

Scarcity, FoMO, and Impulse Buying: The Moderating Role of Social Media

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Abstract

Shifts in consumer decision making have significantly increased impulse buying, particularly in visually appealing categories like fashion bags. This study aims to analyze the effects of scarcity and the fear of missing out (FoMO) on impulse buying, and to precisely examine the moderating role of social media use in this relationship. Using a quantitative approach with purposive sampling, data were collected from 178 female fashion bag consumers in the Greater Jakarta area. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that scarcity positively and significantly affects both impulse buying and FoMO. Furthermore, FoMO positively influences impulse buying. Crucially, social media use significantly moderates the effect of scarcity on impulse buying, although the effect size is relatively small. This research contributes to digital consumer behavior literature by conceptualizing social media not merely as an informational channel, but as an active psychological amplifier. Practically, the findings advise marketers to integrate scarcity cues with transparent social media strategies, while recognizing that the core drivers of impulse buying remain the psychological pressure of scarcity and FoMO.

Article Info

Keywords:

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1. Introduction

Changes in the way consumers make decisions have significantly influenced purchasing behavior (Figueiredo *et al.*, 2025). Impulse buying has become one of the most common consumer behaviors in today's marketing landscape (Lyu *et al.*, 2023). Impulse buying refers to shopping actions taken suddenly without prior preparation, often driven by emotions when consumers encounter certain factors (Li *et al.*, 2025). In this context, fashion bags are one of the product categories most susceptible to impulse buying because they possess strong visual appeal through attractive designs and colors, making it easy to capture consumers' attention and trigger impulse buying (Gandhi, 2023). This study is important for understanding the factors that can trigger impulse buying, which continues to grow amid the current digital transformation and shifts in consumer behavior (Tan *et al.*, 2024). This behavior is driven by consumers' tendency to make purchases without rational consideration of a product's needs and utility (Melati *et al.*, 2024).

In a highly competitive digital marketplace, marketers frequently employ scarcity strategies (limited quantity or time) to accelerate decision-making (Dahmiri *et al.*, 2023; Elisa *et al.*, 2022). When product availability is restricted, consumers experience psychological pressure that bypasses rational evaluation, directly driving impulsive purchases to secure the item before it is gone (Zhang *et al.*, 2021; Zhang *et al.*, 2022). Furthermore, this restricted availability triggers the Fear of Missing Out (FoMO) an anxiety about missing out on opportunities or trends that others are enjoying (Doan & Lee, 2023; Parveen *et al.*, 2022). Consequently, FoMO acts as a critical emotional catalyst that intensifies the urge to buy spontaneously, leading consumers to make impulsive decisions to avoid future regret (Dahmiri *et al.*, 2023; Djamhari *et al.*, 2024; Suhardi *et al.*, 2023).

In this context, social media use serves as the primary digital environment where these psychological triggers are amplified. High-intensity social media use continuously exposes consumers to scarcity cues, limited-time promotions, and peer driven social comparisons (Chen *et al.*, 2025; Lahath *et al.*, 2021). By enabling the rapid dissemination of product information and fostering a competitive digital atmosphere, social media use reinforces the relationship between scarcity and impulse buying, prompting consumers to act quickly without deliberate thought (Elisa *et al.*, 2022; Pellegrino *et al.*, 2022).

Several previous studies have supported and examined the relationship between scarcity and impulse buying (Dahmiri *et al.*, 2023; Zhang *et al.*, 2021; Zhang *et al.*, 2022; Elisa *et al.*, 2022). The relationship between scarcity and fear of missing out (Doan & Lee, 2023; Zhang *et al.*, 2021; Parveen *et al.*, 2022; Dahmiri *et al.*, 2023). The relationship between Fear of Missing Out and impulse buying (Dahmiri *et al.*, 2023; Zhang & Rosli, 2025; Djamhari *et al.*, 2024; Mustikasari *et al.*, 2025; Suhardi *et al.*, 2023). Social Media Use moderates the relationship between Scarcity and Impulse Buying (Chen *et al.*, 2025; Pellegrino *et al.*, 2022; Lahath *et al.*, 2021; Elisa *et al.*, 2022).

While previous studies, such as Zhang *et al.* (2021), have examined the relationship between scarcity and impulsive purchasing using the "bandwagon effect" as a moderator in the context of physical medical product shortages during the pandemic, the contemporary fashion retail landscape operates differently. In today's digital marketplace, scarcity is rarely experienced through physical queues rather, it is digitally constructed and amplified. Therefore, this study addresses a critical conceptual gap by replacing the traditional bandwagon moderator with Social Media Use. The novelty of this research lies in its conceptual advancement rather than merely replicating previous studies in a different location or product category, this study posits that social media use acts as a digital amplifier. High-intensity social media usage continuously exposes consumers to scarcity cues and peer-driven social comparisons, which accelerates decision-making and transforms passive scarcity perception into immediate impulsive action (Elisa *et al.*, 2022). This shifts the theoretical focus from physical herd behavior to the psychological impact of algorithmic and social exposure in digital environments.

Based on the above explanation, this study aims to analyze the effects of scarcity and

FoMO on impulse buying, and to examine the moderating role of social media use among fashion bag consumers in the Greater Jakarta (Jabodetabek) area. Academically, this study advances the literature on digital consumer behavior by demonstrating how the medium of information dissemination (social media) fundamentally alters the psychological impact of scarcity, moving beyond traditional scarcity marketing models. Practically, it provides strategic insights for marketers on how to ethically and effectively leverage digital platforms to communicate scarcity and trigger emotional urgency (FoMO) in a highly competitive market.

Relationships Between Variables

The Relationship Between Scarcity and Impulse Buying

Scarcity makes people feel they must make a decision immediately, so consumers do not have enough time to think rationally and carefully about the purchase they are about to make; as a result, consumers tend to make spontaneous or impulsive purchases (Zhang *et al.*, 2021). When consumers see that a product is available only in limited quantities or that an offer is about to end, they tend to buy it immediately without giving it much thought (Zhang *et al.*, 2022). Scarcity causes consumers to lose control over their purchasing decisions and adopt a competitive mindset to obtain the product, leading to impulse buying (Dahmiri *et al.*, 2023).

Research by Thuong (2020) indicates that scarcity has a positive effect on impulse buying. Research by Febrianty *et al.* (2024) indicates that scarcity has a positive effect on impulse buying. These findings are supported by Elisa *et al.* (2022), who state that scarcity has a positive effect on impulse buying. Based on studies by Zhang *et al.* (2021); Zhang *et al.* (2022); Dahmiri *et al.* (2023); Thuong (2020); Febrianty *et al.* (2024); dan Elisa *et al.* (2022), the following initial hypothesis is proposed:

H1: Scarcity has a positive effect on impulse buying

The Relationship Between Scarcity and Fear of Missing Out (FoMO)

When consumers perceive a product as being available only for a limited time, in limited quantities, or as an exclusive item, it can trigger a sense of Fear of Missing Out (FoMO), characterized by excessive anxiety about missing the opportunity to own that product compared to others (Zhang *et al.*, 2021). The greater the perceived scarcity of a product, the stronger the fear of missing out that consumers experience (Parveen *et al.*, 2022). Scarcity can also create psychological pressure that intensifies feelings of anxiety and worry among consumers, thereby triggering the development of Fear of Missing Out regarding that limited-availability product (Ryoga *et al.*, 2025)

Research by Doan & Lee (2023) indicates that scarcity has a positive effect on the Fear of Missing Out (FoMO). Another study by Cengiz & Şenel (2024) found that scarcity can have a positive effect on the Fear of Missing Out (FoMO). These findings are supported by research by Dahmiri *et al.* (2023) which also found that scarcity has a positive effect on the Fear of Missing Out (FoMO). Based on the research by Zhang *et al.* (2021); Parveen *et al.* (2022); Doan & Lee (2023); Cengiz & Şenel (2024); dan Dahmiri *et al.* (2023), the second hypothesis is proposed as follows:

H2: Scarcity has a positive effect on Fear of Missing Out (FoMO)

The Relationship Between Fear of Missing Out (FoMO) and Impulse Buying

Fear of Missing Out (FoMO) is closely linked to impulse buying (Dahmiri *et al.*, 2023). When people feel anxious about missing out on trends, attractive offers, or popular lifestyles, these feelings often drive them to make impulse purchases (Mustikasari *et al.*, 2025). Fear of Missing Out (FoMO) not only creates emotional pressure but also serves as a major trigger for impulsive shopping behavior among young consumers (Barbu Kleitsch & Drămnescu, 2025).

Research conducted by Zhang & Rosli (2025) indicates that Fear of Missing Out (FoMO) can have a positive effect on impulse buying. Research by Nguyen & Nguyen (2025) indicates that Fear of Missing Out (FoMO) has a positive effect on impulse buying. These findings align with the research by Djamhari *et al.* (2024) which found that the Fear of Missing Out (FoMO) has a positive effect on impulse buying. Research by Doan & Lee (2023) also indicates that the Fear of Missing Out (FoMO) has a positive effect on impulse buying. Another study by Suhardi *et al.* (2023) also found that the Fear of Missing Out (FoMO) has a positive effect on impulse

buying. These results are supported by research by Putri *et al.* (2024) which found that when people feel anxious about missing out on something they desire, they tend to make purchases without thinking twice; thus, the Fear of Missing Out has a positive effect on impulse buying. Based on studies by Dahmiri *et al.* (2023); Mustikasari *et al.* (2025); Zhang & Rosli (2025); Nguyen & Nguyen (2025); Doan & Lee (2023); Djamhari *et al.* (2024); Suhardi *et al.* (2023); dan Putri *et al.* (2024), the third hypothesis is proposed as follows:

H3: Fear of Missing Out (FoMO) has a positive effect on impulse buying

The moderating effect of social media use on the relationship between scarcity and impulse buying

Social media use can influence how people shop because individuals who are active on social media are more frequently exposed to promotional advertisements, which can increase the desire to purchase products impulsively (Chen & Zhi, 2022). The higher the intensity of social media use, the stronger the influence of scarcity on impulse buying (Chen *et al.*, 2025). Social media use acts as a channel that accelerates the spread of scarcity messages urging immediate purchase; when consumers see others' posts about successfully obtaining a scarce product, an emotional urge arises to buy that product as well so as not to be left behind (Korkamaz & Seyhan, 2021).

Research by Pellegrino *et al.* (2022) indicates that social media use moderates the effect of scarcity on impulse buying. Another study by Elisa *et al.* (2022) also indicates that social media use moderates the effect of scarcity on impulse buying. These findings align with the research by Lahath *et al.* (2021) which found that social media use moderates the effect of scarcity on impulse buying. Based on the research by Chen & Zhi (2022); Chen *et al.* (2025); Pellegrino *et al.* (2022); Elisa *et al.* (2022); dan Lahath *et al.* (2021), the fourth hypothesis is proposed as follows:

H4: Social media use moderates the effect of scarcity on impulse buying

Referring to the hypotheses outlined above, the research model to be used is as follows:

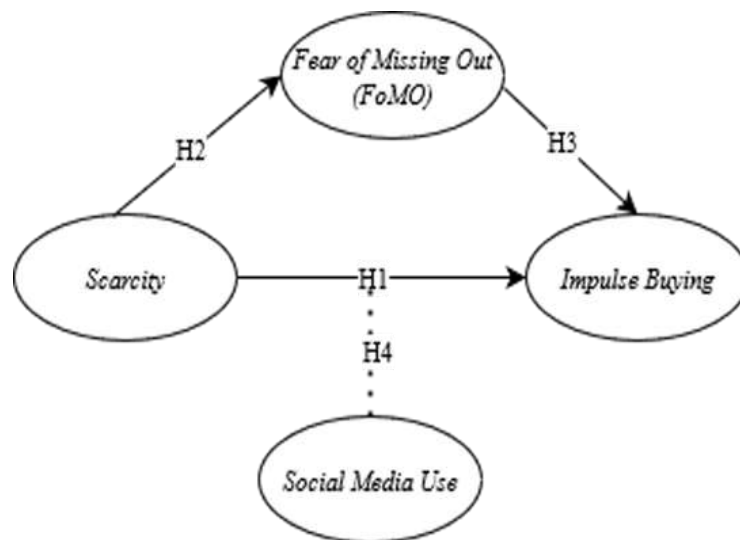


Figure 1. Research Model

2. Methods

This study employs a quantitative, data were collected via an online survey distributed through Google Forms from January to March 2026. The target population comprised women residing in the Greater Jakarta (Jabodetabek) area, aged 18 to 40 years, who actively use social media platforms (TikTok, Instagram, Facebook, and YouTube) and have previously made impulsive purchases of specific fashion bag brands (Les Catino, Mossdoo, or Bostanten). A purposive sampling technique was utilized. Based on the recommendation of Hair *et al.* (2017) the minimum sample size required was 150 respondents (6 multiplied by 25 indicators) this study successfully collected 178 valid responses.

Ethical Considerations and Data Screening Prior to data collection, ethical procedures were ensured. The first page of the questionnaire included an informed consent statement that explained the study's purpose, guaranteed respondent anonymity, and emphasized that participation was entirely voluntary. During the data screening process, responses with incomplete answers, duplicate IP addresses, or unusually rapid completion times (under three minutes) were excluded to ensure data quality and respondent seriousness.

All variables were measured using a four-point Likert scale (1 = strongly disagree to 4 = strongly agree) to avoid neutral response bias (Thessalonian & Prasetyo, 2025). The measurement instruments were adapted from established prior research. The Scarcity variable (5 items) was adapted from Zhang *et al.* (2021). Fear of Missing Out (FoMO) variable (4 items) was adapted from Zhang *et al.* (2022). The Social Media Use variable (7 items) was adapted from Lahath *et al.* (2021), and the Impulse Buying variable was adopted from (Zhang *et al.* (2021), originally consisting of 9 items.

Prior to the main survey, a pilot test involving 30 respondents was conducted to evaluate the validity and reliability of the measurement instrument using IBM SPSS Statistics. Construct validity was assessed using the Kaiser-Meyer-Olkin (KMO) and Measure of Sampling Adequacy (MSA) values, with a minimum threshold of 0.50, while reliability was evaluated using Cronbach's Alpha with a minimum acceptable value of 0.70. The pilot test results indicated that one indicator (IB8) showed an MSA value below the acceptable threshold and exhibited an inconsistent loading pattern compared to other Impulse Buying indicators. Therefore, this item was removed from the questionnaire, resulting in a final measurement instrument consisting of 24 indicators.

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 4.0. This analytical approach was selected because it is suitable for prediction-oriented research involving latent constructs, moderation analysis, and relatively small sample sizes (Prasetyo & Syabany, 2023). The moderating effect of Social Media Use on the relationship between Scarcity and Impulse Buying was examined using the Product Indicator Approach available in SmartPLS, which estimates the interaction effect between the independent and moderating variables.

The evaluation of the PLS-SEM model involved two stages. First, the outer model (measurement model) was assessed through outer loadings (> 0.70), convergent validity ($AVE > 0.50$), discriminant validity (Fornell-Larcker criterion and HTMT < 0.90), and reliability (Cronbach's Alpha, ρ_a , and $\rho_c > 0.70$). Second, the inner model (structural model) was evaluated through collinearity statistics ($VIF < 5.00$), the coefficient of determination (R^2), effect size (f^2), predictive relevance ($Q^2_{predict} > 0$ via the PLSpredict procedure), and model fit (SRMR < 0.08). Hypothesis testing was performed via bootstrapping with t-statistics > 1.645 and p-values < 0.05 .

3. Result and Discussion

Results

Respondent Demographics

Based on the data collected from 178 respondents, all respondents in this study were women, totaling 178 (100%). By age, the majority of respondents were in the 18–25 age group, totaling 140 (78.7%); 33 (18.5%) were aged 26–33; and 5 (2.8%) were aged 34–40. By place of residence, the majority of respondents were from Tangerang (72, or 40.4%), Jakarta (45, or 25.3%), Bogor (24, or 13.5%), Bekasi (21, or 11.8%), and Depok (16, or 9%). In terms of employment status, the majority of respondents were college students (118, or 66.3%), followed by private-sector employees (40, or 22.5%), self-employed individuals (15, or 8.4%), and civil servants (5, or 2.8%). In terms of highest level of education, high school/vocational school graduates were the largest group at 115 (64.6%), followed by bachelor's degree holders at 51 (28.7%), and associate degree holders at 12 (6.7%).

Outer Model

Outer Loading

Table 1. Outer Loading

Variable	Outer Loading
Scarcity	0.733 - 0.848
Fear of Missing Out (FoMO)	0.730 - 0.799
Social Media Use	0.734 - 0.797
Impulse Buying	0.719 - 0.843

Source: 2026 Data Processing

An indicator is considered to meet convergent validity if it has an outer loading value above 0.70 (Hair *et al.*, 2019). A higher outer loading value indicates that the indicator is better at explaining the latent variable it represents. Based on the outer loading results, all indicators for the variables Scarcity, Fear of Missing Out (FoMO), Social Media Use, and Impulse Buying have outer loading values above 0.70. The Scarcity variable ranges from 0.733 to 0.848, Fear of Missing Out (FoMO) ranges from 0.730 to 0.799, Social Media Use ranges from 0.734 to 0.797, and the Impulse Buying variable ranges from 0.719 to 0.843. This indicates that all indicators have a strong relationship with their respective latent variables.

Convergent Validity

Table 2. Convergent Validity

Variable	AVE
Scarcity	0.652
Fear of Missing Out (FoMO)	0.588
Social Media Use	0.586
Impulse Buying	0.630

Source: 2026 Data Processing

The Average Variance Extracted (AVE) is used to measure a construct's ability to explain the variance of its indicators. A construct is considered to meet convergent validity if it has an AVE value greater than 0.50 (Hair *et al.*, 2019). Based on the test results, all variables in this study have AVE values above 0.50, namely Fear of Missing Out (FoMO) at 0.588, Impulse Buying at 0.630, Scarcity at 0.652, and Social Media Use at 0.586.

Reliability

Table 3. Reliability

Variable	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)
Scarcity	0.866	0.876	0.903
Fear of Missing Out (FoMO)	0.766	0.765	0.851
Social Media Use	0.882	0.885	0.908
Impulse Buying	0.915	0.918	0.931

Source: 2026 Data Processing

The reliability test was conducted by examining Cronbach's Alpha and Composite Reliability values. A construct is considered reliable if its Cronbach's Alpha, Composite Reliability (rho_a), and Composite Reliability (rho_c) values are all greater than 0.70. The highest results were found in the Impulse Buying variable, which obtained a Cronbach's Alpha value of 0.915, a Composite Reliability (rho_a) of 0.918, and a Composite Reliability (rho_c) of 0.931. The lowest results were found in the "Fear of Missing Out (FoMO)" variable, with a Cronbach's Alpha of 0.766, a Composite Reliability (rho_a) of 0.765, and a Composite

Reliability (rho_c) of 0.851.

Discriminant Validity

Table 4. Discriminant Validity

	Fear of Missing Out (FoMO)	Impulse Buying	Scarcity	Social Media Use	Social Media Use x Scarcity
Fear of Missing Out (FoMO)					
Impulse Buying	0.452				
Scarcity	0.551	0.638			
Social Media Use	0.233	0.564	0.396		
Social Media Use x Scarcity	0.061	0.192	0.168	0.117	

Source: 2026 Data Processing

In this study, discriminant validity was tested using the Fornell-Larcker Criterion and the Heterotrait-Monotrait Ratio (HTMT). Based on the test results, all constructs met the criteria for discriminant validity because the root-mean-square AVE values for each construct were greater than the correlation coefficients with the other constructs. The root-mean-square AVE values were 0.767 for Fear of Missing Out (FoMO), 0.793 for Impulse Buying, 0.807 for Scarcity, and 0.765 for Social Media Use. The HTMT test results indicated that all constructs also met the criteria, with values below 0.90. The HTMT values in this study ranged from 0.061 to 0.638. The highest HTMT value was found for Scarcity and Impulse Buying at 0.638, while the lowest value was found for Fear of Missing Out (FoMO) in interaction with Social Media Use and Scarcity at 0.061.

Inner Model Collinearity Statistics (VIF)

Table 5. Collinearity Statistics (VIF)

	VIF
Fear of Missing Out (FoMO) on Impulse Buying	1,265
Scarcity on Fear of Missing Out (FoMO)	1,000
Scarcity on Impulse Buying	1,414
Social Media Use on Impulse Buying	1,140
Social Media Use Moderates of Scarcity on Impulse Buying	1,026

Source: 2026 Data Processing

Based on the test results, all indicators in this study had VIF values below 5.00, with Fear of Missing Out (FoMO) having VIF values ranging from 1.368 to 1.676. Impulse Buying ranges from 1.729 to 2.774, Scarcity ranges from 1.650 to 2.163, and Social Media Use ranges from 1.773 to 2.069. Additionally, the interaction term between Social Media Use and Scarcity has a VIF value of 1.000. Thus, all indicators in this study are deemed free from multicollinearity.

R-Square

Table 6. R-Square

	R-square	R-square adjusted
Fear of Missing Out (FoMO)	0.208	0.203
Impulse Buying	0.465	0.453

Source: 2026 Data Processing

The R-Square was calculated to determine the extent to which the research model can explain the endogenous variables (Aulia *et al.*, 2025). A higher R-Square value indicates that the model is better able to explain the research variables. According to Hair *et al.* (2019), an R-Square value of 0.75 is classified as strong, 0.50 as moderate, and 0.25 as weak. Based on the test results, Fear of Missing Out (FoMO) has an R-Square value of 0.208 and an Adjusted R-Square of 0.203. These results indicate that the Fear of Missing Out (FoMO) variable can be explained by the Scarcity variable by 20.8%, while the remaining 79.2% is explained by other factors outside the model. Furthermore, Impulse Buying has an R-Square value of 0.465 and an Adjusted R-Square of 0.453. These values indicate that the Impulse Buying variable can be explained by the Scarcity, Fear of Missing Out (FoMO), and Social Media Use variables by 46.5%, while the remaining 53.5% is explained by other factors outside the research model.

F-Square

Table 7. F-Square

	Fear of Missing Out (FoMO)	Impulse Buying	Scarcity	Social Media Use	Social Media Use x Scarcity
Fear of Missing Out (FoMO)		0.028			
Impulse Buying					
Scarcity	0.263	0.188			
Social Media Use		0.200			
Social Media Use x Scarcity		0.015			

Source: 2026 Data Processing

The F-Square test was conducted to determine the magnitude of each exogenous variable's contribution to the endogenous variables in the research model. Based on the test results, the F-Square value for the relationship between Scarcity and Fear of Missing Out (FoMO) is 0.263, which falls into the moderate category. The F-Square value for the relationship between Scarcity and Impulse Buying is 0.188, also falling into the moderate category. The effect of Fear of Missing Out (FoMO) on Impulse Buying is 0.028, which falls into the small category. Additionally, the effect of Social Media Use on Impulse Buying is 0.200, placing it in the moderate category. Meanwhile, the combined contribution of Social Media Use and Scarcity to Impulse Buying is 0.015, which falls into the small category.

Predictive Relevance (Q²predict)

Table 8. Predictive Relevance (Q²predict)

	Q²predict	RMSE	MAE
Fear of Missing Out (FoMO)	0.189	0.913	0.696
Impulse Buying	0.425	0.766	0.586

Source: 2026 Data Processing

Predictive relevance was assessed using the PLSpredict procedure by examining the Q²predict values for the endogenous variables. A model is considered to have good predictive ability if the Q²predict value is greater than 0. Based on the test results, the Q²predict value for the Fear of Missing Out (FoMO) variable was 0.189 with an RMSE of 0.913 and an MAE of 0.696, while Impulse Buying had a Q²predict value of 0.425 with an RMSE of 0.766 and an MAE of 0.586. These results indicate that the endogenous variables have a Q²predict value > 0, meaning the research model has adequate predictive relevance

Model Fit

Table 9. Model Fit

	Saturated model	Estimated model
SRMR	0.057	0.058
d_ULS	0.992	0.999
d_G	0.379	0.379
Chi-square	372.606	373.194
NFI	0.841	0.841

Source: 2026 Data Processing

Model fit tests were conducted to determine the degree of fit between the research model and the collected data. In this study, model fit was assessed using the SRMR value. A model is considered to have a good fit if the SRMR value is below 0.08. The SRMR value for the saturated model was 0.057, and for the estimated model, it was 0.058. These values indicate that the research model meets the model fit criteria because they are below 0.08. Additionally, the NFI values of 0.841 for the saturated model and 0.841 for the estimated model indicate that the model has a fairly good level of fit.

Path Coefficients

Path coefficients indicate the strength and direction of the direct relationship between independent and dependent variables in path analysis.

Table 10. Path Coefficients - Direct Effect Results

Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
The Effect of Scarcity on Impulse Buying	0.377	0.376	0.066	5.744	0.000
The Effect of Scarcity on Fear of Missing Out (FoMO)	0.456	0.466	0.060	7.637	0.000
The Effect of Fear of Missing Out (FoMO) on Impulse Buying	0.138	0.138	0.058	2.357	0.009
The Effect of Social Media Use on Impulse Buying	0.349	0.356	0.055	6.383	0.000
Social Media Use Moderates the Effect of Scarcity on Impulse Buying	0.100	0.097	0.055	1.808	0.035

Source: 2026 Data Processing

Based on the results above, Scarcity exerts a positive and significant direct effect on both

Impulse Buying ($\beta = 0.377$, $p < 0.001$) and Fear of Missing Out (FoMO) ($\beta = 0.456$, $p < 0.001$). These findings indicate that product scarcity not only drives spontaneous purchasing behavior but also triggers psychological anxiety about missing out on limited opportunities. FoMO, in turn, significantly influences Impulse Buying ($\beta = 0.138$, $p = 0.009$), suggesting that emotional urgency plays a critical role in accelerating purchasing decisions.

Furthermore, the interaction term between Social Media Use and Scarcity is positive and significant ($\beta = 0.100$, $p = 0.035$), confirming that social media use moderates the effect of scarcity on impulse buying. This finding highlights the role of social media as a digital amplifier that intensifies the psychological pressure of scarcity. Additionally, although not formulated as a primary hypothesis, Social Media Use was found to have a direct and significant effect on Impulse Buying ($\beta = 0.349$, $p < 0.001$). This additional finding suggests that high-intensity social media engagement independently contributes to impulsive purchasing behavior, beyond its moderating function.

Path Diagram

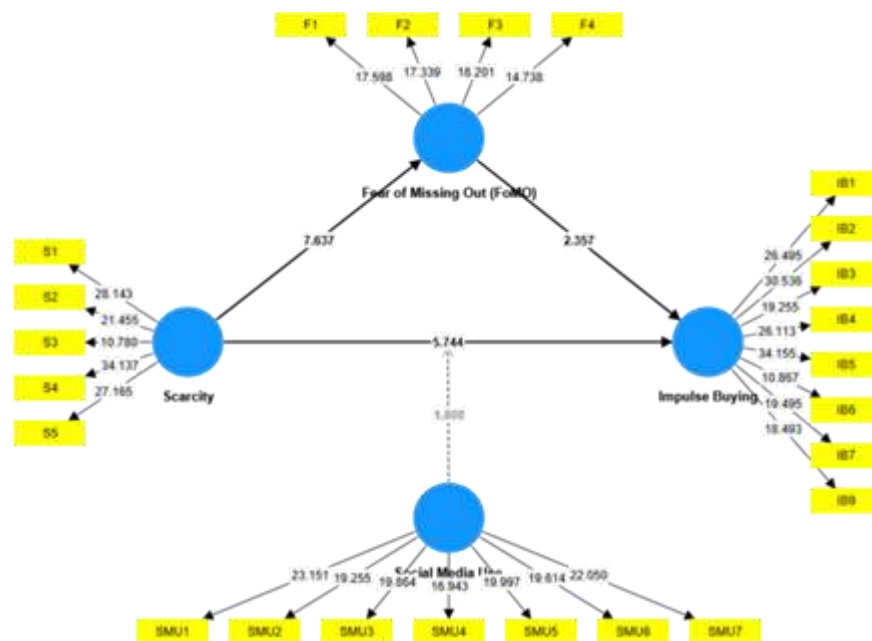


Figure 2. T-Value Path Diagram

Source: Authors' analysis using SmartPLS 4.0

Hypothesis Testing

Hypothesis testing was conducted to determine the significance of the relationships among the variables in this study. Hypothesis testing was performed using bootstrapping by examining the T-statistics and P-values. According to Hair *et al.* (2019) a hypothesis is accepted if the T-statistics value is greater than 1.645 and the P-value is less than 0.05.

Table 11. Results of Hypothesis Testing for the Research Model

Hypothesis	Hypothesis Statement	Original Sample (O)	T Statistic (>1.645)	P Values	Conclusion
H1	Scarcity has a positive effect on impulse buying	0.377	5.744	0.000	H1 Accepted
H2	Scarcity has a positive effect on the fear of missing out (FoMO)	0.456	7.637	0.000	H2 Accepted
H3	The fear of missing out (FoMO) has a positive effect	0.138	2.357	0.009	H3 Accepted

	on impulse buying				
H4	Social media use moderates the effect of scarcity on impulse buying	0.100	1.808	0.035	H4 Accepted

Source: 2026 Data Processing

Scarcity was found to have a positive and significant effect on Impulse Buying, indicating that product scarcity increases consumers' tendency to make spontaneous, unplanned purchases, as limited availability creates psychological pressure that bypasses rational evaluation. Scarcity also significantly influences Fear of Missing Out (FoMO), illustrating that limited product availability can cause individuals to worry about missing the opportunity to obtain a desired product, particularly when they perceive that others may acquire it first. These two findings together suggest that scarcity operates through both behavioral and emotional pathways in driving impulsive consumption.

Furthermore, Fear of Missing Out (FoMO) was found to have a positive and significant effect on Impulse Buying, suggesting that the fear of falling behind others drives individuals to make spontaneous purchasing decisions in order to avoid future regret. This finding reinforces the role of emotional urgency as a critical catalyst in accelerating purchasing behavior. Crucially, Social Media Use was found to significantly moderate the effect of Scarcity on Impulse Buying, indicating that social media use plays a role in amplifying the influence of scarcity on impulse buying by acting as a digital channel that intensifies exposure to scarcity cues. However, it is important to note that the effect size of this moderation is relatively small ($f^2 = 0.015$). This suggests that while social media amplifies the scarcity effect, the core drivers of impulse buying remain the direct psychological pressure of scarcity and FoMO, and its practical impact is limited compared to these direct effects.

Overall, these results are consistent with the proposed research model and align with the theoretical expectations of digital consumer behavior, confirming that all hypothesized relationships are empirically supported.

Discussion

The findings of this study confirm that scarcity acts as a powerful stimulus that directly drives impulse buying and triggers the Fear of Missing Out (FoMO) among fashion bag consumers in the Greater Jakarta area. In the digital retail context, limited product availability creates a sense of urgency that bypasses rational evaluation. Consumers perceive restricted stock not merely as a supply constraint, but as a signal of high desirability and social value. This perception immediately activates FoMO an emotional state characterized by the anxiety of being left behind or missing a trending opportunity (Cengiz & Şenel, 2024; Doan & Lee, 2023). Consequently, this emotional arousal serves as a critical catalyst, accelerating the decision-making process and leading to spontaneous, unplanned purchases to avoid future regret (Dahmiri *et al.*, 2023; Djamhari *et al.*, 2024; Nguyen & Nguyen, 2025; Zhang & Rosli, 2025). These mechanisms extend previous findings on scarcity marketing (Elisa *et al.*, 2022; Febrianty *et al.*, 2024; Zhang *et al.*, 2021), demonstrating that in visually appealing categories like fashion, the emotional pathway is a primary driver of impulse buying.

Furthermore, the positive influence of FoMO on impulse buying highlights the psychological pressure consumers feel to avoid regret over missing an opportunity that may never come again. When individuals experience this anxiety about missing out on valuable experiences or products currently in high demand, they tend to make spontaneous purchases to remain engaged with their social environment (Djamhari *et al.*, 2024; Putri *et al.*, 2024). This suggests that the fear of falling behind others drives individuals to make spontaneous purchasing decisions, reinforcing the role of emotional urgency as a critical catalyst in accelerating purchasing behavior, consistent with recent studies on young consumers (Barbu Kleitsch & Drămnescu, 2025; Zhang & Rosli, 2025).

Regarding the moderating role of social media use, the results demonstrate a statistically

significant positive interaction, indicating that social media acts as a digital amplifier by continuously exposing consumers to scarcity cues and peer driven social comparisons (Chen *et al.*, 2025; Elisa *et al.*, 2022; Lahath *et al.*, 2021). However, it is crucial to distinguish between statistical significance and practical importance. While this moderation effect is statistically significant ($p = 0.035$), its practical impact is relatively small ($f^2 = 0.015$). This limited effect size suggests that high social media usage does not uniformly translate into transactional intent, as many users consume digital content primarily for entertainment, information seeking, or social interaction rather than immediate purchasing (Pellegrino *et al.*, 2022). Therefore, while social media provides the environment where scarcity cues are disseminated, the inherent psychological pressure of scarcity itself and the resulting FoMO remain the core, more powerful drivers of impulse buying.

4. Conclusion

Based on the research findings, scarcity has a positive and significant effect on impulse buying, suggesting that limited stock can encourage consumers to make unplanned purchases. Scarcity also has a positive and significant effect on Fear of Missing Out (FoMO), as product scarcity triggers anxiety about missing out, particularly in the fashion category, which is heavily influenced by social trends. Furthermore, FoMO has a positive and significant effect on impulse buying, where the emotional drive to avoid missing out leads to spontaneous purchase decisions. Social media use positively and significantly moderates the relationship between scarcity and impulse buying, although the relative effect is small.

Theoretically, this study contributes to the digital consumer behavior literature by positioning social media use as a boundary condition that subtly reinforces psychological triggers, rather than as a primary driver of impulse buying. However, these findings should be interpreted with caution regarding their generalizability. The sample consisted exclusively of female consumers, mostly young (18–25 years old) and predominantly university students, and focused on three specific fashion bag brands in the Greater Jakarta (Jabodetabek) area. Therefore, the results of this study may not be broadly applicable to all consumer demographics, geographic regions, or product categories.

Limitations and Future Research Directions

This study has several limitations that should be considered for future research. A primary limitation regarding the scope of generalization is that the sample consists exclusively of female consumers, is predominantly young (aged 18–25) and composed mainly of students, resides in the Greater Jakarta (Jabodetabek) area, and focuses on only three specific fashion bag brands. Consequently, the findings may not be broadly generalizable to male consumers, older demographics, other geographical regions, or different product categories. Another limitation is that the data were collected via an online questionnaire, which may be subject to self-reporting bias. Additionally, although Social Media Use was found to play a significant moderating role, its effect size was relatively small, suggesting that other unmeasured factors may have a stronger influence on the scarcity to impulse buying relationship.

For future research, it is recommended to include other variables that may influence Fear of Missing Out (FoMO) and impulse buying, such as price discounts. Shopping lifestyle and electronic word-of-mouth (e-WOM) should be included so that the research model can more accurately explain endogenous variables. Additionally, future research is advised to examine the influence of additional moderating variables that may have a greater impact on the relationship between Scarcity and Impulse Buying, as the moderating variables in this study, although showing a significant influence, have a low contribution. Furthermore, future research is also advised to develop a research model that considers Fear of Missing Out (FoMO) as a mediating variable in the relationship between Scarcity and Impulse Buying, as well as to examine the influence of Social Media Use on Impulse Buying to gain a deeper understanding of the factors influencing impulsive purchasing. Regarding data collection methods, it is recommended that

future studies not only use questionnaires via Google Forms but also employ other methods such as interviews, observations, or direct distribution of questionnaires to obtain more varied data and reduce the likelihood of bias in respondents' answers. Future research could also expand the geographical scope of the study and use different research subjects so that the results can be compared and generalized more broadly.

Managerial Implications

This study suggests that fashion businesses need to implement both limited-quantity and limited-time scarcity strategies. Limited-quantity scarcity is implemented by limiting the number of products available in a particular collection. Meanwhile, previous research suggests that limited-time scarcity can be implemented by setting a time limit for offers within a specific period and communicating this clearly and transparently to consumers. Because the moderating effect of social media usage is relatively small, businesses need to optimize the use of platforms such as TikTok, Instagram, Facebook, and YouTube to convey information regarding the limited availability of products in a particular collection, as well as the time limit for offers, clearly, accurately, and in real-time to create a perception of scarcity and encourage impulse buying among consumers.

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Conflict Of Interest

"The authors declare no conflict of interest."

Author Contributions

The authors all contributed to this study, from conceptualization, methodology, data collection, and analysis to the initial draft, revision, and editing, and worked on it collaboratively.

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