

The Effect of Live Streaming and E-reviews in the Marketplaces on Impulsive Buying Moderated by FOMO

Ni Komang Nanda Aryanita^{1*}, Lalu Adi Permadi²

Management, Faculty of Economics and Business, University of Mataram, Indonesia

Corresponding Author: Ni Komang Nanda Aryanita

komangnanda211@gmail.com

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ABSTRACT

This study investigates the influence of live streaming and e-reviews on impulse buying behavior, with Fear of Missing Out (FOMO) as a moderating variable in the context of digital markets. Using quantitative research methods and analyzing data from 260 respondents through SmartPLS 3, this study tested five hypotheses. The findings revealed that live streaming significantly and positively impacts impulse buying. This suggests that interactive elements and time-limited promotions during live streaming effectively encourage impulse buying. In contrast, e-reviews were found to have no statistically significant positive effect on impulse buying. FOMO demonstrated a significant positive effect on impulse buying, strongly supporting its role as a direct driver of impulse buying. However, FOMO did not significantly moderate the relationship between live streaming and impulse buying, nor did it significantly moderate the relationship between e-reviews and impulse buying. This suggests that while FOMO directly drives impulse buying, it does not alter the impact of live streaming or e-reviews on impulse buying behavior.

INTRODUCTION

The rapid development of digital technology has transformed the global trade landscape, particularly in Indonesia. Marketplaces have become primary platforms for buying and selling, offering easy access and a diverse selection of products. This phenomenon has not only changed the way people shop but also triggered an evolution in consumer behavior (Amory & Mudo, 2025). One of the most prominent behavioral changes is the increase in Impulsive Buying Behavior, which is the tendency to make purchases suddenly, without careful planning, and often driven by momentary emotions (Rodrigues et al., 2021).

In an effort to attract attention and drive sales, *marketplace* continues to innovate by introducing various interactive features. One of the marketplace's exciting features is Live Streaming Shopping. This feature allows real-time interaction between sellers (or streamers) and potential buyers (Kim et al., 2023). Sellers can demonstrate products, answer questions in real time, and often offer exclusive deals or time-limited discounts (scarcity). The interactive nature, engaging visuals, and sense of urgency created by the limited time in live streaming have proven to be powerful stimuli for triggering impulse purchases (M. Li et al., 2022). Previous research conducted by (Krisnandi & Soebiantoro, 2025) also proves that by using the live streaming feature sales increase, as shown in figure 1.

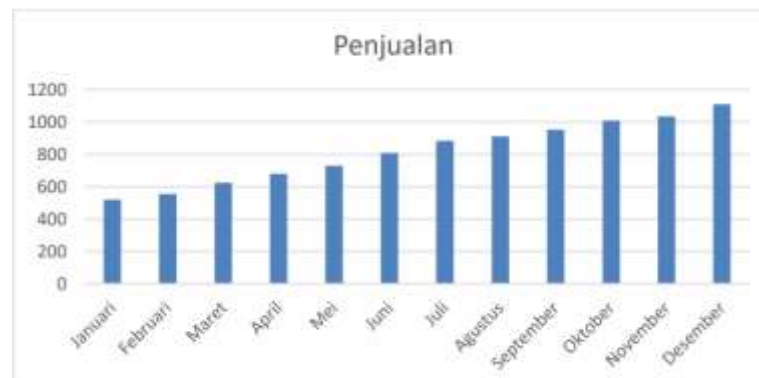


Figure 1: Sales Increase at CV. Avero

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Reviews and ratings from other customers are a crucial source of information in the online environment. E-reviews serve as a form of electronic word of mouth (e-WOM), providing social validation and reducing the uncertainty (risk) perceived by buyers (Dwidienawati et al., 2020). A large number of positive reviews can build trust quickly and create a bandwagon effect that encourages consumers to make immediate purchases, even impulsively (Y. Chen et al., 2019). Although both independent variables (Live Streaming and E-Review) have been studied for their effects both separately and jointly on purchases, the psychological mechanisms linking these marketplace stimuli to impulsive purchasing responses still need to be explored further, especially through the role of moderating variables.

Amidst the flood of online information and offers, a significant psychological phenomenon has emerged: Fear of Missing Out (FOMO). FOMO is defined as a feeling of anxiety or worry arising from the fear of missing out on

valuable experiences, information, or opportunities that others are experiencing or experiencing (Karimkhan & Chapa, 2021; Şeker, 2022). In the context of live streaming and marketplaces, FOMO is particularly relevant because live broadcasts often feature flash sales, limited-time discounts, or limited stock (scarcity), which directly trigger buyers' fear of "running out" of the best opportunity or offer (Şeker, 2022; Wilis & Widyastuti, 2025). Furthermore, very positive E-Reviews, especially if presented in large numbers, can create a feeling that others have had a satisfying and valuable product/experience (Quan et al., 2023). This can increase individuals' concerns about "missing out" or not having a popular product. Previous research has shown that FOMO is a significant driver of impulse buying behavior. However, there is little research specifically examining how FOMO can strengthen (moderate) the relationship between marketplace stimuli (such as Live Streaming and E-Reviews) and impulse buying rates. It is suspected that individuals with high levels of FOMO will be much more susceptible to impulse buying when exposed to Live Streaming with urgent offers or highly compelling E-Reviews (Dang et al., 2025).

According to a survey conducted by GoodStats in 2024, around 76% of Indonesians prefer shopping via live streaming features in marketplaces (Lubis, 2024). 48.7% of respondents admitted to using the live streaming feature in the marketplace for shopping at least several times a month, the rest or around 22.7% make purchases several times a week, and the remaining 5% admitted to shopping via live streaming every day. With the popularity of live streaming shopping in Indonesia and the fundamental role of e-reviews in purchasing decisions, an in-depth understanding of how the combination of these two factors interacts with the consumer psychological state (FOMO) to produce impulsive purchases is very important. Therefore, this study aims to fill the research gap by empirically testing the Effect of Live Streaming and E-Reviews in the Marketplace on Impulsive Buying Behavior with FOMO as a Moderator. The results of this study are expected to provide theoretical contributions in the field of consumer behavior, especially in the context of social commerce, as well as provide practical implications for marketplaces and online sellers in designing more ethical and effective marketing strategies.

LITERATURE REVIEW

Stimulus Organism Response (SOR)

The Stimulus-Organism-Response Theory was developed by Albert Mehrabian and his colleague James A. Russell. They introduced the model in 1974. This theory has significantly contributed to various fields such as environmental psychology, consumer behavior, and organizational studies. The SOR model emphasizes the internal processes of organisms in responding to external stimuli and highlights the importance of both emotional and cognitive interpretations in decision-making (Hochreiter et al., 2022). The SOR theory in marketing is able to explain how a comprehensive framework for understanding consumer behavior during the decision-making process. This model argues that external stimuli influence an organism's internal state, which then drives a person's response, including purchasing decisions. The SOR framework is

particularly relevant in analyzing how various environmental cues influence consumer attitudes and behavior (Chang et al., 2011).

According to SOR theory, there are three stages leading to a purchasing decision. The first stage is stimulus. In this stimulus stage, various external and internal stimuli can influence a person. External factors include marketing cues, product features, social influences, and other marketing strategies (Y. Liu et al., 2024). Then it continues to the organism stage which involves the consumer's internal processing, where cognitive traits (such as memory and beliefs) and emotional responses (such as satisfaction or anxiety) are activated by stimuli (Jayanti & Tasrim, 2022). Finally, in the response stage, consumers respond to what was given in the stimulus and organism stages. This is manifested in the form of a purchase or a decision to refrain from purchasing. This response is influenced by previous cognitive and emotional evaluations (Raya, 2023).

Impulse Buying

Impulsive buying is part of the Stimulus Organism Response (SOR) Theory, where the SOR Theory explains how the phenomenon of impulsive buying can occur through 3 stages of the theory itself, namely stimulus, organism, and response (Yulianto et al., 2021). Impulse buying occurs at the response stage, meaning that before reaching the response stage, the consumer has already received a stimulus and the organism. In the stimulus stage, the consumer receives a stimulus from the environment. Once the stimulus is received, the organism continues to receive it. At this stage, the consumer's emotions begin to be influenced and ultimately respond to what has been given in the stimulus stage (Chang et al., 2011). This SOR theory is commonly used, especially in marketing science, because it is related to consumer behavior (Yan et al., 2023).

Impulse buying can be defined as an immediate and unplanned purchase, often driven by emotional reactions rather than rational decision making (Dang et al., 2025). These driving factors can come from both external and internal factors. External factors that trigger impulsive buying behavior include financial conditions. Situational factors such as time availability and financial resources play a significant role in impulsive buying. Consumers with more time and disposable income are more likely to engage in impulsive buying (Khanh & Huong, 2024). In addition, external factors that influence impulsive buying behavior are cultural influences. When there is a cultural shift towards consumerism, it can increase the tendency for impulsive buying (Lin, nd) Impulsive buying behavior can also stem from internal factors, namely a consumer's emotional state. Emotional states, both positive and negative, significantly impact impulse buying. Consumers may engage in impulsive buying to reduce negative emotions or increase positive emotions. Stress and boredom are common emotional triggers that lead to impulsive buying as a coping mechanism to reduce negative feelings (Pacheco et al., 2021). Furthermore, impulse buying can also be driven by hedonic motivation. Hedonic shopping motivation, which focuses on the pleasure and enjoyment derived from the shopping experience, is a strong predictor of impulse buying behavior.

Consumers often seek the thrill and excitement associated with unplanned purchases, which can be enhanced by an appealing store atmosphere and persuasive online interface (K & Krishnan, 2025).

Live Streaming on Marketplace

Live commerce is a technology that combines live broadcasting with a marketplace, allowing sellers to demonstrate products and interact with consumers in real time. This approach enhances the shopping experience by providing a dynamic and engaging platform for product promotion and sales (Kim et al., 2023). Real-time interaction between streamers (sellers) and viewers (consumers), which fosters a sense of community and trust, encourages consumers to buy (R. Li et al., 2023). Live commerce is often described as “shopping entertainment” live commerce combines entertainment with commercial activities, making the shopping process more fun and engaging for consumers (Nuraisah et al., 2024). The interactive nature of live streaming allows consumers to ask questions and receive immediate feedback. This can also foster a sense of trust and connection with the seller (Kharisma et al., 2024). Features like small video windows allow consumers to continue watching the live stream while browsing product details, ensuring the best shopping experience (Z. Chen, 2019).

Major platforms like Taobao Live in China and Shopee in Southeast Asia have been crucial to the rise of live commerce. These platforms provide the infrastructure for live streaming and facilitate transactions, making them central to the live commerce ecosystem (R. Li et al., 2023). Mapping of merchants, commodities, and shopping guides in the live broadcast system ensures a personalized shopping experience, in line with the dynamics of offline shopping (X. Liu, 2021). In addition, live broadcasts also function as a digital marketing strategy that can significantly contribute to business development by increasing brand visibility and consumer engagement (Iryani & Fauzan, 2023). Sellers can utilize live streaming to showcase new products, conduct live promotions and offer exclusive deals, thereby increasing their competitive edge in the market (Yao & Wan, 2017).

H1: Live broadcasts have a positive effect on impulsive buying behavior.

E-Review

An e-review is consumer-generated content that provides feedback about a product or service in the marketplace. E-reviews serve as a form of digital word-of-mouth (E-WOM) communication, offering insight into consumer experiences and satisfaction levels (Ozturkcan & GURSOY, 2014). These reviews are an integral part of the feedback system used by the marketplace to build trust and reputation among buyers (Pocchiari et al., 2025). (M, 2024) argue that e-reviews significantly influence consumer trust and purchasing decisions. Factors such as review authenticity, sentiment, and content detail are crucial in fostering consumer trust. More deeply, positive reviews can increase consumer trust and encourage purchase intentions, while negative reviews increase perceived risk, meaning they can make consumers think twice about making a purchase (Udayana &

Indrya, 2024). In addition, the credibility of reviews, including the quality of information, plays an important role in building consumer trust (Udayana & Indrya, 2024).

Online reviews impact brand reputation by shaping consumer perceptions and influencing purchasing decisions. Positive reviews can enhance brand reputation and increase the likelihood of a purchase (Traore, 2024). Companies actively monitor online reviews to improve their products and marketing strategies, using consumer feedback to enhance customer relationship management and product development (Sharma & Kumar, 2023). Apart from that, according to research (M, 2024). E-reviews provide valuable insights for businesses to manage their online reputation and leverage consumer feedback to improve products and services. Despite their benefits, e-reviews face challenges such as promotional motivation, self-selection bias, and context effects, which can compromise their reliability and usefulness. The complexity of online reviews requires further exploration to address these challenges and enhance their effectiveness in digital marketing strategies (Pocchiari et al., 2025).

H2: E-reviews have a positive influence on impulsive buying behavior.

FOMO (Fear of Missing Out)

Fear of Missing Out (FOMO) is rooted in the anxiety of missing out on interesting or rewarding experiences, which marketers exploit to influence consumer behavior (Özden, 2022) (Şeker, 2022). This is related to impulsive shopping behavior, as consumers are driven by the fear of missing out on limited-time offers or exclusive deals (Karimkhan & Chapa, 2021). Usually the trigger is constant updates and curated content on social media platforms that contribute significantly to FOMO behavior, as users feel the need to follow other people's experiences (Xi et al., 2022). The desire to belong to a particular group can also trigger FOMO, as individuals fear being left out of social settings or events (Şeker, 2022) (Karimkhan & Chapa, 2021). In addition, marketing strategies that emphasize scarcity or exclusivity can increase FOMO, because consumers are driven by the fear of missing out on limited-time offers or exclusive products (Şeker, 2022) (Wilis & Widyastuti, 2025).

The existence of FOMO behavior can benefit the marketing world because FOMO can encourage higher levels of engagement because consumers are motivated to participate in promotions or events to avoid missing out (Matić Šošić, 2024) (Tresna et al., 2025). According to the results of research conducted (Alfina et al., 2023) And (Hodkinson, 2019). The urgency created by FOMO can lead to impulse purchases, increasing sales and revenue for businesses. When used effectively, FOMO can increase brand loyalty by creating a sense of community and belonging among consumers. While FOMO can drive sales, it can also lead to negative consumer experiences, such as buyer's remorse from impulse purchases (Tresna et al., 2025). Therefore, marketers must balance their strategies.

H3: FOMO has a positive effect on impulsive buying behavior.

The Relationship Between Live Broadcasting and Impulsive Buying

Live broadcasts often incorporate elements such as real-time interaction, music, and visual effects, which increase emotional arousal and engagement among viewers (consumers). This increased arousal can lead to impulse buying intentions, as consumers are more likely to make spontaneous purchases when emotionally stimulated (Z. Luo, 2024; Yeh & Liu, 2024). Likewise with the results of research conducted by (Indriastuti et al., 2024) which revealed that real-time interactions during live broadcasts significantly impact impulse purchases by increasing perceived enjoyment and creating an engaging shopping experience. This interaction bridges the gap between consumer stimulus and response (SOR theory), leading to impulse purchases. One platform that utilizes live broadcasts to strengthen social interaction and visual appeal is Shopee (Tertiény et al., 2024).

Sellers typically implement several marketing strategies during live broadcasts. Flash sales and limited-time promotions are effective strategies in live broadcasts that create a sense of urgency (FOMO), encouraging consumers to make quick purchasing decisions. This urgency is often heightened by time pressure, which positively influences impulse buying behavior (Al Jonet et al., 2024; Gumilang et al., 2024). Impulse purchases are also often influenced by live streamers. In China, retailers often use influencers as their live streamers, as influencers play a crucial role in live stream sales by leveraging their trustworthiness and appeal to drive impulse purchases. Their ability to engage viewers and create a consumer experience increases viewer satisfaction, which ultimately stimulates impulse purchases (X. Liu et al., 2020). Research conducted by (H. Luo & Dong, 2025) revealed that rich visual presentations with real-time interactivity contribute to impulse purchases by creating a seamless and engaging shopping experience.

H4 : FOMO moderates the relationship between live streaming and impulse buying.

The Relationship Between E-Reviews and Impulse Buying

E-reviews often serve as a source of emotional validation and social connection, which can increase the likelihood of impulse buying. The act of reading reviews can create a rewarding experience, leading consumers to make impulse purchases (Motyka et al., 2018). Positive reviews can improve consumer mood and create a sense of urgency or excitement, which are drivers of impulse buying behavior. Conversely, negative reviews can discourage impulse buying (Du, 2025). Online reviews significantly impact consumer trust, especially among Gen Z, who rely heavily on digital platforms. The trust gained from reviews is crucial in driving impulse purchases (Rali, nd). The influence of product reviews and ratings can strengthen the urge to purchase by providing photo and video evidence of other consumers' purchases, reducing feelings of distrust of a product. E-reviews are particularly effective in an environment where consumers are influenced by herd behavior and a sense of FOMO (Falajunah & Dewi, 2025).

E-reviews are an integral part of marketing strategies aimed at increasing impulse purchases. They are often used in conjunction with other tactics such as flash sales and targeted advertising to create an attractive buying environment

(Paramita et al., 2024). According to research conducted (Paramita et al., 2024) Strategic use of e-reviews can also increase perceived product value and stimulate hedonic motivation, which is a strong predictor of impulse buying behavior. Marketers can leverage positive reviews to increase sales. The presence of e-reviews can amplify the effects of other external drivers, such as limited-time offers and visually appealing live product presentations, by providing additional information and reassurance to consumers (Jois et al., 2024).

H5: Fomo moderates the relationship between E-review and impulse buying.

FOMO as a Moderating Variable

Fear of missing out (FOMO) or behavior that is afraid of missing out on interesting or useful experiences, where this feeling is often used by marketers to influence consumers because it is related to impulsive buying (Şeker, 2022) Marketing strategies that emphasize scarcity or exclusivity can intensify FOMO, leading consumers to act based on the fear of missing out on a limited-time offer or unique product (Wilis & Widyastuti, 2025). According to previous research, FOMO behavior can be beneficial for the marketing sector because it encourages higher levels of engagement and motivates consumers to participate in promotions to avoid being left behind by their social group. The urgency created by FOMO can lead to impulse purchases, thereby increasing sales and revenue for businesses. However, as a moderating variable, FOMO can also lead to negative consumer experiences, such as purchase regret from impulse purchases. This phenomenon requires a balancing strategy from marketers.

Research Hypothesis

H1: Live broadcasts have a positive effect on impulsive buying behavior.

H2: E-reviews have a positive influence on impulsive buying behavior.

H3: FOMO has a positive effect on impulsive buying behavior.

H4: FOMO moderates the relationship between live streaming and impulse buying.

H5: FOMO moderates the relationship between e-review and impulse buying.

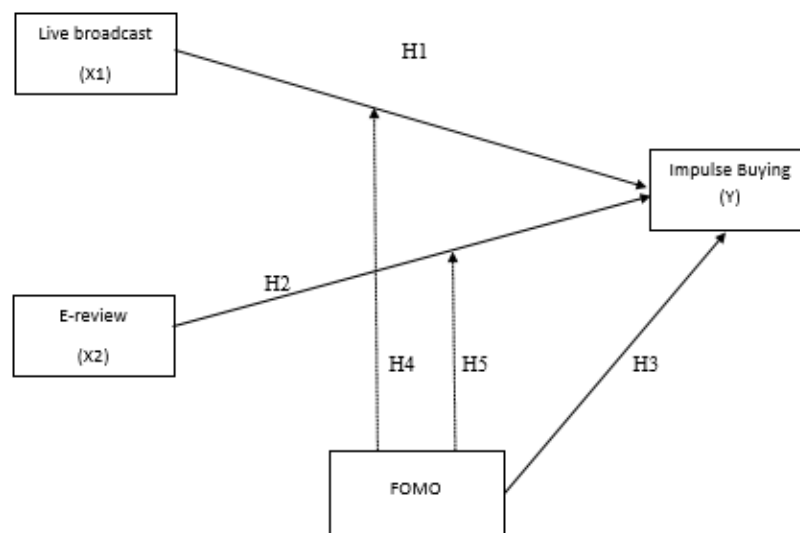


Figure 2. Conceptual Framework

METHODOLOGY

This research uses a quantitative research method with a causal research design to examine how one variable influences another variable (causal relationship) (Sugiyono, 2023). The population in this study is the general public who actively use smartphones in their daily lives and install e-commerce applications. The number of populations collected is 260. The data collection technique is by distributing online questionnaires using Google Forms to respondents in October 2025. The measurement scale in this study uses a Likert scale, using numbers 1-5 as an assessment to determine the strength of agreement and disagreement about the statements or questions given in the questionnaire. Furthermore, the data was analyzed using the Structural Equation Model (SEM) analysis method using the SmartPLS application.

RESEARCH RESULT AND DISCUSSION

Respondent Profile

After distributing the questionnaire and receiving 260 respondents, the respondent profile can be described. The questionnaire was predominantly filled out by women (74.8%), while the remaining 25.2% were filled out by men. Most respondents were aged 17-22 (69.8%), and the remainder were aged 23-44 and above. The majority of respondents were students (60.8%).

Outer Loading

Table 1 Outer Loading

Variables	Indicator	Outer Loading	Average Variance Extract (AVE)	Status
Live Streaming	LS 1	0.777	0.653	Valid
	LS 2	0.840		Valid
	LS 3	0.850		Valid
	LS 4	0.803		Valid
	LS 5	0.768		Valid
E-Review	ER 1	0.725	0.646	Valid
	ER 2	0.818		Valid
	ER 3	0.877		Valid
	ER 4	0.787		Valid
Impulsive Buying	IB 1	0.818	0.694	Valid
	IB 2	0.839		Valid
	IB 3	0.877		Valid
	IB 4	0.796		Valid
FOMO (Fear of Missing Out)	FOMO 1	0.857	0.674	Valid
	FOMO 2	0.899		Valid
	FOMO 3	0.760		Valid
	FOMO 4	0.755		Valid
	FOMO 5	0.837		Valid
	FOMO 6	0.808		Valid

Source: Researcher data processed with SmartPLS 3 2025

The first stage in this research is to conduct Validity and Reliability Tests. The outer model consists of convergent validity, discriminant validity, and Average Variant Extracted (AVE) values. Convergent validity is assessed based

on the magnitude of the outer loading of each indicator or questionnaire item on each latent variable: Live Streaming (LS), E-review (ER), Impulsive Buying (PI), and Fear of Missing Out (FOMO). Convergent validity is considered valid if the value is above 0.7 because it indicates a strong relationship between the same construct measurements. (Carlson & Herdman, 2012). Meanwhile, the Average Variance Extracted (AVE) is normally above 0.5, indicating that the construct is adequately represented by its measured variables. This principle is crucial for ensuring the reliability and validity of the model. (Henseler et al., 2015). In the table above, it is shown that for the Live Streaming (LS) variable starting from indicator 1 to 5 (LS 1 to LS 5) shows an outer loading value above the threshold of 0.7 which means the construct is valid. The AVE value for the Live Streaming variable is 0.653 which is above the threshold value of 0.5 meaning the AVE value is acceptable. The four indicators for the E-review variable also show valid outer loading values ranging from 0.725-0.877 and can be said to be valid. The AVE value of the E-review variable is 0.646 and exceeds the threshold value of 0.5. The Impulsive Buying variable shows an outer loading value between 0.796 and 0.877 and can be said to be valid. With an AVE value of 0.694 above the threshold value of 0.5. The FOMO variable shows an outer loading value of 0.755 to 0.899 and can be considered valid because it is above the threshold value of 0.7. With an AVE value of 0.674 above the threshold of 0.5. The results of the outer loading validity test indicate that all indicator variables exhibit good convergent validity as evidenced by outer loading values consistently above 0.7 and AVE values for all constructs exceeding 0.5.

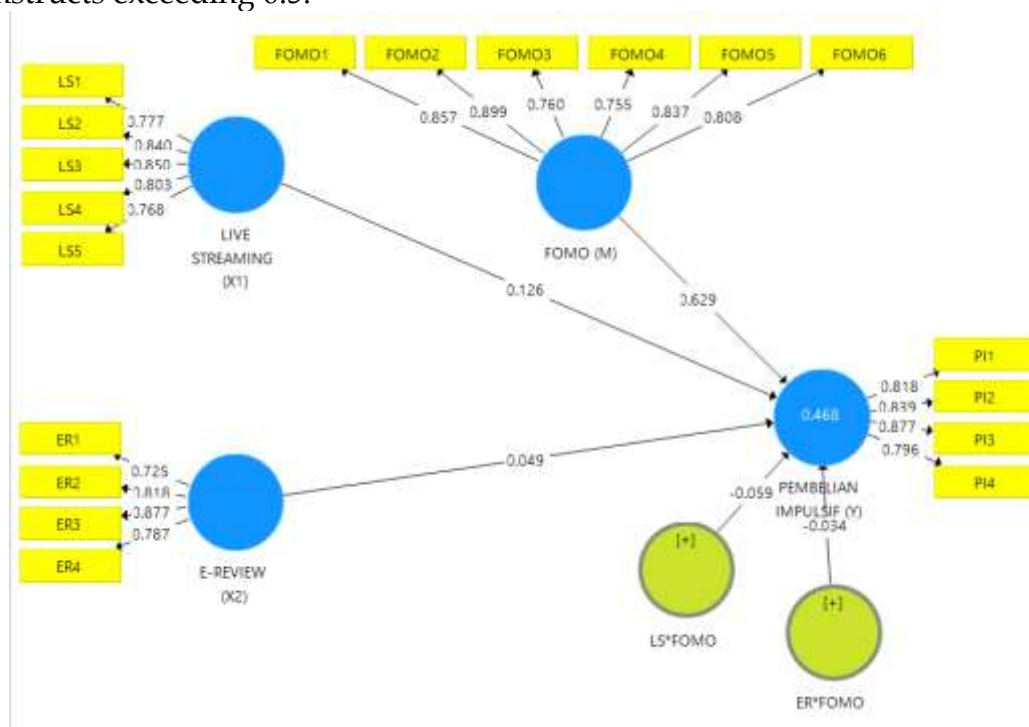


Figure 3. Outer Loading Test Results
 Source: Researcher data processed by SmartPLS 3 2025

The next analysis conducted was a discriminant validity test. This test was conducted by examining the Heterotrait-Monotrait (HTMT) ratio. A measuring

instrument can be declared discriminantly valid if the HTMT ratio is <0.85 (Voorhees et al., 2016). The results of the analysis show that the calculated value is far below the threshold of <0.85 , this indicates that all constructs (E-review, FOMO, Live Streaming, and Impulsive Buying) show good discriminant validity.

Table 2 Discriminant Validity Test (HTMT Ratio)

VARIABLES	E-REVIEW (X2)	FOMO (M)	LIVE STREAMING (X1)	Impulsive Buying (Y)
E-REVIEW (X2)				
FOMO (M)	0.175			
LIVE STREAMING (X1)	0.617	0.298		
Impulsive Buying (Y)	0.168	0.745	0.353	

Source: Researcher data processed with SmartPLS 3 2025

The internal consistency method was used to analyze the reliability of the measuring instruments. In this study, the ρ_A coefficient was used to indicate the magnitude of reliability. The results of the reliability analysis confirmed and strengthened the belief that each measuring instrument used was highly reliable. Table 3 shows the details of the ρ_A coefficient for each measuring instrument and indicates that all measuring instruments were reliable.

Table 3 Reliability Measurement

Variables	rho_A	Status
E-review (X2)	0.917	Reliable
FOMO (M)	0.906	Reliable
Live Streaming (X1)	0.869	Reliable
Impulse Buying (Y)	0.868	Reliable

Source: Researcher data processed with SmartPLS 3 2025

Table 4 R Square Results

Variables	R Square	R Square Adjusted
Impulse Buying (Y)	0.460	0.453

Source: Researcher data processed with SmartPLS 3 2025

The R Square value for the Impulse Buying variable (Y) is 0.460, and the Adjusted R Square value is 0.453. These values indicate the proportion of variance in the dependent variable Impulse Buying that can be explained by the independent variables live streaming and e-reviews, and the moderating variable (FOMO) in the research model. The R Square value of 0.460 means that 46.0% of the variation in impulse buying can be explained by the factors investigated in this study, which include live streaming, e-reviews, and their moderation by FOMO. The remaining 54.0% of the variation is attributed to other factors not included in this research model. Meanwhile, the Adjusted R Square value of 0.453 provides a more conservative estimate of the model's explanatory power, taking into account the number of predictors in the model. This indicates that approximately 45.3% of the variance in impulse buying is explained by the model, after adjusting for the number of independent variables. This value is very useful for comparing models with different numbers of predictors. The R-Square value indicates that the model combining the independent variables of

live streaming, e-review, and FOMO as a moderating variable explains most of the variability in impulse buying behavior, indicating moderate to strong explanatory power of the model.

Table 5 Hypothesis Test Results

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (O/STDEV)	P Values
E-Review (X2) > Impulsive Buying (Y)	0.049	0.056	0.060	0.814	0.416
ER*FOMO > Impulsive Buying (Y)	-0.034	-0.029	0.051	0.669	0.504
FOMO (M) > Impulsive Buying (Y)	0.629	0.630	0.048	13,202	0,000
Live Streaming (X1) > Impulsive Buying (Y)	0.126	0.128	0.059	2,143	0.033
LS*FOMO > Impulsive Buying (Y)	-0.059	-0.060	0.051	1,156	0.248

Source: Researcher data processed with SmartPLS 3 2025

The Influence of Live Streaming on Impulsive Buying

After performing calculations with SmartPLS 3, it was found that Live Streaming (X1) showed a statistically significant positive effect on impulse buying (Y). The original sample value was 0.126, the sample mean was 0.128, and the P-value was 0.033. Since P-values are less than 0.05, (Boscardin et al., 2024) Hypothesis 1 was supported, indicating that live streaming positively contributes to impulse buying behavior. Seeing a streamer promote a product effectively, coupled with a limited-time promotion, will encourage impulse buying behavior among consumers.

The Influence of E-Reviews on Impulsive Buying

E-reviews (X2) do not have a statistically significant positive effect on impulse buying (Y). The P-value for this relationship is 0.416, which is significantly higher than the standard significance level of 0.05. Therefore, Hypothesis 2 is not supported, indicating that e-reviews, in this context, do not significantly influence impulse buying. Previous research conducted by (Santoso, 2023). This also proves that e-reviews have no significant effect on impulse purchase intentions. Impulse buying is a consumer behavior that tends to make spontaneous purchases. This can occur due to marketer persuasion and marketing strategies such as price discounts.

The Influence of FOMO on Impulsive Buying

Fear of Missing Out (FOMO) has a statistically significant positive effect on impulse buying (Y). With an original sample value of 0.629, a sample mean of 0.630, and a very low P-value of 0.000 (which is less than the typical significance level of 0.05), Hypothesis 3 is strongly supported, indicating that Fear of Missing Out behavior significantly drives impulse buying. Consumers with the characteristic of not wanting to miss out on the latest product trends will tend to want to own trending products and will buy spontaneously even without prior

planning. This is usually also driven by the social community in which consumers hang out.

The Influence of FOMO as a Moderating Variable between Live Streaming and Impulsive Buying

Fear of Missing Out (FOMO) did not significantly moderate the relationship between live streaming and impulse buying (LS FOMO > Impulse Buying [Y]). The P-value for this interaction term was 0.248, which is greater than 0.05. Consequently, Hypothesis 4 was not supported, meaning FOMO did not significantly influence live streaming on impulse buying. According to previous research, other factors such as relationship comfort with the streamer and customer experience were found to be more influential in driving impulse buying during live streaming sessions (Rinlohokyana & Bismo, 2024). Several previous studies have also highlighted that emotional factors, such as positive emotions, can significantly influence impulse buying, suggesting that while FOMO may not be the primary driver, other emotional triggers can still play an important role in shaping consumer behavior in the context of live streaming (Moudyla et al., 2025) (Putri et al., 2025).

The Influence of FOMO as a Moderating Variable between E-review and Impulsive Buying

FOMO also did not significantly moderate the relationship between e-reviews and impulse buying (ER FOMO > Impulse Buying [Y]). With a P-value of 0.504, which is well above 0.05, Hypothesis 5 was not supported. This indicates that FOMO does not significantly alter the impact of e-reviews on impulse buying. Previous research has highlighted that while FOMO can influence impulse buying, it often interacts with factors such as perceived scarcity and social influence, which may be absent in the context of e-reviews (Canarlan, 2025) (Cengiz & Şenel, 2024). Some studies also suggest that FOMO can indeed play a role in impulse buying under certain conditions, such as perceived scarcity or social validation, but cannot be a moderator in the context of e-reviews (Cengiz & Şenel, 2024).

CONCLUSIONS AND RECOMMENDATIONS

This study investigates the impact of live streaming and e-reviews on impulse buying behavior, with Fear of Missing Out (FOMO) as a moderating variable in the context of digital marketplaces. These findings provide valuable insights into consumer psychology and offer practical implications for online retailers.

1. Live streaming has been found to have a significant positive effect on impulse buying behavior. This is attributed to real-time interactions between sellers (streamers) and potential buyers, product demonstrations, live Q&As, and exclusive or limited-time discount offers (scarcity). Interactive, visually engaging, and compelling live streaming acts as a powerful stimulus for impulse buying.

2. Contrary to the second hypothesis, e-reviews did not show a statistically significant positive effect on impulse buying in this study. While e-reviews are generally considered important for social validation, reducing perceived risk, and building trust, their direct effect on impulse buying was not significant in this specific context.
3. Fear of Missing Out (FOMO) has been identified as a significant positive predictor of impulsive buying behavior. Consumers with high levels of FOMO are more likely to make impulse purchases, driven by the fear of missing out on valuable experiences, information, or opportunities. Marketing strategies that emphasize scarcity or exclusivity effectively leverage FOMO to encourage impulsive behavior.
4. This study revealed that FOMO did not significantly moderate the relationship between live streaming and impulse buying, nor did it significantly moderate the relationship between e-reviews and impulse buying. This suggests that while FOMO directly influences impulse buying, it does not strengthen or weaken the hypothesized impact of live streaming or e-reviews on impulse buying behavior. Other factors, such as relational comfort with the streamer, customer experience, perceived scarcity, and social influence, may play a more prominent moderating role in the context of this study.

In summary, live streaming and FOMO are key drivers of impulse buying in digital marketplaces. Although e-reviews are important for building trust, their direct relationship with impulse buying was not significant in this study. The moderating role of FOMO on the relationship between live streaming/e-reviews and impulse buying was also not supported, suggesting that FOMO primarily acts as a direct motivator for impulsive behavior.

ADVANCED RESEARCH

This study deepens current digital consumer research by demonstrating that real-time interactive stimuli such as live streaming significantly trigger impulsive buying, while informational cues like e-reviews do not produce the same effect. Although FOMO strongly drives impulsive purchases as a direct psychological factor, it does not strengthen the influence of either live streaming or e-reviews. These findings suggest that emotional immediacy and interactive engagement in digital marketplaces play a more dominant role than cognitive review-based information, offering new insights into how social commerce environments shape unplanned purchasing behavior.

REFERENCES

- Al Jonet, A. S. H., Purwanto, S., & Ariescy, R. R. (2024). Pengaruh Flash Sale dan Live Streaming terhadap Pembelian Impulsif pada Marketplace Shopee di Kota Surabaya. *J-MAS (Jurnal Manajemen Dan Sains)*, 9(1), 285–292.
- Alfina, Hartini, S., & Mardhiyah, D. (2023). FOMO related consumer behaviour in marketing context: A systematic literature review. *Cogent Business & Management*, 10(3), 2250033.

- Amory, J. D. S., & Mudo, M. (2025). Transformasi ekonomi digital dan evolusi pola konsumsi: Tinjauan literatur tentang perubahan perilaku belanja di era internet. *Jurnal Minfo Polgan*, 14(1), 28–37.
- Boscardin, C. K., Sewell, J. L., Tolsgaard, M. G., & Pusic, M. V. (2024). How to Use and Report on p-values. *Perspectives on Medical Education*, 13(1), 250.
- Canarслан, N. Ö. (2025). Online alışverişte kitlık etkisi, FOMO ve sürü davranışının anlık satın alma üzerindeki rolü. *Business & Management Studies: An International Journal*, 13(1), 243–262.
- Carlson, K. D., & Herdman, A. O. (2012). Understanding the impact of convergent validity on research results. *Organizational Research Methods*, 15(1), 17–32.
- Cengiz, H., & Şenel, M. (2024). The effect of perceived scarcity on impulse-buying tendencies in a fast fashion context: A mediating and multigroup analysis. *Journal of Fashion Marketing and Management: An International Journal*, 28(3), 405–425.
- Chang, H.-J., Eckman, M., & Yan, R.-N. (2011). Application of the Stimulus-Organism-Response model to the retail environment: the role of hedonic motivation in impulse buying behavior. *The International Review of Retail, Distribution and Consumer Research*, 21(3), 233–249.
- Chen, Y., Lu, Y., Wang, B., & Pan, Z. (2019). How do product recommendations affect impulse buying? An empirical study on WeChat social commerce. *Information & Management*, 56(2), 236–248.
- Chen, Z. (2019). *Live broadcast method, device and system*.
- Dang, T.-Q., Nguyen, L.-T., & Duc, D. T. V. (2025). Impulsive Buying and Compulsive Buying in Social Commerce: An Integrated Analysis using the Cognitive-Affective-Behavior Model and Theory of Consumption Values with PLS-SEM. *SAGE Open*, 15(2), 21582440251334216.
- Du, L. (2025). Marketing Strategies and Social Influence on Impulse Buying. *Advances in Economics, Management and Political Sciences*, 142(1), 172–181. <https://doi.org/10.54254/2754-1169/2024.ld19008>
- Dwidienawati, D., Tjahjana, D., Abdinagoro, S. B., & Gandasari, D. (2020). Customer review or influencer endorsement: which one influences purchase intention more? *Heliyon*, 6(11).
- Falajunah, C. T., & Dewi, C. K. (2025). The influence of low self-control, fear of missing out online reviews, hedonic motivations, materialism, and price value on impulsive buying through impulsiveness of social networks and positive attitude toward targeted advertising among young Shopee cons. *Edelweiss Applied Science and Technology*, 9(7), 1390–1400.
- Gumilang, R. R., Sumiati, A., & Tresnadi, A. (2024). *Pengaruh Flash Sale dan Live Streaming Terhadap Impulse Buying Behavior Pada Platform TikTok*.

- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Hochreiter, V., Benedetto, C., & Loesch, M. (2022). The stimulus-organism-response (SOR) paradigm as a guiding principle in environmental psychology: comparison of its usage in consumer behavior and organizational culture and leadership theory. *Global Business Conference 2022 Proceedings*, 42.
- Hodkinson, C. (2019). 'Fear of Missing Out'(FOMO) marketing appeals: A conceptual model. *Journal of Marketing Communications*, 25(1), 65–88.
- Indriastuti, H., Hidayati, T., Martiyanti, D., Ayu, A. R. F., & Putit, L. (2024). How Real-Time Interactivity Influences Impulse Buying Behaviour in Generation Z's During Live Streaming Shopping: The Mediating Role of Perceived Enjoyment. *ECONOMICS-INNOVATIVE AND ECONOMICS RESEARCH JOURNAL*, 12(3), 279–291.
- Iryani, N., & Fauzan, T. R. (2023). Pemasaran Digital Melalui Fitur Live Pada Platform Marketplace Terhadap Pengembangan Bisnis. *Jurnal Manajemen*, 13(2), 121–139.
- Jayanti, A., & Tasrim, T. (2022). "Polarization" of Consumer Behavior: SOR Theory Perspective. *Jurnal Orientasi Bisnis Dan Entrepreneurship*, 3(2), 107–116.
- Jois, S. M., Pawar, A. S., & Santhosh, M. (2024). Impulse Buying Behavior in E-Commerce: Factors Influencing Spontaneous Purchases in Online Retail Environments. *International Journal For Multidisciplinary Research*, 6(4). <https://doi.org/10.36948/ijfmr.2024.v06i04.25849>
- K, K., & Krishnan, J. (2025). The Influence of Emotional and Situational Factors on Impulsive Purchasing in M-Commerce. *International Journal of Innovative Science and Research Technology*, 956–960. <https://doi.org/10.38124/ijisrt/25jul549>
- Karimkhan, F., & Chapa, S. (2021). Is fear of missing out (FOMO) a cultural construct? Investigating FOMO from a marketing perspective. *Journal of Cultural Marketing Strategy*, 5(2), 169–183.
- Khanh, C. T., & Huong, N. T. T. (2024). The influence of marketing stimulation and situational factors on impulse purchasing behavior of vietnamese consumers. *Asian Journal of Economics, Business and Accounting*, 24(6), 588–603.
- Kharisma, F., Amalia, R., Arifah, I. D. C., & Thahirrah, N. N. (2024). Live Streaming on Marketplace: User Experience, Credibility, Parasocial Interaction Toward Purchase Intention. *2024 12th International Conference on Cyber and IT Service Management (CITSM)*, 1–4.

- Kim, J., He, N., & Miles, I. (2023). Live commerce platforms: A new paradigm for E-Commerce platform economy. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(2), 959–975.
- Krisnandi, N. B., & Soebiantoro, U. (2025). Pengaruh Live Streaming Shopee terhadap Peningkatan Penjualan Produk Body Care. *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*, 10(2).
- Li, M., Wang, Q., & Cao, Y. (2022). Understanding consumer online impulse buying in live streaming e-commerce: A stimulus-organism-response framework. *International Journal of Environmental Research and Public Health*, 19(7), 4378.
- Li, R., Wang, Q., Yao, X., Li, X., & Yan, X. (2023). A Tripartite View on Performance Matrices of Live Commerce. *Wuhan International Conference on E-Business*, 39–49.
- Lin, X. (n.d.). *Research on Influencing Factors of Consumers' Impulsive Consumption Behavior in China from the Perspective of Behavioral Economics*.
- Liu, X. (2021). *A live broadcast shopping system and method*.
- Liu, X., Park, J. Y., & Lee, H. E. (2020). The effect of wang-hong characteristics on impulse buying during live sale: based on women's clothing sales in china. *The Journal of the Korea Contents Association*, 20(4), 212–229.
- Liu, Y., Liao, T., Chen, J., & Ye, C. (2024). Consumers' Intention to Purchase Through the O2O Catering Platform: A Study Based on a Stimulus-Organism-Response (SOR) Model. *Wuhan International Conference on E-Business*, 252–264.
- Lubis, R. B. (2024). *Popularitas Melejit, Bagaimana Kebiasaan Masyarakat Indonesia saat Belanja Live Shopping?* GoodStats. <https://goodstats.id/article/popularitas-melejit-bagaimana-kebiasaan-masyarakat-indonesia-saat-belanja-live-shopping-PpeKR>
- Luo, H., & Dong, X. (2025). The impact of the it affordances of live streaming on consumer's impulsive buying tendency. *The EUrASEANs : Journal on Global Socio-Economic Dynamics*, 4(53), 220–231. [https://doi.org/10.35678/2539-5645.4\(53\).2025.220-231](https://doi.org/10.35678/2539-5645.4(53).2025.220-231)
- Luo, Z. (2024). The Impact of Short Videos and Live Streaming on E-commerce Consumers Purchasing Decisions. *Advances in Economics, Management and Political Sciences*, 114(1), 18–26.
- M, S. (2024). A Study on Impact of Online Reviews and Ratings Influence on Consumer Trust and Purchasing Decisions in the Digital Market Place. *International Journal of Science and Research*, 13(11), 1224–1227. <https://doi.org/10.21275/sr241120192601>
- Matić Šošić, M. (2024). FOMO MARKETING: USPJEŠNA STRATEGIJA NA DRUŠTVENIM MREŽAMA? *International Journal of Multidisciplinary in*

- Business and Science*, 10(16), 41–48.
- Motyka, S., Grewal, D., Aguirre, E., Mahr, D., De Ruyter, K., & Wetzels, M. (2018). The emotional review–reward effect: how do reviews increase impulsivity? *Journal of the Academy of Marketing Science*, 46(6), 1032–1051.
- Moudyla, M. R., Sukartono, S., & Suryono, I. (2025). Pengaruh Live Streaming dan Flash Sale Terhadap Perilaku Impulsive Buying pada Tiktok Shop Melalui Positive Emotion Sebagai Variabel Moderation (Studi pada Generasi Z di Jakarta Utara). *Ranah Research: Journal of Multidisciplinary Research and Development*, 7(6), 4747–4759.
- Nuraisah, S., Nadlifatin, R., Subriadi, A. P., & Gumasing, M. J. J. (2024). Live streaming commerce is considered as shoppertainment: A systematic literature review. *Procedia Computer Science*, 234, 1020–1028.
- Özden, A. T. (2022). “Not Ignoring the FoMO (Fear of Missing Out) Effect” as a New Way to Persuade Consumers to Buy. In *Narrative Theory and Therapy in the Post-Truth Era* (pp. 117–131). IGI Global.
- Ozturkcan, S., & GURSOY, G. (2014). On-line Reviews’ Impact on Trust Building. *Global Conference on Business and Finance, Honolulu*, 9(1), 350–360.
- Pacheco, D. C., Moniz, A. I. D. de S. A., Caldeira, S. N., & Silva, O. D. L. (2021). Online impulse buying—integrative review of psychological factors. *Perspectives and Trends in Education and Technology: Selected Papers from ICITED 2021*, 527–536.
- Paramita, C., Suryaningsih, I. B., & Eksanti, E. (2024). Peningkatan pembelian impulsif produk fesyen di e-marketplace melalui flash sales, ocr dan nilai hedonis. *Referensi*, 12(1), 1–16. <https://doi.org/10.33366/ref.v12i1.5460>
- Pocchiari, M., Proserpio, D., & Dover, Y. (2025). Online reviews: A literature review and roadmap for future research. *International Journal of Research in Marketing*, 42(2), 275–297.
- Putri, N. A., Subekti, N. S., Munawar, M., & Putra, O. P. B. (2025). Time Pressure and Flow Experience as Drivers of Impulsive Buying in Live Fashion Shopping. *2025 4th International Conference on Creative Communication and Innovative Technology (ICCIT)*, 1–7.
- Quan, T. D., Thanh, L. N., & Thuy, T. N. T. (2023). The capability of E-reviews in online shopping. Integration of the PLS-SEM and ANN method. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(7), 76.
- Rali, N. A. B. (n.d.). *The Mediating Effect of Trust on the Relationship between Online Reviews and Impulse Buying Among Gen Z on Shopee Platform: Conceptual Paper*.
- Raya, S. (2023). *Analysis of Consumer Behavior Towards Product Groups at Indomaret*.
- Rinlohokyana, R., & Bismo, A. (2024). Unveiling the Psychology of Clicks: How Live-Streaming on Social Commerce Sparks Impulse Buys in the Digital Native Generation. *2024 International Conference on Information Management*

- and Technology (ICIMTech)*, 212–217.
- Rodrigues, R. I., Lopes, P., & Varela, M. (2021). Factors affecting impulse buying behavior of consumers. *Frontiers in Psychology*, 12, 697080.
- Santoso, C. N. (2023). PENGARUH E-DESIGN & E-REVIEW BRAND ROUGHNECK 1991 TERHADAP ONLINE IMPULSE BUYING PADA E-COMMERCE SHOPEE: PENGARUH E-DESIGN & E-REVIEW BRAND ROUGHNECK 1991 TERHADAP ONLINE IMPULSE BUYING PADA E-COMMERCE SHOPEE. *The Commercium*, 6(3), 202–212.
- Şeker, A. (2022). TÜKETİCİLERDE FOMO'YU (FEAR OF MISSING OUT) TETİKLEYEN FAKTÖRLER VE SATIN ALMA DAVRANIŞLARINA ETKİSİ. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 41, 172–206.
- Sharma, S., & Kumar, S. (2023). Insights into the Impact of Online Product Reviews on Consumer Purchasing Decisions: A Survey-based Analysis of Brands' Response Strategies. *Scholedge International Journal of Management & Development*, 10(1).
- Sugiyono, P. D. (2023). *Metode Penelitian Kuantitatif Kualitatif dan R&D* (5th ed.).
- Tertienny, U., Suhud, U., & Wibowo, S. F. (2024). *Analysis of the Influence of Perceived Enjoyment and Perceived Usefulness on Impulse Buying in Live Streaming on Online Marketplaces*.
- Traore, N. (2024). Impact of online reviews on brand reputation and customer purchase behaviors in online retail market. *International Journal of Innovative Research in Multidisciplinary Education*, 3(03).
- Tresna, I. C., Usman, I., Siswono, T., & Rachmah, N. (2025). Fear of Missing Out (FOMO) in consumer behaviour: A systematic literature review on antecedents, consequences, and moderating factors. *Journal of Information Systems Engineering and Management*, 10, 626–639.
- Udayana, P. S. N., & Indrya, D. A. G. A. (2024). Tinjauan literatur tentang ulasan online dan dampaknya terhadap keputusan pembelian di era digital. *Majalah Ilmiah Widyacakra*, 7(2), 82–94.
- Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2016). Discriminant validity testing in marketing: an analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science*, 44(1), 119–134.
- Wilis, R. A., & Widyastuti, D. A. (2025). Literature Review : FoMo in Digital Marketing Strategy Related to the Innovation Diffusion Process. *International Journal of Economics and Management Sciences*, 2(1), 253–262. <https://doi.org/10.61132/ijems.v2i1.464>
- Xi, Y., Huo, J., Zhao, X., Jiang, Y., & Yang, Q. (2022). The effects of fear of missing out on social media posting preferences. *European Journal of Marketing*, 56(12), 3453–3484.
- Yan, M., Kwok, A. P. K., Chan, A. H. S., Zhuang, Y. S., Wen, K., & Zhang, K. C.

- (2023). An empirical investigation of the impact of influencer live-streaming ads in e-commerce platforms on consumers' buying impulse. *Internet Research*, 33(4), 1633–1663.
- Yao, W., & Wan, H. (2017). *Shopping live broadcast system and online shopping platform*.
- Yeh, M.-K., & Liu, Y.-T. (2024). A study on the impact of apparel e-commerce live streaming on consumers' impulsive buying intentions. *The EUrASEANs : Journal on Global Socio-Economic Dynamics*, 6(49), 161–175. [https://doi.org/10.35678/2539-5645.6\(49\).2024.161-175](https://doi.org/10.35678/2539-5645.6(49).2024.161-175)
- Yulianto, Y., Sisko, A., & Hendriana, E. (2021). The stimulus of impulse buying behavior on E-commerce shopping festival: A moderated-mediated analysis. *Journal of Business and Management Review*, 2(10), 692–714.