

Factors Driving Consumer Impulse Buying On Fashion Products at TikTok Live

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ABSTRACT:

The TikTok live-streaming commerce trend is swiftly gaining popularity in Indonesia, with numerous local fashion brands effectively capitalizing on this opportunity to boost their sales within a short timeframe. Previous research suggests that impulsive buying behavior serves as the underlying factor for this phenomenon. Hence, this research was carried out to investigate consumer behavior in live-streaming commerce, aiming to assist small-scale fashion businesses in enhancing their sales. The Stimulus Organism Response (SOR) Model uses price promotion, promotion time limit, streamer-consumer interaction, and consumer-consumer interaction to influence the consumer's impulsive buying by perceived risk. The quantitative approach collected 445 data from Indonesia TikTok active users who have watched a fashion broadcast and have purchased during the broadcast. The result found that perceived risk significantly affects consumer impulsive buying behavior. The price promotion, promotion time limit, and consumer-consumer interaction were found to have a strong influence on perceived risk. Then, perceived risk-mediated promotion time limit and impulsive buying decision. It means that promotional time limits indirectly affect impulsive buying decisions. Thus, developing effective price promotion, promotion time limit, and consumer-consumer interaction strategy to drive their perceived risk making a purchase, and arrange an impactful promotion time limit tactic.

Keywords:

SOR Model, Impulse Buying, Perceived Risk, TikTok Live, Fashion Products

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1. INTRODUCTION

Live streaming commerce is a new marketing channel developing rapidly. In April 2022, the total number of active users of TikTok in Indonesia increased by 7.6% to 99.1 million from January 2022, namely 92.07 million (Rizaty, 2022; Nuryama, 2022). A study from BCG reports shows that the market opportunity (Gross Merchandise Value/GMV) of TikTok in Indonesia will increase from USD 6.5 billion in 2022 to USD 27.3 billion in 2025, with a 62% enhancement (TikTok, 2022). It shows that TikTok, a new marketing channel, has a large market potential in Indonesia. The rapid development can open up new business opportunities in the digital realm, especially in the fashion industry. This industry is the largest market segment, representing 31% of Indonesia's total e-commerce market revenue (ecommerceDB, 2022). Even in 2022, the fashion industry in Indonesia is projected to reach US\$9,300 million, with an annual growth rate (AGR) of 4.21% with a projected market volume of US\$10,526 million in 2025 (Aurel, 2022).

Many local fashion brands that adopted TikTok Live have significantly increased their sales in just a few hours, like Jiniso and Swepo. The reason for this phenomenon is the seller's ability to deliver product information and persuade consumers to purchase (J. Chen & Zhou, 2022). In digital commerce, the seller's competencies in product knowledge, describing product features, and demonstration satisfied consumer needs in the information collection stage. Moreover, sellers often offer attractive promotions to stimulate consumer price sensitivity, such as giving huge discounts only for a short time. Limited time creates time pressure which encourages a consumer to purchase directly. This phenomenon is identified as an impulsive purchase, an unplanned purchase resulting from seller stimulus to drive sales (Applebaum in Lee & Chen, 2021). However, as this behavior is irrational, consumers may experience risk affecting their behavior. Therefore, the seller must identify how the external stimulus creates consumer perception of risk and how it affects impulsive behavior.

Mehrabian and Russell (1974) proposed the Stimulus Organism Response (SOR) Theory to examine how individual perceptions and behavior respond to external stimuli in retail and psychology (C. H. Lee & Chen, 2021). Many studies that have examined the same topic used the SOR Model regarding live-streaming commerce (Xu et al., 2020; Huang & Suo, 2021; Lee & Chen, 2021; Sanjaya et al., 2023). Hence, this study was undertaken to pinpoint the elements influencing impulsive buying tendencies on TikTok LIVE. The aim is to suggest marketing strategies for small fashion businesses to enhance their sales, employing the Stimulus, Organism, Response (SOR) Model approach. In this research, external stimuli will involve interpersonal interaction and price promotion. These stimuli contribute to the formation of a risk perception as an organism, influencing impulsive buying decisions as a response. The results of this study can provide valuable assistance to local small fashion brands in boosting their sales through TikTok Live. Furthermore, it aligns with previous research on impulsive online purchasing and live-streaming commerce in Indonesia, with a specific focus on TikTok Live

2. LITERATURE REVIEW

2.1 Stimulus Organism Response Model

The literature review should discuss the past theoretical and empirical studies which become the basis of the current studies. The authors are encouraged to review recent articles and from reputable journals. Where applicable, model and hypothesis development should be developed and presented.

According to Ming et al. (2021), the SOR Model has developed theories and models. This model adapts the stimulus-response theory proposed by Woodworth (1929), the model theory is extended theoretically by defining the SOR Model as a derivative model of a psychology theory by adapting traditional stimulus, organism, and response variables. A stimulus is an environment that can affect a person at a particular time, namely products, brands, logos, packages, price, store environment, word-of-mouth communications, or others. Fu et al., (2020) defined the organism as a person's emotive and cognitive system and prior experience to process a stimulus as if someone's intention, beliefs, motives, values, and others. The response is a set of stimuli and an individual's internal processes to which a person responds or acts.

In short, the SOR Model studies human behavior as a response based on stimuli's influence at a particular time and how individuals process the stimuli received to a behavior. This model has been used to invoke consumer behavior in traditional retail and online retail. Chen & Zhou (2022) applied the SOR Model to study how situational factors affect impulse buying behavior on mobile auctions. Furthermore, to examine the impact factors on individual impulse buying in mobile commerce, Zheng et al. (2019) use the model. Huang & Suo (2021) and Sanjaya et al. (2023) adapted the SOR Model to examine factors affecting consumer impulse buying on Taobao.com. Based on the explorative character of the SOR Model in identifying external factors driving consumer behavior, the author applied this model to identify external factors affecting consumers' impulse buying decisions on TikTok Live.

2.2 Impulsive Buying Decision

A study proposed by Applebaum shows that impulse purchases are unplanned purchases based on stimuli consumers feel at the store (C. H. Lee & Chen, 2021). It happens when consumers don't plan any purchases before entering the store, but as soon as they receive store stimuli, they instantly make a purchase. It reduces consumers' quality of purchase decisions. It forces them to make irrational decisions that disrupt the normal shopping process and are incredibly hedonistic (Febrilia et al., 2024). Past studies indicate that external and internal factors are the reason for that behavior (Zhao et al., 2021). The external factors will deepen in this study to explore the online impulse buying decision because it is identified as more likely to cause impulse purchases (Wu et al., 2020 in Ming et al., 2021).

In the online environment, stimuli successfully urge consumers to shop (Chen & Yao, 2018). The factors identified from previous studies are streamer attractiveness, parasocial interaction, information quality (Xu et al., 2020), price promotion, interpersonal interaction, visual appeal (Huang & Suo, 2021; Sanjaya et al., 2023), anchor characteristics, online comment, logistic service quality, the promotion incentive information, and promotion time limit (Zhang et al., 2022) proven to have a significant effect on impulsive buying behavior at live streaming commerce. The live-streaming environment that allows interaction between users may provide product information, attract consumers by seller persuasiveness, and provide exciting promotions are very tempting for consumers. Besides, online shopping is risky and suspicious (Abrar et al., 2017). Impulsive buying could lead to disappointment as the purchase is spontaneous, which forms perceived risk, consumer awareness of insecurity, and contradiction from purchasing products online (Dowling & Staelin, 1994). Therefore, this study will use perceived risk as a mediating variable to explain how it will affect consumers' impulse buying decisions.

2.3 Perceived Risk

Online purchases tend to have a higher risk than traditional shopping. Consumers' limitation in gathering information creates uncertainty and makes the purchase riskier and more suspicious than traditional shopping (Li & Huang, 2009). The uncertainties may arise from the lack of consumers' product knowledge, sense of the product value, interaction with the seller, or anxiety about doing online transactions. Consumer perceived risk may be financial risk, product risk, and convenience risk. Financial risk refers to monetary loss or information leaked from an online transaction; product risk is the uncertainty of whether the product arrives satisfied or disappoints the expectation; and convenience risk is defined as a loss of time in searching, comparing, and purchasing online products (Abrar et al., 2017). Tham et al. (2019) believe that consumer perception of risk will affect their purchase decision as it influences consumer evaluation of the desired product and their choices. Live-streaming commerce that gives so many external stimuli encourages and suppresses consumers to make instant decisions would likely create perceived risk. As impulsive buying behavior minimizes the consumers' cognitive control ability, perceived risk will highly influence consumers' cognitive process (Nyrhinen & Sirola, 2024) in making decisions. If consumers perceive high risk, they avoid purchasing, and vice versa (Emad Y. Masoud, 2013). When the consumer perceives the risk is low, they tend to purchase. Past studies revealed that perceived risk significantly influenced consumers' online impulse buying decisions (Nyrhinen & Sirola, 2024; Abrar et al., 2017; Masoud, 2013). Hence, the author proposed the hypotheses:

H₁: Perceived risk significantly affects consumers' impulse buying decisions.

2.4 Price Promotion

Price promotion is a very effective promotion tool. It allows the seller to engage the audience by influencing consumers' price sensitivity and encouraging purchasing power (Zhang et al., 2022). There are two types of promotion: directly lowering the sales price or giving additional income such as gifts, assurance, or others (Huang & Suo, 2021). In live-streaming commerce, the seller usually gives a direct price, such as a significant discount that makes the product price much cheaper than usual. Park et al. (2012) revealed that consumers tend to impulse purchase if the price is unusually attractive (Zhao et al., 2021). In live-streaming commerce, massive price promotions are only available in a very short time to push consumers to make instant purchases. Normally, the seller merely sets a few minutes for the discounted price. This effort creates time pressure. As they closer to the end of the limited time, consumers may sense encouragement to instantly buy the product, which may lead them to displeasure as a result of their purchase. An excellent price promotion in a short time may reduce the purchase benefit from their transaction and may be lost or unworthy (Abrar et al., 2017), which refers to financial risk. The purchase can be worthless due to the product received not performing as expected (Masoud, 2013). Price promotion offered in a limited time may create consumer perception of risk, especially in financial and product risk. As discussed, the hypotheses are:

H₂: Price promotion significantly affects consumers' perceived risk.

H₃: Promotion time limit significantly affects consumers' perceived risk.

2.5 Interpersonal Interaction

Live-streaming commerce that allows real-time interaction enables interaction between sellers and consumers, and between consumers. Sellers act as the brand or product representatives (Lee & Chen, 2021) to deliver product information and interact with viewers. The interactivity environment allows consumers to experience the shop atmosphere at home, fun interaction with the streamers, and consumption patterns (Xu et al., 2020). Those interactions enable consumers to experience traditional shopping by providing interaction with the sellers, interacting with products from seller explanation, and transaction convenience. On the other hand, this interaction could form consumers' perceptions of product risk. The seller's explanation in live broadcasting could differ from the actual product the consumer received. The reason is that online shopping limits consumers' ability to evaluate products properly (Zaman, S. I & Kusi-Sarpong, 2024). This limitation may create a misunderstanding that leads consumers to create risk perception, especially in product risk. Consumers might wonder if their chosen product will deliver the same product or a different product that does not satisfy their expectations (Abrar et al., 2017). However, live-streaming commerce also supports consumer interaction through the live broadcast's comment features. Consumers are allowed to communicate and share information or experiences regarding the products. Some satisfied consumers often share their experiences in the comment section. This experience could increase consumers' understanding of the product and realize the adequate reasons to buy (Chen & Zhou, 2022). Although some consumers may not express their experience through the comment section, that results in convenience risk, such as the potential time loss in searching, comparing, and purchasing the product (Abrar et al., 2017). As the interpersonal interaction between streamer-consumer and between consumers developed, it would affect consumer perception of risk. Accordingly, the following hypotheses are:

H₄: Consumer-streamer interaction significantly affects consumers' perceived risk.

H₅: Consumer-consumer interaction significantly affects consumers' perceived risk.

2.6 The Perceived Risk Mediation Role

Due to the inherent risks associated with online purchases, consumers' perceptions of risk can significantly influence their decisions to buy. The consumer's perception of risk is shaped during the organism process by external stimuli such as price promotions, perceived time constraints, interactions with the streamer, and interactions with other consumers. These factors can amplify the likelihood of consumers experiencing uncertainties about their purchases (Masoud, 2013). In the context of live-streaming commerce, the environment is saturated with various external stimuli that pressure consumers to make quick decisions, diminishing their decision-making abilities. The allure of tempting prices creates a perceived benefit that may be too attractive to resist, and the persuasiveness of the seller encourages instant purchases, leading to potentially risky transactions.

As discussed earlier, these risks may encompass financial, product-related, and convenience issues, influencing consumer satisfaction or disappointment with the desired products. Risk perception plays a crucial role in shaping consumer evaluations, choices, and purchase decisions (Nyrhinen & Sirola, 2024; Zaman, S. I & Kusi-Sarpong, 2024). Higher levels of risk perception may deter consumers from making a purchase, while lower levels may make them more inclined to buy. Consequently, perceived risk acts as a mediating factor between

price promotions, perceived time constraints, streamer-consumer interaction, consumer-consumer interaction, and impulsive buying decisions. Consumers will tend to consider the risk they may get before deciding on any purchases. Thus, the perceived risk would mediate price promotion, perceived time limit, streamer-consumer interaction, and consumer-consumer interaction toward consumers' impulsive buying decisions.

H₆: Price promotion affects impulsive buying decisions through perceived risk.

H₇: Promotional time limit affects impulsive buying decisions through perceived risk.

H₈: Consumer interaction with the seller affects impulsive buying decisions through perceived risk.

H₉: Interaction between consumers affects impulsive buying decisions through perceived risk.

2.7 Research Model

Based on the stated hypotheses, the research model obtained is shown as follows:

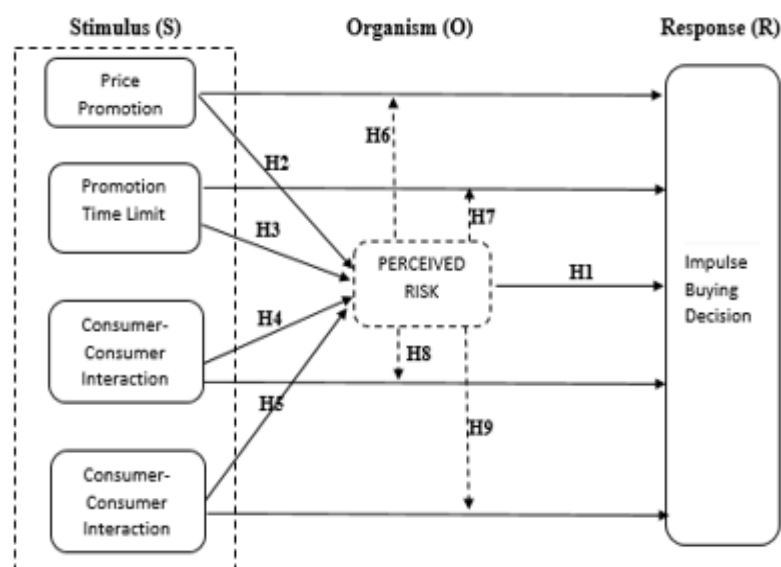


Figure 1. Research Model

Figure 1 shows the relationship between external stimulus, an organism, and response variables. Price promotion, promotion time limit, consumer-streamer interaction, and consumer-consumer interaction as external stimuli will form perceived risk as a consumer's organism. Then, the perceived risk will determine consumer response, namely impulsive buying decisions. Furthermore, the perceived risk will influence price promotion, promotion time limit, the interaction between consumer and streamer, and the communication between consumers. From the proposed model, the external stimuli are expected to affect consumers' perceived risk that may affect their impulsive buying decisions in TikTok Live.

3. METHODS

3.1 Research Design

Research design is a direction for writers in conducting research. According to Hair et al. (2020), in making a research design the writer must choose a design that can provide the information needed to answer research questions and hypotheses and can help complete research efficiently. In this study, the authors used a descriptive research design. Saunders et. al., (2019) explained that the purpose of descriptive research is to collect data that can provide a clear picture of the characteristics of the events, people, or situations studied. Using this research design, researchers will collect data to describe the characteristics of the existing phenomena regarding impulsive buying behavior among consumers on TikTok LIVE. The variables used are consumer impulse buying, perceived risk, price promotion, promotion time limit, and interpersonal interaction between consumer and seller-consumer.

3.2 Sample and Data Collection

The quantitative study uses convenience sampling due to the large population and difficulty in determining the sample size. This method allows the author to use elements closest to the required criteria and be willing to contribute to providing the information needed for research purposes (Hair et al., 2020) to obtain a minimum number of respondents at 400 respondents.

The author uses a questionnaire via Google Forms distributed online via social media to collect data. This questionnaire contains two parts: respondent profile and questions related to testing the relationship between variables. Then 445 data was collected from Indonesia TikTok active users who have watched TikTok Live fashion broadcast and have made purchases during the broadcast. Below is the respondent's profile.

Table 1. Respondents Profile

Gender		
Female	417	93,7%
Male	28	6,3%
Total	445	100%
Age		
< 18 years	10	2,2%
18 - 22 years	360	81,0%
23 - 27 years	64	14,4%
28 - 33 years	6	1,3%
> 33 years	5	1,1%
Total	445	100,0%
Occupation		
Student	369	82,90%
Employee	45	10,1%
Entrepreneur	15	3,4%
Others	16	3,6%
Last Education		
Senior High School/Equal	321	72,1%
Diploma	18	5%
Bachelor Degree	102	22,9%

Magister	4	0.9%
Income /month		
< 1.000.000	265	59,6%
1.000.001 - 3.000.000	133	29,9%
3.000.001 - 6.000.000	40	9%
6.000.0001 - 9.000.000	3	0,7%
> 9.000.000	4	0,9%
Fashion Purchase Frequency in a Month		
1 - 3 times	351	78,9%
4 - 6 times	76	17,1%
> 6 times	18	4%

From Table 1, most of the respondents are females aged 18-22 years old who are students. They are senior high school or equal graduates, obtain under IDR 1.000.000 per month, and make fashion purchases at TikTok Live 1-3 times a month. Thus, this study will rely on their behavior.

3.3 Measurement Scale

On the questionnaire that was distributed, the questionnaire instrument uses a Likert scale from one to five, namely strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). Each variable contains 4 to 5 questions that have to be answered. The results are collected and will be calculated using SmartPLS 3 to analyze the measurement model, and inner model, and test the proposed hypotheses.

Table 2. Measurement Scale

Variable	Items	Measurement Items	Source
Price Promotion (PP)	PP1	Discounted prices offered in the live broadcast are very cheap.	Huang & Suo, (2021); Lee & Chen, (2021); Zhang et al., (2022)
	PP2	Discount price at TikTok Live allows me to get a more affordable price.	
	PP3	I only sometimes make purchases when there are discounts.	
	PP4	The discount price encourages me to immediately purchase.	
Perceived Time Limit (PTL)	PTL1	Streamers only set a very short promotional time.	Zhang et al., (2022); Huang & Suo, (2021)
	PTL2	I only have limited time to decide whether to buy the product or not.	
	PTL3	I feel like the promotion time will end very soon.	
	PTL4	The closer to the end of the time limit, the stronger time pressure immediately pushes me to buy.	
Consumer-Streamer Interaction (CSI)	CSI1	Streamers are joyful to interact with me.	Xu et al., (2020); Huang & Suo, (2021)
	CSI2	Streamers respond to my questions.	
	CSI3	I earn a good recommendation from streamers.	
	CSI4	I think streamers have an enjoyable style to promote their product.	
	CSI5	I think the streamers have an attractive appearance.	

Consumer- Consumer Interaction (CCI)	CCI1	I like to share my shopping experience with other consumers in the comment section.	Huang & Suo, (2021)
	CCI2	I can share my shopping experience with another consumer in the comment section smoothly.	
	CCI3	Other consumers' shopping experience helped me decide on my purchase.	
Perceived Risk (PR)	PR1	I am scared the product didn't match my expectations.	Huang & Suo, (2021)
	PR2	I am scared the after-sales service is not satisfactory.	
	PR3	I sense safe shopping while watching TikTok Live.	
	PR4	I sense the price is higher than in other markets.	
Impulse Buying Decision (IBD)	IBD1	I make a spontaneous purchase.	Hashmi et al. (2019)
	IBD2	I make unplanned purchases.	
	IBD3	I didn't intend to purchase before entering the live-streaming room	
	IBD4	I could not resist making this purchase while watching the broadcast.	

3.4 Data Analysis

The data collected was analyzed by SmartPLS application by using a measurement model, structural model, and hypothesis test. According to Hair et al. (2017), measurement theory is used to measure latent variables (construction) or outer research models. This model is done by testing the data's validity and reliability. Validity will measure the correctness of the respondent's answers, while reliability measures the level of similarity or identical respondents' answers to almost the same questions (Burns et al., 2017). The structural theory measures the interrelationship between latent variables to show constructs and their relationship in the proposed model (Hair et al., 2017). From the same references, the structural analysis will identify the F Square (effect size), Q Square (predictive relevance), R Square values, hypothesis test, and Goodness of Fit (model predictive relevance). The next step is the hypothesis test. This test was measured to confirm the proposed hypothesis regarding the factors used by calculating p-values. For the two-tailed test, the value can satisfy three significance levels, namely significance level 10% (p values < 0.10), 5% (p values < 0.05), and 1% (p values < 0.01), and recommended using the assumption of 5% significance level so this study will use 95% of significance level (Hair et al., 2017). Thus, the direct and indirect hypotheses will be tested with this rule.

4. RESULTS AND DISCUSSION

4.1 Measurement Analysis

Data reliability and validity are tested to measure the outer model. To test reliability, Cronbach's Alpha and composite reliability values must exceed 0.7 to be estimated as reliable (Hair et al., 2017 dan Nunnally, 1978 in Suhartanto, 2020). Table 3 presents that all variables have a greater value than 0.7 on Cronbach Alpha except price promotion and perceived risk. At the same time, the composite reliability value for all variables satisfied the estimated value. Thus, the reliability of the data used is acceptable. For the validity test, the Average Variance Extracted Value (AVE) is expected to exceed 0.5. In Table 3, all variables above the expected value satisfied convergent validity. The factor loading with a value of 0.5 is acceptable as long

as other constructs have a higher value (Hair et al., 2019). As shown in Table 3, all constructs met the expected value. Based on the analysis, all constructs are valid and reliable and fulfill the evaluation criteria of the outer model.

Table 3. Measurement Scale

Variables	Indicators	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Price Promotion (PP)	PP2	0,623	0,518	0,804	0,672
	PP4	0,951			
Perceived Time Limit (PTL)	PTL2	0,854	0,729	0,877	0,784
	PTL3	0,916			
Consumer-Streamer Interaction (CSI)	CSI1	0,738	0,814	0,869	0,572
	CSI2	0,717			
	CSI3	0,835			
	CSI4	0,767			
	CSI5	0,718			
Consumer-Consumer Interaction (CCI)	CCI1	0,917	0,821	0,916	0,848
	CCI2	0,925			
Perceived Risk (PR)	PR1	0,747	0,688	0,825	0,612
	PR2	0,844			
	PR4	0,752			
Impulse Buying Decision (IBD)	IBD1	0,817	0,834	0,883	0,666
	IBD2	0,846			
	IBD3	0,766			
	IBD4	0,833			

Furthermore, to support the validity test, the data discriminant validity test through the Fornell-Larcker analysis. Fornell-Larcker (1981) stated that a construct must share a different measurement with its measure than other constructs, and variance due to measurement error should be lower than the variance explained by the construct (Hair et al., 2019). From Table 4, every construct has different and higher measures than other constructs, so the convergent validity is satisfied.

Table 4. Fornell-Larcker Analysis

	PP	PTL	CSI	CCI	PR	IBD
PP	0.743					
PTL	0.269	0.810				
CSI	0.168	0.224	0.756			
CCI	0.074	0.203	0.494	0.920		
PR	0.190	0.321	0.127	0.182	0.784	
IBD	0.066	0.154	0.294	0.418	0.161	0.809

4.2 Inner Model Analysis

F Square, Q Square, R Square, and path coefficient are used to measure the inner model (Hair et al., 2017). R Square is categorized into weak (0.19), moderate (0.33), and strong (0.67) (Garson, 2016). Table 5 shows that the variable of price promotion, promotion time limit, streamer-consumer interaction, and consumer-consumer interaction has a small effect of 12,8% on perceived risk, while perceived risk has no effect on the impulse buying decision, namely 2,6%. (Hair et al., 2020) state that Q square values must be more than zero to indicate the structural model's predictive accuracy, categorizing 0 as a small value, 0.25 as average, and 0.5 as great predictive relevance. Table 5 shows that Q square values are above 0, indicating that the model has a small predictive relevance value of 0,068 and 0,013. Furthermore, Goodness of Fit to measure model feasibility with 3 criteria, namely 0.1 (weak), 0.25 (medium), and 0.36 (strong) (Garson, 2016). As shown in Table 5, Goodness of Fit value is classified into medium model feasibility.

Table 5. GoF, R Square, and Q Square

Variable	Average Variance Extracted (AVE)	R Square	Q Square
PP	0,672		
PTL	0,784		
CSI	0,572		
CCI	0,848		
PR	0,612	0,128	0,068
IBD	0,666	0,026	0,013
Average	0,692	0,077	
AVE x R Square		0,053	
GoF		0,231	

4.3 Hypothesis Test Result

Table 6 shows the path coefficient and path significance of the stated hypothesis. Hair et al. (2017) state that the path coefficients' significance value is measured by the bootstrap method with a 5000 samples size. They proposed that p values for the two-tailed test can satisfy three significance levels, namely significance level 10% (p values < 0.10), 5% (p values < 0.05), and 1% (p values < 0.01), recommend using the assumption of 5% significance level so this study will use it. Table 6 shows that H1 proposed perceived risk significantly affect impulse buying decision is accepted (P Values= 0.001, p<0.05). H2 that proposed price promotion significantly affect perceived risk is accepted (P Values= 0.025, p<0.05). H3 proposed promotion time limit significantly affect perceived risk is accepted (P Values = 0.000, p<0.05). H5 that proposed consumer-consumer interaction significantly affect perceived risk is accepted (P Values = 0.023, p<0.05). As well as H7 that proposed promotion time limit indirectly affect consumer' impulse buying decision through perceived risk is accepted (P Values = 0.007, p<0.05). However, the result found that H4 is rejected, namely consumer streamer interaction doesn't significantly affect perceived risk (P Values = 0.812, p>0.05).

Table 6. Path Coefficient

Hypothesis		Direct			Result
		β	T Values	P Values	
H1	PR -> IBD	0.161	3.437	0.001	Accepted
H2	PP -> PR	0.111	2.244	0.025	Accepted
H3	PTL -> PR	0.268	5.360	0.000	Accepted
H4	CSI -> PR	-0.014	0.238	0.812	Rejected
H5	CCI -> PR	0.126	2.272	0.023	Accepted

In addition, the indirect hypothesis test is tested. As shown in table 7, H7 that proposed indirect effect of perceived risk in promotion time limit and impulse buying decision (P Values = 0.007, $p < 0.05$) is accepted. However, the result shows that, H6 proposed indirect effect of perceived risk in price promotion and impulse buying decision (P Values = 0.072, $p < 0.05$) is rejected, H8 proposed that indirect effect of perceived risk in streamer-consumer interaction and impulse buying (P Values = 0.828, $p > 0.05$) is rejected, as well as H9 proposed that indirect effect of perceived risk in consumer-consumer interaction and impulse buying (P Values = 0.111, $p < 0.05$) is rejected. Thus, the only variable that indirectly affect consumer impulse buying on purchasing fashion product at TikTok Live is promotion time limit through perceived risk.

Table 7. Mediating Effect Result

Hypothesis		Direct			Result
		β	T Values	P Values	
H6	PP -> PR -> IBD	0.018	1.800	0.072	Rejected
H7	PTL -> PR -> IBD	0.043	2.713	0.007	Accepted
H8	CSI -> PR -> IBD	-0.002	0.217	0.828	Rejected
H9	CCI -> PR -> IBD	0.020	1.594	0.111	Rejected

Table 8 illustrates the outcomes of examining how variables influence each other, including direct, indirect, and overall effects. Meanwhile, Figure 2 provides an overview of the direct connections among the variables under scrutiny.

Table 8. Hypotheses Test Result

Hypothesis		Total Effect			Result
		β	T Values	P Values	
H1	PR -> IBD	0.161	3.351	0.001	Accepted
H2	PP -> PR	0.111	2.258	0.024	Accepted
H3	PTL -> PR	0.268	5.352	0.000	Accepted
H4	CSI -> PR	-0.014	0.239	0.811	Rejected
H5	CCI -> PR	0.126	2.252	0.024	Accepted

H6	PP -> IBD	0.018	1.798	0.072	Rejected
H7	PTL -> IBD	0.043	2.699	0.007	Accepted
H8	CSI -> IBD	-0.002	0.216	0.829	Rejected
H9	CCI -> IBD	0.020	1.553	0.121	Rejected

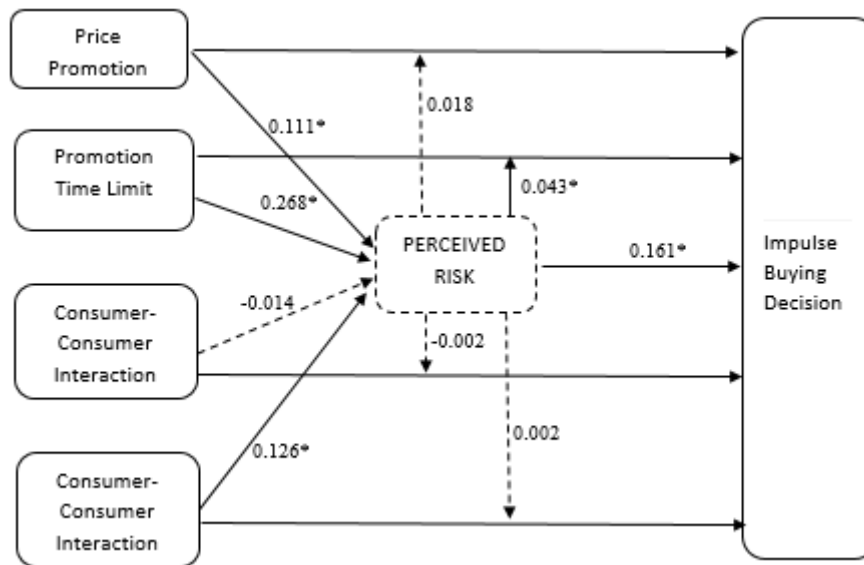


Figure 2. Summary of the tested model

The confirmed hypotheses include H1, H2, H3, H5, and H7, while rejected hypotheses consist of H4, H6, H8, and H9. In summary, the variable most significantly associated with generating consumer perceived risk is the time limit for promotions. Furthermore, it also indirectly impacts impulsive purchasing decisions through perceived risk.

5. DISCUSSION

This study examines consumer behavior in live streaming commerce, especially in TikTok Live. Using the Stimulus Organism Response Model with price promotion, promotion time limit, streamer-consumer interaction, consumer-consumer interaction, perceived risk, and impulsive buying decision, the author examines Indonesian consumers' buying behavior in purchasing fashion products at TikTok Live. The findings are discussed as follows.

First, the finding is that perceived risk significantly affects impulse buying decisions. This result supports previous studies that stated consumer perception of risk affects their impulsive buying behavior in online shopping (Masoud, 2013; Abrar et al., 2017; Tham et al., 2019; Xu et al., 2020). As a result, this shows a significant positive effect, which means greater consumer perception of risk strongly influences how they decide impulsive purchase at TikTok Live. The uncertainty of receiving the expected or disappointing product will influence their cognitive process in evaluating the product. Thus, to increase sales, sellers must decrease consumer perceived risk to stimulate their purchase by providing good quality items, setting a reasonable price, communicating detailed information and demonstration, or others.

Second, this study found that price promotion, promotion time limit, and consumer-consumer interaction significantly influence consumer perceived risk as well as proposed in previous studies (Huang & Suo, 2021; Sanjaya et al., 2023). Consumers perceived that those factors might enable them to experience risk from their purchase. Therefore, sellers must convince consumers that price promotion would give them greater benefits, ensure they comprehend the promotional program before the promotion time limit starts, and engage with other consumers who have purchased to show their experience regarding the product. Moreover, streamer-consumer interaction does not significantly affect impulsive buying behavior. The reason may be that consumers assess that the streamer's competencies in delivering product information, explaining product features, demonstrating the product, persuading, or recommending do not help evaluate the product. Thus, in promoting the product, the streamer must actively interact with consumers in provide information to help consumers shop.

Third, the study found that perceived risk has indirectly affected promotion time limits to impulse buying decisions. When the promotional program is developed in a tight time, it will increase consumers' perceived benefits that decrease their perceived risk, resulting in impulse buying decisions. The result also shows that the promotion time limit positively impacts impulsive buying, which means that the greater promotion time limit will strongly affect consumers to make impulsive purchases. Perceived risk was also found to not mediate between price promotion, streamer-consumer interaction, consumer-consumer interaction, and impulsive buying decisions. The consumer perceived that price promotion, streamer-consumer interaction, and consumer-consumer interaction would bring displeasure for them. So, they prevent us from making any purchases. Furthermore, sellers must reduce the perceived risk to encourage consumers to purchase.

Moreover, perceived risk was also found to not mediate price promotion, streamer-consumer interaction, and consumer-consumer interaction to impulsive buying decisions that differ from the previous study that differ from previous study (Huang & Suo, 2021; Sanjaya et al., 2023). Consumers have perceived that price promotion will highly cause them to sense the financial risk so they avoid buying. The lack of streamer-consumer interaction establishes disappointment which erases their purchase intention. Then, the consumer-consumer interaction does not have the strong urge to purchase compared to other stimuli. So, they prevent not making any purchases. Thus, the seller should assure the consumer that the discounted price is profitable, increase seller responsiveness to consumer comments, and provide testimony from satisfied consumers to fill in the information needed.

In conclusion, the findings of this study support previous studies regarding impulsive online buying in live-streaming commerce. However, consumer-streamer interaction does not significantly affect perceived risk, as well as a price promotion, streamer-customer interaction, and customer-customer interaction have no significant effect on impulse buying decisions by the perceived risk different from previous studies (Huang & Suo, 2021; Sanjaya et al., 2023). Furthermore, this study only focused on examining consumer behavior in purchasing fashion products at TikTok Live, which may be the reason for the different findings. In addition, the demography of this study is dominated by teenage females (18-22 years old), which may affect the result of this study. Thus, for future research, the author suggests that the study can be conducted in the general industry to provide a broader result, and hopefully, the respondents can be more prevalent.

6. LIMITATIONS

As stated before, this research has several restrictions. First, this research only focused on determining consumer behavior in purchasing fashion products at TikTok Live. Live streaming commerce is a huge industry that should be examined more. So, the result provided is only for the significant field. Second, the study lies in sample demography and size. Most of the respondents of this study are teenage females (18-22 years old). The findings rely on their behavior in purchasing fashion products. Furthermore, future studies can obtain prevalent respondents so the results proposed can reflect the whole population. Lastly, for further study, researchers could find out how price promotion, streamer-consumer interaction, and consumer-consumer interaction don't significantly affect impulse buying decisions by perceived risk.

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