

The Impact Of Marketing Strategy On Consumer's Impulsive Buying Behavior On Tiktok Live

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Abstract.

Live-streaming shopping is a new form of social commerce that is increasingly popular among Indonesian consumers, especially since the COVID-19 pandemic. However, research on live streaming s-commerce is still in its infancy. This study sheds new light on impulsive purchase behavior in TikTok Live. Based on the stimulus-organism-response (SOR) theory, this study introduces a marketing strategy in the form of 3 retail elements, "People-Product-Place" on s-commerce live streaming from the perspective of consumer perception and aims to understand the impact of marketing strategy on impulsive buying behavior of TikTok Live consumers. This study used SEM-AMOS analysis with a purposive sampling method. A sample size of 170 respondents was conducted by distributing questionnaires to TikTok Live users with a shopping experience. The study's results showed a significant effect on the variable relationship between perceived tiktok anchor attributes on impulsive buying behavior, perceived scarcity on involvement, immersion on involvement, and involvement on impulsive buying behavior. The findings of this paper provide suggestions to online retailers to focus more on increasing the engagement created by anchors, which ultimately makes them make impulse purchases.

Keywords: *S-commerce Live Streaming, Impulsive Purchase Behavior, Involvement, Perceived Anchor Attributes, Perceived Scarcity, Impulsive Purchase Behavior.*

I. INTRODUCTION

Technological advances that facilitate internet-based commerce have changed the behavior patterns of people and businesses in conducting transactions on online shopping. Online shopping is a rapidly emerging phenomenon worldwide, especially among countries with advanced information and communication technology for marketing functions via the internet [1]. Social media is the most effective form of marketing to build consumer interactions due to relatively lower marketing costs and increasing users, allowing them to reach a broader target audience. Social media users continue to grow in today's modern era. This can be seen by the statistical data showing that as of January 2021, the number of social media users worldwide rose annually to reach 4.2 billion. This number increased by 13.2% from the previous year [2]. The rapid development of social media has given rise to a new social media marketing format, namely online social media marketing, where companies can connect with their suppliers or customers to influence their attitudes and even receive feedback from them [3]. S-commerce or social commerce is a subclass of e-commerce that utilizes social media to support interactivity to facilitate online transactions and enrich consumers' online shopping experience [4][5]. S-commerce is a type of commerce where sellers directly offer their products on the intended social media platform. Unlike e-commerce, s-commerce emphasizes shopping goals by combining social goals, such as sharing information on social networking sites and emphasizing one-to-one and individual interactions to generate value [6].

TikTok is one of the most popular types of s-commerce that people worldwide currently enjoy. Based on the We Are Social report, TikTok has reached 1.4 billion monthly active users over 18 globally as of the first quarter of 2022. The rise of the TikTok application is characterized by the emergence of various short-duration video content uploaded on the social media platform. This allows merchants to capitalize on the trend by conducting product promotions through TikTok video content. However, a new type of business model has recently re-emerged, namely, live streaming commerce. Cheng et al. (2019) [7] witnessed explosive growth in one technology-driven business model: live streaming. By 2020 the number of live-streaming users has reached 617 million, and live-streaming commerce users have reached 388 million [8]. Marketing by utilizing this live-streaming feature is one of the new ways consumers carry out online shopping activities, especially after 2020, due to the impact of COVID-19, which hampers traditional offline marketing [9]. Online commerce through live streaming as the most popular and promising form of s-commerce in recent years [10]. Live streaming is considered a revolutionary form of social commerce,

focusing on increasing online product sales through real-time social interaction. Live streaming is used to share images, sounds, information, and actions with others in real-time [11]. In addition, this business model allows consumers to get closer to a product by describing what a product tastes, looks or smells like directly through the help of an anchor [12]. When online shopping through live broadcasts, the anchor will provide product displays and shopping guides while building a real interactive relationship with consumers and generating a relatively higher number of purchase conversations [13].

With the advancement of social commerce, promotional strategies are increasingly varied and attract attention. Researchers have tested the influence of different marketing-related tactics and promotional campaigns on consumer impulse purchases [14]. Impulse buying is an unplanned purchase resulting from exposure to a stimulus, and the decision-making process is decided on the spot [15]. Around 70% of purchasing decisions are in-store, and 68% are unplanned [16]. This situation is called impulse buying behavior. Verhagen and Dolen (2011) [17] found that 40% of most online shopping is due to impulse purchases. The online information environment plays an essential role in impulse buying, where scarcity related to limited quantity and time can generate arousal, affecting consumers' impulse purchases [18]. Scarcity strategies in live commerce directly impact consumer impulse purchases because they require consumers to make purchasing decisions quickly through limitations on the quantity of product availability and promotion time [19]. During online shopping, consumers can interact in real time with retailers, anchors, and other consumers through live streaming services. They not only passively receive information from the website but also actively express their doubts, needs, and opinions through live streaming. This can increase their involvement in online shopping and improve their shopping intentions, thus encouraging impulsive consumer behavior. Involvement is among marketing research's most widely used concepts, such as modern advertising and social commerce [20]. Engaged customers generally visit the site frequently, spend a lot of time on the site, and have many page views [21]. In this case, customer involvement requires establishing trust and commitment in the relationship between shoppers, anchors, and retailers, as faith is essential in influencing consumer purchase decisions in online stores [22].

In addition, anchors have a crucial role in creating audience immersion. In the scope of online marketing, a lack of immersion can lead to the impression that the anchor is absent for the consumer, and at the same time, the consumer will also feel that they need to be more critical of the anchor. If immersion is taken for granted, the online buying and selling process becomes ineffective, so marketing objectives cannot be optimally achieved. Immersion cannot be created by simply watching or witnessing an object but requires involvement in a transaction or activity. The significant developments related to live-streaming on social media have attracted the attention of several researchers. Previous literature has focused on the technological improvements behind live streaming services [23], the factors that influence the interaction between viewers and anchors [24], and investigated the motivations that drive viewers to watch [25] on live streaming platforms. Three essential factors in e-commerce live-streaming sales include the product's characteristics, the anchor's features, and consumer involvement [26]. Other researchers have also suggested that anchor promotions, product promotions, and the live-streaming atmosphere trigger strong emotions in consumers, leading to impulse purchases [27]. In a later study, Chen et al. (2022) [28] introduced three factors influencing customer involvement influencing impulse buying behavior: anchor attributes, perceived scarcity, and immersion. Therefore, in this conceptual model, we adopt the research model by Chen et al. (2022), where the stimulus in the marketing strategy is divided into three, namely perceived anchor attributes, scarcity and immersion strategies, and the organism refers to the involvement with these stimuli, and the response relates to impulse buying behavior.

The SOR working model is the most used theoretical foundation in online impulse buying studies. Many researchers have used the SOR model to study impulse buying behavior as a sudden reaction to a stimulus accompanied by an emotional response by explaining the complex processes underlying consumer impulse buying behavior. Therefore, this study will adopt the S-O-R theory and focus on the "People-Place-Product" marketing strategy for live streaming s-commerce in predicting the driving factors of impulse purchase behavior. In addition, impulse purchase tendency in the context of s-commerce platforms is viewed here as a specific attribute that can be influenced by involvement on s-commerce platforms. Based on the

SOR model, this study investigates the effect of marketing strategies on live streaming s-commerce platforms on impulse buying behavior by using three stimulus models in marketing strategies: perceived anchor tiktok attributes, perceived scarcity, and immersion on impulse buying behavior. Live streaming social commerce is a new phenomenon that has yet to receive much research attention. Even though consumers are increasingly interested in live-streaming commerce, it is imperative to further explore consumer behavior in this context, such as impulse purchases. Therefore, this study focuses on impulse buying behavior by adopting the S-O-R theory and concentrates on the "People-Place-Product" marketing strategy by integrating live streaming practices and social commerce practices, whether user involvement in live streaming social commerce provides different results compared to e-commerce and what factors drive impulse buying behavior both directly and indirectly To achieve this goal, the authors developed a research model that emphasizes engagement and consumer impulse buying behavior on the TikTok Live platform.

II. LITERATURE REVIEW

SOR Theory

The SOR model was initially invented by Mehrabian and Russell, where this model assumes that various elements of the environment act as stimuli (S) that affect an individual's emotional state (O), which in turn causes their behavioral response (R) [29]. Stimuli are factors outside of an individual's control that affect the organism's internal state when exposed to external stimuli. Meanwhile, the organism will act as a bridge to connect the stimulus and behavior, and the organism regulates the final behavior in response to the stimulus [30]. Finally, the response results from consumers' reactions to impulse buying stimuli and their internal evaluations [14]. SOR theory is widely used in the retail industry to understand impulse purchases [14][31][32][8]19][28][33][34][20][26]. In live broadcasting, relational bonding is one of the main characteristics [35]. Operators initiate some types of relational bonds in live-streaming social commerce by hiring anchors and providing special price offers or discounts to consumers to motivate viewers to engage in the live-streaming activity. Therefore, relational bonds are associated with affective responses and increase consumer involvement. In building the SOR model, the factors that influence consumers' online impulse purchase behavior as consisting of external stimuli (such as website stimuli, marketing stimuli, and situational stimuli) and internal stimuli (such as impulsive consumer characteristics) [14]. This study uses People-Place-Product as a stimulus factor (S) and involvement as an individual's internal state (O) and explores its influence on impulse purchases (R).

Live Streaming Social Commerce

S-commerce utilizes the social media environment created by web 2.0 software through social networks to conduct e-commerce activities and transactions [5]. Social commerce is characterized by social media technologies, interactions, and business activities [36][37]. According to data compiled by DSInnovate in the "Social Commerce Report," by 2022, the market size of social commerce platforms will reach \$8.6 billion [38]. Along with the development of s-commerce platforms and live streaming platforms, live streaming elements have now been applied to the practice of s-commerce live streaming. These elements can create user involvement, affecting the user's decision-making process on s-commerce live streaming. Live streaming is an essential social channel that continues to increase and attract the interest of many content creators and consumers [103]. Live streaming commerce is a more interactive, engaging, and user-centered environment offering real-time human-computer interactions between viewers and anchors [39]. Live streaming commerce contributes to direct mutual awareness between anchors and consumers through real-time audio and video dissemination technology, resulting in conversations that resemble face-to-face interactions [40]. Live-streaming commerce is essentially an extension and enhancement of TV shopping in the traditional media era, which is internalized over conventional media production, reflecting the real-time characteristics and interactivity of communication in the new media era [41].

The live product shows and explanations of product information can motivate consumers to use live streaming as a decision-support system during their decision-making process in online shopping [42]. Thus, live-streaming social commerce can foster authenticity, visualization, and interactivity in online shopping. TikTok Live is a live-streaming social commerce feature that allows anchors to share their

shopping experiences and recommend products to consumers. When consumers browse products on this e-commerce platform, they can see if the product is being sold on TikTok Live, and to find out, users can directly enter the live streaming service by pressing the "live" icon. All the information is available in the live streaming feature, click the "live" icon, and customers will get all the information about the product description from the anchor; they can also ask questions directly in the comment section. By clicking on the yellow cart at the bottom left of the site, orders can be placed directly without leaving the live stream. After pressing the "buy now" icon, the voice on the live stream will still be heard on the transaction page to ensure that consumers will not miss the exposure of product explanations and information by the anchor.

The success of retailers in live streaming lies in the excellent coordination of the "People-Product-Place" elements, which is a perspective that should not be overlooked when studying marketing strategies [19] [28]. In addition to providing a communication channel between retailers and consumers during online shopping, live-streaming commerce also introduces market intermediaries, i.e., anchors, into live-streaming commerce [43][44]. "People" as an anchor is a third party between consumers and merchants in live-streaming commerce. Anchors provide personalized performance based on audience requests submitted in real-time during streaming so that the communication process quickly becomes a conversation that can hear and appreciate by the audience. "Product" here is a promotional item recommended by the anchor. Promotions can be discounts, coupons, bonus packages, or refunds, where companies will be required to put a lot of effort into producing and implementing live streaming. "Place" is the final presentation of the e-commerce live-streaming scene. With the support of "people" and "product," the internet platform builds a communication scene that integrates shopping, live streaming, communication, and other functions. TikTok is a type of social media that has made businesses pay more attention to social commerce.

Impulse Buying Behavior

Impulse buying was first formally defined in the DuPont study (1945-1965) as unplanned purchases instead of existing assets by a predetermined shopping list. Impulsive buying behavior is sudden and accidental, ignoring the considerations that refer to these actions [46]. In the Big Indonesian Dictionary (KBBI), impulsive means being quick in acting suddenly according to the heart. Recently, impulse purchases often occur in virtual environments [47]. About 40% of online spending comes from impulse purchases [17]. Live-streaming shopping triggers the common phenomenon of impulse buying among consumers [48]. Anchor is an essential element in influencing impulse purchase decisions in live-streaming shopping; with the participation of the anchor, some consumers may need a more apparent shopping consciousness when participating in live-streaming commerce [49]. Around 58.5% of consumers who participate in live-streaming commerce have the desire to buy something recommended by the anchor without a clear goal [43]. This means that most consumers sometimes need a clear purpose for shopping while watching live streaming; they feel attracted to buy a product on the recommendation of an anchor when their original intention was not to purchase the product.

In cases like this, anchors play an essential role in influencing consumers' shopping decisions by offering goods that are useful and interesting to consumers. The price, quality, and promotion of commodities also play an equal role in influencing consumer purchasing behavior [50]. In addition, one way to increase real-time sales in a live-streaming commerce scenario is to arouse consumers' sense of competition through anchor product recommendation skills [9]. The essence of impulse buying is that consumers form cognitive and emotional reactions in the buying process [51], where mental reactions are more related to the assessment of the interaction, while affective responses are related to the emotional aspects of the interaction [31]. When external factors stimulate consumers, they will have a cognitive evaluation, it will affect their emotions, and a positive emotional reaction will encourage them to generate impulsive purchase intentions [51][8][48] and impulse purchase behavior [14]. Impulse buying behavior significantly influences the interaction between anchors and consumers. In this case, when consumers perceive the anchor as a professional and able to recommend products more appropriately and thus perceive the anchor as someone reliable and competent in choosing products, it can ultimately directly contribute to impulse purchases [19].

Perceived TikTok Anchor Attributes

Anchors play a crucial role that must be addressed in the live-streaming scenario [9]. Anchor is a person who introduces and displays products comprehensively to customers on a live-streaming commerce platform. Anchor attributes influence purchase decisions in live-streaming shopping [52]. In live-streaming shopping, the anchor acts as a media character, while the consumer entering the live-streaming space serves as an audience [53]. Anchor is the core of the live-streaming shopping interaction [54]. The existence of a live-streaming platform allows viewers and anchors to interact directly and simultaneously with each other [55]. Anchors can interact with consumers in real-time through words, expressions, and body language, with richer interactive ways and deeper interactive content. Through this real-time interaction, consumers can also quickly get feedback from the anchor [56]. In live-streaming shopping, the anchor will provide product display and shopping guidance, which can build real-time interactive relationships with consumers and generate a relatively higher number of purchase conversations [13][57]. Some anchors tend to attract consumers' attention by promoting new products, selling fake products, and so on to gain massive profits [9]. In addition, anchors with higher product knowledge and experience [58] and who are closer to consumers' lives become more interactive with followers and potential consumers [59]. The presence of an anchor is positively correlated with consumers' impulse purchase intentions [9]. Perceived anchor attributes can, directly and indirectly, influence impulse buying behavior [28].

Several studies have shown that the anchor's specialized knowledge and personal attractiveness can promote the formation of social relationships with consumers [60]. Consumers who share physical characteristics with the anchor also experience lower levels of product suitability uncertainty, leading to increased purchase intentions [61]. The professional ability of the social commerce anchor here plays an important role. The more experienced the anchor image consumers perceive, the higher the degree of anchor professionalism consumers believe [9]. Anchor professionalism is one of the main factors influencing audience involvement [62][63]. One of the anchor attributes used to attract customers is the ability to build good personalization. If the anchor can respond in time and better meet the personalized needs of consumers, they will be more satisfied and evoke positive emotions [48]. Under the influence of marketing incentives, consumers have a positive emotional response making it more difficult for them to resist the urge to buy products leading to impulse purchases [64]. Personalization is essential for promoting customers' overall commitment to a company [65]. In live-streaming commerce platforms, increased personalized communication will motivate customers to send emojis, gifts, or e-WOM because consumers prefer to show more positive reactions to relevant information [66]. Personalization more easily influences customer involvement behavior than responsiveness [67]. Thus, the research hypothesis can be formulated, namely:

H1. Perceived TikTok anchor attributes positively influence involvement

H2. Perceived TikTok anchor attributes positively influence impulse buying behavior.

Perceived Scarcity

Scarcity is the dominant aspect of economic behavior [68]. Scarcity occurs due to limited resources, so human needs must still be fulfilled. Human-induced scarcity can be generated due to supply and demand forces [69]. Supply-side scarcity is caused by retailers deliberately controlling the supply of products in the market so that supply is intentionally limited. On the other hand, demand-side scarcity is not caused by retailers restricting the supply of products but by other factors, such as high demand for products, leading to stock depletion. This study focuses on the retailer's deliberate supply scarcity strategy to achieve product promotion objectives during streaming sessions. Scarcity emphasizes the consumer's ability to purchase a limited product in quantity or time. Time limitation refers to the extent to which items are available for purchase within a predetermined time. In contrast, quantity limitation refers to the area to which the number of items available for purchase or sale is limited [70]. When consumers perceive limited resources, they need the freedom to choose from public goods. The sense of loss of freedom to engage in behavior causes individuals to have a stronger desire to regain that freedom. Therefore, individuals are more likely to exhibit panic buying behavior driven by the fear of resource scarcity. In this case, these environmental stimuli can trigger consumers' internal emotional and cognitive processes in the form of perceived scarcity, resulting in a panic buying behavior response [54].

Scarcity arouses individuals through a sense of competition with a desire to win [71]. Perceived scarcity can connote a threat or loss of personal freedom. It can trigger psychological reactance that leads to increased attention and interest in unavailable goods and ultimately increases buyers' incentives to seek alternatives that may not be immediately available [72]. Scarcity has a positive effect on impulse buying [18]. This means that scarcity can maximize impulsive behavior when arousal is stimulated by providing scarcity in limited quantities and time. Specifically, the underlying mechanism of online promotional scarcity for impulse purchases is consumer arousal, where competition and perceived time pressure are the two main driving forces to trigger arousal [33]. In addition, time scarcity and quantity scarcity have a positive impact on consumer involvement [73]. To increase consumer participation, some anchors will establish shopping practices as a competitive game in live-streaming commerce. They can set explicit rules for online shopping activities, such as promotions that only last for a limited time, where buyers with the highest number of comments will get additional prizes, or they can also offer better prices for a limited number of orders. Thus, the research hypothesis can be formulated, namely:

H3. Perceived scarcity strategy positively influences involvement.

H4. Perceived scarcity strategy positively influences impulse buying behavior.

Immersion

Immersion is a larger concept than presence, which states that immersive experiences such as losing awareness of time and being deeply involved in an activity that occurs in action regardless of one's sense of being in a particular environment or a different place [74]. In VR literature, immersion is a term that describes an experience where the line between reality and imagination becomes blurred [75]. Immersion is a perceptual illusion where users feel like they are in a mediated environment, usually in a virtual one. Individuals will dedicate time, physical effort, and mental energy toward a target object when they experience involvement with that object [76]. Similarly, live streaming allows viewers to experience an extreme sense of presence due to the anchor's ability to capture consumers' attention, triggering involvement in the scene. During online shopping, presence is a critical mechanism that emotionally stimulates consumers [77]. Specifically, in livestream shopping situations where it is an important environmental cue, a sense of presence can help optimize consumers' virtual shopping experience in the shopping process, enhance their perception of the authenticity and reliability of the live stream shopping scenario, and thus promote their impulse purchase intentions [9]. In this regard, the perception of presence leads to the experience of immersion [78].

In the live-streaming shopping literature, perceived immersion can help users to identify the value and benefits they can derive from an activity. In addition, when they feel immersed and carried away in the situation, they will easily experience pleasure, which can directly affect their purchasing behavior [13]. Customers can more easily share a state of happiness when they are immersed [79]. In this case, the anchor has a critical role in creating immersion. A memorable anchor knows how to effectively generate interaction with the audience on the live streaming platform to arouse the audience's emotions, reduce their uncertainty in the virtual space, overcome the distance of the virtual network, enhance the sense of presence felt by consumers in the live broadcast space, and make them feel as if they are interacting directly with the salesperson in the shopping mall. Immersion into virtual worlds is becoming an important phenomenon to investigate due to its role in predicting motivation, involvement, and re-involvement with virtual spaces [80]. Immersion is a form of participation in the interaction between humans and computers, usually in a virtual environment [81]. High levels of immersion strongly influence online impulse purchases, and consumers are willing to pay more in such situations [82]. Immersion is significantly related to the involvement in an event, making the viewer overly focused on what they are watching. By examining the audience's experience of watching live streaming, immersion, immediacy, interaction, and sociality as the four driving forces of audience involvement [83]. A lack of social presence in online learning environments can result in low levels of involvement and immersion and even withdrawal from the online territory [78]. Thus, the research hypothesis can be formulated, namely:

H5. Immersion positively influences involvement.

H6. Immersion positively influences impulse buying behavior.

Involvement

Involvement has been widely used to study marketing and consumer behavior in business environments [84]. Consumer involvement includes behaviors demonstrated in purchases, recommendations, and positive communication as a form of response elements in the SOR model [85]. Consumer involvement is the level of participation and relationship of consumers with activities or offers created by the company [20][86]. Online involvement is defined as the level of consumer participation on a website consisting of the number of likes, comments, and shares [26]. Involvement in live broadcasts makes it easier for consumers to visualize products more accurately and predict whether products will match their preferences [89][90]. When people engage in high product involvement, they feel the product is related to the customer's self-value, so they will be careful in making decisions about the outcome [91].

The higher the quality of a product description, the better the image of the product in the minds of consumers and the higher the affective involvement of consumers in the outcome [92]. Highly engaged customers have a more remarkable ability to handle risk, which can lead to impulse purchases [93]. Customer involvement has been identified as an essential antecedent that influences customer purchases in online shopping [94]. Involvement in each product category was reported as a significant variable affecting impulse purchases of specific products [95]. Individuals buy impulsively in response to solid emotions from proximity to an effect [96]. The higher consumers' product involvement, the higher their impulse buying behavior [97]. Thus, the research hypothesis can be formulated, namely:

H7. Involvement positively influences impulse buying behavior.

III. METHODS

The sampling technique in this study was carried out using a non-probability sampling approach where the sample unit was selected based on personal judgment and did not provide equal opportunities for each member of the population. The sampling method chosen by the researcher in sampling is purposive sampling. Purposive sampling is a non-probability sampling technique that assesses the required characteristics by limiting it to certain types of people who can provide the desired information to meet research objectives [98]. The sample in this study is a live streaming s-commerce user who has a shopping experience on the TikTok Live feature. The type of research used in this study uses quantitative research methods. Primary data is used in this study where the data is obtained from sources or first parties, either from individuals or individuals obtained directly through interviews or the results of filling out questionnaires [99].

Research Design

This study focuses on marketing-generated stimuli that influence impulse purchases in live retail consisting of anchor attributes, scarcity strategies, and immersion. This study has three types of variables to be analyzed, namely three independent variables, including Perceived TikTok Anchor Attributes (PTAA), Perceived Scarcity (PS), and Immersion (IM); one mediating variable, Involvement (IN); and one dependent variable, Impulsive Purchase Behavior (IPB). Figure 1 shows the framework that connects these variables.

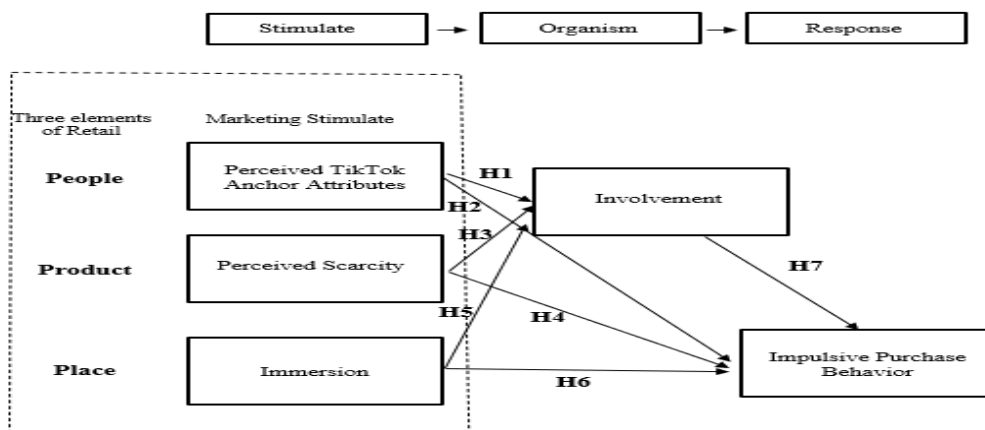


Fig 1. Thinking Framework

IV. RESULT AND DISCUSSION

Instrument Development

Using the SOR model, this study tried to identify some of the most relevant factors for the live-streaming scenario. It then establishes the relationship between these factors and impulse buying behavior based on previous literature to formulate hypotheses for this study. Data were collected through a self-administered online questionnaire. To ensure the validity and reliability of variable measurement, this study defined the variables identified, and modified measurement items from the literature to fit the context and object of study from the literature. In this regard, to measure respondents' attitudes toward an object under study, the scale used in this questionnaire method is the Likert scale. The Likert scale used in the overall measurement of this variable has six levels of answer preference, (6) strongly agree and (1) strongly disagree. **Table 1** shows the measurement items.

Data Collection

The primary data source in this study was obtained from distributing questionnaires online via google form which was addressed directly to 170 respondents who had shopping experience through the TikTok Live feature. **Table 2** shows the demographic characteristics of respondents. Based on gender, the number of female respondents is more dominant than male respondents with a percentage of 71.2% of the total respondents. Judging from the age level, most respondents are 21-25 years old with a percentage of 45.3% of the total respondents. Based on the type of work, a student/student has the largest proportion with a percentage of 35.9% of the total respondents. The highest monthly expenditure when doing online shopping through the TikTok Live feature is 100,001-300,000, which corresponds to the proportion of monthly income between 2,000,000 to 4,000,000 and 4,000,000 to 6,000,000 which both have the same percentage of 26.5%.

Data Analysis

The researchers analyzed the data using SPSS and AMOS statistical software. Confirmatory factor analysis (CFA) was used to test the validity and reliability of the measurement model. Then we verified the model using structural equation modeling (SEM) in AMOS 24 software.

Table 1. Measurement Items

Construct	Measurement items
Perceived TikTok Anchor Attributes (PTAA)	<ol style="list-style-type: none"> 1. Anchor TikTok is disciplined and does not break the law. 2. Anchor TikTok has professional skills. 3. Anchor TikTok is reliable. 4. Anchor TikTok has good communication skills. 5. Anchor TikTok has good expertise in promoting a product.
Perceived Scarcity (PS)	<ol style="list-style-type: none"> 1. During the promotion session on TikTok Live, I think many people will compete with me to buy promotional items. 2. When a promotional session on TikTok Live takes place, I think the promotional products will sell out quickly. 3. During TikTok Live, I think the scarcity strategy on the product is implemented by the anchor.
Immersion (IM)	<ol style="list-style-type: none"> 1. I feel that time passes quickly when watching product promotions in the live streaming room. 2. While watching the anchor's excitement in promoting his product in the TikTok Live room, I got carried away and forgot about the environment around me. 3. I feel fun and entertained when watching anchors promoting their products in the TikTok Live room. 4. I feel happy watching anchors promoting their products in the TikTok Live room.
Involvement (IN)	<ol style="list-style-type: none"> 1. I am very interested in the products and services offered by TikTok Live. 2. The products promoted in the TikTok Live room are important enough for me. 3. My level of involvement with the products and services offered by TikTok Live is high. 4. I am particularly engaged with TikTok Live's buying and selling environment.

Impulsive Purchase Behavior (IPB)	<ol style="list-style-type: none"> 1. When I watch TikTok Live, I often buy items that are not on my shopping list. 2. Sometimes some of the items I buy from TikTok Live I rarely use. 3. I buy products that are not planned beforehand in the TikTok Live room. 4. Sometimes I buy items from TikTok Live not because I need them but because I like the items.
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Source: Chan *et al.*, (2022)

Table 2. Demographic Data of Respondents

	Category	Frequency	Percentage (%)
Gender	Male	49	28,8
	Female	121	71,2
Age	≤ 20 years	8	4,7
	21-25 years old	77	45,3
	26-30 years	39	22,9
	31-35 years	25	14,7
	36-40 years	16	9,4
	> 40 years	5	2,9
Occupation	Student	15	8,8
	Private Employee	12	7,1
	State Civil Apparatus (ASN)	52	30,6
	Large Traders	5	2,9
	Small Merchants	19	11,2
	Lecturer/Teacher	61	35,9
	Entrepreneur	5	2,9
	Others	1	0,6
Monthly Income (IDR)	2.000.000	44	25,9
	2.000.001 - 4.000.000	45	26,5
	4.000.001 - 6.000.000	45	26,5
	6.000.001 - 8.000.000	33	19,4
	8.000.001 - 10.000.000	2	1,2
	> 10.000.000	1	0,6
Monthly Spending on TikTok Live Feature	100.000	34	20
	100.001 - 300.000	59	34,7
	300.001 - 500.000	41	24,1
	500.001 - 700.000	30	17,6
	700.001 - 1.000.000	5	2,9
	> 1.000.000	1	0,6

Source: Data that has been processed by the author (2023)

Construct Validity and Reliability

CFA is used to test whether the indicators of variable formation are significant and valid. Indicators are considered valid when the loading factor is ≥ 0.70 which in some previous literature is also said to be good when it has a loading factor between 0.50 - 0.60 [100]. The value of the validity test that meets the criteria must have a variance extracted value > 0.50 while the value of the reliability test that provides relatively reliable measurement results must have a construct reliability value > 0.70 [100]. The fit index (**Table 3**) for the measurement model shows the value of the Likelihood-ratio-chi-square statistic (X^2) = 138.994 with a probability value (p) = 0.366, minimum discrepancy function by degrees of freedom divided (cmin/df) = 1.037, root mean square error of approximation (rmsea) = 0.015, goodness of fit index (gfi) = 0.927, adjusted goodness of fit index (agfi) = 0.885, comparative fit index (cfi) = 0.997, tucker lewis index (tli) = 0.996, normal fit index (nfi) = 0.930, incremental fit index (ifi) = 0.997. Based on (**Table 3**), Goodness of Fit has met all critical values so that the model in this study can be said to be fit. As shown (**Table 4**) all variables show construct reliability (CR) higher than the recommended value of 0.7 and variance extracted (VE) on each variable also shows an average value higher than the recommended value of 0.5. So, it can be concluded that the internal consistency and reliability of the components in each variable are good.

Hypothesis Testing

Before hypothesis testing, degree-of-fit testing is carried out to test the relationship between variables in the structural model. The model fit statistics are $X^2 = 131.480$ with a probability of 0.496,

CMIN/DF= 0.996, RMSEA= 0.000, GFI= 0.930, AGFI= 0.889, CFI= 1.000, TLI= 1.000, NFI= 0.934, IFI= 1.000. According to the assessment criteria shown in **Table 3**, the fit model can be said to be fit.

Table 3. Goodness-of-fit Statistics of The Measurement Model

<i>Goodness-of-fit Index</i>	Criterion	Value	Information
X ² - Chi-square	(df 134) 162,016	138,994	<i>Fit</i>
Probability	≥ 0,05	0,366	<i>Good Fit</i>
CMIN/DF	≤ 2	1,037	<i>Good Fit</i>
RMSEA	≤ 0,08	0,015	<i>Good Fit</i>
GFI	≥ 0,90	0,927	<i>Good Fit</i>
AGFI	≥ 0,90	0,885	<i>Marginal Fit</i>
CFI	≥ 0,90	0,997	<i>Good Fit</i>
TLI	≥ 0,90	0,996	<i>Good Fit</i>
NFI	≥ 0,90	0,930	<i>Good Fit</i>
IFI	≥ 0,90	0,997	<i>Good Fit</i>

Source: Data that has been processed by the author (2023)

Table 4. Reliability and Validity Result of Measurement Mode

Variable	Standard Loading	Measurement Error	CR	VE
Perceived TikTok Anchor Attribute	0,747	0,4419	0,84	0,52
	0,601	0,6387		
	0,725	0,4743		
	0,788	0,3790		
	0,745	0,4449		
Perceived Scarcity	0,798	0,3631	0,88	0,71
	0,862	0,2569		
	0,869	0,2448		
Immersion	0,82	0,3276	0,80	0,51
	0,62	0,6156		
	0,81	0,3439		
	0,586	0,6566		
Involvement	0,664	0,5591	1,87	0,53
	0,715	0,4887		
	0,769	0,4086		
	0,765	0,4147		

Impulsive Purchase Behavior	0,714	0,4902	0,82	0,54
	0,753	0,4329		
	0,743	0,4479		
	0,738	0,4553		

Source: Data that has been processed by the author (2023)

Path Coefficient Testing

AMOS software was used to test the path coefficients to verify the direct relationship hypothesis.

Table 5 shows the standardized path coefficients. In the relationship between consumer perceived marketing strategies and involvement, perceived scarcity ($\beta = 0.278$, $\rho = 0.004$) and immersion ($\beta = 0.882$, $\rho = 0.004$) strategies have a positive effect on involvement but perceived anchor attributes ($\beta = -0.169$, $\rho = 0.266$) have no positive effect on involvement. In this case, it rejects H1 and supports H3, H5. In the relationship between consumer perceived marketing strategies and impulse purchase behavior, perceived anchor attributes ($\beta = 0.407$, $\rho = 0.020$), perceived scarcity strategy ($\beta = 0.016$, $\rho = 0.901$), and immersion ($\beta = 0.391$, $\rho = 0.152$) have a positive effect on impulse purchase behavior but perceived scarcity strategy and immersion have no significant effect. In this case, it supports H2 but rejects H4,

H6. In the relationship between involvement and impulse buying behavior, involvement ($\beta = 0.445$, $\rho = 0.028$) has a positive effect on impulse buying behavior, supporting H7.

Table 5. Hypothesis Testing

			Estimate	S.E.	C.R.	P	Result
IN	--	PTAA	-,169	,152	-1,113	,266	Not Supported
IN	--	PS	,278	,096	2,906	,004	Supported
IN	--	IM	,882	,230	3,841	***	Supported
IPB	--	PTAA	,407	,175	2,328	,020	Supported
IPB	--	PS	,016	,129	,124	,901	Not Supported
IPB	--	IM	,391	,273	1,431	,152	Not Supported
IPB	--	IN	,445	,203	2,193	,028	Supported

Source: Data that has been processed by the author (2023)

Based on the SOR model, this study used the "marketing stimulus-involvement-impulse purchase behavior" framework to investigate other impulse purchase behavior on s-commerce live streaming platforms, as previous findings focused on e-commerce live streaming. The marketing strategy in this study adopts "People-Place-Product" in predicting the driving factors of impulse buying behavior. This study tries to investigate the mechanism of the influence of marketing strategies on s-commerce live streaming platforms on impulse buying behavior and involvement by using three stimulus models in marketing strategies in the form of perceived tiktok anchor attributes, perceived scarcity, and immersion. The findings of this study will be discussed as follows.

The Effect of Perceived TikTok Anchor Attributes on Involvement: H1

The results of the analysis related to the effect of perceived anchor attributes on involvement contradict several studies conducted previously, namely Kang et al. (2021) [67] and Chen et al. (2022) [28] showing that perceived anchor attributes have a positive influence on involvement. One of the anchor attributes that can be perceived is the anchor's professional attitude in providing detailed shopping guidance to consumers, which can later encourage viewers to make impulse purchases. This means that the main focus on the anchor's professional attitude is to generate consumer impulse purchases rather than on increasing engagement, which several other drivers, such as interesting anchor attitudes, funny anchor language, exciting media content, and other factors, can create.

The Effect of Perceived TikTok Anchor Attributes on Impulsive Purchase Behavior: H2

The analysis results related to the effect of perceived anchor attributes on impulse buying behavior align with several previous studies, namely, Chen et al. (2022) [28], showing that perceived anchor attributes positively influence impulse buying behavior. In this case, when consumers can understand various product

information recommended by a professional anchor, consumer confidence in the anchor will also be higher. In addition, attractiveness, physical similarity, and characteristics with the anchor also experience lower uncertainty about product suitability. Consumers with high trust tend to be more courageous and confident to make impulse purchases. That way, perceived anchor attributes directly influence impulse buying behavior.

The Effect of Perceived Scarcity on Involvement: H3

The results of the analysis related to the effect of perceived scarcity strategies on involvement are in line with several studies conducted previously, namely Wang and Choi (2022) [73] and Koch and Benlian (2015) [104] showing that perceived scarcity strategies have a positive influence on involvement. In this case, scarcity can arouse individuals through a sense of competition with a desire to win—perceived match as an essential technique for expressing the effect of scarcity on affective reactions to a promotion. The anchor will utilize competition among fellow viewers to increase involvement, such as highlighting the power of advertising by giving away a product for free to one selected customer. Thus, the anchor successfully created the scarcity strategy as one of the strategies that can increase involvement.

The Effect of Perceived Scarcity on Impulsive Purchase Behavior: H4

The effect of perceived scarcity strategies on impulse buying behavior differs from the findings of previous research conducted by Chen et al. (2022) [28]. In this case, stimuli related to scarcity strategies will strongly respond to impulse buying behavior if mediated through involvement. It is caused by uncertainty, increased involvement, and an attempt to escape these worries by impulse purchasing.

The Effect of Immersion on Involvement: H5

The results of the analysis related to the effect of immersion on involvement are in line with several studies conducted previously, namely Haimson and Tang (2017) [83] and Carù and Cova (2006) [101], showing that immersion has a positive influence on involvement. Immersion is one of the driving forces for participation. When individuals experience involvement in a particular object, they spend a lot of time, physical effort, and mental energy on it. An attractive, entertaining, and memorable anchor can generate high immersion. The audience will be carried away, resulting in a tendency to get involved by spending a lot of time on the site. Thus, the immersion created by the anchor can significantly influence the involvement.

The Effect of Immersion on Impulsive Purchase Behavior: H6

The analysis results related to the effect of immersion on impulse buying behavior differ from previous research conducted by Chen et al. (2022) [28]. Like scarcity strategies, marketing strategies in the form of immersion will provide a solid response for impulse buying behavior if mediated through involvement. The inability of the anchor to increase audience engagement causes consumers' focus on impulse purchases to be low.

The Effect of Involvement on Impulsive Purchase Behavior: H7

The results of the analysis related to the effect of involvement on impulse buying behavior are in line with several studies conducted previously, namely Jones et al. (2003) [95], Liang (2012) [97], and Chen et al. (2022) [28] showing that involvement has a positive influence on impulse buying behavior. Promotional activities have a substantial effect on impulse purchases [102]. The anchor can carry out promotional activities by giving a giveaway to one of the viewers, which increases consumer involvement when watching the anchor on the TikTok Live feature. The higher the consumer's product involvement, the higher their impulse buying behavior [97].

V. CONCLUSIONS

This study provides different findings from previous research by Chen et al. (2022) [28], which shows that marketing strategies in the form of perceived anchor attributes only have a positive and significant effect on impulse buying behavior but have no impact on involvement and involvement also does not mediate between perceived anchors and impulse buying behavior. In this case, we assume that the professional attitude of the anchor in explaining the product's appearance, attractiveness, and similarity of physical characteristics with the anchor can encourage them to make impulse purchases but does not result in involvement with the stimuli provided by the anchor. This means anchor attributes alone cannot influence involvement, but other stimulants, such as price promotions, mood, and product scarcity, are needed to

encourage consumers to engage. In addition, we found that scarcity and immersion do not significantly directly affect impulse buying behavior. However, scarcity and immersion strategies have a significant direct influence on involvement and a significant indirect effect on impulse buying behavior through involvement. In this case, involvement is an important thing that anchors need to pay attention to encourage consumers' impulse buying behavior because, with a sense of involvement, it will be able to produce impulse buying behavior effectively and optimally.

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