

The Dynamics of Social Commerce: The Effect of Live Shopping Flash Sale Interactivity on Spontaneous Purchase Decisions

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ABSTRACT

The development of digital commerce through TikTok Shop has encouraged the use of Flash Sale promotional strategies that offer products at low prices for a limited time and in limited quantities, potentially triggering spontaneous purchases. This study aims to analyze the effect of Flash Sale on Impulsive Buying among consumers of Focallure products on TikTok Shop. The study employed a quantitative approach using an explanatory research method. Data were collected through questionnaires from 100 respondents selected using purposive sampling and analyzed using IBM SPSS 32. The data analysis included validity, reliability, normality, simple linear regression, coefficient of determination, and t-test. The results show that consumers' perceptions of Flash Sale were categorized as very high, with a percentage of 85.20%, while Impulsive Buying reached 86.12%. The regression results indicate that Flash Sale has a positive and significant effect on Impulsive Buying, with a regression coefficient of 0.585, a t-value of 9.040, and a significance level of <0.001 . The coefficient of determination of 0.455 indicates that Flash Sale explains 45.5% of the variance in Impulsive Buying, while the remaining 54.5% is influenced by other factors outside the research model. These findings indicate that the Flash Sale mechanism serves as a promotional stimulus that can encourage impulsive purchases among Focallure consumers on TikTok Shop.

Keywords: Flash Sale, Impulsive Buying, TikTok Shop, Focallure.

INTRODUCTION

The development of digital technology has significantly transformed the landscape of electronic commerce (e-commerce) toward the era of social commerce, in which social media platforms are no longer merely used for social interaction but have also evolved into interactive channels for economic transactions. This phenomenon is marked by the rapid growth of live streaming commerce across various platforms, particularly TikTok Shop. Real-time interaction between sellers (hosts) and viewers creates an immersive shopping experience through live product demonstrations, spontaneous price negotiations, and dynamic visual presentations. This marketing approach has proven effective in fostering consumer engagement and triggering sudden purchase intentions (Pramesti et al., 2024; Pathia et al., 2024). For small and medium-sized enterprises (SMEs) and local brands, the live shopping ecosystem has become a vital marketing channel for reaching broader audiences (Pramesti et al., 2024).

In live streaming practices, sales promotion strategies do not operate independently but are closely integrated with real-time interactivity and scarcity-based marketing strategies (Ha et al., 2024). The use of flash sales accompanied by a visual countdown timer creates time pressure that encourages consumers to make decisions without careful planning (Nursafitri et al., 2024). The scarcity of time and product availability generates perceived scarcity and triggers the psychological urge associated with the Fear of Missing Out (FOMO) among consumers (Martiza & Hadi, 2024; Safitri & Prasetyo, 2024). Consequently, anxiety and emotional arousal may emerge and weaken self-control, ultimately leading to spontaneous purchasing behavior or impulse buying (Maula & Putranto, 2025; Singgih et al., 2024).

Theoretically, spontaneous purchasing dynamics in the context of live shopping can be explained through the Stimulus-Organism-Response (S-O-R) framework. External stimuli (Stimulus), such as live streaming interactivity, flash sales, and influencer/host influence, affect consumers' internal emotional and cognitive states (Organism), which subsequently lead to sudden purchasing actions (Response) (Oktavia et al., 2025; Ilyas et al., 2024). Social engagement elements, particularly parasocial relationships between hosts and viewers, also play an important role in strengthening these impulsive responses (Li et al., 2024; Xing et al., 2025). Although studies on live streaming and impulsive buying have grown substantially, much of the existing literature examines promotional features and interactivity separately or focuses on conventional e-commerce settings. A research gap remains concerning how live shopping flash sale interactivity, as a combined stimulus involving real-time interaction and urgency-based promotion, specifically triggers spontaneous purchase decisions for local beauty and skincare products on TikTok Shop. Given that this market segment is largely dominated by Generation Z, whose shopping behavior has distinctive characteristics and may be susceptible to impulsive purchasing tendencies (Singgih et al., 2024; Oktavia et al., 2025), further empirical investigation of this phenomenon is important.

To address this gap, this study employs a quantitative approach with a causal associative research design. Data are collected through a structured survey using questionnaires distributed to consumers of Focallure products who have previously made transactions through TikTok Shop Live Shopping. The data are statistically analyzed to examine the direct effect of live flash sale interactivity on spontaneous purchase decisions.

This study is expected to provide a theoretical contribution by enriching the literature on social commerce through the S-O-R framework, while also offering practical insights for local beauty industry players in designing ethical and effective live streaming marketing strategies.

METHOD

The population in this study comprises all consumers of Focallure products who have either made a transaction or watched Live Shopping sessions on the TikTok Shop platform. The sampling technique employed was non-probability sampling using purposive sampling, in which respondents were selected based on specific criteria relevant to the research objectives (Sekaran & Bougie, 2016). The inclusion criteria for respondents were as follows:

1. Consumers aged at least 17 years who belong to the productive-age/Generation Z group.
2. Have watched Focallure product live streaming sessions on TikTok Shop at least twice within the past three months.
3. Have made a spontaneous purchase decision during a flash sale offer conducted in real time.

The sample size was determined based on the variable-to-indicator ratio guideline recommended by Hair et al. (2019), which ranges from 5 to 10 times the total number of indicators in the research instrument. Based on the 16 formulated indicators, the minimum sample size was set at 160 respondents to ensure adequate statistical power and data representation.

Primary data were collected through a structured digital questionnaire distributed via Google Forms. The research instrument was adapted and measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) (Sugiyono, 2019). The research variables were operationalized as follows:

1. Independent Variable (X): Live Shopping Flash Sale Interactivity

Live Shopping Flash Sale Interactivity was measured by adapting indicators from Ilyas et al. (2024) and Pathia et al. (2024), which were divided into three main dimensions:

1. **Real-time Interaction** the speed of host responses and the level of engagement in the chat section during the promotion.
2. **Perceived Urgency & Scarcity** visual time pressure created through the countdown timer and consumers' perceptions of limited product availability (Maula & Putranto, 2025; Nursafitri et al., 2024).
3. **Visual & Informational Appeal** the clarity of information delivery and live product demonstrations.

2. Dependent Variable (Y): Spontaneous Purchase Decision

Spontaneous Purchase Decision was measured by adapting the dimensions of Impulsive Buying from Martiza & Hadi (2024) and Singgih et al. (2024), which include:

1. **Unplanned Buying** purchases made without prior planning or an initial purchase intention before watching the live stream.
2. **Emotional Arousal** sudden emotional sensations or feelings of excitement that arise during the promotional session.
3. **Cognitive Disregard** the tendency to disregard rational evaluation or personal spending-budget limits.

Before the main analysis was conducted, the questionnaire instrument was tested through a pilot study involving 30 initial respondents outside the main sample:

1. **Validity Test:** The Pearson Product-Moment correlation test was employed. An item was considered valid if the calculated correlation coefficient (r -calculated) was greater than the critical value (r -table) of 0.361 at a 5% significance level ($\alpha = 0.05$) (Sugiyono, 2019).
2. **Reliability Test:** Reliability was assessed using Cronbach's Alpha. A variable was considered reliable if the instrument obtained an alpha coefficient greater than 0.70 (Hair et al., 2019).

The data were processed using statistical software based on SPSS/SmartPLS. The stages of data analysis included:

1. **Descriptive Statistical Analysis:** This analysis was conducted to describe the demographic characteristics of respondents and the general distribution of responses to the research variables (Sekaran & Bougie, 2016).
2. **Classical Assumption Tests:** These included normality, linearity, heteroscedasticity, and multicollinearity tests to ensure that the estimation model met the assumptions of the Best Linear Unbiased Estimator (BLUE) (Ghozali, 2018).

3. **Simple Linear Regression Analysis:** This analysis was conducted to examine the magnitude and direction of the effect of Live Shopping Flash Sale Interactivity on Spontaneous Purchase Decisions.
4. **Hypothesis Testing:** The t-test (partial test) was conducted at a significance level of $\alpha = 0.05$. In addition, the coefficient of determination (R^2) was used to measure the proportion of variance in the dependent variable (Y) explained by the independent variable (X) (Ghozali, 2018; Bollen, 1989).

RESULT AND DISCUSSION

1. Respondent Profile and General Overview of the Research Object

This study focuses on consumers of the local cosmetics and skincare brand Focallure. Focallure is a beauty brand that offers a variety of cosmetic and skincare products, targeting young consumers who actively follow beauty trends. In its development, Focallure has utilized TikTok Shop and its Live Shopping feature as one of its marketing channels to introduce products, interact directly with audiences, and offer various promotions, including flash sales during live streaming sessions.

Data collected through questionnaires resulted in 160 respondents who met the inclusion criteria. The majority of respondents were female (88.8%) and belonged to Generation Z, aged 18–25 years (79.4%). Furthermore, most respondents (67.5%) reported watching Focallure live streaming sessions on TikTok Shop more than three times per month and had made spontaneous purchases during flash sale offers while the live session was taking place.

Tabel 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	24	24%
	Female	76	76%
	Total	100	100%
Age	18–21	30	30%
	22–25	30	30%
	>25 Years	40	40%
	Total	100	100%

Source: Processed Data

2. Data Quality Test

- 1) **Validity Test:** The results of the *Corrected Item-Total Correlation* analysis conducted using IBM SPSS on 22 statement items showed that all indicator items for the *Flash Sale* variable (10 items) and *Impulsive Buying* variable (12 items) had calculated r-values greater than the critical r-value (0.195) at a 5% significance level with $N = 100$. These results indicate that all research instruments were valid..

Tabel 2. Validity Test

Variable	Items	Critical	Result
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		Value	
Flash Sale (X)	10	r table = 0,195	All Items are valid
Impulsive Buying (Y)	12	r table = 0,195	All Items are valid

Source: Processed Data

- 2) **Reliability Test:** The reliability test resulted in Cronbach's Alpha values of 0.838 for the *Flash Sale* variable (X) and 0.738 for the *Impulsive Buying* variable (Y). Since both variables have Cronbach's Alpha values greater than 0.70, the questionnaire instrument was considered highly reliable and consistent for use in further statistical analysis.

Tabel 3. Reability Test

Variable	Cronbach's Alpha	Description
Flash Sale (X)	0,838	Reliable
Impulsive Buying (Y)	0,738	Reliable

Source: Processed Data

3. Classical Assumption Test

- 1) **Normality Test:** The Kolmogorov-Smirnov test produced a significance value of $0.079 > 0.05$, indicating that the data residuals are normally distributed.

Tabel 4. Normality Test

Test	Sig. Value	α	Decision
One-Sample Kolmogorov-Smirnov	0,079	0,05	Normal

Source: Processed Data

- 2) **Linearity Test:** The *Deviation from Linearity* value was $0.148 > 0.05$, indicating a significant linear relationship between variables X and Y.
- 3) **Heteroscedasticity Test:** The *Glejser* test showed that the significance values for all variables were above 0.05, indicating that the regression model was free from heteroscedasticity.

4. Simple Linear Regression Analysis and Hypothesis Testing

Simple linear regression analysis was used to determine the direction of the relationship and the magnitude of changes in the *Impulsive Buying* variable associated with changes in the *Flash Sale* variable. The analysis produced a constant of 21.808 and a regression coefficient for *Flash Sale* of 0.585.

Tabel 5. Simple Linear Regression Analysis

Variable	Regression Coefficient (B)
Constant	21,808
Flash Sale (X)	0,585

Source: Processed Data

Partial t-Test Result:

The analysis yielded a calculated t-value of 9.040 > the critical t-value of 1.975, with a significance level of $p < 0.001 < 0.05$. This result indicates that the hypothesis is accepted, namely that *Live Shopping Flash Sale Interactivity* has a positive and significant effect on *Spontaneous Purchase Decisions* among consumers of Focallure products on TikTok Shop.

Tabel 6. T-Test

Variable	t Value	Sig.	α	Decision
Flash Sale (X)	9,040	<0,001	0,05	Significant

Source: Processed Data

Coefficient of Determination (R^2):

The R Square value of 0.455 indicates that 45.5% of the variation in *Impulsive Buying* in the research sample can be explained by the *Flash Sale* variable. Meanwhile, the remaining 54.5% lies outside the research model and is associated with other factors that were not analyzed in this study.

These findings also indicate that *Flash Sale* is one factor associated with impulsive purchasing behavior, but it is not the only factor explaining such behavior.

Tabel 7. Coefficient Determination

R Square	Persentase	Description
0,455	45,5%	Variation in <i>Impulsive Buying</i> explained by <i>Flash Sale</i>
0,545	54,5%	Variation outside the research model

Source: Processed Data

Discussion

The results of the study indicate that *flash sale* has a positive and significant effect on *impulsive buying* among consumers of Focallure products on TikTok Shop. The regression analysis produced a coefficient of 0.585, with a calculated t-value of 9.040 and a significance level of <0.001. The R Square value of 0.455 indicates that *flash sale* explains 45.5% of the variation in *impulsive buying* behavior, while the remaining 54.5% is associated with factors outside the research model.

Descriptively, consumers' perceptions of *flash sale* were categorized as very high, with an achievement level of 85.20%. The Low-Price Offer indicator obtained the highest score at 85.85%, followed by Stock Limitation at 85.30% and Time Limitation at 84.50%. These findings indicate that the appeal of *flash sales* does not solely derive from price discounts but also from information regarding limited stock and promotional periods. The visualization of discounted prices, stock progress bars, and countdown timers serves as a stimulus that makes consumers aware that the opportunity to purchase is not unlimited.

For the *impulsive buying* variable, the achievement level reached 86.12%, which was categorized as very high. The Consequence Disregard indicator obtained the highest score at 86.80%, followed by Spontaneity at 86.53%, Affective Stimulation at 85.60%, and Strong Urge at 85.53%. These findings suggest that consumers' impulsive purchases are characterized not only by sudden decisions but also by a tendency to reduce consideration of their budgets and the long-term benefits of the products.

These findings are also reflected in the respondents' answers. A total of 63 respondents agreed that they purchased products without making prior plans, while 58 respondents agreed that they made sudden purchases when they saw a *flash sale*. In addition, 52 respondents agreed that they still purchased products even when the expenditure exceeded their predetermined budget.

These findings can be explained through the Stimulus-Response Model, in which *flash sale* functions as an external stimulus in the form of price discounts, limited time, and limited stock. These stimuli subsequently generate psychological responses such as pleasure, enthusiasm, and an urge to immediately possess the product, which may ultimately lead to spontaneous purchases. This mechanism is consistent with the characteristics of *impulse buying* proposed by Rook and Fisher (1995) and the characteristics of *flash sales* discussed by Lamis et al. (2022).

The findings of this study are also consistent with several previous studies that have identified a relationship between *flash sale* and *impulsive buying*, including Adytya et al. (2024), Ramadhan and Wardi (2025), and Rachmania et al. (2025). However, these findings differ from those of Ervina et al. (2024), which found that *flash sale* did not have a significant effect on *impulsive buying*. This difference suggests that the relationship between *flash sale* and impulsive purchasing may be influenced by the platform context, product characteristics, and consumer characteristics examined in each study.

In the context of Focallure, the combination of beauty products, promotional visualization, limited stock, and time constraints within the TikTok Shop environment creates a situation that encourages consumers to make decisions quickly. Nevertheless, the R Square value of 45.5% indicates that *flash sale* is not the only factor explaining *impulsive buying*. Other factors, such as host communication, beauty influencer involvement, and consumer self-control, remain potential areas for investigation in future research.

Overall, this study indicates that the stronger the *flash sale* stimulus perceived by consumers, the higher the tendency toward *impulsive buying* among Focallure consumers on TikTok Shop. This effect can primarily be understood through the combination of price benefits, stock scarcity, and time limitations, which create a sense of urgency during the purchasing process.

CONCLUSION

Based on the research findings regarding the effect of *Flash Sale* on *Impulsive Buying* among consumers of Focallure products on TikTok Shop, it can be concluded that the implementation of *Flash Sale* is perceived very highly by consumers, with an achievement score of 85.20%. Low-price offers represent the most prominent aspect, followed by stock limitations and time limitations. These findings indicate that the combination of price benefits and a sense of urgency constitutes the main characteristic perceived by consumers in Focallure's *Flash Sale* program.

The level of *Impulsive Buying* among consumers is also categorized as very high, with an achievement score of 86.12%. The consequence disregard indicator obtained the highest score, followed by spontaneity, affective stimulation, and strong urge. This finding indicates a tendency among consumers to make spontaneous purchases and reduce their consideration of purchase needs and consequences when exposed to *Flash Sale* offers.

The regression analysis shows that *Flash Sale* has a positive and significant effect on *Impulsive Buying*. The regression coefficient of 0.585, *t*-value of 9.040, and significance level of <0.001 indicate that an increase in consumers' perceptions of *Flash Sale* is accompanied by an increase in their tendency toward *Impulsive Buying*. The R^2 value of 0.455 indicates that *Flash Sale* explains 45.5% of the variation in *Impulsive Buying*, while the remaining 54.5% is associated with other factors outside the research model.

Therefore, this study demonstrates that *Flash Sale* is one of the promotional stimuli strongly associated with the emergence of impulsive buying behavior among Focallure consumers on TikTok Shop. However, given that a substantial proportion of the variation remains outside the research model, *Impulsive Buying* cannot be viewed solely as a consequence of *Flash Sale*. Future research may therefore consider other factors, such as host communication, influencer involvement, shopping experience, and consumer self-control.

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