The Effectiveness of Livestream Influencer Marketing on Consumer Purchase Decisions: The Mediating Role of Engagement among Gen Z in Malaysia

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Abstract
In recent years, livestream shopping has become a growing trend in digital commerce, particularly among Generation Z consumers in Malaysia. This study aims to examine the influence of trust in livestream influencers, interactivity, and entertainment value on purchase intention, with engagement acting as a mediating variable. The research adopts a quantitative approach using a structured online questionnaire distributed through convenience sampling, yielding 200 valid responses. Direct and indirect associations were tested by means of SPSS and SmartPLS 4.0 data analysis. The results show that engagement is much influenced by trust and involvement, and thus positively predicts purchase intention. Furthermore, participation somewhat moderates the effect of contact and trust but not of entertainment value. These results provide valuable information for firms wishing to improve livestream marketing initiatives, influencers, and digital marketers. The work contributes to the growing corpus of studies on consumer psychology in the context of livestream commerce using the Stimulus- Organization-Response (S-O-R) paradigm.
Keywords: Livestream Shopping, Gen Z, Trust, Interactivity, Entertainment Value, Engagement, Purchase Intention

Introduction
Especially among Generation Z consumers in Malaysia, livestream influencer marketing has evolved into a powerful tool in the digital economy. Renowned for their frequent social media presence and digital skills, this demographic group has been increasingly turning to livestream video for buying decisions and product research. Platforms like TikTok and Instagram Live have revolutionized the e-commerce industry by combining real-time contact with entertainment and influencer involvement (Lin & Nuangjamnong, 2022; Yeoh & Tan, 2024). Live stream events where influencers may demonstrate objects in real time, answer audience questions, and promote authenticity are essential for influencing consumer behavior.

Among the key components defining the success of livestream marketing are trust, interactivity, and entertainment value. Trust captures the consumer's opinion of the influencer's authenticity, honesty, and skill (Chen & Yang, 2023). Interactivity refers to the ability of consumers to engage in real-time communication and feel heard and acknowledged during a livestream (Joo & Yang, 2023; Bolun et al., 2025). Entertainment value pertains to the enjoyment and emotional appeal derived from watching the livestream (Leong et al., 2024). Although these attributes have been studied independently, few studies have examined their combined effect on consumer purchase intention in the Malaysian context, especially among younger consumers.

A key concept in understanding consumer response is engagement, which encompasses cognitive attention, emotional involvement, and behavioral participation. Engagement plays a mediating role in shaping the link between marketing stimuli and consumer response (Zaini & Salim, 2023; Yu & Zheng, 2022). In livestream shopping, engagement manifests through focused attention, emotional connection, and participation in actions such as liking, commenting, and sharing (Joo & Yang, 2023; Wismiarsi et al., 2024). While the importance of engagement is widely acknowledged, there is limited consensus on how it should be defined and measured, particularly in emerging markets like Malaysia.

Despite the growing popularity of livestream influencer marketing, existing literature provides limited empirical evidence on how such marketing influences the purchase behavior of Generation Z consumers. Most of the studies conducted so far concentrated on consumer behavior in China or Western nations, therefore neglecting the particular digital habits and preferences of young Malaysians (Tan et al., 2024). Moreover, participation is often seen as an isolated consequence rather than a psychological process that moderates the effect of trust, interactivity, and entertainment value on purchase choices (Nazarie et al., 2025).

Engagement as a mediator helps this research to fill in these gaps by considering the combined effects on purchase intention of trust, interactivity, and entertainment value. Under the Stimulus-Organism-Response (S-O-R) paradigm (Sultan et al., 2021), the study reveals a systematic approach to understand how certain streaming aspects stimulate internal psychological states and lead to behavioral responses. By using a quantitative method targeting at Generation Z customers, this paper aims to clarify the psychological processes of livestream buying and theoretically and practically help the field of digital marketing.

Literature Review
Livestream Influencer Marketing
Livestream influencer marketing, on platforms such Instagram Live, Shopee Live, and TikTok, is the promoting of products or services via real-time video sessions hosted by social media influencers. This strategy helps influencers connect with audiences by displaying objects, responding to viewer questions, and offering real-time recommendations in real time (Chen & Yang, 2023). livestreaming offers a greater degree of immediacy and authenticity than pre-recorded movies, which might significantly affect consumer confidence and buying behavior (Zaini & Salim, 2023).

Particularly in Malaysia, among Generation Z consumers in Southeast Asia, the rise of livestream commerce has particularly been noteworthy. Usually this digitally savvy population finds interactive, intriguing, and tailored content appealing (Tan et al., 2024). Using the lure of influencer credibility and digital intimacy, livestreaming creates an immersive and convivial purchase environment that replics certain parts of in-store experiences (Lin & Nuangjamnong, 2022; Dharma et al., 2024). livestreams provide real-time emotional connection and participation that frequently leads to impulse buying or greater purchase intention (Alam et al., 2025).

Studies have pointed out a few fundamental components—namely, trust, interactivity, and entertainment value—that help livestream marketing to be successful. Particularly when influencers are seen as real and relevant, trust in the influencer improves credibility and lowers apparent risk (Chen & Yang, 2023; Onofrei et al., 2022). Interactive responses to live remarks or crowd polls improve the consumer's feeling of agency and presence, hence fostering more involvement and attention (Joo & Yang, 2023; Bolun et al., 2025). Throughout the livestream, entertainment value keeps viewers' attention and promotes emotional fulfillment (Leong et al., 2024).

Despite the increasing prevalence of this marketing strategy, there is a lack of consensus on how these individual attributes interact to influence consumer engagement and purchase decisions. Much of the existing literature focuses on isolated effects, such as the role of interactivity or trust, without integrating them into a comprehensive framework (Wismiarsi et al., 2024; Salim & Roslan, 2022). Moreover, while livestreaming is somewhat common in China and Western markets, research especially aimed at Generation Z remain few (Yeoh & Tan, 2024). This is a chance for further study to investigate how many aspects of livestream marketing interact to produce psychological and behavioral effects.

Trust in Influencers
Trust in influencers is a critical factor in the effectiveness of livestream marketing, particularly because consumers must rely on real-time recommendations when making purchasing decisions. In digital commerce environments, trust is often defined as the perception that an influencer is honest, competent, and has the viewer's best interests in mind (Chen & Yang, 2023). Those that show constant honesty and integrity in their recommendations are more likely to build a devoted and receptive following. Particularly when trust is strongly built, influencer marketing is considered as more relevant and emotionally interesting than conventional advertising, which may be seen as impersonal or biassed (Onofrei et al., 2022).

The role of trust becomes even more significant in livestream settings, where immediacy and spontaneity shape viewer perceptions in real time. Viewers cannot "rewind and re-analyze" in the way they can with pre-recorded content. Instead, they must make quick assessments based on the influencer's tone, transparency, and interaction style. According to Nazarie et al. (2025), trust enables emotional connection, making consumers more open to product recommendations and more willing to act on impulse. The visual and verbal cues delivered during livestreams—such as product handling, honest feedback, or direct Q&A—serve as trust-building mechanisms that increase consumer receptivity.

Among Malaysian Generation Z, who often exhibit skepticism toward traditional media, trust in influencers helps bridge the gap between brand messaging and consumer behavior. These consumers are highly active on social platforms and tend to base their purchase decisions on the perceived authenticity of the individual rather than the brand itself (Yeoh & Tan, 2024). This makes trust not just an optional attribute, but a strategic necessity for influencers aiming to convert viewership into buying behavior. However, despite its importance, there is limited empirical research examining how trust operates within the context of livestream commerce in Malaysia, where cultural and digital behaviors may differ from those in Western or Chinese markets (Tan et al., 2024).

While trust is often examined in broader influencer marketing literature, its specific role in mediating or moderating consumer responses during livestream shopping sessions remains underexplored. Future studies could look at how trust interacts with other livestream aspects such interactivity or entertainment value and how it helps to maintain engagement and buy intention over time (Wismiarsi et al., 2024). Understanding trust as a fundamental component of livestream success will help influencers and advertisers create content strategies that appeal to a technologically native yet discriminating Malaysian audience.

Interactivity in Livestreaming
In livestreaming, interactivity is the degree to which viewers may interact directly with an influencer during a live broadcast. Real-time comments, live Q&A, product link clicking, viewer surveys, and emoji responses are common interactive components. These elements create a dynamic and reciprocal atmosphere that lets customers participate in the session instead of only watching passively (Joo & Yang, 2023). This involvement helps to provide a more customized and immersive purchasing experience that reflects in-person interaction in offline retail.

The emotional and cognitive involvement of viewers is much enhanced by interaction. Bolun et al. (2025) claim that intense livestreaming interaction elicits psychological reactions like attention, emotional resonance, and message recall—all of which are critical in determining how customers behave. Viewers who can ask questions and get fast answers become closer to the influencer and are more inclined to trust the person as well as the product under promotion. This responsiveness promotes a co-creation experience that empower customers and raises the possibility of purchase intention.

Moreover, developing parasocial interactions between influencers and viewers depends much on engagement. These partnerships replicate friendships like to friendship, which in turn inspire loyalty and recurrent watching. Dharma et al. (2024) found that Generation Z consumers are particularly sensitive to such interactive cues, responding positively to personalized shout-outs and mutual dialogue during livestream sessions. Interactivity also facilitates social proof, as viewers often take cues from other participants' questions, comments, and reactions, creating a perceived consensus that influences individual buying decisions.

Despite its acknowledged benefits, interactivity is frequently treated as a secondary feature rather than a primary psychological driver in livestream marketing research. Most studies examine interactivity alongside other attributes without isolating its unique

contribution to consumer outcomes (Onofrei et al., 2022). Additionally, few studies have explored how interactivity functions across cultural and generational contexts, such as with Malaysian Gen Z, who tend to expect high-speed digital responsiveness and social integration from online content (Yeoh & Tan, 2024). Future studies should therefore examine the interactive mechanisms more deeply and consider their role in mediating both engagement and purchase behavior.

Entertainment Value
Entertainment value refers to the degree of enjoyment, amusement, and emotional stimulation that consumers experience while watching a livestream session. It encompasses elements such as humor, storytelling, visual creativity, music, and the influencer's personality and performance style (Leong et al., 2024). Unlike static or scripted content, livestreaming offers spontaneous and dynamic interaction, making it more entertaining and immersive for viewers. This sense of entertainment helps hold the audience's attention, prolongs viewing duration, and positively influences emotional engagement with the content.

For Generation Z consumers in Malaysia, entertainment value is especially influential due to their strong preference for visually rich, fast-paced, and emotionally engaging digital content (Dharma et al., 2024). Influencers who incorporate games, trending sounds, casual language, or visual effects into their livestreams are more likely to appeal to this audience segment. These entertaining elements create a relaxed and enjoyable environment, which not only encourages viewers to stay longer but also enhances their receptivity to product information and persuasive cues embedded in the session (Yeoh & Tan, 2024).

Entertainment also plays a psychological role in lowering resistance to persuasion. When audiences are emotionally entertained, they may become less critical or skeptical and more open to influence (Chen & Yang, 2023). This aligns with the notion that positive affect generated during livestreams can lead to more favorable brand attitudes and increased likelihood of purchase. However, despite its significance, entertainment value is often understudied in the literature, particularly in relation to its synergistic effect with other livestream attributes such as trust and interactivity (Wismiarsi et al., 2024).

Current research tends to view entertainment as an auxiliary feature, rather than a strategic tool for driving engagement and behavioral outcomes. There is a lack of empirical studies that systematically examine how entertainment value interacts with cognitive and affective engagement processes during livestream sessions. In the context of Malaysian livestream marketing, further research is needed to unpack how entertainment contributes not only to attention and retention, but also to deeper levels of persuasion and decision-making (Zaini & Salim, 2023). Understanding this relationship is vital for marketers aiming to design livestream content that resonates with digitally native audiences and sustains competitive advantage.

Consumer Engagement as a Mediator
Consumer engagement in livestream marketing refers to the psychological and behavioral involvement of viewers with the content and the influencer. It includes cognitive attention, emotional resonance, and interactive behaviors such as commenting, liking, sharing, or asking questions during the livestream (Yu & Zheng, 2022). Engagement is not limited to observable

actions but also includes the internal mental state of consumers as they process information and evaluate their experience. In this way, engagement plays a central role in determining how consumers interpret and respond to livestream stimuli.

Engagement is more than simply a result in the framework of livestream commerce; it's a vital mediator that connects internal psychological consequences to outside marketing traits. According to Wismiarsi et al. (2024), attributes like amusement, trust, and interactivity work via customer involvement as a middleman rather than directly influencing purchase intention. Consumers who feel emotionally and intellectually engaged are more likely to develop good impressions of the influencer and the product, therefore increasing their propensity to buy. This helps to explain why involvement serves as the "organism" inside the Stimulus-Organism-Response (S-O-R) paradigm.

Interactive and engaging elements that let Malaysian Generation Z feel seen and heard throughout the broadcast frequently intensify their involvement (Salim & Roslan, 2022). Their answers are influenced not just by the material itself but also by how much it speaks to their digital expectations and behavior. Response immediacy and visibility—such as having one's opinion read aloud or stated by the influencer—can greatly increase emotional connection and behavioral involvement (Zaini & Salim, 2023).

Though participation is becoming more and more important, how it is understood and quantified varies within streaming research. Many current studies concentrate more on involvement as a final dependent variable than on investigating its mediating function in the larger causal route. Few studies provide a methodical paradigm that centers participation in the influencer–consumer contact process (Onofrei et al., 2022). The current work uses the S-O-R paradigm to investigate engagement as the mechanism by which trust, interaction, and entertainment impact purchase intention in order to close this discrepancy. This helps to provide a more complex knowledge of how livestream traits relate to customer behavior.

Generation Z Digital Behavior
Usually defined as those born between the late 1990s and early 2010s, Generation Z has grown up in a time where algorithms control content platforms, high-speed internet, and cellphones rule. Unlike earlier generations, their connection with the digital world is not elective but necessary, therefore influencing their access to knowledge, socializing behavior, and buying choices. Generation Z is well ingrained in mobile-first digital ecosystems and makes up a sizable online customer base in Malaysia (Yeoh & Tan, 2024). Particularly on sites like TikTok and Instagram Live, their behavioral habits are mostly shaped by short-form content, influencer culture, and real-time engagement.

Demand for authenticity and openness in marketing material defines Malaysian Gen Z customers in particular. Rather than polished or too scripted endorsements (Oon & Chan, 2023), they are more likely to react favorably to influencers who show relatability, honesty, and real-time response. This generation also shows a taste for emotionally charged materials and visual narrative, which supports their involvement and sharpens their decision-making while livestream buying.

Apart from being technologically adept, Gen Z customers are more prone to make spontaneous buys driven by emotional triggers. According to Alam et al. (2025), younger consumers' propensity for impulsive purchases is often heightened in interactive and time-constrained streaming settings. Limited time offers, influencer excitement, and social proof mechanisms—e.g., watch counts, comments—cause psychological pressure and a fear of missing out (FOMO), hence accelerating decision-making.

Even although Gen Z is becoming more and more economically important, current studies often ignore the particular psychological and behavioral patterns of this generation. Much current research regards Gen Z as part of a larger millennial cohort or general internet audience, neglecting to differentiate their varied tastes and media habits (Yeoh & Tan, 2024). Therefore, targeted empirical research on how Gen Z particularly engages with livestream marketing and how their digital activity moderates the effect of influencer qualities on engagement and buy intention is much needed.

Theoretical Framework

The Stimulus-Organism-Response (S-O-R) model, which was first created in environmental psychology and is being used more and more in marketing research to describe how consumers react to outside stimuli, serves as the foundation for this investigation. This model posits that consumer behavior is the outcome of a series of events including external stimuli (S), internal cognitive and emotional states (O), and observable behavioural responses (R) (Sultan et al., 2021).

Three main characteristics of livestream influencer marketing—trust in the influencer, engagement throughout the session, and the entertainment value of the content—form the stimulus elements for this research. These components act as external stimuli starting consumer psychological processing. Consumer involvement—that is, cognitive attention, emotional involvement, and behavioral participation—represents the element of the organism. Purchasing intention is the component of reaction that shows the consumer's readiness to purchase a product after streaming interaction.

Using the S-O-R paradigm is especially important in livestream commerce, where marketing interactions are instantaneous, immersive, and emotionally charged. Previous research has confirmed that this model is appropriate in comparable digital commerce environments and that stimuli like perceived authenticity, interaction quality, and content richness greatly affect internal engagement states and, hence, consumer decision-making (Zhou et al., 2022; Yu & Zheng, 2022). This study offers a methodical technique to comprehend how livestream marketing qualities encourage engagement, which subsequently influences customer behavioral outcomes like purchase intention by using the S-O-R framework.

Trust in Livestream Influencer

One constant factor shown to be very crucial for consumer involvement is trust in livestream influencers. Audiences are more inclined to pay attention, react favourably, and engage in live conversations when they see influencers as real, trustworthy, and honest. Chen and Yang (2023) underlined that emotional connection is much enhanced by influencer credibility, thus fostering participation in livestream events. In line with this, Onofrei et al. (2022) discovered

that social media platform behavioral participation is influenced by source of communication trust. Furthermore, emphasized by Salim and Roslan (2022) is trust as a fundamental psychological process influencing viewers' inclination to interact with online influencers. These results imply that during livestreams, trust acts as a basic trigger for interesting customer reactions. Therefore, this study hypothesizes:
H1: Trust in livestream influencer is positively associated with engagement.

Interactivity in Livestream
Another important element supporting deep ties in streaming settings is interactivity. Bolun et al. (2025) demonstrated that interactive features such as real-time Q&A, live polling, and comment replies significantly increase both cognitive and affective engagement. According to Joo and Yang (2023), immersion and user satisfaction—two important indicators of sustained attention—are significantly impacted by perceived interaction. Similarly, Wismiarsi et al. (2024) contended that interactive material creates a participative atmosphere that encourages customers to pay more attention to influencer cues and product details. These studies collectively support the notion that interactivity enhances the quality and depth of consumer engagement. Thus, the second hypothesis is proposed:
H2: Interactivity in livestream sessions is positively associated with engagement.

Entertainment Value
Entertainment value, defined as the degree of enjoyment derived from a livestream session, is a strong predictor of consumer engagement. Leong et al. (2024) reported that livestreams perceived as entertaining result in higher emotional involvement and prolonged viewing time. Dharma et al. (2024) observed that Generation Z consumers are particularly influenced by entertaining and visually stimulating content, which motivates them to interact with both influencers and peers. In addition, Yu and Zheng (2022) found that entertainment enhances both affective and behavioral engagement in livestream shopping, suggesting its multidimensional impact. These findings highlight the role of entertainment as a motivational stimulus that attracts and retains viewer attention. Therefore, this study hypothesizes:
H3: Entertainment value of livestream is positively associated with engagement.

Engagement
Engagement itself has been widely recognized as a critical factor in predicting consumer behavior in digital commerce. Yu and Zheng (2022) found that consumers with higher levels of engagement are significantly more likely to develop positive purchase intentions. Zheng et al. (2022) confirmed that engagement acts as a cognitive and emotional bridge between marketing stimuli and actual buying behavior. Furthermore, Wismiarsi et al. (2024) emphasized that engaged viewers are more attentive to product information and more receptive to purchase cues presented during livestream sessions. These findings support the proposition that engagement is a key driver of purchase decisions. Thus, the following hypothesis is proposed:
H4: Engagement is positively associated with purchase intention.

Engagement as the Mediator
Although trust, interactivity, and entertainment value have been individually associated with engagement and purchase intention, few studies have explored the mediating role of engagement in linking these elements. Salim and Roslan (2022) found that consumer

engagement mediates the influence of influencer characteristics on online buying intention. Similarly, Nazarie et al. (2025) showed that engagement functions as a psychological mechanism that connects digital marketing traits to behavioral responses. Yu and Zheng (2022) further demonstrated that engagement partially mediates the effects of perceived luxury value on purchase behavior in livestream commerce. These findings underscore the importance of examining engagement not only as an outcome but also as a pathway through which marketing stimuli affect consumer decisions. Therefore, this study hypothesizes:
H5: Engagement mediates the relationship between trust, interactivity, entertainment value and purchase intention.
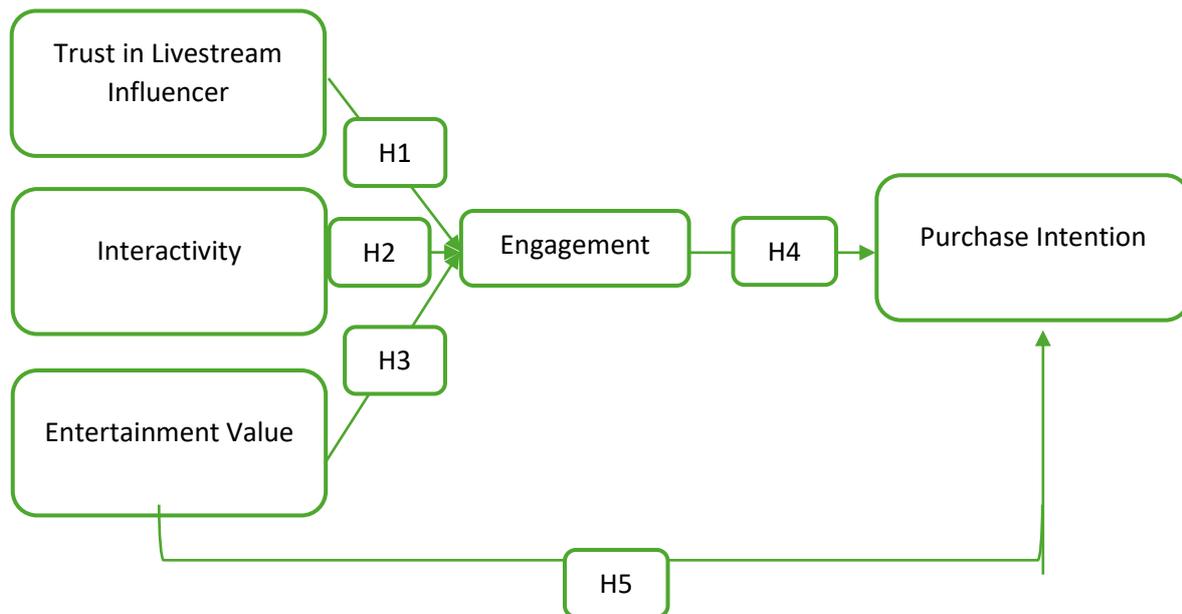

Figure 1. Theoretical Framework

Methodology
Respondents for this study were Generation Z consumers in Malaysia who had prior experience with livestream shopping through platforms such as TikTok Live, Shopee Live, and Instagram Live. Participants were selected using convenience sampling and recruited via online channels including WhatsApp, email, and social media. The questionnaire was distributed using Google Forms and consisted of two sections. Section 1 collected demographic details, while Section 2 contained items measuring five main constructs: trust in livestream influencers, interactivity, entertainment value, engagement, and purchase intention. All items were adapted from validated scales used in prior studies and rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A total of 200 valid responses were collected and used for statistical analysis. Data were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were used to summarize respondent characteristics and variable distributions. Reliability was assessed using Cronbach's alpha, and normality was evaluated through skewness, kurtosis, and Shapiro-Wilk tests. Pearson correlation was used to explore relationships among variables. Multiple regression analysis was conducted to assess direct effects, and mediation analysis was performed using PROCESS Macro Model 4. Bootstrapping with 5,000 samples was applied to test the significance of indirect effects. This methodological approach enabled the examination of both direct and mediating relationships, providing empirical insight into how

livestream marketing attributes influence consumer engagement and purchase intention among Malaysian Generation Z consumers.

Result and Discussion

Demographic Analysis

Table 1 shows that most respondents were aged between 22–25 years (46%), followed by 18–21 years (34%), 26–30 years (13.5%), and below 18 (6.5%). In terms of gender, 56% of the respondents were female and 44% were male. For ethnic background, the majority were Malay (39.5%), followed by Indian (30.5%), Chinese (20.5%), and Indigenous (9.5%). Regarding educational level, 51% held a bachelor's degree, 29% held a diploma or matriculation, 10.5% had only secondary school education, and 9.5% had a master's degree or above. All respondents (100%) had purchased products via livestream. For monthly personal income, 66.5% reported no income, 17% earned RM3,001–RM5,000, 8.5% earned above RM5,000, and 8% earned RM2,001–RM3,000. In terms of monthly online shopping spending, most respondents spent less than RM100 (52.5%), followed by RM101–RM500 (37.5%), RM501–RM1,000 (7%), and RM1,001–RM2,000 (3%). Regarding livestream viewing frequency, 34% watched daily, 32% weekly, 24.5% a few times per week, and 9.5% occasionally. As for preferred platforms, TikTok (27.5%) was the most used, followed by Shopee Live (22.5%), Facebook Live (21%), Instagram Live (15%), and YouTube Live (14%). In terms of satisfaction, 25.5% were satisfied, 24% very satisfied, 23.5% neutral, 19.5% dissatisfied, and 7.5% very dissatisfied.

Table 1

Demographic Profile of Respondents (N = 200)

Demographic Variable	Category	Frequency	Percentage (%)
Age	Below 18	13	6.5
	18–21	68	34.0
	22–25	92	46.0
	26–30	27	13.5
Gender	Male	88	44.0
	Female	112	56.0
Ethnic Background	Malay	79	39.5
	Chinese	41	20.5
	Indian	61	30.5
	Indigenous (e.g., Orang Asli, Bumiputera)	19	9.5
Education Level	Secondary School (SMK/SPM)	21	10.5
	Diploma/Matriculation	58	29.0
	Bachelor's Degree	102	51.0
	Master's Degree or above	19	9.5
Livestream Purchase Experience	Yes	200	100.0
Monthly Personal Income	No income (e.g., full-time student)	133	66.5
	RM2,001–RM3,000	16	8.0
	RM3,001–RM5,000	34	17.0
	Above RM5,000	17	8.5

Monthly Online Shopping Spending	Less than RM100	105	52.5
	RM101–RM500	75	37.5
	RM501–RM1,000	14	7.0
	RM1,001–RM2,000	6	3.0
Livestream Viewing Frequency	Daily	68	34.0
	A few times per week	49	24.5
	Weekly	64	32.0
	Occasionally (less than once a week)	19	9.5
Platforms Used for Livestream Shopping	TikTok	55	27.5
	Shopee Live	45	22.5
	Instagram Live	30	15.0
	Facebook Live	42	21.0
	YouTube Live	28	14.0
Satisfaction with Livestream Experience	Very satisfied	48	24.0
	Satisfied	51	25.5
	Neutral	47	23.5
	Dissatisfied	39	19.5
	Very dissatisfied	15	7.5

Descriptive Analysis
Table 2 shows the descriptive statistics for the five main variables measured in this study. Among all variables, Interactivity recorded the highest mean score (M = 3.363), followed closely by Purchase Intention (M = 3.353) and Engagement (M = 3.345). The variable with the lowest mean was Entertainment Value, which recorded a mean of 3.285. All five constructs had a standard deviation above 1.0, indicating a relatively wide range of responses among the 200 participants.

Table 2
Descriptive Analysis of Key Variables (N = 200)

Variable	Minimum	Maximum	Mean	Standard Deviation	Median
Trust in Livestream Influencer	1.000	5.000	3.340	1.183	3.667
Interactivity	1.000	5.000	3.363	1.203	4.000
Entertainment Value	1.000	5.000	3.285	1.099	3.667
Engagement	1.000	5.000	3.345	1.130	3.667
Purchase Intention	1.000	5.000	3.353	1.128	3.667

Reliability and Validity Test
Table 3 presents the results of the reliability analysis for each construct based on Cronbach's Alpha values. All variables recorded alpha values above the minimum acceptable threshold of 0.70, indicating good internal consistency. The construct Interactivity had the highest Cronbach's Alpha value (α = 0.863), followed by Trust in Livestream Influencer (α = 0.845), Engagement (α = 0.840), Purchase Intention (α = 0.839), and Entertainment Value (α = 0.815).

As each variable consists of three items, the results suggest that the measurement instruments used in this study are reliable and consistent for further analysis.

Table 3
Reliability Analysis Based on Cronbach's Alpha (N = 200)

Variable	No of item	Cronbach's Alpha Value
Trust in Livestream Influencer	3	0.845
Interactivity	3	0.863
Entertainment Value	3	0.815
Engagement	3	0.840
Purchase Intention	3	0.839

Table 4 shows that the skewness values for all items ranged between -0.492 and -0.168, while the kurtosis values ranged from -1.281 to -0.606. Since all skewness values fall within ±2 and all kurtosis values are within ±7, it can be concluded that the dataset is approximately normally distributed. These results suggest that the variables used in this study meet the basic assumption of normality, and therefore, parametric tests can be applied in subsequent analyses.

Table 4
Normality Analysis

Variables	Item	Skewness	Kurtosis
Trust in Influencer	I trust the influencer's product reviews.	-0.484	-0.778
	The influencer is honest and sincere.	-0.481	-1.069
	I believe the influencer is credible.	-0.406	-1.043
Interactivity	The influencer responds actively to comments.	-0.407	-0.919
	I feel like I can participate during the livestream.	-0.262	-1.174
	The influencer encourages audience interaction.	-0.472	-1.118
Entertainment Value	The livestream is fun and enjoyable.	-0.168	-1.281
	I find the influencer's content entertaining.	-0.237	-0.895
	I look forward to watching their livestreams.	-0.325	-0.942
Engagement	I feel involved when watching the livestream.	-0.339	-0.916
	I focus my attention on the influencer's content.	-0.265	-0.799
	I feel emotionally connected during the livestream.	-0.475	-1.008
Purchase Intention	I am likely to buy the product after watching the livestream.	-0.492	-0.606
	I consider buying the products shown during livestreams.	-0.409	-0.870
	The livestream increases my intention to make a purchase.	-0.371	-1.105

According to Table 5, the KMO value is 0.920, indicating excellent sampling adequacy. Bartlett's Test of Sphericity is significant ($p = 0.000$), which means that the correlation between variables is sufficient to proceed with factor analysis.

Table 5
Validity Analysis
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.920
Bartlett's Test of Sphericity	Approx. Chi-Square	1212.208
	df	10
	Sig.	0.000

Hypothesis Analysis

Table 6 presents the Pearson correlation coefficients among the five core constructs in this study. All correlations are positive and statistically significant at the 0.01 level. The strongest relationship was observed between Purchase Intention and Trust in Livestream Influencer ($r = 0.877$, $p < 0.01$), followed by Purchase Intention and Interactivity ($r = 0.859$, $p < 0.01$), and Engagement and Interactivity ($r = 0.858$, $p < 0.01$). The weakest, though still strong, correlation was found between Engagement and Entertainment Value ($r = 0.797$, $p < 0.01$). These results indicate a high degree of association among all studied variables and support further analysis using regression and structural equation modeling.

Table 6
Pearson Correlation Analysis

	Purchase Intention	Trust in Livestream Influencer	Interactivity	Entertainment Value	Engagement
Purchase Intention	1				
Trust in Livestream Influencer	0.877**	1			
Interactivity	0.859**	0.869**	1		
Entertainment Value	0.847**	0.849**	0.837**	1	
Engagement	0.849**	0.848**	0.858**	0.797**	1
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 7 displays the results of multiple regression analysis. It was determined that R^2 is 0.782. Consequently, 78.2 percent of the variance in engagement was explained by interactivity, trust in livestream influencer, and entertainment value. The model was statistically significant, $F(3,196) = 234.950$, $p = 0.000$. Among the predictors, both interactivity and trust in influencer had a significant effect on engagement, while entertainment value was not statistically significant at the 0.05 level.

Table 7
Result for Multiple Regression with engagement as Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	Tolerance
	B	Std. Error	Beta				
Constant	0.387	0.121	-	3.205	0.002**	-	-
Interactivity	0.422	0.068	0.450	6.172	0.000**	4.778	0.209
Trust in Livestream Influencer	0.340	0.072	0.356	4.717	0.000**	5.121	0.195
Entertainment Value	0.123	0.070	0.119	1.753	0.081	4.174	0.240
R^2 = 0.782, Adjusted R^2 = 0.779							
F(3,196) = 234.950, p = 0.000							
Durbin-Watson = 1.832							
Dependent Variable: Engagement							
Note: *p < 0.05, **p < 0.01							

Table 8 shows the results of multiple regression analysis. It was determined that R^2 is 0.721. Thus, 72.1 percent of the variance in purchase intention was explained by engagement. The regression model was significant, $F(1,198)$ = 511.458, p = 0.000. Engagement was found to be a strong positive predictor of purchase intention, with a standardized coefficient β = 0.849 and a high t-value.

Table 8
Result for Multiple Regression with purchase intention as Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	Tolerance
	B	Std. Error	Beta				
Constant	0.519	0.132	-	3.925	0.000**	-	-
Engagement	0.847	0.037	0.849	22.615	0.000**	1.000	1.000
R^2 = 0.721, Adjusted R^2 = 0.720							
F (1,198)=511.458,p=0.000							
Durbin-Watson = 1.943							
Dependent Variable: Purchase Intention							
Note: *p < 0.05, **p < 0.01							

Mediation Analysis
Mediation analysis was conducted using SPSS with bootstrapping (5,000 samples, percentile method) to test whether engagement mediates the relationship between trust in livestream influencers, interactivity, and entertainment value with purchase intention.

Table 9
Result of Mediation Analysis (n = 200)

Path	Total Effect (c)	a (IV → MV)	b (MV → DV)	Indirect Effect (a*b)	Boot SE	z-value	p-value	95% BootCI	Direct Effect (c')	Conclusion
Trust → Engagement → Purchase Intention	0.386**	0.340**	0.229**	0.078	0.029	2.703	0.007	0.032 ~ 0.144	0.308**	Partial Mediation
Interactivity → Engagement → Purchase Intention	0.269**	0.422**	0.229**	0.097	0.033	2.946	0.003	0.044 ~ 0.177	0.172**	Partial Mediation
Entertainment Value → Engagement → Purchase Intention	0.270**	0.123	0.229**	0.028	0.019	1.498	0.134	−0.004 ~ 0.069	0.242**	Not Significant
Note: *$p < 0.05$, **$p < 0.01$										

Table 10
Result of Hypothesis Testing

Table 10 shows the hypothesis testing results. All hypotheses except H3 are supported at the 0.05 significance level. Pearson correlation analysis indicated strong positive correlations among all variables. Multiple regression analysis confirmed that trust and interactivity significantly influenced engagement, while entertainment value was not significant. Engagement also significantly predicted purchase intention. Mediation analysis using SPSS (bootstrapping with 5,000 samples) further confirmed that engagement partially mediated the effects of trust and interactivity on purchase intention, but not for entertainment value.

Hypotheses	Pearson Correlation Coefficient	Multiple Regression	Results
H1: Trust in livestream influencer is positively associated with engagement.	0.848**	p = 0.000	Supported
H2: Interactivity in livestream sessions is positively associated with engagement.	0.858**	p = 0.000	Supported
H3: Entertainment value of livestream is positively associated with engagement.	0.797**	p = 0.081	Not Supported
H4: Engagement is positively associated with purchase intention.	0.849**	p = 0.000	Supported
H5: Engagement mediates the relationship between trust, interactivity, entertainment value and purchase intention.	See Table 9	Trust & Interactivity: Supported; Entertainment: Not Supported	Partially Supported

Conclusions and Recommendations

This study, grounded in the Stimulus-Organism-Response (S-O-R) framework, aimed to examine how trust in livestream influencers, interactivity, and entertainment value affect purchase intention among Generation Z consumers in Malaysia, with engagement serving as a mediating variable. The findings provide strong support for four of the five proposed hypotheses. Specifically, trust in influencers (H1) and interactivity (H2) were both found to have significant positive effects on engagement. Engagement itself (H4) was also shown to be a strong predictor of purchase intention. Furthermore, mediation analysis confirmed that engagement partially mediates the relationships between trust (H5a) and interactivity (H5b) with purchase intention. However, entertainment value (H3) did not significantly influence engagement, and its mediated effect through engagement (H5c) was also found to be statistically insignificant.

This unexpected result for entertainment value suggests that while entertainment can enhance viewing pleasure, it may not be sufficient to drive deeper psychological involvement unless coupled with other meaningful elements such as trust or interactivity. As noted by Leong et al. (2024) and Dharma et al. (2024), entertainment captures attention and prolongs viewing time, but does not necessarily lead to higher emotional or behavioral engagement unless it aligns with viewer values or facilitates two-way interaction. This aligns with Wismiarsi et al. (2024), who emphasized that entertainment alone may function more as a peripheral cue, lacking the persuasive weight to stimulate active consumer participation. In contrast, the strong effects of trust and interactivity reaffirm findings by Chen & Yang (2023) and Joo & Yang (2023), indicating that real-time responsiveness and perceived authenticity are more influential drivers of engagement among digitally native Gen Z consumers.

From a practical standpoint, marketers should prioritize building influencer credibility and enhancing interactive features during livestream sessions. Strategies such as real-time Q&A, personalized shout-outs, and transparent product demonstrations can help boost trust and participation. While entertainment elements—like humor or music—can increase aesthetic appeal, they should be integrated with interactive and informative components to strengthen emotional involvement. Training influencers to be responsive and relatable, rather than merely entertaining, may lead to stronger consumer engagement and conversion.

In conclusion, this study contributes to livestream commerce literature by clarifying the role of engagement as a psychological bridge between livestream attributes and purchase intention. Trust and interactivity emerged as key antecedents to engagement, while entertainment value alone may lack the persuasive depth to drive meaningful behavioral responses. Future research may explore other moderating variables such as perceived informativeness, value congruence, or individual viewer motivations to better understand the complex interplay of livestream stimuli on consumer behavior.

This research offers both theoretical enrichment and contextual relevance to the growing body of literature on livestream commerce and digital consumer behavior. Theoretically, by employing the Stimulus-Organism-Response (S-O-R) framework and integrating engagement as a mediating construct, the study deepens our understanding of the psychological mechanisms that connect livestream features to consumer intentions. It distinguishes between cognitive and affective drivers—such as trust and interactivity—versus

peripheral elements like entertainment, highlighting their differential impact on engagement. Contextually, the study is significant as it addresses a Gen Z Malaysian demographic, a fast-growing digital consumer segment in Southeast Asia, whose behavior may differ from that of Western or older consumer cohorts. By examining this unique population within the culturally specific and rapidly evolving landscape of Malaysian livestream commerce, the study contributes valuable insights into how digital marketing strategies should be localized and personalized. These findings provide a foundation for future comparative studies across regions, platforms, or demographic groups, enriching global e-commerce scholarship.

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