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The Effect of Influencer Marketing and Flash Sales on Impulse Buying, Mediated by FOMO and Brand Trust (A Study of Gen Z TikTok Shop Users' Behavior in Bali)

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Abstract: This study aims to analyze the effect of influencer marketing and flash sale promotion on impulse buying mediated by fear of missing out (FOMO) and brand trust among Generation Z TikTok Shop users in Bali. The research applies a quantitative approach with a causal associative design based on the Stimulus-Organism-Response (S-O-R) theory. The sample consists of 250 Generation Z consumers aged 18-26 years selected through purposive sampling, and data were collected using an online questionnaire with a five-point Likert scale. The data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS 4.0. The results show that influencer marketing and flash sale have a positive and significant effect on FOMO, brand trust, and impulse buying. FOMO and brand trust also have a positive and significant effect on impulse buying. Furthermore, FOMO and brand trust are proven to partially mediate the effect of influencer marketing and flash sale on impulse buying. These findings confirm that digital marketing stimuli shape impulsive purchasing behavior not only directly but also through consumers' psychological conditions.

Keywords: Brand Trust, Flash Sale, FOMO, Impulse Buying, Influencer Marketing.

INTRODUCTION

The development of digital technology has brought very significant changes to the consumption patterns of the Indonesian people. This transformation encourages a shift in consumption behavior from being rational and planned to faster, instantaneous, and influenced by visual and emotional stimuli. In this context, online shopping (e-commerce) activities are no longer understood solely as economic activities to meet functional needs, but have developed into part of a digital lifestyle related to trends, self-image, and social interaction. This change is most prominent in Generation Z, which is an age group that grows and develops along with the advancement of digital technology, so that they have different consumption patterns compared to previous generations (Francis & Hoefel, 2018). This phenomenon occurs widely, including in Bali Province which is known as an area with a high level of internet penetration and social media use, especially among the younger generation. On a macro level, the value of national e-commerce transactions in 2023 reached IDR 533 trillion, an increase of around 20 percent compared to the previous year (Bank Indonesia, 2024). However, behind this increase, there are concerns related to changes in consumer behavior, especially the younger generation, who are increasingly vulnerable to impulse purchases due to aggressive digital marketing strategies and a lack of needs evaluation processes.

Consumers no longer always go through the stages of rational planning before making a purchase, but are often driven by emotional factors such as momentary desires, interest in trending products, and promotional impulses that are packaged attractively and persuasively. This impulse buying phenomenon is increasingly prevalent in line with the ease of access to digital platforms, the use of instant payment systems, and the intensity of aggressive digital marketing strategies (Mulya, 2020). From the perspective of consumer psychology, the purchase process that takes place quickly, instantly, and with minimal cognitive barriers causes consumers to tend to ignore rational considerations such as actual needs, price evaluations, and the long-term utility of the purchased product (Kotler & Keller, 2022). Based on the initial observations of researchers in urban areas such as Denpasar and Badung, many Generation Z users in Bali open the TikTok application without the initial intention to shop, but exposure to attractively packaged promotional content, especially through live streaming features, often encourages spontaneous purchases. This generation is known to be quick to make decisions, responsive to social media trends, and has a high tendency to fear of missing out (FOMO), which is the fear of missing out on certain trends or opportunities (Pradana & Sukmawati, 2022).

As the intensity of competition in the e-commerce industry increases, business people are required to continue to innovate in promotional strategies in order to be able to attract the attention of consumers amid a flood of digital information. One of the strategies that has now proven effective is influencer marketing, which is a form of marketing that utilizes individuals with significant influence on social media to promote products or brands. This strategy is considered more efficient than conventional advertising because it is more personal, authentic, and relatable to the lifestyle of modern society, especially the young generation in Bali who are active in the digital world (Lim et al., 2023). Influencers play the role of trusted communicators because they build an emotional connection with their followers through consistent interaction, relatable content, and a strong image of authenticity, so that the presence of trusted influencers contributes to the formation of brand trust, i.e. consumer confidence in the reliability, integrity, and honesty of a brand (Chaudhuri & Holbrook, 2001). Consumers who have a high level of trust in influencers tend to be more easily influenced to buy recommended products, even when the decision is made spontaneously without deep rational consideration (Lee & Kim, 2022). This influence is further strengthened by the concept of social proof, which is the tendency of individuals to follow the behavior of others who are considered more knowledgeable or have a certain social status (Cialdini, 2009).

In addition to through social influences built by influencers, digital promotion strategies also utilize other psychological aspects to stimulate impulsive behavior, one of which is through the flash sale mechanism. Flash sales are big discount programs with a very limited period of time, usually lasting only a few minutes or hours. This strategy psychologically creates time pressure and scarcity effect that affect consumers' decision-making processes, so they tend to feel the urgency to buy immediately before the opportunity is lost (Zhao & Xie, 2021). Theoretically, flash sale strategies are closely related to the concept of loss aversion in behavioral psychology, where individuals tend to be more afraid of missing out on opportunities than of the pleasure of gaining profit (Kahneman & Tversky, 1979). Time constraints and the perception of momentary profits have been proven to be able to reduce consumer self-control, thus encouraging purchases without careful consideration (Li et al., 2020). Platforms such as TikTok Shop are a real example of the massive implementation of this strategy through the concept of live flash sales that take place directly with influencers, creating an interactive and competitive atmosphere that encourages consumers to buy immediately so as not to run out of products (We Are Social, 2025).

The development of digital technology and social media has also given birth to a new psychological phenomenon among consumers, namely fear of missing out (FOMO), which is defined as feeling anxious or afraid of missing out on trends, experiences, or opportunities that others are experiencing (Przybylski et al., 2013). When individuals see others enjoying a certain product on social media, there is a psychological urge to own the product so as not to feel left behind in their social group (Alt, 2017). This condition explains why consumers, especially Generation Z, are becoming more vulnerable to impulse buying behavior in a fast-paced and competitive digital environment (Yusof et al., 2022). On the other hand, brand trust also plays a decisive role in reducing consumer risk perception in online transactions, because consumers who have a high level of trust in a brand are more likely to make spontaneous purchases without considering rational aspects in depth (Molinillo et al., 2020). In the context of e-commerce, brand trust is formed through consumer perception of the reliability, integrity, and honesty of a brand in fulfilling the promises communicated (Delgado-Ballester & Munuera-Aleman, 2005). Thus, both FOMO and brand trust have the potential to be important mediators that strengthen the relationship between digital marketing strategy and impulse buying behavior.

Although previous studies have highlighted the influence of influencer marketing on consumer purchasing behavior as well as the relationship between flash sales and impulsive impulses, there is still a gap in understanding how the two strategies work simultaneously through psychological mechanisms such as FOMO and brand trust. Most previous studies have tended to examine the influence of influencer marketing or flash sales separately on purchasing decisions, without considering the psychological factors that mediate the relationship (Rahmawati & Puspitasari, 2023). In fact, in the context of modern digital marketing, these two factors often appear together and reinforce each other. The results of the researcher's initial interviews with four active Generation Z users of TikTok Shop in Bali aged 19-25 years old strengthen this indication, where all informants admitted to having made impulse purchases triggered by exposure to influencers and flash sale promos, especially when there was a countdown, limited stock information, and a large number of viewers who buy the product at the same time. Therefore, this study aims to analyze the influence of influencer marketing and flash sale promotion on impulse buying mediated by FOMO and brand trust on the behavior of Generation Z TikTok Shop users in Bali, by referring to the Stimulus-Organism-Response theory put forward by Mehrabian and Russell (1974).

METHOD

This study uses a quantitative approach with a type of causal associative research, which is research that aims to determine the influence between two or more variables and the causal relationship between these variables (Sugiyono, 2022). This study focuses on analyzing the influence of influencer marketing (X1) and flash sale (X2) on impulse buying (Y) with fear of missing out (FOMO) (M1) and brand trust (M2) as mediating variables, based on the theory of Stimulus-Organism-Response (Mehrabian & Russell, 1974). The research population is all Generation Z consumers in Bali who have made purchases through the TikTok Shop platform, namely individuals aged 18-26 years who are known as digital natives (Francis & Hoefel, 2018). Because the population is not known for sure, the sample determination was carried out using non-probability sampling techniques, especially purposive sampling, with the criteria that respondents are domiciled in Bali, actively using the TikTok Shop feature, have purchased products at least once in the last six months, have been exposed to influencer marketing content or flash sale programs, and have made spontaneous purchases. Referring to the guidelines of Hair et al. (2019) which suggest that the number of samples should be at least ten times the number of indicators, the study with these 27 indicators targeted 250 respondents spread across all districts/cities in the Province of Bali. The research instrument was in the form of a closed questionnaire with a five-point Likert scale , ranging from 1 (strongly disagree) to 5 (strongly agree).

The research procedure began with the preparation of instruments based on the indicators of each variable, followed by testing the instrument to 30 respondents to test the validity and reliability, where the instrument was declared valid if the *Pearson Product Moment* correlation coefficient was greater than 0.30 and reliable if *the Cronbach's Alpha* value was greater than 0.60. Furthermore, data collection is carried out online through *Google Form* questionnaires distributed through social media such as Instagram, WhatsApp, and TikTok during 2025 to reach respondents who are geographically dispersed. The data collected then went through the coding and tabulation stages, followed by descriptive analysis to describe respondent characteristics and answer tendencies based on the range of score intervals, as well as inferential analysis to test hypotheses. Data analysis was carried out using *the Structural Equation Modeling* method based on *Partial Least Squares* (SEM-PLS) with the help of *SmartPLS* 4.0 software, which included evaluation of measurement models (*outer models*) through *convergent validity*, *discriminant validity*, and *composite reliability*, as well as structural model evaluation (*inner model*) through R-square, Q-square, and hypothesis testing with *bootstrapping procedures*. The significance criteria were set at a t-statistic value greater than 1.96 with a p-value less than 0.05, while the mediation effect examination referred to the criteria Hair et al. (2019) to determine full, partial, or unproven forms of mediation.

RESULTS AND DISCUSSION

Respondent Characteristics

The research data was collected through the distribution of questionnaires to 250 Generation Z consumers aged 18-26 years who had made purchases through TikTok Shop in Bali Province. The respondents' profiles were elaborated based on gender, age, and last education as presented in Table 1.

Table 1. Respondent Characteristics

Features	Classification	Number (people)	Percentage (%)
Gender	Male	81	32,4
	Women	169	67,6
	Total	250	100,0
Age (Years)	18-20 years old	104	41,6
	21-23 years old	100	40,0
	24-26 years old	46	18,4
	Total	250	100,0
Final Education	High School / Vocational School	110	44,0
	Diploma	55	22,0
	Bachelor (S1)	74	29,6

Features	Classification	Number (people)	Percentage (%)
	Postgraduate (S2)	11	4,4
	Total	250	100,0

The characteristics of the respondents in Table 1 show that TikTok Shop consumers come from various gender, age, and education groups. Based on gender, female respondents amounted to 169 people or 67.6 percent, while men were 81 people or 32.4 percent, so the majority of TikTok Shop consumers were women. This condition indicates that women tend to be more active in using TikTok Shop as a shopping medium because of the high interest in short video content features, live shopping, promotions, and the ease of finding product information before making a purchase. Based on age, respondents aged 18-20 years dominated with 104 people or 41.6 percent, followed by the 21-23 year old group as many as 100 people or 40 percent, and the 24-26 year old group as many as 46 people or 18.4 percent. These findings indicate that TikTok Shop is more widely used by early adult age groups who have a high level of adaptation to digital technology developments, actively follow trends, and prefer a practical and interactive shopping experience. Meanwhile, based on the latest education, the majority of respondents are 110 high school/vocational school graduates or 44 percent, followed by 74 people or 29.6 percent of Bachelors (S1), 55 people or 22 percent of Diplomas, and 11 people or 4.4 percent of Postgraduate (S2). These results show that TikTok Shop is able to reach consumers of various levels of education, even though it is dominated by groups with good levels of digital literacy at productive age.

Test Research Instruments

The instrument test was carried out on 30 respondents to ensure the accuracy and consistency of the measuring instrument. The instrument is declared valid if the correlation coefficient between the items with a total score is greater than 0.30 at an Alpha error rate of 0.05, while the reliability is measured using Cronbach's Alpha value with a minimum limit of 0.60. The recapitulation of the results of the validity test is presented in Table 2.

Table 2. Recapitulation of the Results of the Validity Test of Research Instruments

Variables	Indicator	Correlation	Sig. (2-tailed)	Remarks
Influencer marketing (X1)	X1.1 - X1.5	0,705 - 0,762	0,000	Valid
Flash sale (X2)	X2.1 - X2.4	0,774 - 0,864	0,000	Valid
Fear of missing out (M1)	M1.1 - M1.10	0,595 - 0,881	0,000	Valid
Brand trust (M2)	M2.1 - M2.4	0,828 - 0,936	0,000	Valid
Impulse buying (Y)	Y.1 - Y.4	0,687 - 0,892	0,000	Valid

The results of the validity test in Table 2 show that all instruments used to measure the variables of influencer marketing, flash sales, fear of missing out (FOMO), brand trust, and impulse buying have correlation coefficient values with a total score of above 0.30 with a significance level of less than 0.05. The items in the influencer marketing variable obtained a correlation range of 0.705 to 0.762, the flash sale variable was in the range of 0.774 to 0.864, the FOMO variable was in the range of 0.595 to 0.881, the brand trust variable was in the range of 0.828 to 0.936, and the impulse buying variable in the range of 0.687 to 0.892. The lowest correlation value was recorded on the M1.4 indicator of 0.595 and the highest value on the M2.4 indicator of 0.936, so all of them are still well above the set critical value. Thus, it can be concluded that all statements in this research instrument are declared valid and feasible to be used to measure the constructs studied in all research samples.

Table 3. Recapitulation of Reliability Test Results of Research Instruments

No.	Variables	Cronbach's Alpha	Remarks
1	Influencer marketing (X1)	0,782	Reliable
2	Flash sale (X2)	0,832	Reliable
3	Fear of missing out (FOMO) (M1)	0,925	Reliable
4	Brand trust (M2)	0,923	Reliable
5	Impulse buying (Y)	0,792	Reliable

The results of the reliability test presented in Table 3 show that all research instruments have a Cronbach's Alpha coefficient above 0.70 so that they meet the reliability or reliability requirements. The influencer marketing variable obtained a value of 0.782 and the impulse buying variable obtained a value of 0.792, both showing good internal consistency. Meanwhile, the flash sale variable obtained a value of 0.832, the fear of missing out (FOMO) variable obtained the highest value of 0.925, and the brand trust variable obtained a value of 0.923, which indicates a very high level of internal consistency because the value is close to number one. The high reliability values of the FOMO and brand trust variables show that the statements in the two mediation variables consistently measure the same construct. Thus, all variables are declared reliable and can be used to perform advanced analysis.

Description of Research Variables

Descriptive analysis was carried out to determine the respondents' responses to each research variable using average values. The assessment of the distribution of data for each variable uses a range of criteria with an interval value of 0.8, so that the score of 1.00-1.80 is categorized as very low, 1.81-2.60 low, 2.61-3.40 moderate, 3.41-4.20 high, and 4.21-5.00 very high. The results of the respondents' assessment descriptions are presented in Table 4.

Table 4. Description of Respondents' Assessment of Research Variables

Variables	Total Score	Average	Criteria
Influencer marketing (X1)	4.734	3,79	Height
Flash sale (X2)	3.741	3,74	Height
Fear of missing out (FOMO) (M1)	9.586	3,83	Height
Brand trust (M2)	3.832	3,83	Height
Impulse buying (Y)	3.817	3,82	Height

The results of the descriptive analysis as presented in Table 4 show that all research variables are at high criteria. The *influencer marketing* variable as a whole obtained an average score of 3.79, which means that consumers consider that TikTok Shop already has good *influencer marketing*, with the lowest indicator at X1.4, namely *respect* or quality appreciated with an average of 3.67. The *flash sale* variable obtained an average value of 3.74, which means that consumers rated the *flash sale* program on TikTok Shop as good or attractive, with the lowest indicator at X2.2, namely promotion quality with an average of 3.64. The *fear of missing out* (FOMO) variable obtained an average value of 3.83, which means that consumers tend to have a high FOMO attitude on TikTok Shop, with the lowest indicator at M1.2, namely interest in seeing products that other people buy on social media with an average of 3.74. The *brand trust* variable obtained an average value of 3.83, which means that consumers already have high brand trust in TikTok Shop, with the lowest indicator at M2.1, namely trust in the brand with an average of 3.68. Meanwhile, the *impulse buying* variable obtained an average value of 3.82, which means that consumers tend to have high impulse buying behavior on TikTok Shop, with the lowest indicator on Y3 being purchases influenced by emotional states with an average of 3.68.

Evaluation of Measurement Models (Outer Model)

The analysis of the research model used the Partial Least Squares (PLS) method with the help of the SmartPLS 4.0 program. Evaluation of measurement models with reflective indicators is carried out through convergent validity, discriminant validity, and composite reliability. The results of convergent validity testing through outer loading values are presented in Table 5.

Table 5. Convergent Validity (Outer Loading) Test Results

Variables	Indicator	Outer Loading Range	Remarks
M1 (FOMO)	M1.1 - M1.10	0,701 - 0,794	Valid
M2 (Brand trust)	M2.1 - M2.4	0,811 - 0,862	Valid
X1 (Influencer Marketing)	X1.1 - X1.5	0,718 - 0,812	Valid
X2 (Flash sale)	X2.1 - X2.4	0,718 - 0,859	Valid
Y (Impulse buying)	Y1 - Y4	0,780 - 0,856	Valid

The results of the convergent validity test in Table 5 show that all external loading values of the variable indicator have a value greater than 0.70 so that all indicators have met the convergent validity requirements. The fear of missing out (FOMO) variable measured through ten indicators obtained an outer loading range of 0.701 to 0.794 with the highest value on the M1.6 indicator. The brand trust variable measured through four indicators obtained a range of 0.811 to 0.862 with the highest value on the M2.4 indicator. The influencer marketing variable obtained a range of 0.718 to 0.812 with the highest value on the X1.3 indicator, while the flash sale variable obtained a range of 0.718 to 0.859 with the highest value on the X2.1 indicator. The impulse buying variable obtained the highest range overall, namely 0.780 to 0.856 with the highest value on the Y2 indicator. Thus, all indicators are proven to be able to adequately reflect their latent constructs so that the measurement model can be continued at the next stage of testing.

Table 6. Discriminant Validity Results (AVE and Fornell Larcker)

Research Variables	AVE	M1	M2	X1	X2	Y
M1 (FOMO)	0,539	0,734				
M2 (Brand trust)	0,708	0,711	0,841			
X1 (Influencer Marketing)	0,586	0,728	0,801	0,766		
X2 (Flash sale)	0,630	0,720	0,684	0,693	0,794	

Research Variables	AVE	M1	M2	X1	X2	Y
Y (Impulse buying)	0,676	0,741	0,755	0,826	0,691	0,822

Based on Table 6, it can be explained that all variables in the tested model have met the discriminant validity criteria. The test was assessed through the average variance extracted (AVE) value, where the model is said to be good if the AVE value of each variable is greater than 0.50. The output results showed that the AVE value of the fear of missing out (FOMO) variable was 0.539, the influencer marketing variable was 0.586, the flash sale variable was 0.630, the impulse buying variable was 0.676, and the brand trust variable was 0.676, and the brand trust variable obtained the highest score of 0.708. All AVE values are above 0.50 so that the model is declared valid. Furthermore, based on Fornell Larcker's criteria, the square root of AVE for each variable shown at the diagonal value is 0.734 for FOMO, 0.841 for brand trust, 0.766 for influencer marketing, 0.794 for flash sale, and 0.822 for impulse buying, proved to be greater than the correlation of the variable with the other variables in the model. Thus, each construct in this research model is proven to be empirically different from the other.

Table 7. Instrument Reliability Test Results

Variables	Cronbach's Alpha	Composite Reliability	Remarks
M1 (FOMO)	0,906	0,912	Reliable
M2 (Brand trust)	0,862	0,866	Reliable
X1 (Influencer Marketing)	0,824	0,830	Reliable
X2 (Flash sale)	0,805	0,825	Reliable
Y (Impulse buying)	0,840	0,840	Reliable

The results of the construct reliability test in Table 7 show that the composite reliability value and Cronbach's Alpha for all research variables are above 0.70, so that all variables are declared to have good reliability. The fear of missing out (FOMO) variable obtained the highest Cronbach's Alpha value of 0.906 with a composite reliability of 0.912, followed by the brand trust variable with values of 0.862 and 0.866. The impulse buying variable obtained an identical Cronbach's Alpha and composite reliability value of 0.840, while the influencer marketing variable obtained a value of 0.824 and 0.830, and the flash sale variable obtained the lowest but still qualified values of 0.805 and 0.825. The consistency between the two reliability measures confirms that the indicator blocks on each variable are able to measure their constructs stably and consistently, so the measurement model is feasible to evaluate the structural model.

Evaluation of Structural Models (Inner Model)

The structural model in this study consists of three endogenous variables, namely fear of missing out (FOMO), brand trust, and impulse buying. Evaluation is carried out through the value of the determination coefficient (R-square) as well as the calculation of Q-square to measure the predictive relevance of the model, as presented in Table 8.

Table 8. R-square Value of Bound Variable

Model Structural	Dependent Variable	R-square	Adjusted R-square
1	M1 (FOMO)	0,619	0,615

Model Structural	Dependent Variable	R-square	Adjusted R-square
2	M2 (Brand trust)	0,673	0,671
3	Y (Impulse buying)	0,738	0,734

Based on Table 8, the model of the influence of influencer marketing and flash sales on fear of missing out (FOMO) gives an R-square value of 0.619, which can be interpreted that the variability of the FOMO variable can be explained by the influencer marketing and flash sale variables 61.9 percent, while the remaining 38.1 percent were explained by other variables outside of the study. Furthermore, the model of influencer marketing and flash sales on brand trust gives an R-square value of 0.673, which means that the brand trust variable can be explained by the two independent variables by 67.3 percent, while the remaining 32.7 percent is explained by other variables outside the model. Meanwhile, the influence model of influencer marketing, flash sale, FOMO, and brand trust on impulse buying gave the highest R-square value of 0.738, which means that the impulse buying variable can be explained by the four variables by 73.8 percent, while the remaining 26.2 percent is explained by other variables outside the study. The adjusted R-square value which is not much different from the R-square value in the three models shows that this research model is stable and does not experience problems with excessive complexity.

Table 9. Q-Square Test Results

Q-Square Calculation Stages	Results
$Q^2 = 1 - (1 - R1) (1 - R2) (1 - R3)$	-
= 1 - (1 - 0,619) (1 - 0,673) (1 - 0,738)	-
= 1 - (0,381) (0,327) (0,262)	0,0326
Value Q-Square	0,9674

The results of the Q-square calculation in Table 9 obtained a value of 0.9674. The value of Q-square has a range between 0 to 1, where the closer it is to one means the better the model. The classification of Q-square values is divided into three categories, namely weak predictive relevance if the value is in the range of 0.02 to less than 0.15, moderate predictive relevance if it is in the range of 0.15 to less than 0.35, and large predictive relevance if the value is greater than or equal to 0.35. The Q-square value of 0.9674 obtained in this study is far above the limit of 0.35, so it can be concluded that the structural test model has a large or strong predictive relevance. These findings confirm that the research model is able to predict the observation value very well and the resulting parameter estimation is feasible to be used to explain the mechanism of impulse buying behavior formation in Generation Z consumers who use TikTok Shop in Bali.

Hypothesis Testing Results

Hypothesis testing is done by t-test through a bootstrapping procedure, which is sorted into direct influence testing and indirect influence. The results of the analysis of the research empirical model using the Partial Least Squares (PLS) analysis can be seen in Figure 1 below.

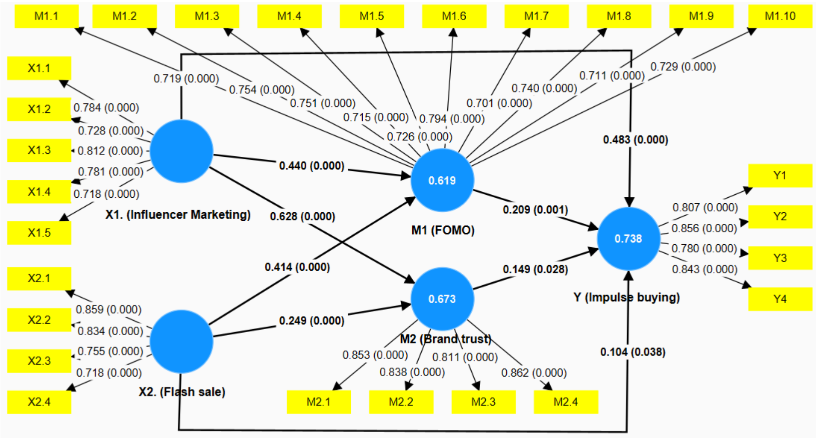

Figure 1. Model Bootstrapping

Table 10. Direct Effect Test Results (Path Coefficient)

No.	Relationships Between Variables	Path Coefficients	T Statistic	P Value	Remarks
H1	X1 (Influencer Marketing) -> M1 (FOMO)	0,440	6,570	0,000	Significant Positives
H2	X2 (Flash Sale) -> M1 (FOMO)	0,414	6,627	0,000	Significant Positives
H3	X1 (Influencer Marketing) -> M2 (Brand trust)	0,628	11,215	0,000	Significant Positives
H4	X2 (Flash sale) -> M2 (Brand trust)	0,249	4,445	0,000	Significant Positives
H5	X1 (Influencer Marketing) -> Y (Impulse buying)	0,483	6,048	0,000	Significant Positives
H6	X2 (Flash sale) -> Y (Impulse buying)	0,104	2,072	0,038	Significant Positives
H7	M1 (FOMO) -> Y (Impulse buying)	0,209	3,413	0,001	Significant Positives
H8	M2 (Brand trust) -> Y (Impulse buying)	0,149	2,199	0,028	Significant Positives

The information from Table 10 shows that all eight direct influence hypotheses in this study proved to be acceptable because they had a t-statistic value greater than 1.96 and a p-value smaller than 0.050. Influencer marketing has been shown to have a positive and significant effect on FOMO with a path coefficient of 0.440 (t = 6.570; p = 0.000) and on brand trust with the highest path coefficient in the model of 0.628 (t = 11.215; p = 0.000), which means that the more attractive influencer marketing is, the more FOMO and consumer brand trust will increase. Flash sales were also shown to have a positive and significant effect on FOMO with a coefficient of 0.414 (t = 6.627; p = 0.000) and on brand trust with a coefficient of 0.249 (t = 4.445; p = 0.000). For the bound variable, influencer marketing had a positive and significant effect on impulse buying with a coefficient of 0.483 (t = 6.048; p = 0.000), while flash sale had a positive and significant effect with the smallest coefficient of 0.104 (t = 2.072; p = 0.038). The two mediation variables also had a positive and significant effect on impulse buying, namely FOMO with a coefficient of 0.209 (t = 3.413; p = 0.001) and brand trust with a coefficient of 0.149 (t = 2.199; p = 0.028). Thus, the first to eighth hypotheses can be fully proven.

Table 11. Specific Indirect Effect Test Results

Relationships Between Variables	Original Sample	T Statistic	P Value	Remarks
X1 (Influencer Marketing) -> M1 (FOMO) -> Y (Impulse buying)	0,092	2,952	0,003	Significant
X1 (Influencer Marketing) -> M2 (Brand trust) -> Y (Impulse buying)	0,093	2,092	0,036	Significant
X2 (Flash sale) -> M1 (FOMO) -> Y (Impulse buying)	0,087	2,971	0,003	Significant
X2 (Flash sale) -> M2 (Brand trust) -> Y (Impulse buying)	0,037	2,069	0,039	Significant

Based on Table 11, the four indirect influence pathways in this study proved to be significant because all had a t-statistic value greater than 1.96 and a p-value smaller than 0.050. The influence of influencer marketing on impulse buying through fear of missing out (FOMO) obtained a coefficient value of 0.092 with a t-statistic of 2.952 and a p-value of 0.003, while through brand trust obtained a coefficient value of 0.093 with a t-statistic of 2.092 and a p-value of 0.036. Furthermore, the influence of flash sales on impulse buying through FOMO obtained a coefficient value of 0.087 with a t-statistic of 2.971 and a p-value of 0.003, and through brand trust, the smallest coefficient value of 0.037 obtained a t-statistic of 2.069 and a p-value of 0.039. These results indicate that influencer marketing and flash sales not only affect impulse buying directly, but also indirectly through the formation of consumer psychological conditions in the form of fear of being left behind and trust in brands, so that the entire indirect influence hypothesis can be proven.

Table 12. Recapitulation of Mediation Variable Test Results

Variable Mediation	Effects (A)	Effects (B)	Effects (C)	Effects (D)	Remarks
X1 (Influencer Marketing) -> M1 (FOMO) -> Y (Impulse buying)	0.092 (sig.)	0.483 (sig.)	0.440 (sig.)	0.209 (sig.)	Partial Mediation
X1 (Influencer Marketing) -> M2 (Brand trust) -> Y (Impulse buying)	0.093 (sig.)	0.483 (Sig.)	0.628 (Sig.)	0.149 (Sig.)	Partial Mediation
X2 (Flash sale) -> M1 (FOMO) -> Y (Impulse buying)	0.087 (Sig.)	0.104 (Sig.)	0.414 (Sig.)	0.209 (Sig.)	Partial Mediation
X2 (Flash sale) -> M2 (Brand trust) -> Y (Impulse buying)	0.037 (Sig.)	0.104 (Sig.)	0.249 (Sig.)	0.149 (Sig.)	Partial Mediation

Based on the criteria for examining the effects of mediation according to Hair et al. (2019), mediation is declared fully mediated if the effects C and D are significant but the effects A are not significant, and partially mediated if the effects A, C, and D are entirely significant. The results in Table 12 show that in the four mediation pathways, the effect A which is an indirect influence, effect B which is the direct influence of the free variable on the bound variable, the C effect which is the direct influence of the free variable on the mediation variable, and the D effect which is the direct influence of the mediation variable on the bound variable, all have a positive and significant value at an error rate of 5 percent. Thus, fear of missing out (FOMO) has been proven to partially mediate the influence of influencer marketing and flash sales on impulse buying, as well as brand trust has been proven to partially mediate these two influences. This result can be interpreted that consumer impulse buying behavior can increase if the influencer marketing and flash sales used are more attractive, and consumers have a high attitude of FOMO and brand trust towards TikTok Shop.

The Influence of Influencer Marketing on Fear of Missing Out (FOMO)

The results of the analysis show that influencer marketing has a positive and significant effect on fear of missing out (FOMO). This means that the more attractive influencer marketing is on TikTok Shop, the more consumer FOMO attitudes on TikTok Shop will increase, and conversely, the more unattractive influencer marketing is , the less FOMO will be. These results are in accordance with the theory of Stimulus-Organism-Response (S-O-R) which explains that FOMO is included in the aspect of the organism, which is an emotional and psychological reaction that arises due to exposure to stimuli from the digital environment (Mehrabian & Russell, 1974).

When consumers, especially Generation Z, see influencers promoting trending products on TikTok Shop, they tend to feel afraid of missing out on experiences or trends that are popular in their social environment. The intensity of exposure to attractive, viral, and persuasive influencer content can increase consumers' social anxiety if they do not buy or use the promoted product. This condition causes consumers to be encouraged to continue to follow the development of trends built by influencers on social media.

This research supports the results of previous research by De Veirman et al. (2017) which explained that social media influencers can influence the perception and behavior of their followers through intensive digital interactions. In addition, Djafarova and Trofimenko (2019) found that exposure to influencers on social media is able to increase consumers' tendency to follow trends so as not to feel left behind in their social environment. The study of Casalo et al. (2020) also shows that consumers who are exposed to authentic and relevant influencer content tend to make impulse purchases, especially among Generation Z who are more responsive to digital recommendations (Freberg et al., 2011).

The Influence of Flash Sales on Fear of Missing Out (FOMO)

The results of the analysis show that flash sales have a positive and significant effect on fear of missing out (FOMO). This means that the more attractive the flash sale that TikTok Shop has, the higher the FOMO that is formed in the TikTok Shop consumers. And vice versa, the less attractive the flash sale offered, the less FOMO will be.

This result is in accordance with the Stimulus-Organism-Response theory which explains that flash sales act as a stimulus that triggers consumer psychological reactions in the form of FOMO attitudes, and ultimately forms a response in the form of consumption behavior (Rachmania et al., 2025). Discounted offers that are only available for a short period of time create a perception of scarcity that directly activates consumers' anxiety about missing out on opportunities.

This research supports the results of a study by Wisen (2022) which states that the flash sale variable has a significant influence on the fear of missing out variable in e-marketplace users in Surabaya, because the product discount offers offered only exist for a short time. Furthermore, a similar study by Rahmania et al. (2023) showed results that flash sales had a significant positive effect on FOMO behavior. These findings are also in line with Zhao and Xie (2021) who assert that time pressure in flash sales is able to increase the psychological urgency of consumers.

The Influence of Influencer Marketing on Brand Trust

The results of the analysis show that influencer marketing has a positive and significant effect on brand trust. This means that the more attractive influencer marketing is on TikTok Shop, the more consumers' brand trust attitude on TikTok Shop will increase, and conversely, the more unattractive influencer marketing is, the less brand trust will be.

In the S-O-R model, brand trust is included in the aspect of the organism because brand trust is a form of internal psychological response of consumers that arises after receiving a marketing stimulus. When consumers see influencers who are considered credible, honest, and reputable to promote a product on TikTok Shop, it will be easier for consumers to trust the recommended brand. Influencers who have an emotional closeness to their followers are able to create a positive perception of product quality, safety, and credibility thereby increasing the level of consumer trust in the brand (Chaudhuri & Holbrook, 2001).

This study supports the results of previous research by Lim et al. (2023) which stated that social media influencers affect consumer trust through the mediating role of perceived credibility. Similar results were also found by Lee and Kim (2022) who emphasized that influencer credibility contributes to the formation of consumer trust in the context of social commerce. This shows that the higher the quality of influencer marketing, the more consumer trust in brands increases, in line with the concept of brand trust put forward by Delgado-Ballester and Munuera-Aleman (2005).

The Influence of Flash Sale on Brand Trust

The results of the analysis show that flash sales have a positive and significant effect on brand trust. This means that the more attractive the flash sale promo provided by TikTok Shop, the higher the brand trust formed in the TikTok Shop consumer, and conversely, the less attractive the flash sale promo offered, the less brand trust will be.

These results are in accordance with the Stimulus-Organism-Response theory and the theory of consumer behavior. When consumers see a brand consistently offering a flash sale program that is attractive, transparent, and provides real benefits, then consumers will rate the brand more trustworthy. Flash sale programs that provide lower prices, appropriate product quality, and a secure transaction process can increase consumer confidence in brand credibility on TikTok Shop. Brand trust is formed through positive experiences and consumer perceptions of the brand's ability to meet their expectations (Delgado-Ballester & Munuera-Aleman, 2005).

Generation Z as active users of TikTok Shop tends to like fast, engaging, and interactive promotions, so it is easier to be attracted to flash sale programs that offer big discounts and time constraints (Francis & Hoefel, 2018). When the experience of participating in a flash sale goes well, such as products according to expectations and transactions go smoothly, consumer trust in the brand will increase. These findings are in line with Rachmania et al. (2025) who obtained results that flash sale promotions increase positive consumer perceptions so that they contribute to increasing brand trust.

The Influence of Influencer Marketing on Impulse Buying

The results of the analysis show that influencer marketing has a positive and significant effect on impulse buying with the highest path coefficient among other independent variables. This means that the more attractive influencer marketing on TikTok Shop, the more impulse buying behavior consumers on TikTok Shop will increase.

In the S-O-R model, the aspect of the organism refers to the psychological and emotional state of the consumer after receiving the stimulus. When Generation Z consumers see their favorite influencers promoting products on TikTok Shop, feelings of interest, enthusiasm, curiosity, and emotional drive arise to own the product. Influencers who are considered credible and have high appeal can increase consumers' positive emotions towards the promoted product, so that these psychological conditions then affect consumer responses in the form of impulse purchases. In consumer behavior theory, impulsive purchasing decisions often occur when consumers receive a strong stimulus from the marketing environment (Kotler & Keller, 2022).

This study supports the results of previous research by Lee and Kim (2022) which stated that influencer credibility has a significant effect on impulse purchase intentions in social commerce. The role of influencers as a figure trusted and followed by many consumers in the digital era is the main factor in triggering spontaneous purchases through product review content , live streaming, and unboxing. This is reinforced by Casalo et al. (2020) who found that influencer opinion leadership on social media is able to drive purchase decisions without long considerations, and Lim et al. (2023) who affirm the influence of influencers on young consumers' purchase intentions.

The Effect of Flash Sale on Impulse Buying

The results of the analysis showed that flash sales had a positive and significant effect on impulse buying, even with the smallest path coefficient in the model. This means that the more attractive the flash sale promos offered by TikTok Shop, the more impulse buying behavior consumers on TikTok Shop will increase.

This result is in accordance with the Stimulus-Organism-Response theory which explains that flash sales are a form of stimulus that many e-commerce platforms use to attract consumer attention through large discount offers in a limited time and a limited number of products. This strategy is able to create a sense of urgency and time pressure that affects the emotional state of consumers, so that consumers tend to make purchase decisions quickly without careful consideration. This condition is consistent with the concept of loss aversion which explains that individuals are more afraid of losing opportunities than of gaining gains (Kahneman & Tversky, 1979).

This research supports the results of research by Rahmania et al. (2023) who found that flash sales have a significant positive effect on impulse buying. Research by Rachmania et al. (2025) also found that flash sale programs encourage customers to make decisions based on impulsive purchasing behavior so that the decision-making process becomes spontaneous and inhibits consumers from considering information and other alternatives carefully. Consumers who face time and quantity limitations at flash sales show increased urgency and emotional drive to buy products (Zhao & Xie, 2021; Li et al., 2020).

The Influence of Fear of Missing Out (FOMO) on Impulse Buying

The results of the analysis show that fear of missing out (FOMO) has a positive and significant effect on impulse buying. This means that the higher the FOMO attitude that consumers have, the more impulse buying behavior consumers on TikTok Shop will increase, and conversely, the lower the FOMO attitude, the less impulse buying behavior will be.

This result is in accordance with the Stimulus-Organism-Response theory which explains that FOMO is included in the aspect of the organism because it is a form of emotional and psychological response of consumers after receiving various stimuli from the digital environment. When consumers see products that are going viral, limited discounts, influencer recommendations, or other users' purchasing activities on TikTok Shop, they tend to feel afraid of missing out on the opportunity to own the product, so they are encouraged to make a purchase immediately so as not to feel left behind in their social environment (Przybylski et al., 2013).

This study supports the results of research by Yusof et al. (2022) who found that FOMO has a significant effect on impulse buying behavior among the younger generation of social media users. Alt's (2017) findings also confirm that individuals who experience FOMO tend to engage in acts of consumption to gain social validation. Furthermore, research by Martini and

Damayanti (2026) found that FOMO is effective in encouraging impulse purchases while accelerating purchasing decisions for young consumers in the digital era, in line with Pradana and Sukmawati (2022) who highlight the impact of FOMO on the consumptive behavior of Generation Z e-commerce users.

The Influence of Brand Trust on Impulse Buying

The results of the analysis show that brand trust has a positive and significant effect on impulse buying. This means that the higher the brand trust attitude that consumers have, the more impulse buying behavior consumers on TikTok Shop will increase, and conversely, the lower the brand trust attitude , the less impulse buying behavior will be.

This result is in accordance with the Stimulus-Organism-Response theory which explains that brand trust is included in the aspect of the organism because it is an internal psychological response of consumers that arises after receiving a marketing stimulus. When consumers have a high level of trust in a brand on TikTok Shop, consumers will feel safer, more comfortable, and confident in purchasing products from that brand. Trust in brands reduces the perception of risk in purchases, so consumers tend to make decisions faster without much consideration (Molinillo et al., 2020).

In the context of TikTok Shop, brand trust can be formed through consistency of product quality, positive reviews, and recommendations from trusted influencers. When consumers already have trust in a brand, they are less likely to do in-depth evaluations before purchasing, so purchase decisions become more spontaneous and often driven by momentary emotions, especially when combined with promotions such as discounts or flash sales. This research supports the results of the study of Martini and Damayanti (2026) which showed that brand trust is effective in encouraging impulse purchases while accelerating purchasing decision-making in young consumers in the digital era, as well as Chaudhuri and Holbrook (2001) who emphasized the role of brand trust in shaping brand behavior outcomes.

The Role of Fear of Missing Out (FOMO) in Mediating the Influence of Influencer Marketing on Impulse Buying

The results of the analysis show that fear of missing out (FOMO) is able to partially mediate the influence of influencer marketing on impulse buying. This can be interpreted that influencer marketing not only has a direct effect on the increase in impulse buying, but also indirectly through an increase in the fear of being left behind felt by consumers. In other words, the more effective the influencer marketing strategy is in conveying information, building credibility, and creating attraction to a product, the higher the fear that consumers will miss the opportunity to follow trends or acquire products that are popular.

Because the nature of mediation is partial, influencer marketing's influence on impulse buying remains significant even without FOMO. This suggests that there are other mechanisms besides FOMO that also explain these relationships, such as increased trust in influencers, perceptions of product quality, promotional appeal, or the emotional connection between influencers and their followers (De Veirman et al., 2017). Thus, FOMO is only one of the pathways that reinforces influencer marketing's influence on impulse buying behavior, not the only determining factor. These findings are consistent with Yusof et al. (2022) who position FOMO as a mediator in the relationship between social media stimulus and impulse buying behavior.

The Role of Brand Trust in Mediating the Influence of Influencer Marketing on Impulse Buying

The results of the analysis show that brand trust is able to partially mediate the influence of influencer marketing on impulse buying. This finding can be interpreted that a credible and authentic influencer marketing strategy first forms consumer trust in the brand, and this trust then encourages consumers to make spontaneous purchases. These results are in line with the source credibility theory which states that trust in the source of the message will strengthen the acceptance of the message by the audience (Hovland et al., 1953).

The nature of partial mediation shows that influencer marketing still has a significant direct influence on impulse buying even without brand trust. This condition indicates that brand trust is one of the psychological pathways that strengthen the relationship, in addition to other emotional pathways that develop from the parasocial closeness between the influencer and his followers (Casalo et al., 2020). These findings support the results of Molinillo et al. (2020) who affirmed the role of brand trust in reducing risk perception so that online purchasing decisions become faster, and Lim et al. (2023) who placed credibility as a mediator between influencers and consumer responses.

The Role of Fear of Missing Out (FOMO) in Mediating the Influence of Flash Sale on Impulse Buying

The results of the analysis show that fear of missing out (FOMO) is able to partially mediate the influence of flash sales on impulse buying. This means that flash sale programs with large discounts and certain time limits first raise consumer anxiety about missing opportunities, and these psychological conditions then encourage impulse purchases. This mechanism is consistent with the concepts of scarcity effect and time pressure which explains that time and stock limitations can reduce consumer self-control (Zhao & Xie, 2021).

The nature of partial mediation shows that flash sales still have a direct effect on impulse buying even without FOMO, although the amount of direct influence is relatively small compared to other channels. This indicates that the economic appeal of discounts still plays a role, but the main strength of flash sales in encouraging spontaneous purchases actually works through the activation of consumers' emotional responses (Li et al., 2020). These findings support the results of research by Wisen (2022) and Rahmania et al. (2023) which placed FOMO as an intervening variable in the relationship between flash sales and impulse purchase behavior in e-marketplace users.

The Role of Brand Trust in Mediating the Influence of Flash Sale on Impulse Buying

The results of the analysis show that brand trust is able to partially mediate the influence of flash sales on impulse buying, with the smallest indirect influence coefficient compared to other mediation channels. This finding can be interpreted that the flash sale program that is carried out transparently and consistently first fosters consumer confidence in the brand's credibility, and this trust then increases the likelihood of spontaneous purchases on TikTok Shop.

The small coefficient of mediation in this pathway indicates that flash sales are more dominant in working through the emotional pathway in the form of FOMO than through the cognitive pathway in the form of brand trust. Nevertheless, brand trust still plays an important role as a decreasing risk perception in online transactions which is characterized by low physical contact between sellers and buyers (Chaudhuri & Holbrook, 2001; Molinillo et al., 2020). These findings confirm that businesses need to design flash sale programs that not only highlight urgency, but also build long-term relationships with consumers through honesty and brand consistency (Delgado-Ballester & Munuera-Aleman, 2005).

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that influencer marketing has been proven to have a positive and significant effect on fear of missing out (FOMO), brand trust, and impulse buying, which means that the better or more attractive influencer marketing is used, the FOMO, brand trust, and consumer impulse buying behavior on TikTok Shop will increase. Similarly, flash sales have been proven to have a positive and significant effect on FOMO, brand trust, and impulse buying, so that the better and more attractive the flash sale promos given, the three variables will increase. The two mediation variables were also proven to have a positive and significant effect on the bound variable, namely the higher the FOMO and brand trust that consumers have, the more impulse buying on TikTok Shop increases. Furthermore, FOMO has been proven to be able to partially mediate the influence of influencer marketing and flash sales on impulse buying, and brand trust has also been proven to be able to partially mediate these two influences, so that consumer impulse buying behavior can increase if influencer marketing and Flash sales are getting more attractive and consumers have a high attitude of FOMO and brand trust.

REFERENCES

Alt, D. (2017). Fear of missing out: Fundamental theory, research, and implications. *Psychology of Popular Media Culture*, *6*(2), 141-156.

Bank Indonesia. (2024). *Laporan transaksi e-commerce nasional 2023*. Jakarta: Bank Indonesia.

Casalo, L. V., Flavian, C., & Ibanez-Sanchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, *117*, 510-519.

Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, *65*(2), 81-93.

Cialdini, R. B. (2009). *Influence: Science and practice* (5th ed.). Pearson.

Delgado-Ballester, E., & Munuera-Aleman, J. L. (2005). Does brand trust matter to brand equity? *Journal of Product & Brand Management*, *14*(3), 187-196.

De Veirman, M., Cauberghe, V., & Hudders, L. (2017). Marketing through Instagram influencers: Impact of number of followers and product divergence on brand attitude. *International Journal of Advertising*, *36*(5), 798-828.

Djafarova, E., & Trofimenko, O. (2019). 'Instafamous' - credibility and self-presentation of micro-celebrities on social media. *Information, Communication & Society*, *22*(10), 1432-1446.

Francis, T., & Hoefel, F. (2018). *True Gen: Generation Z and its implications for companies*. McKinsey & Company.

Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review*, *37*(1), 90-92.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). SAGE Publications.

Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. Yale University Press.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*(2), 263-291.

Kotler, P., & Keller, K. L. (2022). *Marketing management* (16th ed.). Pearson Education.

Lee, J., & Kim, S. (2022). The impact of influencer credibility on consumer trust and impulsive purchase intention in social commerce. *Journal of Interactive Marketing Research*, *14*(2), 88-102.

Li, X., Chen, Y., & Wang, H. (2020). Time pressure and impulse buying: The mediating role of perceived scarcity. *Journal of Retailing and Consumer Services*, *54*, 102-118.

Lim, X. J., Radzol, A. R., Cheah, J., & Wong, M. W. (2023). The impact of social media influencers on purchase intention and consumer trust: A mediating role of perceived credibility. *Asia Pacific Journal of Marketing and Logistics*, *35*(1), 234-251.

Martini, I. A. O., & Damayanti, N. P. F. A. (2026). Analisis pengaruh fear of missing out dan kepercayaan merek terhadap keputusan pembelian melalui perilaku pembelian impulsif pada produk Timephoria. *Optimal: Jurnal Ekonomi dan Manajemen*, *6*(1), 313-331.

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press.

Molinillo, S., Anaya-Sanchez, R., & Liebana-Cabanillas, F. (2020). Online purchase decisions: The role of brand trust, online trust, and brand love. *Sustainability*, *12*(4), 1420.

Mulya, R. (2020). Pengaruh promosi digital terhadap perilaku impulse buying konsumen e-commerce di Indonesia. *Jurnal Manajemen Pemasaran Indonesia*, *15*(2), 101-113.

Pradana, G., & Sukmawati, D. (2022). Faktor psikologis fear of missing out (FOMO) dan dampaknya terhadap perilaku konsumtif generasi Z pengguna e-commerce. *Jurnal Psikologi Konsumen dan Industri*, *7*(1), 25-37.

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, *29*(4), 1841-1848.

Rachmania, V., Ramadhan, M. I., & Fatimah, S. E. (2025). The impact of scarcity and flash sale techniques on impulse buying of cosmetics. *Journal of Management and Entrepreneurship Research*, *6*(2), 113-123.

Rahmania, K., Purmono, B. B., Setiawan, H., & Hendri, M. I. (2023). The effect of flash sale on online impulse buying mediated by positive emotion in Shopee users (Case study on Gen Y). *Himalayan Journal of Economics and Business Management*, *4*(1), 2-7.

Rahmawati, N., & Puspitasari, D. (2023). Urgensi waktu dan FOMO terhadap perilaku impulsif konsumen dalam pembelian online. *Jurnal Ekonomi dan Bisnis Digital Indonesia*, *2*(3), 112-126.

Sugiyono. (2022). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.

We Are Social. (2025). *Digital 2025: Indonesia*. We Are Social & Meltwater.

Wisen, V. (2022). Pengaruh flash sale terhadap impulsive buying dengan fear of missing out (FOMO) sebagai variabel intervening pada pengguna aplikasi e-marketplace di Surabaya. *Naskah Publikasi Universitas Kristen Petra*, *1*(1), 1-15.

Yusof, N., Abdullah, N., & Hassan, R. (2022). FOMO, social media, and impulse buying behavior among youth. *Journal of Retailing and Consumer Services*, *64*, 102-115.

Zhao, M., & Xie, C. (2021). Flash sales and impulse buying behavior: Evidence from online retail. *Journal of Retailing and Consumer Services*, *58*, 102-119.