it can be concluded that there are no serious multicollinearity issues at the indicator level, and each indicator uniquely contributes to measuring its respective construct.

Effect Size R-Square

After ensuring the model is free from collinearity, the evaluation continues by assessing the model's overall predictive ability. One key metric used is the R-square (R^2) value, or coefficient of determination. The R^2 value measures the percentage of variation in the dependent (endogenous) variable that can be collectively explained by the independent (exogenous) variables. The higher the R^2 value, the better the model's explanatory capacity in explaining the phenomenon under study. The results of the R-square calculation for each endogenous variable in this study are presented in Table 4.

Table 4.
R-Square Calculation Results

Variable	R-Square	R-Square adjusted
Cognitive Assimilation (Z1)	0.126	0.120
Arousal (Z2)	0.224	0.219
Impulsive Purchase Intention (Y1)	0.292	0.282

Source: R-Square results attachment

Table 4 shows that Arousal (AR) has an R^2 of 0.126 and Cognitive Assimilation (CA) has 0.224, both indicating weak explanatory power. The main dependent variable, Impulsive Purchase Intention (IPI), has an R^2 of 0.292, reflecting weak-to-moderate explanatory strength. The next step involves analyzing F^2 to assess the individual contribution of each predictor.

Effect Size F-Square

After assessing the overall predictive ability of the model using R-square, the analysis continued by measuring the F-square (f^2). This metric serves to assess the effect size, or the magnitude of the contribution of each independent (exogenous) construct individually to the dependent (endogenous) construct. Common criteria used to interpret f^2 values are: 0.02 (small effect), 0.15 (medium effect), and 0.35 (large effect). The F-square results are presented in Figure 8.

f-square - Matrix

	AR	CA	IPI	SA	SI
AR			0.102		
CA			0.033		
IPI					
SA	0.047	0.119	0.017		
SI	0.026	0.034	0.023		

Figure 8.
F-square Results

Based on the results of the effect size (F-square) analysis, the contribution of each predictor variable to the dependent variable can be assessed. Most of the relationships in this model showed small to moderate effects. The largest effects were found in the relationship between Streamer Attractiveness (SA) and Cognitive Assimilation (CA) ($f^2 = 0.119$) and Arousal (AR) and Impulsive Purchase Intention (IPI) ($f^2 = 0.102$). Meanwhile, other relationships, such as the effect of SA on AR ($f^2 = 0.047$), showed small effects. The direct effect of SA on IPI ($f^2 = 0.017$) was deemed insignificant because its value fell below the minimum threshold of 0.02.

Hypothesis Testing

Hypothesis testing in this study was conducted through a bootstrapping procedure with 5,000 resamples to assess the statistical significance of each path coefficient. This approach is recommended as a robust method for PLS-SEM analysis because it does not rely on the assumption of data normality (Hair Jr et al., 2021). The decision to accept or reject a hypothesis is based on the significance value (P-value), where the hypothesis is supported if the P-value is less than 0.05. Specifically, to test the mediation hypothesis, this study adopted a modern approach by analyzing the significance of the indirect effect directly, a method whose validity has been widely demonstrated (Preacher & Hayes, 2008). The results of the hypothesis test are presented in Table 5.

Table 5.
Hypothesis Test Results

Hypothesis	Path of Influence	Path Coefficient	T Statistics	P Values	Decision
Direct Effect					
H1	Streamer Interaction → Impulsive Purchase Intention	153	2.363	18	Accepted
H2	Streamer Interaction → Cognitive Assimilation	187	2.928	3	Accepted
H3	Streamer Interaction → Arousal	175	2.602	9	Accepted
H4	Streamer Attractiveness → Impulsive Purchase Intention	135	2.017	44	Accepted
H5	Streamer Attractiveness → Cognitive Assimilation	351	5.062	0	Accepted
H6	Streamer Attractiveness → Arousal	234	3.542	0	Accepted
H7	Cognitive Assimilation → Impulsive Purchase Intention	175	3.038	2	Accepted
H8	Arousal → Impulsive Purchase Intention	289	5.692	0	Accepted
Indirect Effect (Mediation)					
H9	Streamer Interaction → Cognitive Assimilation → IPI	33	1.988	47	Accepted
H10	Streamer Interaction → Arousal → IPI	51	2.235	25	Accepted
H11	Streamer Attractiveness → Cognitive Assimilation → IPI	62	2.461	14	Accepted
H12	Streamer Attractiveness → Arousal → IPI	68	3.059	2	Accepted

Source: Appendix (Path Results, Indirect, specific indirect)

Hypothesis Testing Results:

H1–H3: Streamer Interaction (SI) positively influences Impulsive Purchase Intention (IPI) (β=0.153, p=0.018), Cognitive Assimilation (CA) (β=0.187, p=0.003), and Arousal (AR) (β=0.175, p=0.009), confirming that effective, responsive, and engaging interaction drives understanding, emotional arousal, and spontaneous purchase behavior.

H4–H6: Streamer Attractiveness (SA) positively impacts IPI (β=0.135, p=0.044), CA (β=0.351, p=0.000), and AR (β=0.234, p=0.000), indicating that credibility, knowledge, and appealing personality enhance cognitive assimilation, emotional engagement, and impulsive buying.

H7–H8: CA (β=0.175, p=0.002) and AR (β=0.289, p=0.000) positively affect IPI, highlighting that understanding product information and high emotional arousal are key drivers of impulsive purchase.

H9–H10: CA and AR significantly mediate the effect of SI on IPI (β=0.033, p=0.047; β=0.051, p=0.025), showing that streamer interaction indirectly influences impulsive purchase through both cognitive understanding and emotional arousal.

H11–H12: CA and AR significantly mediate the effect of SA on IPI (β=0.062, p=0.014; β=0.068, p=0.002), confirming that streamer attractiveness enhances impulsive purchase intentions by improving cognitive assimilation and arousal.

Overall, all twelve hypotheses are supported, demonstrating that streamer interaction and attractiveness directly and indirectly drive impulsive purchase intention through cognitive and emotional pathways in the Indonesian TikTok Live Shopping context.

Discussion (Summary)

1. **Streamer Interaction → Impulsive Purchase Intention (IPI):** High-quality streamer interaction, such as real-time responses and detailed product demonstrations, significantly increases IPI (β=0.245, p=0.001).
2. **Streamer Interaction → Cognitive Assimilation (CA):** Effective interaction facilitates viewers' understanding and internalization of product information (β=0.187, p=0.003).
3. **Streamer Interaction → Arousal (AR):** Dynamic and engaging interactions enhance emotional arousal and focus (β=0.175, p=0.009).
4. **Streamer Attractiveness (SA) → IPI:** Streamer attractiveness, including appearance, personality, and charisma, positively influences impulsive buying (β=0.135, p=0.044).
5. **Streamer Attractiveness → CA:** Attractive streamers strongly facilitate cognitive assimilation of product information (β=0.351, p=0.000).
6. **Streamer Attractiveness → AR:** Attractiveness boosts emotional arousal, alertness, and energetic engagement (β=0.234, p=0.000).
7. **Cognitive Assimilation → IPI:** Understanding and internalizing product information significantly drives impulsive purchase (β=0.175, p=0.002).
8. **Arousal → IPI:** Emotional arousal is the strongest predictor of IPI among all variables (β=0.289, p<0.001).

9–12 **Mediating Roles:** Both Cognitive Assimilation and Arousal significantly mediate the effects of Streamer Interaction and Streamer Attractiveness on IPI (all p<0.05), showing that streamers influence impulsive buying not only directly but also through enhancing cognitive understanding and emotional engagement.

CONCLUSION

Based on the data analysis and hypothesis testing conducted, this study yielded twelve main conclusions, all of which support the proposed research model. The following is a breakdown of the conclusions for each hypothesis:

1. H1 – Streamer Interaction → Impulsive Purchase Intention (IPI): High-quality streamer interaction significantly increases IPI by directly triggering spontaneous buying.
2. H2 – Streamer Interaction → Cognitive Assimilation (CA): Effective interaction helps viewers understand and internalize product information, reducing cognitive load.

3. H3 – Streamer Interaction → Arousal (AR): Engaging, dynamic interaction stimulates positive emotional arousal, enhancing enthusiasm and focus.
4. H4 – Streamer Attractiveness → IPI: Attractive streamers, through knowledge and pleasant personality, directly encourage impulsive purchases.
5. H5 – Streamer Attractiveness → CA: Streamer attractiveness enhances cognitive assimilation by fostering trust and easier understanding of product information.
6. H6 – Streamer Attractiveness → AR: Charisma and appealing personality stimulate emotional responses, creating a lively and energetic live streaming environment.
7. H7 – CA → IPI: Cognitive assimilation serves as a rational bridge, where a better understanding of products triggers impulsive purchase decisions.
8. H8 – AR → IPI: Emotional arousal is the strongest predictor of IPI, showing that excitement and enthusiasm are key drivers of impulsive buying.
9. H9 – CA mediates SI → IPI: The effect of streamer interaction on IPI is partially mediated by cognitive assimilation.
10. H10 – AR mediates SI → IPI: Emotional arousal also mediates the impact of interaction on IPI through affective engagement.
11. H11 – CA mediates SA → IPI: Streamer attractiveness influences IPI through cognitive assimilation, as trust and credibility improve understanding.
12. H12 – **AR mediates SA → IPI:** Streamer attractiveness also affects IPI through emotional arousal, where charisma and charm trigger impulsive buying.

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