

# Exploring The Factors Which Impact Impulse Purchase Intention in TikTok Live Streaming Shopping in Indonesia

Cynthia Razafinandrasana

Binus Business School Master Program, Binus University  
razafinandrasana.cynthia@binus.ac.id

Dewi Tamara

Binus Business School Master Program, Binus University  
dtamara@binus.edu (Coaching)

---

## ABSTRACT

The trend of live streaming shopping has been gaining traction in e-commerce. Platforms like TikTok use live videos to showcase products and connect with consumers in real time. However, while the benefits have been highlighted, there is a lack of understanding the challenges it poses, its impact on traditional e-commerce, and impulse purchase intention. To gain insight into this trend, this study examines purchase intentions level for TikTok live streaming shopping in Indonesia through an online survey of 383 eligible participants from a sample of 416. Utilizing quantitative approach and TAM, factors like visualization, communication, uncertainty, ease of use, usefulness, enjoyment are analyzed through Structural Equation Modeling (PLS-SEM). Results reveal significant positive influences of visualization, communication, perceived ease of use, usefulness, and enjoyment on purchase intention. Conversely, perceived uncertainty lacks significant impact. Mediation analysis demonstrates perceived usefulness and enjoyment mediating the relationship between ease of use and purchase intention. These findings have practical implications for companies to tailor effective strategies for live streaming shopping by emphasizing clear communication, perceived usefulness, and enjoyable shopping experiences. This study enhances theoretical understanding of impulse purchase intention and technology acceptance within the live streaming shopping, contributing valuable insights for businesses navigating this evolving e-commerce.

**Keywords:** Live Streaming Shopping, E-commerce, Purchase Intention, TikTok, Technology Acceptance Model

---

## 1. INTRODUCTION

Recent advancements in technology and communication have revolutionized the dynamics of consumer-company interactions. The proliferation of various e-commerce platforms, such as TikTok, Facebook, YouTube, Twitter, Taobao.com, and JD.com,

has facilitated swift access to goods via mobile devices and the integration of live streaming functionalities.

Amidst the COVID-19 pandemic, live streaming shopping has emerged as a novel fusion of social media, entertainment, and e-commerce, garnering significant attention [1]. This innovative approach enriches the shopping journey by providing real-time product information and a virtual tactile experience, allowing users to interact with products virtually. Motivations behind live broadcasting span from fostering trust to evoking a sense of presence, heightened engagement, and cognitive absorption [2] [3]. In essence, live streaming e-commerce amplifies the product experience, mitigating uncertainties commonly associated with traditional online shopping [4].

As per insights gathered from ByteDance's advertising data, TikTok boasted a user base of 109.9 million individuals aged 18 and above in Indonesia as of the beginning of 2023. Further analysis of ByteDance's statistics reveals that TikTok advertisements effectively reached 56.8% of the adult population aged 18 and above in Indonesia during the same period. Moreover, TikTok's advertising endeavors accounted for 51.6% of the overall internet user base in Indonesia at the start of the year, regardless of age demographics. Additionally, the demographic breakdown of TikTok's ad audience in Indonesia indicated a gender distribution of 66.1% female and 33.9% male as of early 2023[5]. These findings underscore the significant user base and extensive reach of TikTok within the Indonesian market, setting the context for investigating the factors influencing impulsive purchase intention within TikTok's live streaming commerce.

Considering these findings, TikTok, a social media platform focusing on short videos with music, has gained attention as a promising tool for businesses to enhance brand promotion and audience engagement through live streaming [6]. More than half of TikTok's user base consists of Generation Z and millennials, who are known for their openness to new and innovative concepts like live streaming commerce [7]. The unique algorithm, user-generated content, and short-form videos catering to the Gen Z audience have boosted TikTok's popularity [8]. It has also emerged as a platform for e-commerce through features such as TikTok Live and TikTok Shopping, providing a new avenue for businesses to reach and engage with consumers [9]. TikTok Shop continues to gain traction in Indonesia, following a period of regulatory challenges and operational adjustments. After a temporary suspension in October 2023 due to new government regulations aimed at separating social media from e-commerce, TikTok shop has resumed operations [10]. This comeback is part of a strategic partnership with Tokopedia, a major Indonesian e-commerce platform, which has allowed TikTok shop to re-enter the market through a more compliant business model [10]. This partnership aims to support small and medium-sized enterprises (SMEs) by providing them with a robust platform for promoting and selling their products online.

To examine the factors influencing impulse purchasing intention among consumers participating in live streaming commerce on TikTok in Indonesia, this study adopts the theoretical framework of Technology Acceptance Model (TAM). TAM provides a

valuable lens for understanding user acceptance and utilization of emerging technologies, enabling an exploration of the factors shaping consumers' adoption of live streaming commerce on TikTok [11]. Despite the acknowledged benefits of TikTok live streaming documented in existing literature, a notable research gap exists regarding the examination of challenges and limitations inherent in live streaming e-commerce [12], particularly its impact on traditional e-commerce practices [13]. While live streaming e-commerce represents an evolution of conventional e-commerce, scholarly inquiry impulsive purchasing intention within this domain remain limited [14]. Furthermore, the live streaming commerce sector is still in its infancy, warranting further investigation into its unique features and challenges. This study aims to address this gap by exploring the factors influencing impulsive purchasing intention within the context of live streaming commerce on TikTok in Indonesia. Moreover, the findings of this study hold significant societal implications, informing marketers, businesses, and policymakers about the potential of TikTok live streaming commerce. Insights derived from this research could empower businesses to develop more effective marketing strategies, thereby enhancing consumer shopping experiences and stimulating economic growth. Additionally, this exploration of impulsive purchasing intention in TikTok live streaming commerce domain will provide valuable guidance for live streaming merchants in devising, marketing strategies tailored to the dynamics of this emerging e-commerce, ultimately promoting a seamless and enjoyable shopping experience for consumers.

## **2. LITERATURE REVIEW**

### **2.1 TikTok Live Streaming E-commerce**

In recent years, remote transactions for exchanging goods and services in real-time through online platforms have become increasingly commonplace [15]. Live streaming commerce has emerged as a method for businesses to engage with consumers fosters a dynamic and collaborative atmosphere for both sellers and buyers, conducted on streaming platforms [16]. Live streaming entails the use of interactive multimedia technology on the internet, facilitating instant communication between streamers and viewers across various mediums such as text, audio, video [17]. The prevalence of social media platforms like TikTok has further popularized live streaming shopping, particularly among younger demographics [18]. This form of shopping involves conducting real-time e-commerce transactions via streaming platforms, providing highly interactive and immersive experiences for both streamers and consumers [19]. Live-streaming shopping represents a modern approach to conducting business on social media platforms [20], characterized by its simultaneous and authentic nature [21]. By enabling real-time interaction between buyers and sellers, live streaming media cultivates a personalized shopping experience that fosters deeper connections between participants [22].

Scholarly literature has investigated various facets of live streaming shopping, encompassing its effects on consumer behavior, the influence of influencers, and the

integration of gamification. Prior research indicates that live streaming shopping has a positive impact on consumers' purchasing intention and perceived value [23]. Additionally, studies have shown that perceived authenticity of live streamers positively influences consumers' purchase intention [24]. However, the incorporation of gamification in live streaming shopping does not consistently result in heightened purchase intention [25]. While this study has underscored the promising prospects of streaming shopping as an innovative online trading method, further examination is necessary to fully grasp its impact on consumer behavior and its efficacy as an advertising platform.

## **2.2 Technology Acceptance Model (TAM)**

TAM is a framework aimed at understanding technology adoption. It integrates principles from the theory of reasoned action (TRA) to assess users' attitudes toward adopting information technology [26]. TRA posits that individuals make decisions autonomously, considering the practical implications of technology in their lives [27]. It emphasizes that an individual's behavioral intention is influenced by their attitude toward the behavior and the social pressure or subjective norm associated with that behavior [28]. TAM simplifies TRA by focusing on the intention to use technology and identifies five key elements influencing technology adoption: perceived usefulness, perceived ease of use, attitude toward use, behavioral intention to use, and actual system use [29]. Of these factors, perceived usefulness and perceived ease of use are particularly pivotal in shaping users' perceptions of new technologies within TAM. Perceived usefulness denotes the user's belief that a technology will enhance their performance or productivity. In online platforms like TikTok's live streaming for shopping, users may perceive the technology as valuable if it offers access to unique products, exclusive deals, or seamless interaction with sellers [30]. Conversely, perceived ease of use refers to the user's perception of how simple or effortless it is to use a technology. Platforms perceived as intuitive and user-friendly are more likely to be embraced. In the context of live streaming shopping, if the platform offers an intuitive and seamless shopping experience, users are more inclined to engage with it [31]. Importantly, TAM recognizes that perceived ease of use influences perceived usefulness, which in turn, affects the individual's attitude and behavioral intention to use a technology.

TAM aims to provide a framework for understanding the factors driving users' decision to adopt or reject new technologies [32]. This study extends prior research by incorporating four additional elements, visualization, communication, perceived enjoyment, and perceived uncertainty, into the TAM model to assess the propensity for impulsive purchasing through TikTok live streaming shopping [33-35].

In this research, TAM plays a crucial role by expanding the application of the TRA to gauge users' attitudes and behavioral intention regarding the adoption of TikTok live streaming shopping, recognizing it as a technological advancement. By utilizing TAM, this study seeks to elucidate the factors influencing users' decisions to adopt or resist this evolving technological dimension. These elements are crucial in evaluating the

propensity for impulsive purchasing through TikTok live streaming shopping. Through this enhanced TAM framework, the research aims to offer a comprehensive understanding of the psychological and behavioral factors driving impulse buying behaviors within the dynamic landscape of TikTok live streaming commerce.

### **2.3 Visualization**

Visualization is the creation of visual representations or images to convey information or ideas [36]. Visuals elements hold considerable sway over purchasing decisions, particularly within the realm of live streaming on TikTok. Given TikTok's visual-centric nature, it is imperative for streamers to employ high-quality visuals that effectively showcase products from various perspectives, emphasize their features and advantages, and offer insights into their size and scale. Through visualization, streamers can enhance their audience's comprehension of the product and its value proposition, thereby heightening the likelihood of a purchase. Moreover, the utilization of interactive visualization technologies such as 360-degree videos, virtual reality, and augmented reality can significantly enhance the shopping experience for consumers. These technologies afford consumers the opportunity to virtually examine and interact with products, enabling streamers to bolster engagement, instill trust, and deliver a more captivating shopping encounter.

The incorporation of visual information processing confers benefits such as speed, capacity, and parallelism in information acquisition [37]. Within the live streaming context, visualization enables streamers to showcase products comprehensively, providing consumers with a more immersive experience. Studies suggest that visual elements and entertainment exert a greater influence on purchase intention compared to factors like interactivity and professionalism [38]. Hence, it behooves retailers to furnish engaging live streaming experiences replete with comprehensive product information. Visualization assumes paramount importance in fostering trust with consumers, as streamers can convey product quality by presenting it from various angles and furnishing detailed descriptions [39]. Furthermore, enhancing video quality facilitates clearer product visualization and aids consumers in grasping product features and applications, thereby prompting purchases [40]. Both visibility and interaction during live broadcasts positively impact consumer perceived value and trust [41].

Existing literature substantiates the notion that visual cues in live streaming significantly shape consumer behavior and purchase intention [42] [43] [44]. However, focusing too heavily on visual elements can overlook other critical factors such as interactivity, social presence, and emotional engagement. For instance, while attractive product displays and engaging video content can capture attention, elements like real-time interaction with the host, social proof from viewer comments, and perceived credibility of the seller also play vital roles in influencing purchasing decisions [45] [46]. Therefore, a more balanced approach is needed, integrating visual appeal with these additional factors to provide a comprehensive understanding of what drives consumer behavior in live streaming environments. Collectively, prior research underscores the pivotal role of visualization in the success of live streaming e-

commerce on TikTok. By delivering high-quality visuals and integrating interactive visualization tools, streamers can elevate engagement, foster trust, and drive sales. Nonetheless, achieving long-term success in live streaming e-commerce demands a balanced approach that encompasses various factors. Given the preceding elucidation, the initial hypothesis posited is:

*H1: Visualization significantly and positively influences purchase intention.*

## **2.4 Communication**

Communication refers to the transmission of information or messages through symbols, language, or any form of expression [47]. It holds significant importance in human relationships, facilitating the exchange of ideas and influencing actions. In the context of e-commerce and live streaming, communication pertains to the quality of interaction between companies and consumers, exerting a considerable impact on their purchasing decisions. Effective communication necessitates direct and current dialogues between the parties, fostering mutual understanding, as well as a sense of timing and comprehension [48]. Additionally, meticulous management of the information being exchanged is crucial for ensuring successful communication.

Prior research on communication in the realm of e-commerce and live streaming can be categorized temporally and from diverse perspectives. Communication encompasses real-time interactions and is paramount for successful internet communication [49]. It comprises three essential elements: control, two-way exchange of information, and synchronicity, all of which are instrumental in fostering trust and connection between parties [50].

Recent study underscores the pivotal role of effective communication in live streaming in influencing consumer purchase intention [51]. For instance, streamers can enhance the communication experience by employing descriptive language and communication tools to boost interaction and acknowledge viewers' purchase intention [52]. Factors such as the purchasing scenario, situational authenticity, and positive communication atmosphere in live streaming significantly impact consumer purchase intention [53].

Viewing live streaming through the lens of the communication threshold elucidates e-commerce as a formalized marketing communication activity utilizing live streaming platforms as channels. It creates communication scenarios employing various audio-visual symbols, enabling both buyers and sellers to engage in purchasing actions and derive meaning in the context of connection [54]. Furthermore, effective communication can undoubtedly influence purchase intention on TikTok's live streaming platform [55]. Establishing a positive and authentic communication atmosphere enables streamers to foster trust and credibility with their audience, thereby enhancing purchase intention [56]. Additionally, employing descriptive language and communication tools to engage with the audience and address their concerns fosters a sense of acknowledgement and satisfaction, further incentivizing purchases [57].

For e-commerce and live streaming to thrive, it is imperative to forge a robust bond between consumers and service providers through effective communication. This not

only cultivates trust but also shapes consumers' purchasing decisions. Prior studies furnish evidence for the impact of communication aspects, including perceived interactivity, social presence, and trust, on consumer purchase intention within the TikTok live streaming milieu [58-60]. Building upon the aforementioned elucidation, the hypothesis is formulated as follows:

*H2: Communication significantly and positively influences purchase intention.*

## **2.5 Perceived Uncertainty**

Perceived uncertainty pertains to the degree of doubt or ambiguity experienced by potential buyers during the decision-making process offering stemming from inadequate or unbalanced information [61]. This concept finds frequent application in the domain of e-commerce and online shopping, particularly when consumers lack the opportunity to physically inspect products before making a purchase. Online shoppers aim to select products that align with their needs while minimizing uncertainty [62]. Perceived uncertainty reflects the extent to which potential buyers struggle to predict the outcome of a transaction accurately, primarily due to information disparities [63] [64].

Streamers on live streaming platforms like TikTok can manipulate information, make false claims, and compromise consumer privacy, which can lead to lower product quality, delayed delivery, or wrong product delivery [65-68]. The overall level of ambiguity experienced by both the provider and the product impacts the predictability of the transaction outcome [69]. Customers shopping online tend to be more cautious and overestimate potential losses due to their heightened sensitivity towards uncertainty [70].

The influence of perceived uncertainty on online purchasing behavior has been widely acknowledged and researched [71, 72]. Studies have found a strong relationship between customers' perceptions of uncertainty and their attitudes, decision-making, and behaviors [73, 74]. Perceived ambiguity in knowledge, choice, and evaluation had a negative impact on customers' purchase intent [75]. Similarly, uncertainty is a major impediment to online exchange interactions [76]. According to the expected utility hypothesis, customers prefer making rational decisions based on evaluating relevant criteria, but they cannot make a reasonable choice when faced with ambiguous options. Increased uncertainty levels may diminish the inclination to make a purchase [77]. Moreover, uncertainty can affect the relationship between a consumer's assessment of online information and their decision-making process [78].

Overall, perceived uncertainty can certainly affect purchase intentions on live streaming platforms like TikTok. Streamers can manipulate information and make false claims, which can further exacerbate perceived uncertainty among customers [79]. Customer's uncertainty about the veracity or dependability of the streamer's information or a skepticism of the transaction and delivery processes may lead to a reduced ability to complete a purchase. Based on the existing research and scholarly literature, it is evident that perceived uncertainty plays a substantial role in influencing

purchase intention within live streaming environments such as TikTok. Previous investigations suggest that perceived uncertainty exerts a notable influence on purchase intention [79, 80]. Consequently, the following hypothesis is posited:

*H3: Perceived uncertainty significantly and negatively influences purchase intention.*

## 2.6 Perceived Ease of Use

Perceived ease of use refers to an individual's assessment of how effortlessly a specific technology or system can be operated [81]. This concept constitutes a fundamental aspect of the TAM, which endeavors to elucidate the factors contributing to the acceptance or rejection of technology adoption. Researchers frequently employ TAM, inclusive of its perceived ease of use dimension, to explore individuals' attitudes towards adopting diverse technologies [82].

TAM underscores the significance of perceived ease of use in predicting individuals' behaviors concerning the adoption of various technological systems [83]. In the realm of live streaming platforms, as previously conceptualized, perceived ease of use pertains to users' ability to navigate technology seamlessly [84]. Literature findings suggests that live streaming platforms are notably more user-friendly compared to conventional e-commerce platforms [85].

Research indicates that users' perceptions of ease of use positively influence their purchase intention [86, 87]. Previous studies have underscored the positive impact of perceived ease of use on users' purchase intention [88-90]. Within the domain of live streaming platforms, earlier investigations have explored multiple factors influencing purchase intention, including perceived ease of use, perceived value, and perceived risk [91, 92]. These inquiries suggest that users' perceptions of a platform's ease of use are intricately linked to their purchase intention.

Thus, according to TAM, the perception of ease of use significantly shapes consumers' inclination to make purchases. Moreover, previous research has indicated that streaming services generally offer more intuitive navigation compared to traditional e-commerce sites, which notably influences consumers' purchasing decisions. Consequently, the following hypothesis is posited:

*H4: Perceived ease of use significantly and positively influences purchase intention.*

## 2.7 Perceived Usefulness

Perceived usefulness, a fundamental element within the framework of TAM, holds significant importance in discerning individuals' inclinations towards adopting or rejecting technological innovations [93]. Within the context of TikTok live streaming, perceived usefulness can be defined as the extent to which users perceive the platform as beneficial. It serves as a crucial determinant shaping individuals' propensities to utilize the platform and engage in transactions [94]. This construct is rooted in

individuals' belief that employing the technology will enhance either their professional or personal circumstances [95].

Studies have delved into how the perceived usefulness of streaming platforms influences users' intentions to utilize them and make purchases. The utilization of streaming media is perceived as a contemporary and convenient method of simplifying individuals' [96]. Moreover, a positive relationship has been observed between perceived usefulness and purchase intention on live streaming platforms [97, 98]. The intention to use is influenced by perceived usefulness, subsequently impacting the perceived ease of use [99, 100].

Additionally, previous studies suggest that perceived usefulness plays a pivotal role in influencing users' intention to use and make purchases on TikTok's live streaming. Understanding the factors influencing users' perceived usefulness can be instrumental in effectively targeting their audience and enhancing their overall user experience. Consequently, the following hypothesis is posited:

*H5: Perceived usefulness significantly and positively influences purchase intention.*

Moreover, the system's quality is enhanced when users perceive it as easy to navigate [101-103]. This connection has been corroborated by numerous investigations, including a comprehensive review of TAM-related research. Several studies have provided evidence for the mediating function of perceived usefulness in the correlation between perceived ease of use and purchase intention [104-106]. According to these investigations, users are inclined to make purchases from a platform when they perceive it as both user-friendly and beneficial. While perceived ease of use may directly influence purchase intention, perceived usefulness can also serve as mediator. Given the rationale presented above, the hypothesis is formulated as follows:

*H6: Perceived usefulness mediates the relationship between perceived ease of use and purchase intentions.*

## **2.8 Perceived Enjoyment**

Perceived enjoyment pertains to the extent to which individuals derive pleasure, entertainment, and engagement from utilizing a specific technological system [107]. Various factors, including content quality, streamers' personalities, and the level of interaction between them and viewers, can influence the enjoyment derived from TikTok live streams. These elements may consequently shape individuals' perceptions and behaviors toward the technology. Within the TAM framework, perceived enjoyment is considered to evaluate the impact of users' intrinsic motivation on technology acceptance [108, 109]. Research has elucidated that perceived enjoyment, in the context of live streaming on TikTok, denotes the degree of enjoyment derived from the activity itself, regardless of any potential [110].

Perceived enjoyment has demonstrated a positive relationship with purchase intention in the domain of live streaming e-commerce [111], serving as a mediating factor in the

relationship between other variable (such as flow experience) and purchase intention [112]. Similarly, perceived enjoyment has been positively linked to purchase intention on live streaming platforms like TikTok, and it has exhibited a significant indirect effect on purchase intention through its influence on attitude toward the platform [113]. Collectively, these investigations underscore the significance of perceived enjoyment as a determinant capable of shaping purchase intention on TikTok's live streaming platform. Thus, the ensuing hypothesis is posited:

*H7: Perceived enjoyment significantly and positively influences purchase intention.*

Furthermore, several scholarly inquiries have corroborated the mediating function of perceived enjoyment in the relationship between perceived ease of use and purchase [114]. For instance, perceived enjoyment has been identified as a partial mediator in the relationship between perceived ease of use and purchase intention on live streaming platforms like TikTok [115-118]. These investigations furnish empirical substantiation that perceived enjoyment may serve as a mediator in the nexus between perceived ease of use and purchase intention across diverse platforms, encompassing live streaming services such as TikTok. Consequently, the ensuing hypothesis is proposed:

*H8: Perceived enjoyment mediates the relationship between perceived ease of use and purchase intention.*

## **2.9 Purchase Intention**

Purchase intention denotes the likelihood or probability of a consumer to acquire a specific product or service in the future [119]. Within the context of live streaming on TikTok, purchase intentions encompass the probability of a viewer to purchase a product or service showcased by a TikTok creator during their live streaming session [120]. These intentions can be influenced by various factors, including the visual appeal of the product, ease of use, perceived usefulness, enjoyment, and the credibility and popularity of the TikTok creator endorsing the product. Such factors can either enhance or diminish a buyer's inclination to make purchase. Numerous variables, both internal and external to the individual, contribute to the formation of a consumer's ultimate decision.

Several studies have delved into the concept of purchase intention, defining it as the likelihood of consumers to acquire a particular brand or engage in activities related to the purchasing process [121]. It is shaped by cognitive and learning processes that shape consumers' perceptions [122]. Purchase intention reflects individuals' eagerness and inclination to make purchase, thereby directly impacting their buying behaviors, especially within the domain of live streaming e-commerce, which has gained prominence over traditional e-commerce platforms [123]. Moreover, the level of purchase intention influences consumers' willingness to recommend products or services to others [124]. Positive perceptions of video content in live streaming commerce can heighten consumers' inclination to make purchases [125].

Furthermore, prior research suggests that purchase intention serves as a predictor of consumer behavior, given that intention reliably forecasts actual behavior [126]. Several studies have also investigated the mediating role of perceived enjoyment in the relationship between various factors and purchase intention, such as perceived ease of use [127] and flow experience [128] [129]. These investigations yield valuable insights into the determinants of purchase intention on live streaming TikTok, underscoring the significance of perceived enjoyment as a mediator factor.

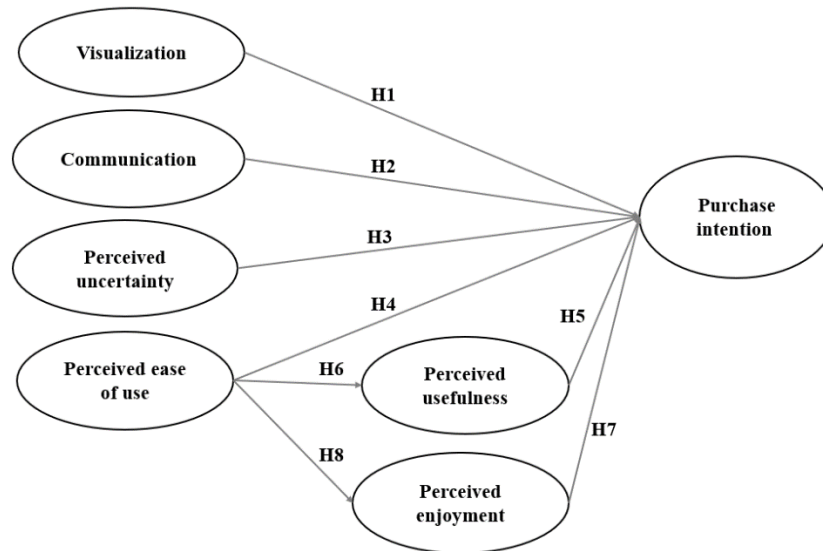


Figure 1. Research framework

### 3. METHOD

#### 3.1. Research Design and Data Collection

This research adopted a quantitative methodology to explore the extent of purchase intention associated with TikTok live streaming among users residing in the Jabodetabek region of Indonesia. Known for its dense population and prominence in e-commerce within Indonesia, Jabodetabek serves as a focal point for understanding consumer behaviors, particularly concerning emerging trends like live streaming shopping platforms such as TikTok [130]. The competitive nature of the Jabodetabek market provides a unique opportunity to examine how TikTok attracts consumers. Given the logistical complexities and population dynamics of this region, convenience sampling emerged as a pragmatic approach, allowing for participant selection based on accessibility and availability, thereby aligning with the practical constraints of the study. In determining the sample size, the study applied a formula based on a 95% confidence level, a 5% margin of error, and assuming a proportion of 50% for maximum variance [131]. This calculation resulted in an approximate sample size of 385 participants, considering the population size of 31.9 million estimated for the Jabodetabek area in mid-2022 [130].

The online survey questionnaire comprised eight segments, assessing various factors including visualization, communication, perceived uncertainty, perceived ease of use,

perceived usefulness, perceived enjoyment, purchase intention, demographics (age, gender, marital status, education, occupation, monthly income), purchase frequency on TikTok, and preferred purchase categories. To ensure accurate participant selection, two pivotal filtering questions were incorporated. The first question aimed to identify respondents who had not engaged in TikTok live streaming, while the second question aimed to gauge general awareness of live streaming shopping on TikTok. Preferred purchase categories were evaluated using a five-point Likert scale (1=strongly disagree to 5=strongly agree) and could be utilized for both filtering purposes and socio-demographic analysis.

The questionnaire design aimed to provide a comprehensive understanding of consumer purchase intentions and perceptions within the live streaming shopping domain, with a specific focus on TikTok, within the broader context of e-commerce. Variables were carefully selected based on an extensive literature review and theoretical frameworks such as TAM and existing e-commerce literature. Translation into Indonesian was overseen by a language expert to ensure linguistic accuracy and cultural relevance. The variables were derived from established literature and validated scales commonly used in previous studies. A pilot test involving 30 respondents was conducted to assess the reliability and validity of the questionnaire.

To enhance survey visibility and participation, distribution was carried out via social media channels including Facebook, Instagram, and WhatsApp. The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis using SmartPLS3 software to evaluate variable reliability, validity, and relationships, facilitating a comprehensive evaluation of hypotheses and the predictive power of the model. Data collection occurred from April to May 2023.

**Table 1.** Operationalization variables

<b>Variables</b>	<b>Measurement</b>	<b>Sources</b>
<b>Visualization</b> <b>Refers to how the live streaming shopping host showcases the product on TikTok</b>	The products displayed in TikTok are visually appealing.	[111]
	The TikTok live streaming host effectively showcases the products.	[112]
	The visual effects in TikTok live streaming make me want to buy the products.	[113]
	The TikTok live streaming hosts uses visual aids to make the shopping experience enjoyable.	
	The product images in TikTok live streaming shopping are clear.	
<b>Communication</b> <b>Refers to how the host presents products during TikTok live streaming.</b>	Host is friendly.	[114]
	Benefits of products are effectively communicated.	[115]
	Prompt response to consumer questions.	[116]
	Clear communication from the host.	
	Host engages with the audience during the live stream.	

**Table 1.** Operationalization variables (cont.)

<b>Perceived Uncertainty Indicates the uncertainty or doubt when making purchases on TikTok.</b>	<b>I feel uncertain about purchasing products from TikTok live streaming shopping.</b>	[117]
	I am concerned about the quality of the products in TikTok live streaming shopping.	
	I am uncertain about the authenticity of the products in TikTok live streaming shopping	
	I am worried about the reliability of the delivery process in TikTok live streaming shopping.	
	I am uncertain about the refund policy in TikTok live streaming shopping.	
<b>Perceived Ease of Use Refers to how easy TikTok live streaming is perceived.</b>	TikTok live streaming shopping is easy to navigate.	[118]
	The purchase process in TikTok live streaming shopping is straightforward.	[119]
	The instructions in TikTok live streaming shopping are easy to follow.	[120]
	The overall shopping experience in TikTok live streaming is easy.	
	It is easy to find the products I am looking for in TikTok live streaming shopping.	
<b>Perceived Usefulness Indicates how useful TikTok live streaming is in decision-making.</b>	I find the products in TikTok live streaming shopping useful.	[121]
	I find TikTok live streaming shopping to be a useful way to shop.	[122]
	The information provided during TikTok live streaming shopping is accurate.	[123]
	The information provided during TikTok live streaming shopping s reliable.	
	The prices in TikTok live streaming shopping are reasonable.	
<b>Perceived Enjoyment Refers to enjoyment derived from participating in TikTok live streaming shopping.</b>	I enjoy watching TikTok live streaming shopping.	[124]
	The live streaming shopping experience is exciting.	[125]
	I find TikTok live streaming shopping entertaining.	[126]
	TikTok live streaming shopping is a fun experience for me.	
	I look forward to watching TikTok live streaming shopping.	

**Table 1.** Operationalization variables (cont.)

<b>Purchase Intention</b> <b>Indicates the</b> <b>likelihood of making</b> <b>purchases during</b> <b>TikTok live</b> <b>streaming.</b>	<b>I am likely to consider making a purchase during</b>	[127]
	<b>a TikTok live streaming session in the future.</b>	[128]
	I perceive TikTok's live streaming platform as a	[129]
	convenient avenue for product exploration and	[132]
	purchase.	[133]
	The live demonstrations and interactive features	[134]
	inherent in TikTok live streaming sessions positively influence my propensity to engage in purchases.	
	I am confident in the value proposition presented by TikTok's live streaming feature, including exclusive deals and offers that warrant consideration for purchase.	
	Regarding the products showcased in the TikTok live streams, I ascertain that they align with my preferences and fulfill my needs, thereby enhancing my likelihood of making a purchase.	

### 3.2. Pilot Test

Table 2 displays the outcomes of the construct reliability and validity assessment conducted during the pilot testing phase. Each variable is evaluated based on its respective indicators. Factor loadings surpassing 0.7 indicate strong relationships between the indicators and their corresponding variables. The internal consistency of each variable is appraised using Cronbach's Alpha, yielding values ranging from 0.826 to 0.944, indicating high reliability. Composite reliability, which gauges the internal consistency of the construct, also exceeds the threshold of 0.7, with values ranging from 0.862 to 0.957, indicating robustness. Moreover, the Average Variance Extracted (AVE) for each variable exceeds 0.5, ranging from 0.561 to 0.818, denoting convergent validity.

**Table 2.** Construct Reliability and Validity of Pilot Test

<b>Variable</b>	<b>Indicator</b>	<b>Factor Loadings (&gt;0.7)</b>	<b>Cronbach's Alpha (&gt;0.7)</b>	<b>Composite Reliability (&gt;0.7)</b>	<b>Average Variance Extracted (AVE) (&gt;0.5)</b>
<b>Visualization</b>	VI1	0.779	0.916	0.891	0.622
	VI2	0.778			
	VI3	0.711			
	VI4	0.912			
	VI5	0.952			
<b>Communication</b>	COM1	0.835	0.932	0.876	0.606
	COM2	0.893			
	COM3	0.949			
	COM4	0.890			
	COM5	0.903			

**Table 2.** Construct Reliability and Validity of Pilot Test (cont.)

<b>Perceived Uncertainty</b>	<b>PUN1</b>	<b>0.758</b>	<b>0.826</b>	<b>0.862</b>	<b>0.561</b>
	PUN2	0.813			
	PUN3	0.710			
	PUN4	0.778			
	PUN5	0.782			
<b>Perceived Ease of Use</b>	PEOU1	0.703	0.850	0.891	0.626
	PEOU2	0.862			
	PEOU3	0.875			
	PEOU4	0.838			
	PEOU5	0.886			
<b>Perceived Usefulness</b>	PU1	0.810	0.843	0.886	0.611
	PU2	0.824			
	PU3	0.722			
	PU4	0.875			
	PU5	0.803			
<b>Perceived Enjoyment</b>	PE1	0.768	0.883	0.914	0.682
	PE2	0.834			
	PE3	0.880			
	PE4	0.869			
	PE5	0.771			
<b>Purchase Intention</b>	PUI1	0.894	0.944	0.957	0.818
	PUI2	0.887			
	PUI3	0.946			
	PUI4	0.885			
	PUI5	0.907			

Table 3 depicts the correlation matrix obtained from the Fornell-Larcker criterion, which aims to assess the discriminant validity among latent constructs in the pilot test. Each cell in the table presents the correlation coefficient between two constructs. For instance, the correlation coefficient between communication and perceived ease of use is 0.624, indicating the strength of their relationship. Similarly, the correlation between perceived enjoyment and perceived uncertainty is 0.826, suggesting a relatively high association between these constructs. Additionally, the diagonal elements represent the square root of the AVE for each construct, reflecting the proportion of variance captured by each constructed relative to the total variance. For example, the square root of the AVE for communication is 0.781.

**Table 3.** Fornell-Larcker Criterion of Pilot Test

	<b>Communication</b>	<b>Perceived Ease of Use</b>	<b>Perceived Enjoyment</b>	<b>Perceived Uncertainty</b>	<b>Perceived Usefulness</b>	<b>Purchase Intention</b>	<b>Visualization</b>
<b>Communication</b>	0,781						
<b>Perceived Ease of Use</b>	0,624	0,791					
<b>Perceived Enjoyment</b>	0,387	0,635	0,826				
<b>Perceived Uncertainty</b>	0,535	0,582	0,599	0,749			
<b>Perceived Usefulness</b>	0,594	0,723	0,300	0,328	0,782		
<b>Purchase Intention</b>	0,421	0,660	0,700	0,228	0,747	0,904	
<b>Visualization</b>	0,620	0,704	0,292	0,604	0,303	0,785	0,762

Table 4 illustrates the Heterotrait-Monotrait (HTMT) ration among the latent variables in the pilot test. The values presented in the table consistently remain below the widely recommended threshold of 0.90, as proposed by Franke and Sarstedt [135]. According to their criteria, an HTMT value significantly below 0.90 establishes discriminant validity, indicating the distinctiveness between constructs. For instance, the HTMT value between communication and perceived ease of use is 0.764, while the value between purchase intention and visualization is 0.871, both falling below this critical threshold. This affirms the discriminant validity between these constructs, suggesting that each construct exhibits higher correlations with its own indicators than with indicators of other constructs.

**Table 4.** The Heterotrait-Monotrait Ratio (HTMT) of Pilot Test

	<b>Communication</b>	<b>Perceived Ease of Use</b>	<b>Perceived Enjoyment</b>	<b>Perceived Uncertainty</b>	<b>Perceived Usefulness</b>	<b>Purchase Intention</b>	<b>Visualization</b>
<b>Communication</b>							
<b>Perceived Ease of Use</b>	0,764						
<b>Perceived Enjoyment</b>	0,270	0,235					
<b>Perceived Uncertainty</b>	0,666	0,765	0,241				
<b>Perceived Usefulness</b>	0,670	0,756	0,292	0,340			
<b>Purchase Intention</b>	0,420	0,189	0,751	0,236	0,269		
<b>Visualization</b>	0,673	0,578	0,340	0,428	0,673	0,871	

### 3.3. Measurement

In this study, Structural Equation Model (SEM) was utilized for data analysis. The measurement model assessed convergent validity by examining Composite Reliability (CR), factor loadings, Average Variance extracted (AVE), and Cronbach's Alpha (CA). Discriminant validity was evaluated through the Fornell-Larcker criterion and the heterotrait-monotrait (HTMT) ratio. Additionally, hypotheses were tested employing the structural model. Data analysis was performed using Smart-PLS3 software.

## 4. RESULTS

The analysis using PLS-SEM was carried out using SmartPLS 3.3 software. The measurement model was used to examine the reliability and validity of the constructs, while the structural model was applied to assess the hypotheses.

### 4.1. Respondent Profile

The filtering questions were designed to categorize participants according to their involvement and awareness of TikTok live streaming. Among the 416 participants surveyed, Table 5 illustrates that a significant percentage (92,02%) had not engaged in purchasing via TikTok live streaming, facilitating the identification group. Moreover, a majority (85.57%) indicated their familiarity with live streaming shopping on TikTok, despite not having made purchases. These filtering questions serve to direct subsequent survey inquiries toward individuals familiar with the phenomenon yet to partake in live streaming shopping experiences.

**Table 5.** Filtering Questions Results

Questions	Category	Number of Participants	Percentage of Participants
<b>Have you ever engaged in purchasing via TikTok live streaming? (If the response is "No" proceed with the following questions)</b>	Yes	29	6,97%
	No	383	92,02%
<b>Are you aware of live streaming shopping on TikTok, even if you haven't made a purchase yet?</b>	Yes	356	85,57%
	No	27	6,49%

The survey encompassed eight meticulously designed questions to thoroughly evaluate respondents' characteristics. Upon completion of data collection, 416 individuals participated in the survey, and after a meticulous filtering process, 356 respondents met the predefined criteria for inclusion in the analysis. Table 6 presents an in-depth overview of the respondents' profiles, highlighting essential demographic information and characteristics extracted from the survey findings.

**Table 6.** Profile of the Respondents

<b>Characteristics</b>	<b>Category</b>	<b>Number of Respondents</b>	<b>Percentage of Respondents</b>
<b>Gender</b>	Male	94	26.4%
	Female	262	73.9%
<b>Age</b>	Less than 18	1	0.3%
	19-30	278	78.1%
	31-40	78	21.9%
	41-50	0	0%
	More than 51	0	0%
<b>Marital status</b>	Single	211	59.3%
	Married	112	31.5%
	Divorced	14	3.9%
	Widowed	14	3.9%
<b>Education</b>	High school	147	41.3%
	D3 – Diploma	59	16.6%
	S1– Undergraduate	108	30.3%
	S2 – Master	43	12.1%
	S3 – Doctoral	0	0%
<b>Occupation</b>	Student	180	50.6%
	Unemployed	11	3.1%
	Government employed	52	14.6%
	Entrepreneur	79	22.2%
	Housewife	33	9.3%
	Retired	0	0%
<b>Monthly income</b>	Under 1,000,000 Rupiah	19	5.3%
	1,000,000 - 5,000,000 Rupiah	174	48.9%
	5,000,000 - 10,000,000 Rupiah	118	33.1%
	10,000,000 - 15,000,000 Rupiah	41	11.5%
	More than 15,000,000 Rupiah	4	1.2%
<b>Purchase frequency on TikTok</b>	Daily	79	22.2%
	Weekly	101	28.4%
	Monthly	104	29.2%
	Occasionally	67	18.8%
	Rarely	5	1.4%
	Never	0	0%
<b>Preferred purchase categories</b>	Fashion and beauty	141	39.6%
	Electronics and gadgets	140	39.3%
	Home and lifestyle	21	5.9%
	Food and beverages	4	1.1%
	Fitness and wellness	50	14.1%

From the sample of 356 respondents, the data indicated a predominance of females (73.6%, N=262), indicating a skewed gender distribution towards females. Most participants fell within the age of 19 to 30 years (78.1%, N=278), highlighting a focus on younger age demographics. Regarding marital status, unmarried individuals constituted the largest segment (59.3%, N=211), followed by married individuals (31.5%, N=112). Education levels varied among participants, with a notable proportion having completed high school (41.3%, N=147) and undergraduate degrees (30.3%, N=108). The occupational distribution revealed students as the largest group (50.6%, N=180), trailed by entrepreneurs (22.2%, N=79) and government employees (14.6%, N=52). The majority reported a monthly income ranging from 1,000,000 to 5,000,000 Rupiah (48.9%, N=174). Purchase frequency on TikTok was evenly distributed across daily, weekly, and monthly intervals, with fashion and beauty (39.6%, N=141) and electronics and gadgets (39.3%, N=140) emerging as the preferred product categories.

## 4.2. Measurement Model

Table 7 displays the measurements of construct reliability and validity for the variables investigated in the study. The factor loadings for each indicator, falling within the range of 0.722 to 0.845, exceed the threshold of 0.7, indicating a strong relationship between the indicators and their corresponding latent constructs, thus ensuring reliable measurement of the constructs. The values of Cronbach's Alpha, ranging from 0.845 to 0.919, demonstrate high internal consistency within each construct, surpassing the recommended threshold of 0.70. Additionally, composite reliability values, ranging from 0.887 to 0.943, further affirm internal consistency, exceeding the threshold of 0.7. Furthermore, AVE values, ranging from 0.612 to 0.847, surpass the minimum benchmark of 0.5, indicating satisfactory convergent validity.

**Table 7.** Construct Reliability and Validity

Variable	Indicator	Factor Loadings (>0.7)	Cronbach's Alpha (>0.7)	CR (>0.7)	AVE (>0.5)
<b>Visualization</b>	VI1	0.845	0.751	0.818	0.535
	VI2	0.766			
	VI3	0.828			
	VI4	0.781			
	VI5	0.840			
<b>Communication</b>	COM1	0.797	0.845	0.887	0.612
	COM2	0.797			
	COM3	0.828			
	COM4	0.754			
	COM5	0.818			
<b>Perceived Uncertainty</b>	PUN1	0.779	0.919	0.938	0.751
	PUN2	0.722			
	PUN3	0.822			
	PUN4	0.728			
	PUN5	0.796			

**Table 7.** Construct Reliability and Validity (cont.)

<b>Variable</b>	<b>Indicator</b>	<b>Factor Loadings (&gt;0.7)</b>	<b>Cronbach's Alpha (&gt;0.7)</b>	<b>CR (&gt;0.7)</b>	<b>AVE (&gt;0.5)</b>
<b>Perceived Ease of Use</b>	PEOU1	0.781	0.889	0.919	0.696
	PEOU2	0.769			
	PEOU3	0.817			
	PEOU4	0.787			
	PEOU5	0.812			
<b>Perceived Usefulness</b>	PU1	0.802	0.898	0.925	0.713
	PU2	0.773			
	PU3	0.817			
	PU4	0.784			
	PU5	0.803			
<b>Perceived Enjoyment</b>	PE1	0.808	0.904	0.929	0.723
	PE2	0.798			
	PE3	0.838			
	PE4	0.792			
	PE5	0.818			
<b>Purchase Intention</b>	PUI1	0.829	0.909	0.943	0.847
	PUI2	0.764			
	PUI3	0.837			
	PUI4	0.759			
	PUI5	0.846			

Table 8 presents the Fornell-Larcker Criterion, which assesses the discriminant validity among the latent variables examined in the study. The diagonal values in the table represent the square root of the AVE for each construct. These diagonal values reflect the proportion of variance explained by each construct relative to the total variance. In terms of discriminant validity, the diagonal values should surpass the correlations between the constructs. When the correlation between two constructs is lower than the square roots of their respective AVEs, it indicates good discriminant validity, suggesting that the constructs are distinguishable from one another. For instance, the correlation between perceived enjoyment and perceived uncertainty is 0.544, while the square roots of their respective AVEs are 0.850 and 0.867. This suggests good discriminant validity between these constructs. Similarly, the correlation between purchase intention and perceived usefulness is 0.519, whereas their AVE square roots are 0.920 and 0.844, respectively, indicating good discriminant validity.

**Table 8.** Fornell-Larcker Criterion

Variables	Communication	Perceived Ease of Use	Perceived Enjoyment	Perceived Uncertainty	Perceived Usefulness	Purchase Intention	Visualization
Communication	0.782						
Perceived Ease of Use	0.613	0.834					
Perceived Enjoyment	0.716	0.679	0.850				
Perceived Uncertainty	0.508	0.009	0.544	0.867			
Perceived Usefulness	0.556	0.759	0.546	0.030	0.844		
Purchase Intention	0.223	0.447	0.356	0.109	0.519	0.920	
Visualization	0.518	0.362	0.390	0.506	0.344	0.112	0.732

Table 9 presents the HTMT values, assessing the discriminant validity between constructs. Lower values indicate stronger discriminant validity. In this analysis, HTMT value between constructs consistently remain below the widely accepted threshold of 0.90 [135], indicating robust discriminant validity between constructs. The analysis confirms that the constructs are distinct and do not excessively overlap, reinforcing the reliability of the measurement model.

**Table 9.** The Heterotrait-Monotrait Ratio (HTMT)

Variables	Communication	Perceived Ease of Use	Perceived Enjoyment	Perceived Uncertainty	Perceived Usefulness	Purchase Intention	Visualization
Communication							
Perceived Ease of Use	0.684						
Perceived Enjoyment	0.810	0.757					
Perceived Uncertainty	0.206	0.073	0.172				
Perceived Usefulness	0.620	0.841	0.604	0.072			
Purchase Intention	0.063	0.067	0.055	0.092	0.050		
Visualization	0.651	0.451	0.489	0.084	0.410	0.118	

### 4.3. R Square analysis

Table 11 displays the R-squared values corresponding to the variables analyzed within the structural equation model, namely perceived enjoyment, perceived usefulness, and purchase intentions. The R-squared metric quantifies the extent to which the variation

in the dependent variables is explained by the independent variables in the model. With an R-squared coefficient of 0.460 for perceived enjoyment, it indicates that around 46.0% of the variability in perceived enjoyment can be accounted for by the independent variables considered in the model, suggesting a substantial explanatory capacity. Similarly, the R-squared coefficient of 0.576 for perceived usefulness indicates that approximately 57.6% of the variability in perceived usefulness can be elucidated by the model's independent variables, indicating a robust explanatory capability. Lastly, the R-squared coefficient of 0.314 for purchase intentions highlights that approximately 31.4% of the variance in purchase intentions can be explained by the independent variables in the regression model, signifying a significant explanatory proportion.

**Table 11.** R Square

<b>Variables</b>	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics ((O/STDEV))</b>	<b>P Values</b>
<b>Perceived Enjoyment</b>	0,460	0,465	0,056	8,184	0,000
<b>Perceived Usefulness</b>	0,576	0,581	0,062	9,327	0,000
<b>Purchase Intention</b>	0,314	0,347	0,056	5,656	0,000

#### **4.4. Structural Model and Hypothesis Testing**

Table 10 depicts the findings of the structural model, presenting the path coefficients, t-statistics, and corresponding p-values for each hypothesized relationship among the latent constructs. Initially, H1 posits a positive correlation between visualization and purchase intention, which is substantiated by a significant beta coefficient ( $\beta = 0.117$ ), a t-statistic of 3.379, and a p-value of 0.001, thus endorsing H1. Conversely, H2 proposes a positive association between communication and purchase intention, also supported by a significant beta coefficient ( $\beta = 0.139$ ), a t-statistic of 2.061, and a p-value of 0.040, thereby validating H2. However, H3 fails to establish a significant impact of perceived uncertainty on purchase intention ( $\beta = 0.095$ ,  $T = 1.191$ ,  $p = 0.234$ ), indicating non-confirmation of H3. In contrast, H4 reveals a positive correlation between perceived ease of use and purchase intention, supported by a significant beta coefficient ( $\beta = 0.073$ ), a t-statistic of 2.427, and a p-value of 0.016. Similarly, H5 confirms a positive relationship between perceived usefulness and purchase intention ( $\beta = 0.441$ ,  $T = 4.304$ ,  $p = 0.001$ ), thus validated. Furthermore, H6 suggests that perceived usefulness acts as a mediator in the relationship between perceived ease of use and purchase intention, with a significant beta coefficient ( $\beta = 0.335$ ), a t-statistic of 4.200, and a p-value of 0.001, supported. Moreover, H7 indicates a positive correlation between perceived enjoyment and purchase intention ( $\beta = 0.224$ ,  $T = 2.441$ ,  $p = 0.015$ ), supported. Finally, H8 reveals that perceived enjoyment serves as a mediator in the relationship between perceived ease of use and purchase intention, backed by a significant beta coefficient ( $\beta = 0.153$ ), a t-statistic of 2.293, and a p-value of 0.022.

**Table 10.** Path Coefficients

Hypotheses	Path	Beta	Standard Deviation	T Statistics	P Values	Hypothesis Results
H1	Visualization -> Purchase intention	0.117	0.035	3.379	0.001	Supported
H2	Communication -> Purchase intention	0.139	0.111	2.061	0.040	Supported
H3	Perceived uncertainty -> Purchase intention	0.095	0.076	1.191	<b>0.234</b>	Not supported
H4	Perceived ease of use -> Purchase intention	0.073	0.030	2.427	0.016	Supported
H5	Perceived usefulness -> Purchase intention	0.441	0.105	4.304	0.000	Supported
H6	Perceived ease of use -> Perceived usefulness -> Purchase intention	0.335	0.082	4.200	0.000	Supported
H7	Perceived enjoyment -> Purchase intention	0.224	0.094	2.441	0.015	Supported
H8	Perceived ease of use -> Perceived enjoyment -> Purchase intention	0.153	0.068	2.293	0.022	Supported

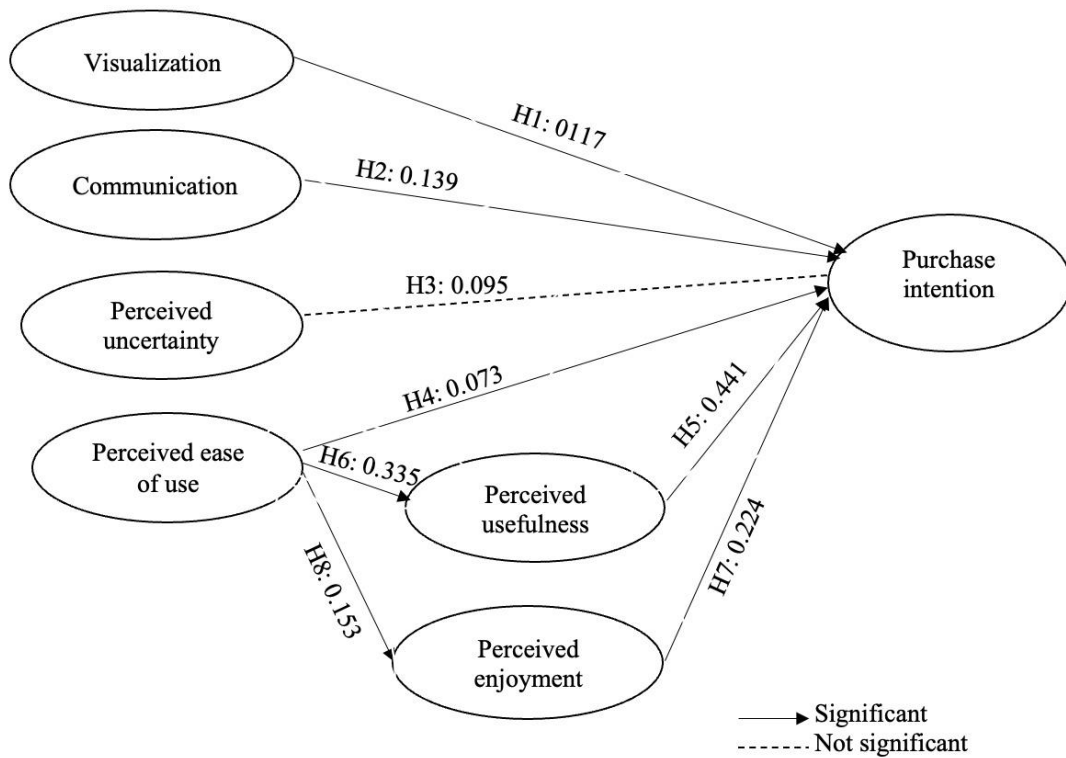
**Figure 2.** Structural Equation Modeling and Hypothesis Results

Figure 2 presents a visual representation of the Structural Equation Model (SEM) employed to explore the connections among key constructs in the context of TikTok live streaming shopping. The path coefficients shown in the figure indicate both the strength and direction of the relationships between the constructs.

## 5. DISCUSSION

**H1:** *Visualization significantly and positively influences purchase intention.*

H1 examines the relationship between Visualization and Purchase Intention in the context of live streaming purchasing on TikTok. The significant and positive correlation identified by H1 underscores the substantial impact of visual stimuli on consumer behavior, particularly within the realm of TikTok live streaming purchasing. This finding aligns with established principles in consumer psychology, which recognize the significant influence of visual stimuli on purchase intention [136]. In the context of e-commerce platforms like TikTok, where users heavily rely on visual content to assess products and make informed decisions, the importance of visualization becomes even more pronounced. Live streaming purchasing on TikTok offers users dynamic visual presentations of products, fostering interaction and immersion akin to traditional in-store shopping experiences [137]. Through features such as product demonstrations, virtual try-ons, and real-time interactions with hosts and other users, TikTok enriches the sensory experience of shopping, eliciting favorable responses from consumers. Furthermore, the positive impact of visualization on purchase intention underscores the importance of user experience design in facilitating seamless and enjoyable interactions with the platform. Studies indicate that well-crafted interfaces and visually appealing layouts not only capture users' attention but also evoke positive emotions, thereby enhancing engagement and inclination to purchase [42, 46]. TikTok's emphasis on intuitive navigation, aesthetically pleasing product displays, and captivating live streaming sessions aligns with these principles, contributing to the platform's efficacy in cultivating consumer trust and allegiance.

Moreover, this finding is consistent with prior research emphasizing the significant influence of visual elements on consumer purchasing intent, particularly in online buying contexts [40, 43]. The visual presentation of products and the overall shopping experience augment user engagement and stimulate their intention to make purchases [37]. Furthermore, the positive impact of visualization on purchase intention underscores the importance of crafting visually enticing and immersive shopping encounters on TikTok. Previous studies have also underscored the importance of visual aesthetics and design in shaping users' perceptions and attitudes toward online shopping platforms [39].

**H2:** *Communication significantly and positively influences purchase intention.*

H2 explores the relationship between Communication and Purchase Intention in the context of TikTok live streaming purchasing. The findings validate that communication significantly and positively influences the intention to make a purchase through live streaming sessions on TikTok. This underscores the critical role of effective

communication strategies in shaping consumers' purchasing intentions during live streaming interactions.

Communication serves as a vital link between vendors and consumers, facilitating the exchange of information, building trust, and encouraging active participation, all of which are crucial factors influencing purchase intention. In the realm of live streaming purchasing, effective communication goes beyond simply presenting product information clearly; it also entails fostering personalized and interactive interactions between hosts and viewers. Hosts proficient in communicating product features, benefits, and usage instructions can enhance consumers' comprehension and perception of the products, thereby augmenting their inclination to make a purchase. Additionally, the interactive facets of communication, such as real-time Q&A sessions, live chat features, and active engagement with viewers by addressing their concerns or inquiries directly, further enrich the shopping experience.

Furthermore, previous studies corroborate this outcome by underscoring the significance of communication in fostering consumer trust, engagement, and purchase behavior in online environments. For instance, studies have demonstrated that clear and informative communication between sellers and consumers positively influences consumers' perceptions of trustworthiness and satisfaction, thereby leading to heightened purchase intention [50, 52]. Similarly, other studies have emphasized the importance of interactive communication features, such as real time chat functionalities and personalized recommendations, in enhancing consumers' shopping experiences and bolstering purchase intention in e-commerce contexts [58]. Additionally, the social dimension of communication merits consideration. Peer interactions, testimonials, and recommendations shared during live streaming sessions contribute to social proof, thereby influencing consumers' perceptions of product credibility and desirability. Prior research has shown that social influence, mediated through communication channels, significantly impacts consumers' purchase intention in e-commerce environments [60].

**H3:** *Perceived uncertainty significantly and negatively influences purchase intention.*

The outcomes pertaining to H3 reveals that perceived uncertainty does not exert a significant influence on purchase intention within the TikTok live streaming shopping. This finding challenges the expectation that uncertainties related to product quality, reliability, and shopping processes substantially shape consumers' intentions to make purchases.

While uncertainty commonly pervades e-commerce environments, the lack of a substantial correlation between perceived uncertainty and purchase intention in TikTok live streaming suggests that other variables may exert a more pronounced influence on consumers' decision-making processes. Factors such as the allure of the live streaming format, limited-time promotions, and social interactions during live streams might overshadow apprehensions regarding uncertainty. One plausible explanation could be the role of social influence and interactivity within live streaming sessions, which might mitigate concerns regarding uncertainty. As consumers engage with hosts and fellow

viewers in real-time, they may feel more assured about their purchase decisions, relying on social cues and peer endorsements to navigate uncertainties. For instance, consumers may depend on immediate feedback from hosts and fellow viewers, visual demonstrations of product features, and live interactions to address apprehensions regarding product quality and reliability. This aligns with previous studies, which underscores the significance of social influence and interactivity in shaping purchase intention during live streaming sessions [79, 80].

Furthermore, the dynamic nature of live streaming, characterized by limited-time promotions and interactive features such as real-time Q&A sessions and product demonstrations, might engender a sense of urgency and excitement that eclipses concern about uncertainty [74]. Consumers may prioritize the experiential facets of live streaming, such as visualization, perceived ease of use, and enjoyment, over meticulous scrutiny of product particulars or seller credibility.

***H4: Perceived Ease of Use of use significantly and positively influences purchase intention.***

H4 posits that Perceived Ease of Use significantly and positively influences Purchase Intention. The noteworthy and positive impact of perceived ease of use on purchase intention within the TikTok live streaming shopping environment highlights the pivotal role of user-friendly interfaces and intuitive navigation in shaping consumer purchasing behavior. The findings suggest that consumers are more inclined to engage in purchases when they perceive the live streaming shopping platform to be effortless to use and navigate. This finding resonates with TAM, which emphasizes the crucial role of perceived ease of use in shaping users' attitudes and intentions towards adopting and utilizing technology-based systems [91]. Previous studies have consistently illustrated the beneficial influence of perceived ease of use on users' behavioral intentions across various online shopping contexts [88, 89]. For instance, prior research has demonstrated that perceived ease of use significantly impacts purchase intention in the realm of mobile shopping applications, underlining the universal importance of user-friendly interfaces in facilitating online transactions [92].

Moreover, the association between purchase intention and perceived ease of use suggests that enhancements in user experience, navigation simplicity, and optimization of the purchasing process may lead to increased conversion rates and sales. Given the substantial impact of perceived ease of use on purchase intention, continual usability testing and refinement are imperative. In response to evolving consumer preferences and technological advancements, businesses must remain attentive to user feedback and be prepared to adapt their platforms flexibly.

***H5: Perceived usefulness significantly and positively influences purchase intention.***

H5 posits that Perceived Usefulness significantly and positively influences Purchase Intention. The considerable and favorable impact of perceived usefulness on purchase intention underscores the fundamental importance of perceived value in shaping consumer behavior within the TikTok live streaming purchasing environment. Perceived usefulness reflects consumers' perceptions regarding how effectively and

efficiently the platform facilitates the achievement of their shopping objectives. The findings suggest that when consumers perceive TikTok live streaming as useful for meeting their needs and preferences, they are more inclined to intend to make purchases.

This finding aligns with previous research in the fields of technology acceptance and e-commerce, which consistently emphasizes the pivotal role of perceived utility in shaping user behavior [97, 98]. Prior studies have also underscored the significance of perceived usefulness in influencing consumers' purchase intentions within the realms of e-commerce and online shopping. For instance, a study [100] examining the impact of perceived usefulness on purchase intention revealed its significant role in consumers' willingness to engage with live streaming e-commerce platforms, emphasizing the importance of utilitarian value in driving consumer behavior. Similarly, research [94] investigating the determinants of consumers' purchase intentions through live streaming commerce channels identified perceived usefulness as a significant determinant. Furthermore, another study [96] exploring factors influencing consumers' purchase intentions on social commerce platforms found perceived usefulness to be a substantial predictor. These findings collectively highlight the enduring importance of utility-driven considerations in shaping consumer behavior in the context of online shopping.

**H6:** *Perceived usefulness mediates the relationship between perceived ease of use and purchase intention.*

H6 posits that the relationship between Perceived Ease of Use and Purchase Intention is mediated by Perceived Usefulness. The findings regarding H6 shed light on the intricate mechanisms governing consumer behavior in electronic commerce settings. This mediation pathway underscores the importance of perceived ease of use in shaping consumers' perceptions of usefulness, subsequently influencing their intention to make a purchase. Consistent with prior research in this domain, the significance of this mediation pathway is evident. For instance, a study [106] exploring the determinants of consumers' adoption of mobile purchasing applications revealed a positive influence of perceived ease of use on the perceived usefulness of the applications, which, in turn, affected consumers' purchase intention. Similarly, previous investigations [101] examining factors influencing consumers' adoption of online travel agencies found that perceived usefulness served as a mediator between purchase intention and perceived ease of use. The findings of this study suggest that consumers' perception of an e-commerce platform or service as user-friendly directly impacts their assessment of its utility, thereby influencing their likelihood of making a purchase.

**H7:** *Perceived enjoyment significantly and positively influences purchase intention.*

H7 posits that perceived enjoyment exerts a significant and positive influence on purchase intention. The results pertaining to H7 reveal a statistically significant and positive association between purchase intention and perceived enjoyment. This indicates that the pleasure derived by consumers from participating in live streaming browsing significantly affects their inclination to make a purchase. This finding aligns with prior research emphasizing the importance of hedonic factors in shaping consumer behavior in e-commerce contexts. For instance, a study [110] investigating the

determinants of purchase intention on online group purchasing platforms found that users' purchase intention was positively influenced by their perception of enjoyment. Similarly, research [108] exploring factors influencing consumers' engagement in live streaming e-commerce revealed a significant and positive correlation between the level of enjoyment experienced and the intention to make a purchase.

***H8:** Perceived enjoyment mediates the relationship between perceived ease of use and purchase intention.*

H8 posits that perceived enjoyment serves as a mediator in the relationship between perceived ease of use and purchase intention. The findings pertaining to H8 suggest that within the realm of live streaming shopping on TikTok, perceived enjoyment acts as a mediating factor between the perceived ease of navigating and utilizing the platform and consumers' intention to make purchases. This indicates that the satisfaction derived from the shopping experience indirectly influences purchase intention through the perceived ease of use of the TikTok platform. This outcome is consistent with prior research that has underscored the mediating role of perceived enjoyment in shaping consumer behavior in live streaming shopping contexts. For instance, an earlier study [114] investigating the determinants influencing consumers' propensity to use live streaming e-commerce platforms, like TikTok, revealed that perceived enjoyment mediated the relationship between perceived ease of use and purchase intention. Similarly, other studies [115, 116] exploring factors affecting consumers' intentions to continue using mobile shopping applications integrated with TikTok found that perceived enjoyment served as a mediating variable between perceived ease of use and continued usage intention.

## 6. CONCLUSION AND RECOMMENDATIONS

The emergence of live streaming shopping has become a notable trend in the realm of electronic commerce, offering consumers direct engagement with sellers and real-time transaction capabilities. This trend has particularly surged in Indonesia, where platforms like TikTok have taken a leading role. Recognizing the importance of understanding the determinants influencing purchase intention in live streaming shopping, this study has investigated key factors including visualization, communication, perceived uncertainty, perceived ease of use, perceived usefulness, and perceived enjoyment. The findings underscore the significance role of these factors in shaping consumer behavior and decision-making processes. Moreover, the findings resonate with TAM, a widely acknowledged framework for elucidating user acceptance of technology. TAM constructs, including perceived ease of use, usefulness, and enjoyment, closely mirror variables pertinent to live streaming commerce on TikTok. The positive impact of perceived ease of use and usefulness on purchase intention reflects users' perceptions of the platform's convenience and utility for purchasing. Furthermore, the significance of perceived enjoyment emphasizes the critical role of user experience and satisfaction in influencing purchasing behavior. By drawing parallels to TAM, the study reinforces the relevance of established theoretical

frameworks in understanding consumer behavior within emerging e-commerce paradigms like live streaming shopping on TikTok.

### **6.1. Practical Implications**

The outcomes of this study yield substantial insights with practical implications for various stakeholders within the live streaming commerce ecosystem. Understanding the significant influence of factors such as visualization, communication, perceived ease of use, usefulness, and enjoyment on consumers' purchase intention is crucial for businesses and marketers. These insights have the potential to inform the development of more effective strategies to engage viewers during live streaming sessions. According to the findings, purchase intention is positively affected by perceived usefulness and enjoyment, underscoring the importance for organizations to prioritize the creation of engaging and enjoyable viewing experiences for their clientele. Additionally, the results highlight the importance of transparency and user-friendly interfaces in stimulating consumer desire to make purchases, suggesting areas for improvement in platform design and communication strategies.

For sellers and merchants engaged in live streaming commerce, leveraging these insights can enhance their interactions with consumers. Prioritizing visual appeal and clear communication during live streams can attract and retain viewers, thereby boosting purchase intention. The findings also underscore the significance of user engagement and product visibility in influencing purchase decisions, indicating the importance for sellers to focus on generating interactive and visually compelling content to captivate audiences.

Consumers stand to benefit from improved user experiences and greater transparency in live streaming shopping platforms. The study emphasizes the importance of factors like ease of use, usefulness, and enjoyment in shaping purchase intention, suggesting that consumers can anticipate more user-friendly interfaces and enhanced product information on platforms like TikTok, empowering them to make more informed purchasing decisions. Furthermore, the results shed light on the factors driving consumer trust and credibility in live streaming commerce, guiding consumers toward more reliable sellers and merchants.

Platform developers, including those behind TikTok, can utilize the insights from this research to enhance the characteristics and functionalities of the platform. Addressing concerns related to product visualization, communication transparency, and user engagement can result in a more compelling and trustworthy shopping experience for users. The study's findings offer actionable guidance for platform developers to prioritize features that positively influence purchase intention while tackling potential challenges and limitations.

### **6.2. Theoretical Implications**

The theoretical implications of this study extend across several crucial domains within the realms of e-commerce, consumer behavior, and technology acceptance. Through empirical investigation into the determinants of impulsive purchasing intention, this

research initiates a valuable contribution to the existing literature on live streaming commerce. By scrutinizing key factors such as communication, enjoyment, perceived ease of use, and utility, the study enriches our understanding of the fundamental drivers of consumer behavior in live streaming shopping environments.

Moreover, the findings of this research have significant implications for TAM and its extensions. The substantial positive impact of perceived utility and enjoyment on purchase intention aligns with the core tenets of TAM, which posit these factors as essential determinants of technology adoption and usage. By demonstrating the applicability of TAM in elucidating consumer behavior on emerging e-commerce platforms, particularly in the context of live streaming commerce on TikTok, this study validates the model's utility. Furthermore, the study's hypotheses provide theoretical insights into specific relationships among key constructs. For instance, the absence of a significant relationship between perceived ambiguity and purchase intention underscores the need for further investigation into the precise influence of uncertainty on consumer behavior within live streaming shopping environments. Similarly, the mediating role of perceived usefulness between perceived ease of use and purchase intention highlights the interconnectedness of these constructs within the TAM framework, indicating that perceived ease of use indirectly influences purchase intention through its impact on perceived usefulness.

Additionally, the theoretical implications of this research extend to the broader literature on impulse buying and online commerce. By identifying factors contributing to impulsive purchasing intentions in the context of live streaming commerce, the study enhances our understanding of impulse buying in digital environments. This underscores the importance for marketers and businesses to create visually captivating and interactive shopping experiences, leveraging the impulsive nature of online consumers.

### **6.3. Limitations and Future Suggestions**

This study has a few limitations that warrant acknowledgment. Firstly, the utilization of convenience sampling may introduce selection bias, potentially limiting the generalizability of the findings. Future research endeavors should contemplate employing more stringent sampling methodologies to guarantee the representation of a broader spectrum of participants. Secondly, the reliance on a quantitative approach may overlook the nuances of consumer behavior. Future studies could complement quantitative analyses with qualitative methods to gain deeper insights. Third, incorporate other online shopping platforms, this study focused specifically on TikTok live streaming shopping, but there are many other online shopping platforms available. Future research could compare the factors that influence impulse purchase intentions across different platforms and identify any unique features or factors that are specific to TikTok live streaming shopping.

## 7. REFERENCES

- [1] Q. Lin and C. Nuangjamnong, "'Exploring the role of influencers and customer engagement on purchase intention in TikTok live streaming shopping'," *The International Journal of social Sciences and Humanities Invention*, vol. 9, no. 12, pp. 7469-7498, 2022.
- [2] A. Frattali, M. T. Lingand T. Chi, "Live streaming e-commerce is transforming apparel shopping: a study of U.S. consumers", vol.78, no. 1, 2022.
- [3] M. Zhang, Y. Liu, Y. Wangand L. Zhao, "How to retain customers: understanding the role of trust in live streaming commerce with a socio-technical perspective," *Computers in Human Behavior*, vol. 127, pp. 107052, 2022.
- [4] R. Cenfetelli, Z. Chen, I. Benbasat, "The influence of e-commerce live streaming on lifestyle fit uncertainty and online purchase intention of experience products," in *Proceedings of the 52<sup>nd</sup> Hawaii International Conference on System Sciences*, Grand Wailea, Hawaii, 2019, pp. 5081-5090
- [5] K. Simon, "Digital 2023: global digital insights," *Datareportal*, Jakarta, 2023.
- [6] L. Manzil, A. Vania, "The influence of live-streamers on something's purchase intention at TikTok shop mediated by consumer trust," *Jurnal Informatika Ekonomi Bisnis*, vol. 5, no. 1, pp. 217-221, 2023.
- [7] Y. Religia, "The effect of environmental pressures and the covid19 pandemic on the adoption of TikTok by MSMEs: can MSME engagement moderate?," *Journal of International Conference Proceedings*, vol. 5, no. 5, pp. 285-300, 2022.
- [8] Y. Feng, "Research on live e-commerce based on digital marketing: TikTok e-commerce live streaming as an example," *Highlights in Business Economics and Management*, vol. 2, pp. 125-130, 2022.
- [9] M. A. G. Gesmundo, M. D. S. Jordan, W. H. D. Meridor, D. V. Muyot, M. C. N. Castano, A. J. P. Bandojo, "TikTok as a platform for marketing campaigns: the effect of brand awareness and brand recall on the purchase intentions of millennials," *Journal of Business and Management Studies*, vol. 4, no. 2, pp. 343-361, 2022.
- [10] KOMPAS.com, "Mendag Zulkifli: TikTok shop uji coba di Indonesia hingga April 2024," Dec. 12, 2023. <https://www.kompas.com>.
- [11] D. R. Rutter, D. J. Bunce, "The theory of reasoned action of Fishbein and Ajzen: a test of Towriss's amended procedure for measuring beliefs," *British Journal of Social Psychology*, vol. 28, no. 1, pp. 39-46, 1989.

- [12] X. Zhu, S. K. Vijayan, "Determinants of consumer impulse purchase in live streaming commerce in China: a conceptual analysis," *International Journal of Academic Research in Business and Social Sciences*, vol. 13, no. 1, 2023.
- [13] M. Li, Q. Wang, Y. Cao, "Understanding consumer online impulse buying in live streaming e-commerce: a stimulus-organism-response framework," *International Journal of Environmental Research and Public Health*, vol. 19, no. 7, pp. 4378, 2022.
- [14] X. Zhang, X. Cheng, X. Huang, "'Oh, my god, buy it!'" investigating impulse buying behavior in live streaming commerce," *International journal of human-computer interaction*, vol. 39, no. 12, pp. 2436-2449, 2023.
- [15] X. Zhang, X. Cheng, X. Huang, H. Li, "Investigating impulse buying behavior in live streaming commerce: the role of social presence, in Proceedings of the 55<sup>th</sup> Hawaii International Conference on System Sciences," 2022, pp. 1377-1383
- [16] G. Taher, "E-commerce: advantages and limitations," *International Journal of Academic Research in Accounting Finance and Management Sciences*, vol. 26, no. 4, pp. 345-367, 2021.
- [17] Z. Ramadan, M. Farah, I. Abosag, A. Sleiman, "Typology of e-commerce shoppers: the case of covid-19," *Qualitative Market Research an International Journal*, vol. 26, no. 4, pp. 345-367, 2023.
- [18] Z. Bao, Y. Zhu, "Understanding customers' stickiness of live streaming commerce platforms: an empirical study based on modified e-commerce system success model," *Asia Pacific Journal of Marketing and Logistics*, vol. 35, no. 3, pp. 775-793, 2023.
- [19] Y. Yang, L. Ha, "Why people use TikTok (Douyin) and how their purchase intentions are affected by social media influencers in China: a uses and gratifications and parasocial relationship perspective," *Journal of Interactive Advertising*, vol. 21, no. 3, pp. 297-305, 2021.
- [20] Y. Li, X. Li, J. Cai, "How attachment affects user stickiness on live streaming platforms: a socio-technical approach perspective," *Journal of retailing and consumer services*, vol. 60, pp. 102478, 2021.
- [21] A. Wongkitrungrueng, N. Assarut, "The role of live streaming in building consumer trust and engagement with social commerce sellers," *Journal of Business Research*, vol. 117, pp. 543-556, 2020.
- [22] J. Cai, D. Y. Wohn, "Live streaming commerce: uses and gratifications approach to understanding consumers' motivations," in *Proceedings of the 52th Hawaii International Conference on System Sciences*, Grand Wailea, Hawaii, 2019, pp. 2548-2557
- [23] Z. Guan, F. Hou, B. Li, A. Y. L. Chong, C. W. D. Phang, "What Encourages Purchase of Virtual Gifts in Live Streaming: Cognitive Absorption," *Social Experience and Technological Environment*, in *ICIS*, vol. 1, 2019.

- [24] H. Chen, S. Zhang, B. Shao, W. Gao, Y. Xu, "How do interpersonal interaction factors affect buyers' purchase intention in live stream shopping? the mediating effects of swift guanxi," *Internet Research*, vol. 32, no. 1, pp. 335-361, 2022.
- [25] D. R. Rutter, D. J. Bunce, "The theory of reasoned action of Fishbein and Ajzen: a test of Towriss's amended procedure for measuring beliefs," *British Journal of Social Psychology*, vol. 28, no. 1, pp. 39-46, 1989.
- [26] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of Information Technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319-340, 1989.
- [27] W. R. Malatji, R. V. Eck, T. Zuva, "Understanding the usage, modifications, limitations and criticisms of technology acceptance model (TAM)," *Advances in science technology and engineering systems journal*, vol. 5, no. 6, pp. 113-117, 2020.
- [28] R. Zheng, Z. Li, S. Na, "How customer engagement in the live-streaming affects purchase intention and customer acquisition, e-tailer's perspective," *journal of retailing and consumer services*, vol. 68, pp. 103015, 2022.
- [29] E. Y.C Wong, R. T. Y. Hui, H. Kong, "Perceived usefulness of, engagement with, and effectiveness of virtual reality environments in learning industrial operations: the moderating role of openness to experience," *Virtual Reality*, vol. 27, no. 3, pp. 2149-2165, 2023.
- [30] Q. Hua, C. L. Chiu, "Analysis of young Chinese purchase intention on TikTok live streaming," *Kinforms*, vol. 17, no. 1, pp. 65-99, 2022.
- [31] X. Luo, N. Tabassum, B. S. Nayak, "The AIDA model and the impact of TikTok video streaming on Online shopping: A case study of TikTok," *Modern Corporations and Strategies at Work*, pp. 73-91, 2022.
- [32] L. M. Budhayee, T. Oktavia "Analysis of Factor Affecting Customer Purchase Shopping Live Shop," *Management Development and Applied Research Journal*, vol. 5, no. 2, pp. 257-271, 2023.
- [33] J. Sun, H. Dushime, A. Zhu, ""Beyond beauty: a qualitative exploration of authenticity and its impacts on chinese consumers' purchase intention in live commerce," *frontiers in psychology*, vol. 13, 2022.
- [34] J. Snyder, "Visual representation of information as communicative practice," *Journal of the association for information science and technology*, vol. 65, no. 11, pp. 2233-2247, 2014.
- [35] Y. Xu. "Vision transformer advanced by exploring intrinsic inductive bias, PhD. thesis, University of Sydney, Sydney, Australia, 2023
- [36] L. Ma, S. Gao, X. Zhang, "how to use live streaming to improve consumer purchase intentions: evidence from China," *sustainability*, vol. 14, no. 2, pp. 1045, 2022.

- [37] J. Guo, Y. Li, Y. Xu, K. Zeng, "How live streaming features impact consumers' purchase intention in the context of cross-border e-commerce? a research based on SOR theory," *Frontiers in psychology*, vol. 12, 2021.
- [38] Q. Shang, H. Ma, C. Wang, L. Gao, "Effects of background fitting of e-commerce live streaming on consumers' purchase intentions: a cognitive-affective perspective," *Psychology research and behavior management*, vol. 16, pp. 149-168, 2023.
- [39] M. Fei, H. Tan., X. Peng, Q. Wang, L. Wang, "Promoting or attenuating? an eye-tracking study on the role of social cues in e-commerce livestreaming," *Decision Support Systems*, vol. 142, pp. 113466, 2021.
- [40] M. Kim, S. Lennon, "The effects of visual and verbal information on attitudes and purchase intentions in internet shopping," *Psychology and Marketing*, vol. 25, no. 2, pp. 146-178, 2008.
- [41] R. S. Elder, A. Krishna, "Visual depiction effect" in advertising: facilitating embodied mental simulation through product orientation," *Journal of Consumer Research*, vol. 38, no. 6, pp. 988-1003, 2012.
- [42] X. Tong, Y. Chen. S. Zhou, S. Yang, "How background visual complexity influences purchase intention in live streaming: the mediating role of emotion and the moderating role of gender," *Journal of Retailing and Consumer Services*, vol. 67, pp. 103031, 2022.
- [43] Y. Xu, W. Jiang, Y. Li, J. Guo, "The influences of live streaming affordance in cross-border e-commerce platforms," *Journal of Global Information Management*, vol. 30, no. 2, pp. 1-24, 2021.
- [44] J. Liao, K. Chen, J. Qi, J. Li and I. Y. Yu, "Creating immersive and parasocial live shopping experience for viewers: the role of streamers' interactional communication style," *Journal of Research in Interactive Marketing*, vol. 17, no. 4, pp. 140-155, 2022.
- [45] Y. Wang, Z. Lu, P. Cao, J. Chu, H. Wang and R. Wattenhofer, "How live streaming changes shopping decisions in e-commerce: a study of live streaming commerce," *Computer Supported Cooperative Work (Cscw)*, vol. 31, no. 4, pp. 701-729, 2022.
- [46] X. Ma, X. Zou, and J. Lv, "Why do consumers hesitate to purchase in live streaming? A perspective of interaction between participants," *Electronic Commerce Research and Applications*, vol. 55, pp. 101193, 2022.
- [47] P. Stamolampros, D. Dousios, Z. Li, "Elements of trust building on live streaming commerce," *SSRN Electronic Journal*, 2022.
- [48] M. Zhang, Y. Liu, Y. Wang and L. Zhao, "How to retain customers: understanding the role of trust in live streaming commerce with a socio-technical perspective," *Computers in Human Behavior*, vol. 127, pp. 107052, 2022.

- [49] J. Liao, K. Chen, J. Qi, J. Li and I. Y. Yu, "Creating immersive and parasocial live shopping experience for viewers: the role of streamers' interactional communication style," *Journal of Research in Interactive Marketing*, vol. 17, no. 1, pp. 140-155, 2022.
- [50] H. Chen, H. Chen, X. Tian, "The dual-process model of product information and habit in influencing consumers' purchase intention: The role of live streaming features," *Electronic Commerce Research and Applications*, vol. 53, pp. 101150, 2022.
- [51] S. Wongsunopparat, B. Deng, "Factors influencing purchase decision of Chinese consumer under live streaming e-commerce model," *Journal of Small Business and Entrepreneurship Development*, vol. 9, no. 2, pp. 1-15, 2021.
- [52] S. Chan, K. Asni, "The role of sequence mediation on the influence of live-streaming shopping attribute on purchase intention," *Jurnal Aplikasi Manajemen*, vol. 20, no. 4, pp. 950-962, 2022.
- [53] Y. Sun, X. Shao, X. Li, Y. Guo, K. Nie, "How live streaming influences purchase intentions in Social Commerce: An IT affordance perspective," *Electronic Commerce Research and Applications*, vol. 37, pp. 100886, 2019.
- [54] L. Ma, S. Gao, X. Zhang, "How to use live streaming to improve consumer purchase intentions: Evidence from China," *Sustainability*, vol. 14, no. 2, pp. 1045, 2022.
- [55] B. Wang, F. Xie, J. Kandampully, J. Wang, "Increase hedonic products purchase intention through livestreaming: the mediating effects of mental imagery quality and customer trust," *Journal of Retailing and Consumer Services*, vol. 69, pp. 103109, 2022.
- [56] H. Wang, J. Ding, U. Akram, X. Yue, Y. Chen, "An empirical study on the impact of e-commerce live features on consumers' purchase intention: from the perspective of flow experience and social presence," *Information*, vol. 12, no. 8, pp. 324, 2021.
- [57] C. Xu, Z. Li, J. Su, "Live shopping interactivity, social presence and sustainable consumer purchase intention: based on tam model," *International Journal of Sustainable Development and Planning*, vol. 17, no. 8, pp. 2631-2639, 2022.
- [58] A. S. Al-Adwan, M. K. Alrousan, H. Yaseen, A. M. Alkufahy and M. Alsoud, "Boosting online purchase intention in high-uncertainty-avoidance societies: a signaling theory approach," *Journal of Open Innovation Technology Market and Complexity*, vol. 8, no. 3, pp. 136, 2022.
- [59] C. Chen, D. Zhang, "Understanding consumers' live-streaming shopping from a benefit-risk perspective," *Journal of Services Marketing*, vol. 37, no. 6, pp. 973-988, 2023.

- [60] D. Apasrawirote, K. Yawised, "Factors influencing the behavioral and purchase intention on live-streaming shopping," *Asian Journal of Business Research*, vol. 12, no. 1, pp. 39-56, 2022.
- [61] X. Chen, J. Shen, S. Wei, "What reduces product uncertainty in live streaming e-commerce? from a signal consistency perspective," *Journal of Retailing and Consumer Services*, vol. 74, pp. 103441, 2023.
- [62] K. B. Lim, S. F. Yeo and H. K. W. Alfredo, "Effects of live video streaming towards online purchase intention," *International Journal of Industrial Management*, vol. 11, pp. 250-256, 2021.
- [63] Y. Chen, X. Yan, W. Fan, "Examining the effects of decomposed perceived risk on consumer's online shopping behavior: a field study in China," *Engineering Economics*, vol. 26, no. 3, pp. 315-326, 2015.
- [64] T. E. Mofokeng, "The impact of online shopping attributes on customer satisfaction and loyalty: moderating effects of e-commerce experience," *Cogent Business & Management*, vol. 8, no. 1, 2021.
- [65] T. Mofokeng, "The impact of online shopping attributes on customer satisfaction and loyalty: moderating effects of e-commerce experience," *Cogent Business & Management*, vol. 8, no. 1, 2021.
- [66] D. Liu, J. Yu, "Impact of perceived diagnosticity on live streams and consumer purchase intention: streamer type, product type, and brand awareness as moderators," *Information Technology and Management*, pp.1-14, 2022.
- [67] J. R. Fu, C. W. Hsu, "Live-streaming shopping: the impacts of para-social interaction and local presence on impulse buying through shopping value," *Industrial Management & Data Systems*, vol. 123, no. 7, pp. 1861-1886, 2023.
- [68] T. Zhang, Z. Tang, Z. Han, "Optimal online channel structure for multinational firms considering live streaming shopping," *Electronic Commerce Research and Applications*, vol. 56, pp. 101198, 2022.
- [69] H. Chen, H. Chen, X. Tian, "The dual-process model of product information and habit in influencing consumers' purchase intention: The role of live streaming features," *Electronic Commerce Research and Applications*, vol. 53, pp. 101150, 2022.
- [70] J. Ming, Z. Jianqiu, M. Bilal, U. Akram, M. Fan, "How social presence influences impulse buying behavior in live streaming commerce? the role of s-o-r theory," *International Journal of Web Information Systems*, vol. 17, no. 4, pp. 300-320, 2021.
- [71] C. Chen, D. Zhang, "Understanding consumers' live-streaming shopping from a benefit-riskperspective," *Journal of Services Marketing*, vol. 37, no. 8, pp. 973-988, 2023.

- [72] H. C. Ko, "Factors affecting continued purchase intention in live streaming shopping: Parasocial relationships and shared communication networks," *Behaviour & Information Technology*, pp. 1–23, 2023.
- [73] J. Men, X. Zheng, R. M. Davison, "The role of vicarious learning strategies in shaping consumers' uncertainty: the case of live-streaming shopping," *Internet Research*, 2023.
- [74] P. Zhu, Z. Liu, X. Li, X. Jiang and M. X. Zhu, "The influences of livestreaming on online purchase intention: examining platform characteristics and consumer psychology," *Industrial Management & Data Systems*, vol. 123, no. 3, pp. 862-885, 2022.
- [75] J. Hwang, S. Y. Youn, "From brick-and-mortar to livestream shopping: product information acquisition from the uncertainty reduction perspective," *Fashion and Textiles*, vol. 10, no. 1, 2023.
- [76] Q. Yang, Y. C. Lee, "The effect of live streaming commerce quality on customers' purchase intention: extending the elaboration likelihood model with herd behaviour," *Behavior and Information Technology*, pp. 907-928, 2023.
- [77] C. M. Chiu, E. T. Wang, Y. H. Fang, H. Y. Huang, "Understanding customers' repeat purchase intentions in B2C e-commerce: the roles of utilitarian value, hedonic value and perceived risk," *Information Systems Journal*, vol. 24, no. 1, pp. 85-114, 2012.
- [78] M. Carolina, D. A. Susilo, M. Shafina, "The impact of live streaming shopping on customers' purchase intention in social commerce and e-commerce," *International Conference on Information Technology Systems and Innovation (ICITSI)*, Bandung, Indonesia, 2022, pp.369-374
- [79] Z. Lui, J. Li, X. Wang, Y. Guo, "How search and evaluation cues influence consumers' continuous watching and purchase intentions: an investigation of live-stream shopping from an information foraging perspective," *Journal of Business Research*, vol. 168, pp. 114233, 2023.
- [80] Y. Chen, F. Lu, S. Zheng, " study on the influence of e-commerce live streaming on consumer repurchase intentions," *International Journal of Marketing Studies*, vol. 12, no. 4, pp. 48, 2020.
- [81] M. A. Camilleri, L. Falzon, "Understanding motivations to use online streaming services: integrating the technology acceptance model (TAM) and the uses and gratifications theory (UGT)," *Spanish Journal of Marketing - Esic*, vol. 25, no. 2, pp. 217-238, 2020.
- [82] J. Kang, H. Park-Poaps, "Hedonic and utilitarian shopping motivations of fashion leadership," *Journal of Fashion Marketing and Management*, vol. 14, no. 2, pp. 312-328, 2010.
- [83] H. X. Chong, A. H. Hashim, S. Osman, J. L. Lau, E. C. X. Aw, "The future of e-commerce? understanding livestreaming commerce continuance usage,"

- International Journal of Retail & Distribution Management, vol. 51, no. 1, pp. 1-20, 2022.
- [84] Q. Ling, M. B. Masrom, "Role of live e-commerce on consumer purchase intentions," *International Journal of Professional Business Review*, vol. 8, no. 6, 2023.
- [85] C. Qing, S. Jin, "What drives consumer purchasing intention in live streaming e-commerce?," *Frontiers in Psychology*, vol. 13, pp. 938726, 2022.
- [86] Q. Xie, A. S. B. Mahomed, R. Mohamed, A. Subramaniam, "Investigating the relationship between usefulness and ease of use of living streaming with purchase intentions," *Current Psychology*, vol. 42, no. 30, pp. 26464–26476, 2022.
- [87] P. Zhu, Z. Liu, X. Li, X. Jiang, M. X. Zhu, "The influences of livestreaming on online purchase intention: examining platform characteristics and consumer psychology," *Industrial Management & Data Systems*, vol. 123, no. 3, pp. 862-885, 2022.
- [88] D. Ye, F. Liu, D. Cho, Z. Jia, "Investigating switching intention of e-commerce live streaming users," *Heliyon*, vol. 8, no. 10, 2022.
- [89] Y. Huang, L. Suo, "Factors affecting Chinese consumers' impulse buying decision of live streaming e-commerce," *Asian Social Science*, vol. 17, no. 5, pp. 16-32, 2021.
- [90] J. Cao, J. Li, Y. Wang, M. Ai, "The impact of self-efficacy and perceived value on customer engagement under live streaming commerce environment," *Security and Communication Networks*, vol. 20, pp. 1-13, 2022.
- [91] G. Lăzăroiu, O. Neguriță, I. Grecu, "Consumers' decision-making process on social commerce platforms: online trust, perceived risk, and purchase intentions," *Frontiers in Psychology*, vol. 11, pp. 478039, 2020.
- [92] P. J. Chao, Y. H. Cheng, C. H. Li, M. C. Hsieh, "Determinants of purchase intention among live streaming shoppers: the roles of technology readiness, social presence, and perceived value," *Journal of Asia-Pacific Business*, vol. 23, no. 3, pp. 187-205, 2022.
- [93] F. D. Azizah, A. N. Nur, A. H. P. K. Putra, "Impulsive buying behavior: implementation of it on technology acceptance model on e-commerce purchase decisions," *Golden Ratio of Marketing and Applied Psychology of Business*, vol. 2, no. 1, pp. 58-72, 2022.
- [94] R. Zhang, M. Chen, "Predicting online shopping intention: the theory of planned behavior and live e-commerce," *SHS Web of Conferences*, vol. 155, pp. 10, 2023.
- [95] M. Lyu, "Opportunities and reflections of paying for knowledge online in the context of e-commerce live streaming," in *Proceedings of the 7<sup>th</sup> International Conference on Modern Management and Education Technology (MMET)*, Hong Kong, 2022 pp. 458-465

- [96] A. R. Ashraf, N. Thongpapanl, S. Auh, "The application of the technology acceptance model under different cultural contexts: the case of online shopping adoption," *Journal of International Marketing*, vol. 22, no. 3, pp. 68-93, 2014.
- [97] R. Zuo, J. Xiao, "Exploring consumers' impulse buying behavior in live streaming shopping," in *Proceedings of the Fifteenth International Conference on Management Science and Engineering Management*, pp. 610-622, 2021.
- [98] K. B. Lim, S. F. Yeo, H. K. W. Alfredo, "Effects of live video streaming towards online purchase intention," *International Journal of Industrial Management*, vol. 11, pp. 250-256, 2021.
- [99] J. Kim, N. He, I. Miles, "Live commerce platforms: a new paradigm for e-commerce platform economy," *Journal of Theoretical and Applied Electronic commerce Research*, vol. 18, no. 2, pp. 959-975, 2023.
- [100] M. Zhou, J. Huang, K. Wu, X. Huan, N. Kong, K. S. Campy, "Characterizing Chinese consumers' intention to use live e-commerce shopping," *Technology in Society*, vol. 67, pp. 101767, 2021.
- [101] L. Yang, M. Xu, L. Xing, "Exploring the core factors of online purchase decisions by building an e-commerce network evolution model," *Journal of Retailing and Consumer Services*, vol. 64, pp. 102784, 2022.
- [102] F. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *Mis Quarterly*, vol. 13, no. 3, p. 319, 1989.
- [103] E. Karahanna, D. W. Straub, "The psychological origins of perceived usefulness and ease-of-use," *Information & Management*, vol. 35, no. 4, pp. 237-250, 1999.
- [104] R. Basuki, Z. J. H. Tarigan, H. Siagian, L. S. Limanta, D. Setiawan, J. Mochtar, "The effects of perceived ease of use, usefulness, enjoyment and intention to use online platforms on behavioral intention in online movie watching during the pandemic era," PhD. thesis, Petra Christian University, 2022
- [105] A. Tahar, H. A. Riyadh, H. Sofyani, W. E. Purnomo, "Perceived ease of use, perceived usefulness, perceived security and intention to use e-filing: the role of technology readiness," *Journal of Asian Finance Economics and Business*, vol. 7, no. 9, pp. 537-547, 2020.
- [106] N. Wilson, "The impact of perceived usefulness and perceived ease-of-use toward repurchase intention in the Indonesian e-commerce industry," *Jurnal Manajemen Indonesia*, vol. 19, no. 3, pp. 313-329, 2019.
- [107] R. Ferdianto, "Role of perceived usefulness and perceived ease of use in increasing repurchase intention in the era of the covid-19 pandemic," *Research Horizon*, vol. 2, no. 2, pp. 313-329, 2022.
- [108] H. X. Chong, A. H. Hashim, S. Osman, J. L. Lau, E. C. X. Aw, "The future of e-commerce? understanding livestreaming commerce continuance usage,"

- International Journal of Retail & Distribution Management, vol. 51, no. 1, pp. 1-20, 2022.
- [109] A. Wan, M. Jiang, "Can virtual influencers replace human influencers in live-streaming e-commerce? an exploratory study from practitioners' and consumers' perspectives," *Journal of Current Issues & Research in Advertising*, vol. 44, no.3 pp. 1-41, 2023.
- [110] Y. Zhao, F. Bacao, "How does gender moderate customer intention of shopping via live-streaming apps during the covid-19 pandemic lockdown period?," *International Journal of Environmental Research and Public Health*, vol. 18, no. 24, pp. 13004, 2021.
- [111] Y. Dong, "Exploring the marketing strategies of live web-based shopping based on TikTok live streaming platform," *Academic Journal of Management and Social Sciences*, vol. 3, no. 3, pp. 149-152, 2023.
- [112] N. Chen, Y. Yang, "The role of influencers in live streaming e-commerce: Influencer Trust, attachment, and consumer purchase intention," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 18, no. 3, pp. 1601–1618, 2023.
- [113] C. Kim, J. S. Hwang, J. Cho, "Relationships among mobile fashion shopping characteristics, perceived usefulness, perceived enjoyment, and purchase intention - mediating effect of ease of use," *Journal of the Korean Society of Clothing and Textiles*, vol. 39, no. 2, pp. 161-174, 2015.
- [114] H. D. Elshiliha, M. F. Najib, F. A. Amalia, "Influence of live-streaming shopping activities on attitude toward purchase intention," *Journal of Marketing Innovation (JMI)*, vol. 3, no. 2, pp. 110-129, 2023.
- [115] A. A. T. Hasan, S. M. Sumon, M. T. Islam and M. S. Hossain, "Factors influencing online shopping intentions: the mediating role of perceived enjoyment," *Turkish Journal of Marketing*, vol. 6, no. 3, pp. 239-253, 2021.
- [116] C. H. Lee, C. W. Chen, "Impulse buying behaviors in live streaming commerce based on the stimulus-organism-response framework," *Information*, vol. 12, no. 6, pp. 241, 2021.
- [117] G. O. Kristi, D. T. H. Aruan, "Factors Affecting Online Impulse Buying Behavior of Fashion Products on Live: Instagram Vs Tiktok," *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, vol. 6, no. 3, pp. 2163-2185, 2023.
- [118] W. Guo, N. Sun, "Unprofessional or admirable? determinants of purchasing behavior in government officials' livestreamed shopping," *International Journal of Environmental Research and Public Health*, vol. 19, no. 20, pp. 13073, 2022.
- [119] S. Barta, D. Belanche, A. Fernández, M. Flavián, "Influencer marketing on TikTok: The effectiveness of humor and followers' hedonic experience," *Journal of Retailing and Consumer Services*, vol. 70, pp. 103149, 2023.

- [120] E. Sumariliah, S. Z. Khan, R. U. Khan, "Modest wear e-commerce: examining online purchase intent in indonesia," *Research Journal of Textile and Apparel*, vol. 26, no. 1, pp. 90-108, 2021.
- [121] T. Tran, "Factors influence on customer purchase intention via livestream: case of vietnam," *International Journal of Management & Entrepreneurship Research*, vol. 3, no. 7, pp. 235-265, 2021.
- [122] A. Kit-fong, L. I. A. O. Wenyue, L. I. U. Zhaole, "The future of e-commerce: Live Stream Shopping and purchase intention post-COVID-19," *International Journal of Electronic Commerce Studies*, vol. 13, no. 3, pp. 147-184, 2022.
- [123] P. Xu, B. Lyu, "Influence of streamer's social capital on purchase intention in live streaming e-commerce," *Frontiers in Psychology*, vol. 12, pp.748172, 2022.
- [124] F. Rui, "Research on the influence of interaction with the streamer on customers' purchase intention in the context of live-streaming e-commerce," *Social Sciences*, vol. 11, no. 373, pp. 10-11648, 2022.
- [125] S. Wongsunopparat, B. Deng, "Factors influencing purchase decision of Chinese consumer under live streaming e-commerce model," *ournal of Small Business and Entrepreneurship Development*, vol. 9, no. 2, pp.1-15, 2021.
- [126] A. Wongkitrungrueng, N. Dehouche, N. Assarut, "Live Streaming Commerce from the sellers' perspective: Implications for online relationship marketing," *Journal of Marketing Management*, vol. 36, no. 5, pp. 488–518, 2020.
- [127] V. Tran, "The relationship among product risk, perceived satisfaction and purchase intentions for online shopping," *Journal of Asian Finance Economics and Business*, vol. 7, no. 6, pp. 221-231, 2020.
- [128] A. R. Ashraf, N. T. Thongpapanl, S. Spyropoulou, "The connection and disconnection between e-commerce businesses and their customers: exploring the role of engagement, perceived usefulness, and perceived ease-of-use," *Electronic commerce Research and Applications*, vol. 20, pp. 69-86, 2016.
- [129] X. Liu, L. Zhang, Q. Chen, "The effects of tourism e-commerce live streaming features on consumer purchase intention: the mediating roles of flow experience and trust," *Frontiers in Psychology*, vol. 13, pp.995129, 2022.
- [130] G. S. Indraprahasta, B. Derudder, "World city-ness in a historical perspective: Probing the long-term evaluation of the Jakarta metropolitan era," *Habitat International*, vo.89, pp.102000, 2019.
- [131] M. R. Del Águila, A. R. González-Ramírez, "Sample size calculation," *Allergologia et Immunopathologia*, vol. 42, no. 5, pp. 485-492, 2014
- [132] K. Wijaya, "The influence of brand image and trust on purchase decisions in TikTok shop," *Journal Research of Social Science Economics and Management*, vol. 3, no. 1, pp. 1-13, 2023.

- [133] F. Ahmadi, H. Hudrasyah, "Factors Influencing Product Purchase Intention in TikTok Live Streaming Shopping," *International Journal of Accounting*, vol. 7, no. 43, pp. 571-586, 2022.
- [134] C. Sheng, S. B. Yang, "The impact of influencer characteristics and platform affordances on the likeliness of impulse buying: focusing on the Chinese TikTok live commerce platform," *Journal of Korea Service Management Society*, vol. 23, no. 2, pp. 278-306, 2022.
- [135] G. R. Franke, M. Sarstedt, "Heuristics versus statistics in discriminant validity testing: a comparison of four procedures," *Internet Research*, vol. 29, no. 3, pp.430-447, 2019
- [136] H. Shin, C. Oh, N. Y. Kim, H. Choi., B. Kim, Y. G. Ji, "Evaluating and eliciting design requirements for an improved user experience in live-streaming commerce interfaces," vol. 150, pp. 107990, 2023.
- [137] S. C. Teo, W. Y. Tee, T. W. Liew, "Exploring the TikTok influences on consumer impulsive purchase behaviour," *International Journal of Business and Society*, vol. 24, no. 1, pp. 39-55, 2023.