

Investigating online purchase intention of Gen Z on TikTok live stream shopping

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ABSTRACT

The aim of this research is to investigate the potential determinants of online purchase intention on livestream shopping via TikTok by application of the Information System (IS) success model and the Uses and Gratification Theory (UGT). These theories have strongly proved to be effective in predicting human behavior from a social psychology standpoint, especially in explaining the motivation of consumers to have purchase intentions in online shopping contexts. Data were collected from 203 online and offline survey participants of Gen Z in the North of Vietnam. Regression techniques through SPSS 20 software were used to test the study hypotheses. The findings reveal that system quality, information quality, streamer attractiveness, para-social interaction, and price promotion positively influence online purchase intentions. Which price promotion has the most significant and positive impact on the online purchase intention of Gen Z consumers on TikTok's livestream shopping. These results provide a more comprehensive understanding of online purchase intentions. The findings and conclusion address notable theoretical and practical implications.

1. Introduction

Over the years, Vietnam's economic development has attracted attention from the international community. Through reform policies and efforts of the government, Vietnam's economy has not only grown strongly but also transformed from a traditional production model to a modern model, with a strong integration of information technology. One of the highlights of this transformation is the formation and development of e-commerce (Lo et al., 2021). These customers are crucial to the e-commerce industry and exhibit distinct buying patterns from conventional consumers. Customers can easily experience online shopping, from clothes to technology products, creating a growing online shopping community.

Nowadays, everyone is aware of live streaming as a top trend. Its growing popularity, variety of forms, and range of platforms have made it a matter of relish (Lu & Siegfried, 2021). Remarkably, the burgeoning live streaming industry, when paired with other online-based enterprises, has expanded quickly across the globe, particularly in Vietnam. One of the platforms with the strongest global growth for short videos is TikTok (Kaye et al., 2021). Vietnam's TikTok user base is growing because the app offers a fresh approach to engaging with fans and allows content to spread swiftly over the internet (Tran et al., 2023). It leads

TikTok to adopt TikTok shop into the market. Livestreaming is a tool that allows a creator to capture video in real-time and share it with others on the TikTok shop. Potential followers can also interact with the host by leaving comments on the video and responding in a way that fosters an active dialogue between the two parties.

The younger generation, particularly Gen Z, who are currently going through a transitional stage from youth to early adulthood and are highly accustomed to technology. Their shopping habits, particularly when it comes to internet shopping, are influenced by their psychological growth. For Gen Z, technology is an integral part of daily life. In order to socialize and exchange knowledge, gadgets are essential. On the other hand, technology can also promote online purchases. Online shopping is gaining popularity among people from the Gen Z (Veybitha et al., 2021).

There are many independent variables impacting online purchase intention. Some of the main categories are such as consumer characteristics, website characteristics, characteristics of web-as-a-sales-channel, merchant characteristics, product characteristics, and social media (Akar & Nasir, 2015). Consumer characteristics include demographic variables (i.e., gender, age, occupation, culture, education, etc.) and general variables (i.e., trust, perceived risk, attitude, subjective norms, perceived self-efficacy, etc.) (Le & Ho, 2017; Ngo et al., 2022; Thomas & Monica, 2018; Zamzuri et al., 2018). Website characteristics in the studies mainly focus on information quality, perceived ease of use, usefulness, web atmosphere, and reliability (Ngo et al., 2022; Rodzalan et al., 2023; Veybitha et al., 2021; Zamzuri et al., 2018). Characteristics of the web as a sales channel include service quality, advertisements, and e-word of mouth that have a positive impact on online purchase intention (Bawack et al., 2023; Cai et al., 2018; Le & Ho, 2017). Reputation of the vendor or merchant is investigated in prior research and is found to have a crucial role in online shopping (Bawack et al., 2023; Cai et al., 2018). Product characteristics are product type, product price, guarantee, and variety, product knowledge on online purchase intention. In particular, the previous studies stated that consumers explored online products and looked for the best price online (Bawack et al., 2023; Cai et al., 2018; Rodzalan et al., 2023; Thomas & Monica, 2018).

Livestream shopping is a new form of mixed media and shopping (Cai et al., 2018); it is crucial to take into account both previous consumer research that explains why people shop and the user experience research that explains why people watch live streams and decide what to consume. This topic received attention from technical studies of live streaming systems and behavioral studies of viewers and streamers using various platforms, such as YouTube Live, TikTok Live, Facebook Live, etc. (Ahmadi & Hudrasyah, 2022; Apasrawirote & Yawised, 2022; Bawack et al., 2023; Tran, 2021; Phung et al., 2023).

Research on factors affecting purchase intention via livestream is mainly based on theories of Theory of Planned Behavior (TPB) (Apasrawirote & Yawised, 2022), Elaboration Likelihood Model (ELM) (Ahmadi & Hudrasyah, 2022), UGT (Phung et al., 2023). There are a number of studies that lack a foundational theory to determine the factors influencing the intention to buy online via live stream (Tran, 2021; Tran et al., 2023). Therefore, the goal of the study is to determine why consumers would rather shop while watching live streams.

The research applied an integrated model of IS success and UGT to explore the reasons behind intentions to purchase online streaming. While there is a growing trend of research utilizing the IS success model to analyze customer behavior, relatively few studies have been applied to live streaming, which is a new form of online buying (Xu et al., 2020). The success of live-streaming shopping depends on the quality of its systems and information. Streamers'

provision of accurate and comprehensive information (Zahari et al., 2021) and real-time, tailored service (Rhee & Choi, 2020) boost customer satisfaction and purchase intention.

Additionally, academics have reasoned that the UGT offers a user-centered perspective on the various social and psychological motives pursued by a particular media (Cai et al., 2018). It makes the assumption that people utilize media technologies to increase their level of satisfaction. It aims to indicate why and how people are drawn to using cutting-edge technologies to fulfill their unique requirements and desires (Dhir et al., 2017). Thus, the UGT has been extensively employed to investigate the applications of many media and to gain a deeper comprehension of the reasons behind consumers' use of them. It makes sense that various people would use the same media for different reasons and would even show varying levels of satisfaction. Integrating the reasons and motives for livestream shopping summarized from previous literature with the IS success model and UGT theories, it would help the study to identify factors influencing consumer purchasing intention based on utilitarian and hedonic motivations.

Online purchase intention has frequently been used as the foundation for studies on purchasing behavior. According to the theory of planned behavior, intention can be the primary predictor of any behavior (Fishbein & Ajzen, 1975); for this reason, the primary dependent variable in this study is the intention to make an online purchase. The key theories - the IS success model and UGT - that have affected social psychology predictions of human behavior were examined in order to identify the variables influencing the intention to make an online purchase. These theories have demonstrated a strong ability to forecast human behavior in the context of online buying, especially to explain the motivation of online purchase intention of Gen Z via live streaming in the Northern Vietnam context.

2. Literature review and hypothesis development

2.1. Live stream shopping

One type of social media that is mostly synchronous is live streaming. It has certain distinctive qualities, like authenticity (Tang et al., 2016) and simultaneity (Scheibe et al., 2016). Live streaming is a new kind of shopping that combines distinctive media qualities with many social commerce features. Kim and Park (2013) clarified that social commerce is a subclass of e-commerce that uses social networking sites to promote online purchases through social interactions. This paper adopted the definition of live streaming shopping from the research of Lu and Siegfried (2021) that indicated that it is a type of social commerce that incorporates real-time social interaction into e-commerce.

2.2. Online purchase intention

Purchasing intentions are considered the key predictor of actual behavior (Fishbein & Ajzen, 1975). It is an abstract concept and difficult to define simply. Therefore, this concept has been interpreted by researchers in many different ways. Purchasing intention is the buyer's intention to buy goods and services to achieve specific consumer goals (Yüksel, 2007). Online shopping is transforming the way consumers buy goods and services by giving them more control over their selections because there are no time or location restrictions. Accordingly, the definition of intention to purchase online shopping is the consumer's intention to buy goods and services online or to use the virtual shopping cart to make purchases while logged on (Close & Kukar-Kinney, 2010). A consumer's willingness to make an online purchase is measured by their online purchase intention (Pavlou, 2003).

2.3. The Information System (IS) success model

The difference between online shopping and traditional shopping is that buyers depend on technology to make their purchasing intentions and behavior. DeLone and McLean proposed the IS success model in 1992, which outlined a procedure for determining the effectiveness or success of IS. The model clarified how IS is produced, used, and benefited overall (DeLone & McLean, 1992). A variety of system and information quality (i.e., production) levels are combined to generate an IS. Customers use the information system's features (i.e., use), and depending on their experiences, they either become satisfied or unsatisfied with the information system (i.e., use), which affects productivity on an individual or organizational level (i.e., net benefits). The framework has been extensively utilized to investigate users' intent to embrace new technologies and behaviors (Bao & Zhu, 2023; Ma, 2021; Yoo, 2020). Furthermore, DeLone and McLean (2004) suggested that the model may be specifically applied to the analysis of e-commerce success. System and information quality are assessed based on an individual's viewpoint and have been identified as key determinants of the effectiveness of IS (DeLone & McLean, 1992).

Customers establish their first impressions of a system before they have access to all the information that is available. System quality has been represented in prior research by ease of use, for the purpose of accomplishing some tasks (McKinney et al., 2022). Thus, system quality is expressed through the level of stability, user friendliness as well as the level of service for livestream activities of the platform (Hsu et al., 2018). The quality of a livestream platform can be evaluated based on several important factors. It is important to ensure connection stability to avoid interruptions. Video and audio quality also play an important role in ensuring a good viewing experience. Interoperability, ease of use, cross-platform support, security, and integration capabilities are other factors to consider. Strong technical support and user reviews also play an important role in evaluating system quality.

The quality of information can also affect use intention, which in turn influences purchase intention (Hsu et al., 2018). Information quality is defined as the degree to which information produced by the website is accurate, relevant, complete, and in the format required by the user (Rai et al., 2002). Accurate product-related information (such as features, prices, and return policies), the dependability of information content, and the capacity to promptly address viewers' information requests are examples of information quality that plays a critical role in promoting viewer engagement. Information quality is an important means of understanding whether consumer expectations are being met.

2.4. The Uses and Gratification Theory (UGT)

The main goal of the UGT is to identify the positive and negative effects of individual media use, as well as to explain and comprehend the psychological needs that influence people's motivations for engaging in particular media that satisfy their innate needs (Rubin, 2009). One of the best theoretical frameworks for examining consumer psychology and behavior when it comes to utilizing particular media channels is the UGT approach (Zamzuri et al., 2018). This theory is applied for the live streaming activity to deep understanding of consumer's motivation, and therefore facilitating the purchase intention. The UGT is an audience-centered approach to explore the motivation of consumers' shopping, most research explored hedonic and utilitarian motivations (Cai et al., 2018).

Falode et al. (2016, p. 152) defined hedonic values as "A positive experience where consumers may enjoy an emotionally satisfying experience related to the shopping activity regardless of whether or not a purchase was made". This research described shopping motives

from hedonic value perspectives as streamer attractiveness and para-social interaction. The streamer is the primary source of cognitive and affective value for viewers in the live-streaming marketing setting. According to recent studies on streamers, a consumer's perceived value is strongly impacted by a streamer's attractiveness, and this in turn influences the consumer's inclination to buy (Guo et al., 2022). Additionally, live streamers can respond to these queries right away. This instantaneous two-way communication can foster viewers' perceptions of parasocial interaction relationships with the streamers by increasing their sense of involvement in the whole buying experience (Ko & Chen, 2020). Parasocial interaction is therefore a good way to investigate how viewers' attitudes toward live streams affect their inclination to shop.

Consumers are not only influenced by the hedonistic benefits of their purchases, they are also influenced by utilitarian values (Horton & Wohl, 1956). A key factor of utilitarian values affecting consumers' impulsive buying behavior is price promotion. Price promotion, as defined by Kotler and Keller (2009), is a form of financial promotion in which the promotion incentive is the product's price as contrasted to its price. This includes discounts and coupons. Discount promotion, a marketing strategy used by producers or channel partners to boost sales by lowering the price of a particular product or raising the quantity of the unit price without lowering the price, is one of the most popular price promotion techniques in live streaming (Wongsunopparat & Deng, 2021). Thus, price promotion may lead to consumers' impulse buying intention in live streaming.

2.5. Hypothesis development

2.5.1. System quality

Today, consumers not only care about the products they need or want to buy, but the shopping experience is also increasingly valued. In livestream shopping, the quality of the livestream system (such as narrowband HD, smart recognition, and chatbox powered by artificial intelligence, etc.) greatly contributes to its popularity of live stream activity. Additionally, the friendlier design and interface of the livestream platform, the more likely consumers are going to shop (Chen & Yao, 2018). Tran et al. (2023) also found that purchasing convenience has a positive impact on customers' perceived product usefulness, which urges consumers to buy impulsively. In short, high system quality can give consumers a good impression of the seller and the product, thereby increasing their willingness to purchase.

H1: System quality positively affects the online purchase intention of Gen Z on live streaming shopping

2.5.2. Information quality

The degree to which online media offers users creative and beneficial knowledge is referred to as the informativeness construct (Lim & Ting, 2012). During live streaming, the streamer describes and tries out the product to help viewers understand more about it. The viewer then decides whether or not to make a purchase. Xu et al. (2020) propose that live streamer expertise enhances consumers' emotional commitment to the individual streamer and encourages them to participate in the online shopping market. Moreover, customers who believe that online shopping streams give them information that gratifies them are more likely to have a good attitude toward their intention to shop online. Therefore, the degree to which livestream purchasing is informatively satisfying and able to fulfill their informational duty influences consumers' intention to shop online.

H2: Information quality positively affects the online purchase intention of Gen Z on live streaming shopping

2.5.3. Streamer attractiveness

Attractiveness of a live streamer, which refers to the degree to which viewers are attracted to the live streamer. A streamer's attractiveness can be measured not only through physical attractiveness, such as appearance and voice, but also through other characteristics of the streamer, such as personality, style, expertise, and skill (Guo et al., 2022). An attractive live streamer contributes to stimulating customers' online shopping behavior and purchase intention (Phung et al., 2023). People like to participate in shopping via livestream because the live streamer makes them feel excited while forming a friendly attitude towards the products introduced by attractive sellers. Xu et al. (2020) showed that the attractiveness of the live streamer is a powerful stimulus for viewers' cognitive and emotional assimilation, thereby encouraging the purchase of products and creating entertainment and social sharing behavior.

H3: Streamer attractiveness positively affects the online purchase intention of Gen Z on live streaming shopping

2.5.4. Para-social interaction

The study by Horton and Wohl (1956) served as the inspiration for the idea of parasocial interaction. In order to sustain the one-way imagined relationship, viewers seek deeper interactions with performers through parasocial interaction, a unique relationship that resembles real interpersonal interactions (Wongsunopparat & Deng, 2021). Parasocial interaction during a live stream is another stimulus of a viewer's subjective feelings about interpersonal relationships. Intimacy and participation with the live streamers are significant stimuli because they suggest that the audience may have direct or indirect human interaction. Streamers can foster a feeling of interpersonal engagement by customizing their body language, facial expressions, and speech style to provide the impression of a two-way conversation with their audience. Therefore, enabled by the experience of interpersonal interaction, live stream viewers can believe that the streamer is their close friend. Opinions and shared experiences from streamers and social communities, along with the ability to interact directly, are important factors that increase consumer purchase intent, creating a positive influence and motivation in consumers' purchasing intentions (Huang & Suo, 2021). Parasocial interaction is, therefore, a good way to investigate how viewers' attitudes toward live streams affect their intention to buy.

H4: Para-social Interaction positively affects the online purchase intention of Gen Z on live streaming shopping

2.5.5. Price promotion

Many factors can influence a consumer's impulsive behavior during the purchasing process, but price incentives are the most likely to encourage this behavior (Huang & Suo, 2021). This is because price has a significant impact on a consumer's budget, particularly for those who are more sensitive to price. The "economic driving force" behind promotional efforts is price promotion, which makes consumers want to purchase more items at a lower cost or goods of a similar or better quality at a cheaper cost. Offering utility benefits can enhance consumers' perceptions of value, altering their opinions of products and impacting their purchase decisions. Tran et al. (2023) argued that price expectation directly and positively influences consumers' shopping behavior. Ahmadi and Hudrasyah (2022) discovered that various price promotion activities have varying effects on buy intention during the live streaming session, and that price awareness - or the degree to which prices are discounted - has a favorable influence on consumers' purchasing behavior.

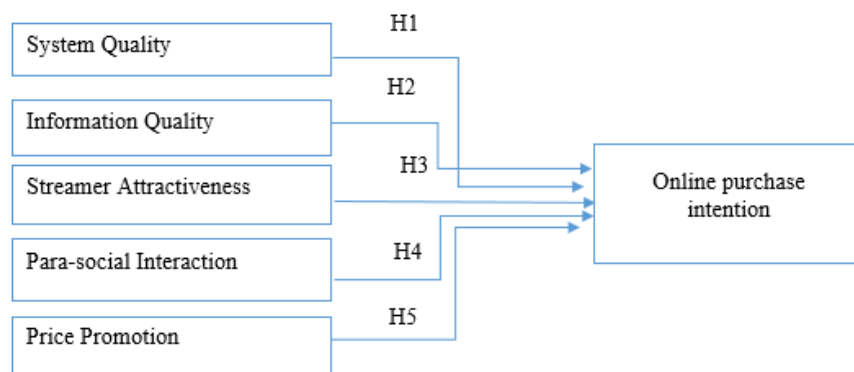
H5: Price promotion positively affects the purchase intention of Gen Z on live streaming shopping

2.6. Proposed research model

This research takes into account both the literature of consumer research that explains why people shop and the user experience research that explains why people watch live streaming and decide what to consume. The two main theories (IS success model and UGT) are based on proposing five factors live stream influencing the purchase intention of Gen Z on TikTok shop as follows: system quality, information quality, streamer attractiveness, para-social interaction, price promotion (shown in Figure 1).

Figure 1

Proposed Research Model



Source. Authors proposed

3. Methodology

3.1. Questionnaire development and instrument

There are five independent variables and one dependent variable with a total of 25 observed variables in the proposed research model to investigate factors affecting the online purchasing intention of Gen Z via livestream shopping on TikTok shop. In this investigation, measurement scales that have been previously verified in the literature were employed. Some measures were slightly adjusted to fit the live streaming purchasing environment. To measure each of these issues, we employed a five-point Likert scale, with the options being (1) strongly disagree and (5) strongly agree. Five items from Dong et al. (2022) are adopted to measure system quality and online purchase intention. Streamer attractiveness, information quality, and para-social interaction with four items for each construct were adapted from Xu et al. (2020). Price promotion contained three items from Huang and Suo (2021). Table 2 shows the scales adopted in this study.

3.2. Data collection and analysis

3.2.1. Data collection

The study applied a purposive sampling technique to gather opinions from participants who are knowledgeable about and have done internet shopping. Using expert information on a cross-section of purposeful sampling is a non-random technique (Lavrakas, 2008). A questionnaire survey was structured by getting the responses from Gen Z consumers who were born between 1995 and 2010 (Francis & Hoefel, 2018). The responses were collected when they were frequent online shoppers. A filter question asking when they last made an online purchase was suggested at the start of the survey to find out if respondents were frequent users of livestream purchasing. Those who had used TikTok shop to livestream purchases within the

previous six months were eligible to participate in the survey. Besides, demographic information such as gender, age, income, frequency of purchasing, and monthly budget was collected.

The minimum sample size to ensure reliability is calculated by multiplying 05 by the total number of observed variables (Hair et al., 2010). This research has 25 question indicators. Then, the minimum number of samples that will be needed is 125 respondents, which will ensure reliability and suitability for the research. The survey questionnaires were set up on Google Forms and then delivered to consumers of Gen Z who have used shopping services on the TikTok shop platform in public groups. Additionally, the direct survey was conducted at high schools and universities in North Vietnam. The survey was carried out between 02nd March 2023 and 09th May 2023 and received 203 valid responses from survey participants (shown in Table 1).

Table 1

Demographic Profile of Respondents

	Category	Numbers (N = 203)	Percentage (%)
Gender	Male	87	42.9
	Female	108	53.2
	Undisclosed	8	3.9
Age	13 to 18	38	18.7
	18 to 22	75	37
	22 to 28	90	44.3
Income	Below 05M VND	109	53.7
	From 05M to 10M VND	85	41.9
	From 10M to 15M VND	6	3.0
	Above 15M VND	3	1.5
Frequency of purchasing	01 - 05 times/year	12	5.9
	05 - 10 times/year	77	37.9
	01 times/month	72	35.5
	02 - 05 times/month	33	16.3
	Over 05 times/month	9	4.4
Monthly budget	Below 200K VND per month	78	38.4
	200K - 500K VND per month	93	45.8
	500K - 1M VND per month	21	10.3
	Over 1M VND per month	11	5.4

Note. M = million, K = thousand, VND = Vietnam dong

Source. The researcher's data analysis

The sample by gender includes men (42.9%), women (53.2%), and 3.9% who do not want to specify gender. There are 81.3% of respondents aged 18 - 28 years old who have studied at universities and worked. Statistics show that the largest number of respondents are those with income under 05 million VND (53.7%) because the age of respondents from 13 to 22 years old

accounts for 55.7% of the sample; they have not yet worked, so there is unstable or low income. The respondents with income from 05 - 10 million VND account for 41.9% because the GenZ respondents in the survey from 22 - 28 years old are fresh employees, so their income is moderate. Income over 10 million VND accounts for 4.5% of the total sample. On the TikTok shop, there are 37.9% who make purchases on livestream 05 - 10 times/year. The number of consumers who buy once/month is 35.5%, and those who buy 02 - 05 times/month account for 16.3%. Regarding spending per month on products purchased via livestream, most of the survey respondents are young people with not too high income, so the spending level is from 200,000 - 500,000 VND/month. The most popular (45.8%), followed by spending less than 200,000 VND/month (38.4%) and spending from 500,000 - 1,000,000 VND/month (10.3%).

3.2.3. Data analysis

A quantitative technique through SPSS 20 software was used to examine the hypotheses. Cronbach's Alpha coefficient is a useful tool in assessing the consistency of measurement variables, helping to improve the reliability of observed variables (corrected item-total correlation > 0.3; 0.7 < Cronbach's Alpha < 0.95) (Bernstein & Nunnally, 1994). Exploratory Factor Analysis (EFA) plays an important role in identifying the latent structure of variables (factor loading coefficient > 0.5; 0.5 <= KMO <= 1, Eigenvalues < 1, sig. of Bartlett's test < 0.05) (Field, 2013). Regression analysis describes and measures the relationship between a dependent variable and independent variables (sig. < 0.05). Through evaluating the regression coefficient, it helps understand the level and direction of the impact of each independent variable on the dependent variable.

4. Empirical findings and discussion

4.1. Reliability analysis of variables

The reliability analysis results of all independent and dependent variables meet the allowable level. The correlation coefficient compared to the aggregate variable is not less than 0.3, and there is no observed variable with a Cronbach's Alpha coefficient greater than the aggregate variable. Besides, Cronbach's Alpha coefficient of a dependent variable (online purchase intention) is 0.814, and all five independent variables (system quality, streamer attractiveness, information quality, para-social interaction, price promotion) are 0.806; 0.779; 0.830; 0.819; 0.772 respectively (> 0.7) (shown Table 2), so it has achieved reliability. Consequently, the following stage of the EFA analysis can make use of all observed variables.

Table 2

Results of Reliability Analysis for the Scales

Code	Measurement items	Corrected item-Total correlation
System Quality (SQ)		Cronbach's Alpha = 0.806
SQ1	Anyone who is interested in the live room can enter the live room.	0.586
SQ2	Even if many people enter the live room at the same time, there will be no delays or errors.	0.562
SQ3	The audience can enter the live-streaming room that they are interested in at any time without time or place limitations.	0.593

Code	Measurement items	Corrected item-Total correlation
SQ4	After entering the live room, the audience can carry out any operation they are interested in without any inconvenience.	0.611
SQ5	The live-streaming e-commerce platform allows audiences to watch videos and hear sounds with no stuck phenomenon.	0.599
Streamer Attractiveness (SA)		Cronbach's Alpha = 0.779
SA1	I think that the live stream streamer is talented.	0.589
SA2	I think that the streamer has an enjoyable live streaming style.	0.569
SA3	I think that the streamer has an interesting personality.	0.559
SA4	I think the streamer has an appealing appearance.	0.614
Information Quality (IQ)		Cronbach's Alpha = 0.830
IQ1	I think the content provided by the streamer is reliable (such as product, brand, and use experience).	0.599
IQ2	In the live stream, I think the content provided by the streamer is true.	0.649
IQ3	The streamer provides real-time information to meet my needs in the live stream.	0.755
IQ4	In the live stream, I think the content provided by the streamer is complete.	0.629
Para-social Interaction (PSI)		Cronbach's Alpha = 0.819
PSI1	In the live stream, I feel as though the streamer and I are friends.	0.551
PSI2	When I am watching the live stream, I feel a sense of we-ness (togetherness) with the streamer.	0.630
PSI3	I feel as though the streamer cares about my responses during the live stream.	0.631
PSI4	I feel the streamer is like an old friend.	0.759
Price Promotion (PP)		Cronbach's Alpha = 0.772
PP1	I am easily attracted by price promotions.	0.596
PP2	When it comes to price promotions, I cannot help buying.	0.603
PP3	The price promotion gave me a strong impulse to buy.	0.621
Online Purchase Intention (PI)		Cronbach's Alpha = 0.814
PI1	I will consider purchasing products through live streaming.	0.623
PI2	Purchasing products through live streaming has many advantages.	0.577
PI3	I think it is a good choice to purchase products through live streaming.	0.596
PI4	Along with other options, I will give priority to purchasing products through live streaming.	0.614
PI5	I will advise my friends and acquaintances to purchase products through live streaming.	0.602

Source. The researcher's data analysis

4.2. Validation analysis of variables

The EFA analysis was conducted for independent variables, and the results identified that the factor loading of PSI4 and IQ3 is lower than 0.3 (< 0.5); thus, these two items were eliminated in the model. After removing the PSI4 and IQ3 items, the result of the final EFA analysis had the following results $KMO = 0.846 > 0.5$ and $sig. = 0.000 < 0.05$. The research sample size met the standards to allow factor analysis to be conducted. Five factors were extracted that explained 63.226% of independent variables with 18 items (shown in Table 3).

Table 3

Results of Exploratory Factor Analysis

KMO and Bartlett's Test					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy					0.846
Bartlett's Test of Sphericity			Approx. Chi-Square	1262.546	
Df				231	
Sig.				.000	
Rotated Component Matrix					
Observed variables	Factor				
	System Quality (SQ)	Streamer Attractiveness (SA)	Price Promotion (PP)	Para-social Interaction (PSI)	Information Quality (IQ)
SQ3	.739				
SQ1	.725				
SQ2	.713				
SQ4	.707				
SQ5	.699				
SA1		.779			
SA4		.736			
SA3		.721			
SA2		.711			
PP1			.796		
PP2			.782		
PP3			.768		
PSI3				.811	
PSI2				.733	
PSI1				.707	
IQ2					.804
IQ1					.804
IQ4					.672
Extraction of sums of squared loadings					
Cumulative %: 63.226					

Source. Data analysis result of the research

4.3. Hypothesis testing results

4.3.1. Pearson correlation analysis

The Pearson correlation analysis shows the relationship between variables, especially the two-way relationship, without clearly identifying which independent variables have an impact on the dependent variable. The results presented in Table 4 show that all independent variables (system quality, streamer attractiveness, information quality, para-social interaction, and price promotion) are significantly correlated with the dependent variable (online purchase intention) at 1% significance level. Therefore, to be able to reach the most accurate conclusion about the similar influence of the dependent variables, the author continues to conduct a multicollinearity test.

Table 4

Results of Pearson Correlation Analysis

	Online Purchase Intention (PI)	System Quality (SQ)	Streamer Attractiveness (SA)	Information Quality (IQ)	Para-social Interaction (PSI)	Price Promotion (PP)
Correlation coefficient	1	.575**	.553**	.528**	.585**	.619**
Sig. (2-tailed)		.000	.000	.000	.000	.000
N	203	203	203	203	203	203

Note. ** indicates that the correlation is significant at the 0.01 level (2-tailed)

Source. Data analysis result of the research

4.3.2. Multiple regression analysis

Multiple regression analysis is used to verify the level of impact and direction of impact of the independent variables (system quality, streamer attractiveness, information quality, para-social interaction, price promotion) on the dependent variable (online purchase intention), the results are shown in the Table 5.

Table 5

Results of Regression Analysis

Sample	(Explanatory variable)	Standardized coefficient	t	Sig.	Multicollinearity statistics	
		Beta			Tolerance	VIF
1	SQ	.230	4.944	.000	.736	1.358
	SA	.199	4.281	.000	.742	1.348
	IQ	.169	3.655	.000	.749	1.336
	PSI	.265	5.814	.000	.767	1.304
	PP	.322	7.078	.000	.771	1.296
	R²		0.686			
Adjusted R²		0.678				

Note. Online Purchase Intention (PI), System Quality (SQ), Streamer Attractiveness (SA), Information Quality (IQ), Para-social Interaction (PSI), Price Promotion (PP)

Source. Data analysis result of the research

The adjusted R^2 coefficient is 0.678, representing 67.8% of the change in the online Purchase Intention (PI) variable, which is explained by five independent variables. The adjusted R^2 coefficient is large, more than 50% shows that this is a good and suitable model. Besides, VIF values are less than 2, which means that it does not occur in multicollinearity. Testing the correlation coefficient between the independent and dependent variables gives results $\text{Sig} = 0.000 < 0.005$. The model is suitable for inclusion in regression analysis. The factor with the greatest influence on online Purchase Intention (PI) is Price Promotion (PP with $\beta = 0.322$), followed by Para-Social Interaction (PSI with $\beta = 0.265$), and then System Quality (SQ with $\beta = 0.230$). The remaining independent variables are Streamer Attractiveness (SA with $\beta = 0.199$) and Information Quality (IQ with $\beta = 0.169$). Using the standardized beta coefficient, the regression equation is formed as follows.:

$$\text{PI} = 0.230*\text{SQ} + 0.169*\text{IQ} + 0.199*\text{SA} + 0.265*\text{PSI} + 0.322*\text{PP} + \epsilon \quad (1)$$

Based on the results of regression analysis, major findings are acknowledged. In conjunction with the stated research hypotheses, initial conclusions are shown in Table 6. Five proposed hypotheses (H1, H2, H3, H4, and H5) that emerged from the literature review are supported.

Table 6

Summary of the Hypothesis Testing

Hypotheses	Beta	Sig.	Results
H1: System quality positively affects the online purchase intention of Gen Z	.230	.000	Supported
H2: Information quality positively affects the online purchase intention of Gen Z	.169	.000	Supported
H3: Streamer attractiveness positively affects the online purchase intention of Gen Z	.199	.000	Supported
H4: Para-social interaction positively affects the online purchase intention of Gen Z	.265	.000	Supported
H5: Price promotion positively affects the online purchase intention of Gen Z	.322	.000	Supported

Source. Data analysis result of the research

4.4. Discussion

Price promotion has the most significant and positive impact on the online purchase intention of Gen Z’s consumers on TikTok’s live stream shopping ($\beta = 0.322$ with the value $\text{sig.} = 0.000 < 0.05$). It means that when price promotions increase, the purchase intention of Gen Z on the TikTok shop platform also increases. Because consumers want to enjoy price benefits and pay less for consumer products, this psychology will be satisfied when they receive incentives and satisfy the purchasing process (Huang & Suo, 2021). Once they have memorized this experience, they will easily develop a desire to come back to shop to enjoy the same deals from live-streamed sales sessions.

Para-social interaction has a positive influence on the online purchase intention of Gen Z’s consumer on TikTok’s live stream shopping ($\beta = 0.265$ with the value $\text{sig.} = 0.000 < 0.05$). It identifies that para-social interaction can improve the purchase intention of consumers. It not only makes consumers enjoy highly interactive experiences but also affects their trust in the

exchange process (Xu et al., 2020). In addition, para-social interaction plays a huge decisive role in purchasing intention because young people's need for interaction is very high. From there, live streaming sales activities with high social interaction will have a positive impact on the purchasing intention of Gen Z on the TikTok shop.

The positive impact of system quality on purchase intention ($\beta = 0.230$ with the value $\text{sig.} = 0.000 < 0.05$) is consistent with previous research (Dong et al., 2022; Tran et al., 2023). The quality of the livestream platform not only helps users have a better and more convenient experience but also affects consumers' platform usage habits. In this study, the quality of the livestream platform plays a highly influential role because of Gen Z's need for experience because this audience's ability to adapt and learn about technology is very high. Thus, the quality of the livestream platform (like the TikTok shop platform) will have a positive impact on young people's purchasing intentions.

There is a positive relationship between streamer attractiveness, information quality, and consumer purchase intention in live streaming commerce. The appeal of streamers stems from high entertainment, aiming to increase the demand for exciting, new experiences for consumers (Xu et al., 2020). For young consumers, the streamer's appeal plays an even greater role when attraction and entertainment are what keep them in the live stream so the streamer can introduce and share information about the product. Besides, the information quality of products has been provided enough and clearly makes consumers fully understand and confident about the products or the purchase environment (Zamzuri et al., 2018). It leads to specific positive attitudes and behaviors about online purchasing and a sense that they can control their purchasing environment.

5. Theoretical and practical implication

5.1. Theoretical implication

This study adds to our current knowledge of consumers' intents when it comes to social commerce in Northern Vietnam, particularly with regard to livestreaming. This research analyzed and clarified the factors of live stream shopping based on a combination of two main theories (IS success model and UGT) to predict Gen Z's consumer behavior from a social psychology standpoint. The significance of the coefficients provides support for the IS Success Model that consistent with our predictions, results indicate that system and information quality was shown to be very significant for users to have the intention to purchase. Furthermore, UGT makes the assumption that people use media technologies in a habitual manner to satisfy both inner and extrinsic demands. Three factors (streamer attractiveness, para-social interaction, price promotion) based on UGT impact on the purchase intention of Gen Z's consumers. By offering and testing a theoretical model in the live stream shopping context, this study defines and explores the nature of the determinants of online purchase intention. In the context of live streaming buying, we discover that the following factors significantly and favorably influence online purchase intention: system quality, information quality, streamer attractiveness, para-social interaction, and price promotion. Out of these five factors, price promotion has the strongest impact on the intention to make an online purchase.

5.2. Practical implication

This study offers insights to practitioners on how to encourage and motivate consumers' buy intentions when they are purchasing live streaming. This study, which examines factors like live streamers, interaction, price, and platform from the standpoint of empirical research, helps businesses, merchants, and e-commerce platforms understand the factors that influence consumer buying decisions. It also offers some implications for the long-term viability of the

e-commerce live streaming industry and offers advice to merchants on how to improve their current shortcomings and become more competitive.

The results show that five factors have a significant determining influence on buying intention. It is therefore recommended that vendors on social commerce platforms, such as TikTok shop, emphasize these five elements in order to increase consumer satisfaction. *First*, to optimize sales performance, vendors need to create special price promotions. This could be a discount code, a gift with a large order, or even an exclusive benefit just for users of the live streaming community. This will not only drive engagement but also purchase intention, build loyalty, and create a supportive community around the brand. *Second*, para-social interaction is the decisive factor in building relationships with customers. Thus, streamers need to encourage viewers to ask questions, share opinions, and even comment on the product. This not only creates a strong sense of engagement but also helps the streamers clearly understand the needs and wants of the target audience. *Finally*, streamers need to shape their sales strategy around the platform's uniqueness and dynamism. They could focus on creating creative, unique content that clearly reflects the nature of the product. Use the livestream platform's unique visual elements, music, and media language to create an exceptional shopping experience. This not only helps attract attention but also makes a strong impression on customers.

6. Conclusion, limitation, and future research direction

6.1. Conclusion

These findings provide an initial study of the recently discovered phenomena of live streamed shopping. Our findings might help with the design of live streaming and e-commerce platforms. The study identified five factors influencing the online purchase intention of Gen Z on TikTok live streaming through qualitative analysis, including system quality, streamer attractiveness, information quality, para-social interaction, and price promotion. The findings show that the positive impact determinants of live stream shopping on motivating purchase intention of Gen Z's consumer. The factor with the strongest impact is price promotion. This shows the influence and importance of major promotions in stimulating the purchasing behavior of young consumers. Other factors, including para-social interaction and system quality, also need special attention from businesses and stores to attract and retain customers. Therefore, when businesses and distributors intend to choose the form of live stream platform to introduce and sell their goods, the live session should provide them with all the necessary information in order to contribute to perfecting their products. Improvement of live stream shopping in the e-commerce era has greatly contributed to the development of the economy.

6.2. Limitations and suggestions for further research

Even though the present study might have potential implications in the context of social commerce, some limitations must be acknowledged.

First, the study's sample is restricted to a few universities and high schools in the country's North. In order to increase the generalizability of the research findings, the sample needs to be more representative of broader populations with a range of demographic, psychological, and geographic characteristics.

Second, the model evaluates users' views and intents at a specific point in time because it is cross-sectional. It is advised that longitudinal surveys be used in future research because people's opinions and preferences are likely to change as they gain more experience.

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