

Analyzing the Economic Effects of Electronic Word of Mouth and Brand Image on Impulsive Buying through Crowd Attractiveness

Bunga Nailul Kamila W ¹, Brahma Wahyu Kurniawan ²

Abstract:

In this study, The development of the fast-food culinary industry in Indonesia has shown significant growth in line with the increasingly practical lifestyle of society. Fast food, particularly crispy chicken, has become a popular choice due to its convenience and taste. The intense competition in the culinary business, especially in shopping centers, drives entrepreneurs to create strategies that attract consumer interest. One of the consumer behaviors often utilized is impulsive buying, which refers to unplanned purchasing decisions influenced by environmental stimuli. Factors such as product appearance, promotions, electronic word of mouth (e-WOM), brand image, and crowd attraction play an important role in shaping this behavior. e-WOM contributes to forming initial consumer expectations, while brand image builds positive perceptions of the product. However, both require the support of crowd attraction as a mediating variable, functioning as a social cue that strengthens consumer confidence in making impulsive purchases. This study focuses on PokPok My Crispy Snack at Kediri Mall, which has established a strong reputation in the fast-food industry. The findings are expected to provide insights into the factors influencing impulsive buying behavior in the modern culinary business.

Keywords: Fast Food, Impulsive Buying, Electronic Word Of Mouth (E-WOM), Brand Image, Crowd Attraction

Submitted: September 2, 2025, Accepted: September 25, 2025, Published: October 20, 2025

1. Introduction

The development of the fast-food industry in Indonesia has shown significant growth, driven by changing lifestyles that are increasingly practical and dynamic. Data from the Indonesian Ministry of Industry indicate that the food and beverage sector consistently contributes more than 6% to national GDP and remains one of the leading subsectors supporting economic growth. Fast food such as crispy chicken has become a favorite choice due to its convenience, taste, and availability in shopping centers and online platforms. The rise of small and medium-sized enterprises (SMEs) in the snack food sector also supports this competition, particularly in urban areas such as Kediri, where shopping malls serve as strategic locations for business development (Rahmi

¹ Universitas Islam Kadiri- Kediri, Indonesia. bungawigunaa@gmail.com

² Universitas Islam Kadiri- Kediri, Indonesia.

et al., 2020; Agustian et al., 2019). Snacks packaged with unique concepts and appealing flavors often succeed in capturing consumer interest, sometimes triggering unplanned or impulsive purchases.

The culinary industry's rapid growth is not only a response to consumers' changing tastes but also reflects broader social trends involving lifestyle, convenience, and the pursuit of experience. Modern consumers are increasingly influenced by both physical and digital environments. For instance, the physical design of stores and crowd density have been shown to affect consumers' emotions and behaviors (Santini et al., 2020). At the same time, social media plays a key role in shaping perceptions and expectations even before consumers reach the point of purchase (Singh et al., 2023; Kaur & Sharma, 2024). This dual influence underscores the complexity of impulsive buying in contemporary contexts, where decisions are no longer driven solely by internal preferences but by a network of external stimuli.

Impulsive buying is an unplanned purchase decision made in response to external stimuli or emotions (Utami in Venia et al., 2021; Yulinda et al., 2022). It often occurs in highly stimulating environments such as malls or food courts, where consumers are exposed to numerous tempting options and social cues (Tarigan et al., 2020; Thomas & Sukendro, 2024). Several studies have shown that visual appeal, price promotions, and social influence are major triggers for impulsive behavior (Pitamakoro, 2018; Ratela & Taroreh, 2016). In the fast-food business, impulsive buying becomes even more relevant because consumers' decisions are frequently made on the spot, guided by sensory appeal and peer behavior.

In the digital era, the emergence of electronic word-of-mouth (e-WOM) has dramatically changed how consumers form attitudes and make decisions. e-WOM refers to reviews, ratings, and recommendations shared through online platforms (Ngo et al., 2024a; Anastasiei et al., 2025). Studies reveal that e-WOM credibility significantly influences purchase intentions, as consumers often perceive peergenerated content as more authentic than corporate advertising (Anastasiei et al., 2025; Ngo et al., 2024b). However, the relationship between e-WOM and actual impulsive purchase behavior remains inconsistent. Some consumers may still require tangible validation—such as the presence of a crowd—to confirm product popularity before making spontaneous decisions (Errajaa et al., 2022; Zhang et al., 2022).

Crowd attractiveness acts as a social signal, reflecting how many people show interest in a product or outlet. This perception of popularity can create a "bandwagon effect," where individuals are influenced by the behavior of others (Zhang et al., 2022; Santini et al., 2020). The presence of a crowd around a food stand not only signals quality and trustworthiness but also heightens curiosity and emotional arousal, increasing the likelihood of impulsive buying (Thomas & Sukendro, 2024). Errajaa et al. (2022) demonstrate that crowd perception can mediate satisfaction and word-of-mouth intentions in retail settings, suggesting that physical social cues remain critical even in a digitalized marketplace.

Another key determinant of impulsive purchasing behavior is brand image, which shapes consumers' perceptions, trust, and emotional responses (Ani et al., 2021; Gustini, 2021; Gunardi & Erdiansyah, 2019). A strong brand image not only differentiates products in competitive markets but also enhances consumers' confidence in their spontaneous purchase decisions. As Kaur and Sharma (2024) note, the digital economy has made consumers more responsive to brand cues, especially when combined with positive social feedback and e-WOM. However, brand image alone is not sufficient to trigger impulsive buying if it is not supported by environmental or social cues such as crowd attractiveness (Zhang et al., 2022; Pitamakoro, 2018).

Despite abundant studies on e-WOM, brand image, and impulsive buying, there remains a limited understanding of how crowd attractiveness functions as a mediating variable linking digital stimuli (e-WOM and brand image) to impulsive consumer behavior, especially in the Indonesian fast-food context. Previous research has focused separately on either digital marketing effects (Ngo et al., 2024a; Singh et al., 2023) or offline experiential factors such as crowd density (Santini et al., 2020; Errajaa et al., 2022). Yet, few studies have integrated these two perspectives, particularly in emerging markets where physical and digital influences intersect dynamically (Nyrhinen et al., 2024; Rodrigues et al., 2021).

This research addresses that gap by examining the impact of e-WOM and brand image on impulsive buying through crowd attractiveness, taking PokPok My Crispy Snack at Kediri Mall as a case study. The brand has gained strong recognition among crispy-chicken enthusiasts through creative branding and social-media exposure but faces intense competition from similar outlets. Understanding how crowd attractiveness bridges the gap between online influence and offline impulsive behavior provides new insights into consumer psychology and marketing strategy in Indonesia's growing culinary sector.

The novelty of this study lies in its integration of digital (e-WOM) and social-environmental (crowd attractiveness) factors to explain impulsive buying in the fast-food industry, an approach that has rarely been explored in previous Indonesian studies (Samsuri et al., 2022; Suriani & Jailani, 2023). Moreover, by focusing on a local brand situated in a mid-sized urban area, this study contributes empirical evidence that extends the theoretical understanding of impulsive buying beyond metropolitan contexts. It also supports managerial implications for SMEs on how to align digital reputation with on-site crowd dynamics to stimulate unplanned purchases.

Therefore, the main purpose of this study is to analyze the influence of electronic word-of-mouth and brand image on impulsive buying, mediated by crowd attractiveness, at PokPok My Crispy Snack, Kediri Mall. This research is expected to enrich the literature on consumer behavior, provide practical insights for fast-food entrepreneurs, and strengthen the link between digital marketing strategies and instore consumer experience.

2. Theoretical Background

Marketing Management

Marketing management plays a pivotal role in determining a company's success by creating innovative products, selecting appropriate market segments, and effectively promoting products to potential consumers. It involves a series of strategic processes—planning, organizing, implementing, and controlling marketing activities—to achieve organizational goals (Agustian, Saputra, & Imanda, 2019). According to Rahmi, Wulandari, and Marcelino (2020), effective marketing management allows companies to prepare and execute business activities that meet consumer needs through the development of targeted products, services, and ideas. Moreover, Suriani and Jailani (2023) emphasize that marketing management focuses on identifying and retaining profitable customer segments through quality offerings and consistent brand communication. In this sense, marketing management integrates creativity, innovation, and data-based strategy to sustain competitiveness in dynamic markets such as the fast-food and snack industry in Indonesia.

Electronic Word of Mouth (e-WOM)

Electronic Word of Mouth (e-WOM) refers to informal communication among consumers about products or services through digital platforms such as social media, online forums, or marketplaces (Ngo et al., 2024a). e-WOM enables consumers to share their experiences, advice, and recommendations with others voluntarily, influencing perceptions and purchase intentions (Anastasiei, Pop, & Dabija, 2025). This form of communication is considered more authentic than traditional advertising because it originates from real consumer experiences (Ngo et al., 2024b). Singh et al. (2023) and Kaur and Sharma (2024) found that online reviews and testimonials significantly shape consumers' impulsive buying intentions, especially when emotional or hedonic values are triggered. Similarly, Rodrigues et al. (2021) describe e-WOM as a digital marketing strategy that leverages peer influence to build trust and drive immediate purchase responses. In addition, Errajaa et al. (2022) and Zhang, Zhao, and Xu (2022) emphasize that e-WOM can indirectly encourage impulsive buying by shaping social proof and perceived popularity, particularly in crowded consumption environments.

Brand Image

Brand image is the set of perceptions, associations, and beliefs consumers hold about a particular brand, formed through experiences and marketing communication (Ani, Lumanauw, & Tampenawas, 2021). It reflects how consumers perceive brand quality, credibility, and emotional value (Gunardi & Erdiansyah, 2019; Gustini, 2021). Pitamakoro (2018) and Ratela and Taroreh (2016) argue that a positive brand image strengthens consumers' trust, encourages purchase decisions, and fosters long-term loyalty. In a fast-moving consumer market, brand image often serves as a shortcut in consumers' decision-making processes, influencing spontaneous or impulsive purchases (Kaur & Sharma, 2024). Ngo et al. (2024b) further note that brand congruence—the alignment between a brand's identity and consumer self-image—enhances emotional attachment, thereby increasing the likelihood of unplanned

buying behavior. In the context of local fast-food brands such as *PokPok My Crispy Snack*, a strong and consistent brand image is a competitive advantage that drives consumer confidence and purchasing motivation.

Crowd Attractiveness

Crowd attractiveness refers to the visual and social appeal created by the presence of many people in a given consumption space. It acts as a social cue indicating that a product or service is popular and trustworthy (Santini, Ladeira, Sampaio, & Perin, 2020). When many consumers gather around a food stand or outlet, others perceive that the product is of high quality and value, leading to a bandwagon effect (Zhang et al., 2022). Thomas and Sukendro (2024) highlight that crowd presence in malls or shopping centers increases consumers' curiosity and desire to participate in the same experience. Errajaa et al. (2022) found that perceived crowd attractiveness positively influences satisfaction, word-of-mouth, and revisit intentions in retail settings. Similarly, Tarigan, Sume, and Muniroh (2020) argue that environmental stimuli such as store atmosphere, lighting, and spatial arrangement enhance consumer excitement and attention before direct product interaction. Therefore, in the culinary business context, crowd attractiveness functions as an intervening variable connecting digital influences like e-WOM and brand image with real-world impulsive buying behavior.

Impulsive Buying

Impulsive buying is defined as a spontaneous, unplanned purchase driven by emotional and situational stimuli rather than rational evaluation (Yulinda, Rahmawati, & Sahputra, 2022). This behavior arises when consumers experience sudden urges to buy products in response to environmental triggers, promotions, or sensory stimuli (Tarigan et al., 2020). Kaur and Sharma (2024) describe impulsive buying as closely linked to hedonic value—the emotional satisfaction derived from consumption—while Nyrhinen et al. (2024) emphasize that digital persuasion and self-control factors also play significant roles in this behavior. Studies by Singh et al. (2023) and Rodrigues et al. (2021) confirm that social media cues, including reviews and online endorsements, can induce impulse purchases by stimulating emotional responses. In the fast-food context, where decisions are made quickly and often under sensory influence, impulsive buying becomes an essential behavioral phenomenon to understand. Hence, this study investigates how e-WOM and brand image affect impulsive buying through crowd attractiveness, contributing to both theoretical development and managerial strategy in Indonesia's fast-growing snack industry.

3. Methodology

This This study focuses on analyzing the influence of Electronic Word of Mouth (E-WoM) and brand image on impulsive buying, with crowd attractiveness as the intervening variable. The research scope is limited to consumers of Pok-Pok My Crispy Snack, Kediri Mall branch, using a quantitative approach. This approach was chosen because the data is numerical and analyzed using statistical calculations to examine the relationships among variables.

The type of research employed is quantitative associative research, which investigates the relationship between two or more variables, particularly causal relationships. The independent variables in this study are E-WoM (X1) and brand image (X2), the dependent variable is impulsive buying (Y), and the intervening variable is crowd attractiveness (Z). The relationships among these variables are analyzed both partially and simultaneously.

The population in this study consists of all consumers of Pok-Pok My Crispy Snack at Kediri Mall branch, although the exact number is unknown. Sampling was conducted using an accidental sampling technique, where respondents were selected based on availability and relevance to the study. Based on Malhotra's formula with 23 indicators from 4 variables, the required sample size was set at 115 respondents, but only 85 responses were collected within three weeks. Nevertheless, this number is still considered representative, as it falls within the 50–200 respondent range recommended by MLE standards.

Data collection methods included direct observation, interviews, and manually distributed questionnaires to consumers using a Likert scale of 1–5. The data obtained were primary quantitative data and processed using statistical analysis techniques. To clarify the measurement process, each variable was operationally defined to be measured through predetermined indicators. Thus, this research design is expected to provide objective, valid, and reliable results in examining the effects among the studied variables.

4. Empirical Findings/Result

Instrument Test Validity test

Validity testing is used to determine whether the questionnaire is valid or not. A valid instrument. A valid instrument is defined as a measuring tool used to obtain valid data (measurements) because the instrument has the ability to measure what it should measure. This study tested the validity of the correlation value using the SPSS program. By looking at the table of thing diminutive fundamental values with a centrality level of 5% and N = 95, the r table regard is 0.2017. For each instrument thing, the recount regard is at that point calculated by comparing the recount with the rtable.

Table 1. Validity Test Results

	Table 1. Validity Test Results						
No	Statement	r table	Pearson	Description			
			product correlation				
1	X1.1	0.2133	0.599	Valid			
2	X1.2	0.2133	0.594	Valid			
3	X1.3	0.2133	0.764	Valid			
4	X1.4	0.2133	0.800	Valid			
5	X1.5	0.2133	0.701	Valid			
6	X1.6	0.2133	0.757	Valid			
7	X2.1	0.2133	0.455	Valid			
8	X2.2	0.2133	0.391	Valid			

No	Statement	r table	Pearson	Description
			product correlation	
9	X2.3	0.2133	0.416	Valid
10	X2.4	0.2133	0.351	Valid
11	X2.5	0.2133	0.468	Valid
12	X2.6	0.2133	0.409	Valid
13	X2.7	0.2133	0.505	Valid
14	X2.8	0.2133	0.501	Valid
15	Z.1	0.2133	0.352	Valid
16	Z.2	0.2133	0.435	Valid
17	Z.3	0.2133	0.401	Valid
18	Z.4	0.2133	0.553	Valid
19	Y.1	0.2133	0.719	Valid
20	Y.2	0.2133	0.773	Valid
21	Y.3	0.2133	0.791	Valid
22	Y.4	0.2133	0.688	Valid

Source: 2025 processed original data

Based on the table above, that all statement items in the electronic word of mouth variable (X1), brand image (X2), crowd attraction (Z) and implucive buying (Y) have a Pearson product correlation value > r table, namely 0.2133, so it can be concluded that the 22 statement items above are valid.

Reliability Test

A reliability test is a tool used to measure questionnaires that are indicators of variables. This tool can be considered reliable if the answers are consistent over time in the same symptoms, thus being trustworthy and reliable. A Reliable instrument is a tool that, when used repeatedly to measure the same object, will produce the same data. In this ask approximately, the immovable quality test utilized was the Cronbach's Alpha condition with a standard regard of 0.6. Based on the immovable quality test utilizing Cronbach's Alpha, the comes almost of the instrument unflinching quality test were gotten as takes after:

Table 2. Reliability Test Results

Cronbach's Alpha	N of Items	Standard	Information
0, 808	22	0,6	Reliable

Source: 2025 processed original data

Based on the reliability test table for statement items, it was determined that a variable is reliable if the answers to the statements are consistent, with a Cronbach's alpha value of 0.808 for all items, and a total value of > 0.60. Therefore, it can be concluded that all items in the variable are reliable.

Test of normalcy

The normality test is used to determine whether the confounding variables or residuals in a regression model have a normal distribution. The normality test in this study was processed using SPSS version 26.0. The results of the normality test can be seen if the significance value is >0.05, then the residual values are normally distributed. If the significance value is <0.05, then the residual values are not normally distributed.

Table 3. Normality Test Results Sub-Structural I

Table 5. Normanty 1	cst itcsuits bub-k	oti uctui ai i
One-Sample Ko	olmogorov-Smirnov	v Test
		Unstandardized
		Residual
N		85
Normal Parameters ^{a,b}	Mean	.00000000
	Std. Deviation	1.07187970
Most Extreme Differences	Absolute	.078
	Positive	.078
	Negative	061
Test Statistic	-	.078
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Norma	al.	
b. Calculated from data.		
c. Lilliefors Significance Co	rrection.	
d. This is a lower bound of t	he true significance	

Source: 2025 processed original data

From the results above, the Kolmogorov-Smirnov value in the normality test of structure I is 0.078 with a significance of 0.200. Because the Kolmogorov-Smirnov significance value is 0.200 > 0.05, it can be concluded that the data is normally distributed.

Table 4. Normality Test Results Sub-Structural II

One-Sample Ko	lmogorov-Smirno	ov Test
	1=1	Unstandardized
		Residual
N		85
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.58965161
Most Extreme Differences	Absolute	.099
	Positive	.043
	Negative	099
Test Statistic	-	.099
Asymp. Sig. (2-tailed)		.140°
a. Test distribution is Norma	al.	
b. Calculated from data.		
c. Lilliefors Significance Co	rrection.	
Carrage 2025 and accord a		

Source: 2025 processed original data

From the results above, The Kolmogorov-Smirnov value in the structural normality test II is 0.099 with a significance of 0.140. Because the Kolmogorov-Smirnov

significance value is 0.140 > 0.05, it can be concluded that the data is normally distributed.

Test of Multicollinearity

In multiple linear regression models, a multicollinearity test is used to identify the level of correlation between independent variables. According to Ghozali in Setiawati (2021: 1578), a high correlation indicates a disrupted relationship between the independent and dependent variables. The multicollinearity test is performed using the Tolerance and VIF (Variance Inflation Factor) values, as well as the independent variables. A regression model is considered multicollinearity-free if its VIF value is no more than 10 and its tolerance value is no less than 0.10.

Table 5. Multicollinearity Test Results Sub-Structural I

	Coefficients ^a				
		Collinearity	y Statistics		
Model		Tolerance	VIF		
1	(Constant)				
	Electronic Word of Mouth	.744	1.344		
	Brand Image	.744	1.344		

Source: 2025 processed original data

Based on the table above, it can be concluded that the data in this study does not exhibit multicollinearity. This can be seen from the tolerance value (0.744) which is greater than 0.10 and the Variance Inflation Factor (VIF) which is less than 10.00, namely 1.344. Therefore, it can be concluded that there is no multicollinearity among the independent variables.

Table 6. Multicollinearity Test Results Sub-Structural II

Coefficients ^a				
Collinearity Statistics				
Model		Tolerance	VIF	
1	(Constant)			
	Electronic Word of Mouth	.743	1.346	
	Brand Image	.651	1.536	
	Crowd Attraction	.853	1.173	

Source: 2025 processed original data

Based on the table above, it can be concluded that the data in this study does not exhibit multicollinearity. This can be seen from the tolerance values greater than 0.10, namely 0.743; 0.651 and 0.853, respectively, and the Variance Inflation Factor (VIF) values less than 10.00, namely 1.346; 1.536 and 1.173, respectively. Therefore, it can be concluded that there is no multicollinearity among the independent variables.

Test of Autocorrelation

An autocorrelation test is performed to determine whether a correlation exists between period t and the previous period (t -1). A good regression model is one that is free from autocorrelation. This can be determined by comparing the D-W value with the d value from the Durbin-Watson table. The results of the autocorrelation test in this study are shown in the following table.

Table 7. Autocorrelation Test Results Sub-Structural I

Model Summary ^b					
			Adjusted R	Std. Error of the	
Model	R	R Square	Square	Estimate	Durbin-Watson
1	.384ª	.147	.126	1.085	2.355

Source: 2025 processed original data

Based on the table above, the DW value can be known as 2.355, this value will be compared with the significance table value of 5%, with the number of samples 85 (n) and the number of independent variables 2 (k = 2), then the du value is obtained as 1.6957. The result of the DW value of 2.355 is greater than the upper limit (du) which is 1.6957 and less than (4-du) or 4 - 1.6957 = 2.3043. So it can be concluded that in sub-structural I of this study there is no autocorrelation.

Table 8. Autocorrelation Test Results Sub-Structural II

Model Summary ^b					
			Adjusted R	Std. Error of the	
Model	R	R Square	Square	Estimate	Durbin-Watson
1	.526ª	.277	.250	2.637	1.737

Source: 2025 processed original data

Based on the table above, the DW value can be known as 1.737, this value will be compared with the significance table value of 5%, with the number of samples 85 (n) and the number of independent variables 3 (k = 3), then the du value is obtained as 1.7210. The result of the DW value of 1.737 is greater than the upper limit (du) which is 1.7210 and less than (4-du) or 4 - 1.7210 = 2.279. So it can be concluded that in sub-structural II of this study there is no autocorrelation.

Test of Heteroscedasticity

The heteroscedasticity test aims to determine whether there is inequality in the variance of residuals from one observation to another in the regression model. A good regression model is one that does not exhibit heteroscedasticity. To determine heteroscedasticity, a scatterplot graph can be used. The results of the heteroscedasticity test are as follows.

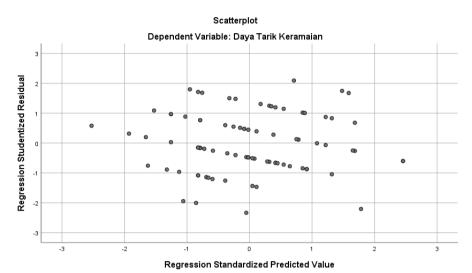


Figure 1. Heteroscedasticity Test Results Sub-Structural I Source: 2025 processed original data

Based on the results of the heteroscedasticity test conducted using the scatterplot method, it appears that the residual points are randomly distributed and do not form a specific pattern. The distribution of the points does not form a clear pattern such as a fan (funnel), cone, wave, or curved pattern that usually indicates heteroscedasticity. Instead, the points are evenly distributed both above and below the zero line on the Y-axis, with a consistent distribution density along the predicted values. There is no apparent concentration indicating an increase or decrease in residual variance relative to the predicted values.

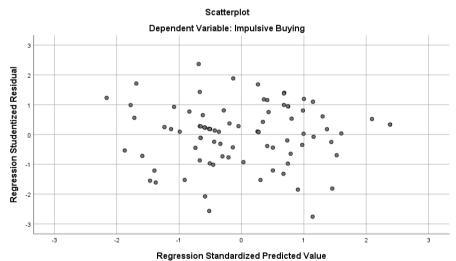


Figure 2. Heteroscedasticity Test Results Sub-Structural II Source: 2025 processed original data

Based on the results of the heteroscedasticity test conducted using the scatterplot method, it appears that the residual points are randomly distributed and do not form a specific pattern. The distribution of the points does not form a clear pattern such as a fan (funnel), cone, wave, or curved pattern that usually indicates heteroscedasticity. Instead, the points are evenly distributed both above and below the zero line on the Y-axis, with a consistent distribution density along the predicted values. There is no apparent concentration indicating an increase or decrease in residual variance relative to the predicted values.

Path Analysis Results

The next data processing technique is to use path analysis. Researchers use path analysis because this analysis functions to determine the direct and indirect influence of a set of variables, namely the causal variables (exogenous variables) on the effect variables (endogenous variables).

Structural Path Analysis Equation I

In determining the overall influence of the research variables, the path coefficient value is obtained from the sum of all exogenous variables on the endogenous variables. The path coefficient value (based on estimates) of the electronic word of mouth and brand image variables on crowd attraction is as follows:

Table 11. Results of Structural Path Analysis Coefficient I

	Coefficients ^a					
		Unstandardized		Standardized		
		Coefficie	ents	Coefficients		
		Std.				
Model		В	Error	Beta	t	Sig.
1	(Constant)	11.323	1.660		6.819	.000
	Electronic Word of	015	.040	043	367	.714
	Mouth					
	Brand Image	.193	.057	.404	3.416	.001

Source: 2025 processed original data

Based on the processing results in the table above, the obtained path coefficients are $\rho zx1X1 = -0.043$, $\rho zx2X2 = 0.404$. To find the error ($\varepsilon 1$), look at the R-square in the model summary table. The formula for obtaining the residual coefficient is 1.00 - R-square. Therefore, the error ($\varepsilon 1$) is = 1.00 - 0.147 = 0.853. Therefore, the resulting path analysis equation is as follows:

$$Z = \rho zx1X1 + \rho zx2X2 + \epsilon 1$$

$$Z = -0.043X1 + 0.404X2 + 0.853 \epsilon 1$$

Or

Crowd Attraction = -0.043 Electronic Word of Mouth + 0.404 Brand Image + $0.853 \epsilon 1$

Structural Path Analysis Equation II

In determining the overall influence of the research variables, the path coefficient value is obtained from the sum of all exogenous variables on the endogenous variables. The path coefficient values (based on estimates) for the variables electronic word of mouth, brand image, and crowd appeal on impulsive buying are as follows.

Table 12. Resu	its of Struc	turar ratir rx		icht 11	
	C	oefficients ^a			
_		dardized ficients	Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	775	5.053		153	.878
Electronic Word of Mouth	.257	.097	.291	2.658	.009

.147

.268

.294

.052

2.508

.508

.014

.613

.369

.136

Table 12. Results of Structural Path Analysis Coefficient II

Source: 2025 processed original data

Based on the processing results in the table above, the path coefficients obtained are $\rho yx1X1 = 0.291$, $\rho yx2X2 = 0.294$, $\rho zyY = 0.052$. To find the error ($\epsilon 2$), namely by looking at the R square in the model summary table. The formula for obtaining the residual coefficient is 1.00 - R square. So the error ($\epsilon 2$) is = 1.00 - 0.277 = 0.723. So, the resulting path analysis equation is as follows:

$$Y = \rho yx1X1 + \rho yx2X2 + \rho zyZ + \epsilon 2$$

$$Y = 0.291X1 + 0.294X2 + 0.052Z + 0.723\epsilon 2$$

Or

Impulsive Buying = 0.291 electronic word of mouth + 0.294 brand image + 0.052 crowd attraction + $0.723\epsilon 2$

Calculation of Influence

Brand Image

Crowd Attraction

The next analysis concerns the influence calculation. This calculation is performed to determine how strongly one variable influences another, both directly and indirectly. The results of the direct, indirect, and total effects calculations for the variables electronic word of mouth (X1), brand image (X2), impulsive buying (Y), and crowd attraction (Z) are as follows:

Table 13. Calculation of Influence

Table 13. Calculation of Influence							
Variable	Direct	Variable	Indirect Effect	Total Effect			
	Effect						
X1 against Y	0.291						
X2 against Y	0.294						
X1 against Z	-0.043	X1 against Y	-0.043 x 0.052	-0.043 + -0.002236			
		through Z	=-0.002236	= - 0.0452			
X2 against Z	0.404	X2 against p	0.404 x 0.052	0.404 + 0.021008			
		Y through Z	=0.021008	= 0.4250			
Z against Y	0.052						

Source: 2025 processed original data

Based on the results of the calculation of direct and indirect influences, it is obtained that variable X1 has a direct influence on Y of 0.291. However, when through the mediating variable Z, the resulting indirect influence is negative, namely -0.002236, so that the total influence of X1 on Y becomes -0.0452. This result shows that although X1 has a direct influence on Y, the contribution through Z actually weakens its influence. Furthermore, variable X2 has a direct influence on Y of 0.294 and an indirect influence through Z of 0.021008, so that the total influence increases to

0.4250. This means that the presence of the mediating variable Z strengthens the relationship between X2 and Y. Meanwhile, variable Z itself has a direct influence on Y with a value of 0.052, although it is relatively small. Overall, it can be concluded that X2 has a more dominant influence on Y compared to X1, mainly due to the support of the positive influence that arises through the mediating role of Z, while X1 tends to weaken when going through the same mechanism.

Hypothesis Test Results Coefficient of Determination (R²)

The coefficient of determination (R2) from the regression results shows how much of the dependent variable can be explained by the independent variables. The following are the results of the coefficient of determination test:

Table 14. Results of Sub-Structural Determination Coefficient Test I

Tuble 1 ii Regules of Sub-Structural Determination Coefficient 1 cst 1							
Model Summary ^b							
			Adjusted R	Std. Error of the			
Model	R	R Square	Square	Estimate	Durbin-Watson		
1	.384ª	.147	.126	1.085	2.355		

Source: 2025 processed original data

Based on the table above, it shows that the coefficient of determination is 0.147. This means that the contribution of the word of mouth variable, brand image, is 14.7%, while the remaining 85.3% is explained by other factors not disclosed in this study.

Table 15. Results of Sub-Structural Determination Coefficient Test II

THE TOTAL TOTAL OF SHE STIME WITH DEVELOR CONTINUES TOTAL							
Model Summary ^b							
			Adjusted R	Std. Error of the			
Model	R	R Square	Square	Estimate	Durbin-Watson		
1	.526ª	.277	.250	2.637	1.737		

Source: 2025 processed original data

Based on the table above, it shows that the coefficient of determination is 0.277. This means that the contribution of the word of mouth variable, brand image, is 27.7%, while the remaining 72.3% is explained by other factors not disclosed in this study.

Results of t test

The t-statistic test essentially indicates the extent to which an independent variable individually explains the dependent variable. This partial test is conducted by comparing significance values below 0.05, thus rejecting H0 and accepting Ha. Therefore, it can be concluded that there is a partial influence between the independent and dependent variables, and vice versa.

Table 16. Results of t test for Sub-Structural I

	Tuble 10: Results of t test for Sub Structurul 1							
	Coefficients ^a							
				Standardized				
Unsta		Unstandardized	Instandardized Coefficients					
Model		В	Std. Error	Beta	t	Sig.		
1	(Constant)	11.323	1.660		6.819	.000		
	Electronic	015	.040	043	367	.714		
	Word of							
	Mouth							
	Brand Image	.193	.057	.404	3.416	.001		

Source: 2025 processed original data

Based on the table above, it is shown that the electronic word of mouth variable has a significance value of 0.741, with a probability value greater than 0.05. Therefore, according to the test criteria, if the significance value is >0.05, it can be concluded that the electronic word of mouth variable does not significantly influence crowd attraction. The results obtained indicate that H0 is accepted and H3 is rejected, and it can be concluded that electronic word of mouth does not significantly influence crowd attraction.

Based on the table above, it is shown that the brand image variable has a significance value of 0.001, with a probability value less than 0.05. Therefore, according to the test criteria, if the significance value is <0.05, it can be concluded that the brand image variable has a significant effect on crowd attraction. The results obtained indicate that H0 is rejected and H4 is accepted, and it can be concluded that brand image has a significant effect on crowd attraction.

Table 17. Results of t test for Sub-Structural II

	Table 17. Results of Clest for Sub-Structural II							
		Co	efficients ^a					
		Unstandardized Coefficients		Standardized Coefficients				
		В			-	~.		
Mo	Model		Std. Error	Beta	t	Sig.		
1	(Constant)	775	5.053		153	.878		
	Electronic Word of Mouth	.257	.097	.291	2.658	.009		
	Brand Image	.369	.147	.294	2.508	.014		
	Crowd Attraction	.136	.268	.052	.508	.613		

Source: 2025 processed original data

Based on the table above, it is shown that the electronic word of mouth variable has a significance value of 0.009, with a probability value less than 0.05. Therefore, according to the test criteria, if the significance value is <0.05, it can be concluded that the electronic word of mouth variable has a significant effect on impulsive buying. The results obtained indicate that H0 is rejected and H1 is accepted, and it can be concluded that electronic word of mouth has a significant effect on impulsive buying. Based on the table above, it is shown that the brand image variable has a significance value of 0.014, with a probability value less than 0.05. Therefore, according to the test criteria, if the significance value is <0.05, it can be concluded that the brand image variable has a significant effect on impulsive buying. The results obtained indicate

that H0 is rejected and H2 is accepted, and it can be concluded that brand image has a significant effect on impulsive buying.

Based on the table above, it is shown that the crowd attraction variable has a significance value of 0.613, where this probability value is greater than 0.05. Thus, according to the provisions in the testing criteria, if the significance value is > 0.05, it can be concluded that the crowd attraction variable does not have a significant effect on impulsive buying. The results obtained indicate that H0 is accepted and H5 is rejected, and it can be concluded that the crowd attraction does not have a significant effect on impulsive buying.

Result of F Test

The F-statistic test essentially indicates the extent to which independent variables simultaneously explain the dependent variable. This simultaneous test is performed with a significance value below 0.05, so H0 is rejected and Ha is accepted. Therefore, it can be concluded that there is a simultaneous influence between the independent and dependent variables, and vice versa. The following are the results of the F-statistic test, which can be seen in the table below.

Table 18. Result of F test for Sub-Structural I

	Tuble 100 Itesuit of 1 test for Sub Structurur 1							
	ANOVA ^a							
Mod	del	Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	16.667	2	8.333	7.080	.001b		
	Residual	96.510	82	1.177				
	Total	113.176	84					

Source: 2025 processed original data

Based on the table above, it shows that the independent variable has a significance value of 0.001, where this probability value is less than 0.05. Thus, in accordance with the provisions in the testing criteria, if the significance value is below 0.05, it can be concluded that the electronic word of mouth and brand image variables together have a significant effect on crowd attraction.

Table 19. Result of F test for Sub-Structural II

	ANOVA							
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	215.777	3	71.926	10.342	$.000^{b}$		
	Residual	563.329	81	6.955				
	Total	779.106	84					

Source: 2024 processed original data

Based on the table above, it shows that the independent variable has a significance value of 0.000, where this probability value is less than 0.05. Thus, in accordance with the provisions in the testing criteria, if the significance value is below 0.05, it can be concluded that the variables electronic word of mouth, brand image, and crowd attraction together have a significant influence on impulsive buying.

Sobel Test Result

The Sobel test is conducted to measure whether the intervening variable, in this case, purchasing intention, can be used as an instrument for the independent and dependent

variables. The test is considered significant if the calculated t-value exceeds the table t-value. To determine the standard error, refer to the coefficients table above, prior to this discussion. The results of the calculation are as follows:

Electronic Word of Mouth (X1) on Impulsive Buying (Y) through Crowd Attraction (Z)

The formula for calculating the size of the standard error of the indirect effect of Sab is:

$$Sab = \sqrt{b^2sa^2 + a^2sb^2 + sa^2sb^2}$$
 For:
$$a = -0.015$$

$$Sa = 0,040$$

$$b = 0,136$$

$$Sb = 0.268$$
 So that:
$$Sab = \sqrt{b^2sa^2 + a^2sb^2 + sa^2sb^2}$$

$$Sab = \sqrt{0.136^2x0.040^2 + -0.015^2x0.268^2 + 0.040^2x0.268^2}$$

$$Sab = \sqrt{0.018496x0.0016 + 0.000225x0.071824 + 0.0016x0.071824}$$

$$Sab = \sqrt{0.0000295936 + 0.0000161604 + 0.0001149184}$$

$$Sab = \sqrt{0.0001606724}$$

$$Sab = 0.0127$$

Based on the Sab results to test the significance of the indirect effect, it is necessary to calculate the t value of the ab coefficient using the following formula:

$$t = \frac{ab}{sab}$$

$$t = \frac{-0.015 \times 0.136}{0.0127}$$

$$t = -0.161$$

The calculation results above obtained a t-value of -0.161 < t-table 1.98932, which is at a significance level of 0.05. Therefore, it can be concluded that H0 is accepted and H6 is rejected. This means that Electronic Word of Mouth (X1) does not have a significant effect on Impulsive Buying (Y) through the Attraction of Crowds (Z). Therefore, it can be concluded that there is no indirect influence in the form of mediation between Electronic Word of Mouth and Impulsive Buying (Y).

Brand Image (X2) towards Impulsive Buying (Y) through Crowd Attraction (Z) The formula for calculating the size of the standard error of the indirect effect of Sab is:

Sab =
$$\sqrt{b^2sa^2 + a^2sb^2 + sa^2sb^2}$$

For:
 $a = 0.193$
Sa = 0,057
 $b = 0,136$
Sb = 0.268
So that:

$$Sab = \sqrt{b^2sa^2 + a^2sb^2 + sa^2sb^2}$$

$$Sab = \sqrt{0.136^2x0.057^2 + 0.193^2x0.268^2 + 0.057^2x0.268^2}$$

$$Sab = \sqrt{0.018496x0.003249 + 0.037249x0.071824 + 0.003249x0.071824}$$

$$Sab = \sqrt{0.000060093504 + 0.002675372176 + 0.000233356176}$$

$$Sab = \sqrt{0.002968821856}$$

$$Sab = 0.0545$$

Based on the Sab results to test the significance of the indirect effect, it is necessary to calculate the t value of the ab coefficient using the following formula:

$$t = \frac{ab}{sab}$$

$$t = \frac{0.193 \times 0.136}{0.0545}$$

$$t = 0.4816$$

The calculation results above obtained a t-value of 0.4816 < t-table 1.98932, which is with a significance level of 0.05. Therefore, it can be concluded that H0 is accepted and H7 is rejected. This means that brand image (X2) does not have a significant effect on impulsive buying (Y) through crowd attraction (Z). Therefore, it can be concluded that there is no indirect influence in the form of mediation between brand image and impulsive buying.

5. Discussion

The findings of this study indicate that Electronic Word of Mouth (e-WOM) has a significant positive effect on impulsive buying. This suggests that e-WOM plays an important role as a form of digital marketing communication capable of influencing consumers' unplanned purchase decisions. e-WOM refers to informal communication among consumers disseminated through online platforms such as social media, review websites, or forums, where consumers voluntarily exchange information and experiences about products to help others make purchasing decisions (Lis & Neßler, 2024; Goyette et al., 2010). Positive online reviews and digital recommendations can create emotional stimuli that trigger spontaneous buying behaviors. Arora and Agarwal (2019) found that online consumer reviews significantly influence impulsive buying intentions by increasing hedonic value perception—where consumers experience emotional satisfaction after exposure to positive e-WOM. In the context of PokPok My Crispy Snack at Kediri Mall, digital testimonials and consumer reviews about taste, packaging, and service quality strengthen consumer trust and stimulate impulsive buying even without prior intention.

The results also reveal that brand image has a significant positive effect on impulsive buying. This indicates that a strong brand identity can evoke emotional attraction and encourage spontaneous purchases. Brand image reflects the perceptions, values, and uniqueness of a brand that shape consumer trust and behavior. A positive brand image increases consumer confidence, evokes pleasant associations, and influences purchase decisions made without prior planning (Kautish & Sharma, 2022). Chinomona (2021) further explained that a credible brand image can increase emotional connection and

perceived quality, making consumers more likely to engage in unplanned buying. In the case of PokPok My Crispy Snack, the strong brand reputation and positive consumer perceptions serve as emotional triggers that motivate spontaneous purchases when consumers encounter the brand in a mall setting.

However, the results show that e-WOM does not have a significant effect on crowd attractiveness. This suggests that online communication does not necessarily translate into physical crowd presence in offline retail spaces. Consumers influenced by digital information may still make individual purchase decisions without being affected by the physical crowd environment. In locations such as Kediri Mall, crowd attractiveness tends to be shaped more by environmental factors like store design, lighting, and location rather than digital influence. Therefore, although e-WOM successfully builds consumer interest, it does not directly increase the physical presence of buyers at the outlet.

On the other hand, brand image significantly affects crowd attractiveness. This finding implies that brands with strong reputations and appealing identities can attract more people to gather around their outlets. A well-established brand not only enhances consumer trust but also increases social visibility, leading to crowd formation (Wu & Chen, 2020). The brand image of PokPok My Crispy Snack functions as a social magnet—consumers who perceive the brand as popular or high-quality are more likely to visit and explore the product in person, thus creating visible crowd attractiveness that can indirectly influence others' perceptions.

Although crowd attractiveness contributes to a lively retail environment, the study finds that it does not have a significant effect on impulsive buying. This suggests that while a busy atmosphere might create social proof or a sense of urgency, consumers' impulsive buying decisions are driven more by internal psychological factors such as emotions, brand trust, and perceived product quality. Donovan and Rossiter (1982) noted that environmental cues can influence consumers' moods but do not necessarily lead directly to purchase decisions unless supported by strong personal motivation. In the case of PokPok My Crispy Snack, crowd presence might enhance interest, but spontaneous purchases appear to depend more on individual experiences with the brand and the emotional impact of its marketing strategies.

The study also shows that e-WOM has no indirect effect on impulsive buying through crowd attractiveness. This finding implies that crowd attractiveness does not mediate the relationship between e-WOM and impulsive buying. Consumers influenced by online reviews may directly experience emotional triggers that lead to impulsive buying, without being affected by social or physical factors. This aligns with Lis and Neßler (2024), who stated that digital communication affects internal motivations directly rather than through external environmental mediators.

Similarly, brand image does not indirectly affect impulsive buying through crowd attractiveness. This suggests that while both brand image and crowd attractiveness influence consumer perception independently, the crowd factor does not serve as a

mediator. Consumers' impulsive purchases are primarily shaped by how they perceive the brand's reputation and emotional appeal, rather than by observing others' behaviors in the store environment.

Overall, these findings highlight the importance of marketing management in strengthening digital communication and brand strategy to enhance consumer impulsivity. Marketing management involves creating innovative products, selecting target markets, and promoting offerings effectively to attract and retain consumers (Kotler & Keller, 2021). In the context of PokPok My Crispy Snack, implementing strategic e-WOM campaigns through social media, influencer endorsements, and user-generated content can amplify brand image and stimulate emotional engagement. At the same time, maintaining consistent brand identity and appealing visual presentation in both online and offline settings will help reinforce consumer trust and sustain impulsive buying behavior.

6. Conclusions

Based on the results of this study, it can be concluded that both Electronic Word of Mouth (e-WOM) and Brand Image play crucial roles in influencing impulsive buying behavior at PokPok My Crispy Snack, Kediri Mall. e-WOM directly and significantly affects impulsive buying, showing that digital interactions and consumer reviews effectively stimulate spontaneous purchases. Similarly, Brand Image has a direct and significant positive impact on impulsive buying, emphasizing that a strong, trusted, and emotionally engaging brand can trigger unplanned buying decisions. Meanwhile, e-WOM does not significantly influence crowd attractiveness, suggesting that online communication does not always translate into physical store visits. In contrast, Brand Image significantly enhances crowd attractiveness, indicating that strong brand perception can attract more customers to gather around a store. However, crowd attractiveness itself does not significantly affect impulsive buying, and it also does not mediate the relationship between e-WOM or Brand Image and impulsive buying.

For future research, it is recommended to expand the study by including other variables that may influence impulsive buying, such as store atmosphere, promotional intensity, emotional arousal, and social influence in both online and offline contexts. Future studies could also adopt a comparative approach between online and physical retail environments to examine how digital engagement translates into real-world consumer behavior. Additionally, using a larger and more diverse sample across multiple locations could improve the generalizability of the findings. Researchers may also explore moderating variables such as consumer lifestyle, personality traits, or purchase frequency to better understand how individual differences shape impulsive buying tendencies in response to e-WOM and brand image.

References:

Agustian, I., Saputra, H. E., & Imanda, A. (2019). Pengaruh sistem informasi manajemen terhadap peningkatan kualitas pelayanan di PT. Jasaraharja Putra

- Cabang Bengkulu. Professional: Jurnal Komunikasi dan Administrasi Publik, 6(1).
- Anastasiei, B., Pop, R. A., & Dabija, D. C. (2025). Electronic word-of-mouth credibility and its influence on purchase intention: The mediating role of affective response. *Journal of Retailing and Consumer Services*, 74, 104426. https://doi.org/10.1016/j.jretconser.2024.104426
- Ani, J., Lumanauw, B., & Tampenawas, J. L. A. (2021). Pengaruh citra merek, promosi dan kualitas layanan terhadap keputusan pembelian konsumen pada ecommerce Tokopedia di Kota Manado. *Jurnal EMBA*, *9*(2), 663–674.
- Errajaa, K., et al. (2022). Effects of the in-store crowd and employee perceptions on intentions to revisit and word-of-mouth via transactional satisfaction: A SOR approach. *Journal of Retailing and Consumer Services*, 68, 103087. https://doi.org/10.1016/j.jretconser.2022.103087
- Gunardi, C. G., & Erdiansyah, R. (2019). Pengaruh citra merek dan kualitas pelayanan terhadap kepuasan pelanggan Restoran Mangkok Ku. *Prologia*, *3*(2), 456–463.
- Gustini, S. (2021). Pengaruh brand image dan harga terhadap keputusan pembelian deterjen merek Rinso di Desa Pagar Kaya Kecamatan Sungai Keruh. *Jurnal Manajemen Kompeten*, 4(1), 14–26.
- Kaur, K., & Sharma, T. (2024). Impulse buying in the digital age: An exploration using a systematic literature review approach. *Journal of Consumer Behaviour*. Advance online publication. https://doi.org/10.1002/cb.2360
- Ngo, T. T. A., Vuong, B. L., Le, M. D., Nguyen, T. T., Tran, M. M., & Nguyen, Q. K. (2024). The impact of eWOM information in social media on the online purchase intention of Generation Z. Cogent Business & Management, 11(1), Article 2316933. https://doi.org/10.1080/23311975.2024.2316933
- Ngo, T. T. A., Vuong, B. L., & colleagues. (2024). Electronic word-of-mouth on social networking platforms: Characteristics, credibility and purchase effects. *Social/Applied Marketing Journal (Cogent/Taylor & Francis Special Issue*). https://doi.org/10.1080/23311975.2024.2316933
- Ngo, T. T. A., & coauthors. (2024). Image similarity, brand image congruence and impulsive buying in social commerce contexts. *Themed Issue on eWOM & Consumer Behaviour*. (DOI tersedia pada penerbit terkait).
- Nyrhinen, J., et al. (2024). Online antecedents for young consumers' impulse buying: Self-control and persuasion in digital environments. *Computers in Human Behavior*, 140, 107604. https://doi.org/10.1016/j.chb.2023.107604
- Pitamakoro, P. (2018). Pengaruh daya tarik iklan dan citra merek terhadap keputusan pembelian kopi bubuk instan (studi kasus pada Top Coffee di Yogyakarta). *Jurnal Manajemen Bisnis Indonesia (JMBI)*, 7(1), 84–92.
- Rahmi, A., Wulandari, A., & Marcelino, D. (2020). Analisis IPA dalam mengukur kepuasan pelanggan PT. Medion Ardhika Bhakti berdasarkan dimensi Servqual. *Jurnal Administrasi Profesional*, 1(2), 28–34.
- Ratela, G. D., & Taroreh, R. (2016). Analisis strategi diferensiasi, kualitas produk dan harga terhadap keputusan pembelian di Rumah Kopi Coffee Island. *Jurnal EMBA*, *4*(1), 460–471.
- Rodrigues, R. I., et al. (2021). Factors affecting impulse buying behaviour of consumers: Review and synthesis. *Open Access Review Article*. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8206473/

- Samsuri, M., Karnadi, K., & Sari, L. P. (2022). Pengaruh kualitas pelayanan, harga obat dan lokasi terhadap minat beli konsumen pada Apotek Olean Farma. *Jurnal Mahasiswa Entrepreneurship (JME)*, *I*(10), 2009–2022.
- Santini, F. D. O., Ladeira, W. J., Sampaio, C. H., & Perin, M. G. (2020). Effects of perceived retail crowding: A meta-analytic study. *The International Review of Retail, Distribution and Consumer Research*. Advance online publication. https://doi.org/10.1080/09593969.2020.1738259
- Singh, P., Jain, P., Arora, L. C., & Bhatt, V. K. (2023). Measuring social media impact on impulse buying behavior. *Cogent Business & Management*, 10(3), Article 2262371. https://doi.org/10.1080/23311975.2023.2262371
- Suriani, N., & Jailani, M. S. (2023). Konsep populasi dan sampling serta pemilihan partisipan ditinjau dari penelitian ilmiah pendidikan. *Ihsan: Jurnal Pendidikan Islam*, 1(2), 24–36.
- Tarigan, E., Sume, S., & Muniroh, L. (2020). Store atmosphere dan sales promotion terhadap impulsive buying. *Manager: Jurnal Ilmu Manajemen*, 2(4), 610. https://doi.org/10.32832/manager.v2i4.3817
- Thomas, C., & Sukendro, G. G. (2024). Pengaruh media Instagram terhadap keramaian pengunjung Nagoya Hill Mall Batam. *Kiwari*, *3*(2), 298–307.
- Yulinda, A. T., Rahmawati, R., & Sahputra, H. (2022). Pengaruh shopping lifestyle dan fashion involvement terhadap impulse buying (studi kasus pada konsumen Toko Mantan Karyawan Kota Bengkulu). *Jurnal Ekonomi dan Bisnis*, *10*(2), 1315–1326.
- Zhang, X., Zhao, K., & Xu, X. (2022). Scarcity and bandwagon in impulsive purchase:

 An SOR approach. *Journal of Business Research*, 149, 422–433. https://doi.org/10.1016/j.jbusres.2022.05.045