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

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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 shopping malls has shown significant growth in recent years. The mall environment serves not only as a venue for economic transactions but also as a social space capable of influencing consumer behavior. In this context, impulsive buying behavior has become a common phenomenon, particularly for snack foods, which are characterized by quick and hedonic consumption.

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Utami, in Venia et al., (2021), explains that impulse buying is a spontaneous purchase decision made without prior planning, often triggered by external stimuli or emotional impulses. In the modern retail environment, various marketing factors can influence the emergence of this behavior, both digital and situational.

One influential factor in the digital era is electronic word of mouth (e-WOM). e-WOM has the power to shape consumers' initial expectations before making a purchase because it is considered more authentic and trustworthy than conventional advertising (Anastasei et al., 2025). e-WOM refers to communication between consumers through electronic media such as social media, online reviews, and other digital platforms. Information shared online can shape consumers' perceptions, beliefs, and expectations of a product before making a purchase. Positive and credible reviews have the potential to increase purchase intention and influence purchasing decisions quickly.

Brand image is also a crucial factor in attracting impulse buying. Runtulalo et al. (2023) stated that a strong brand image can build positive consumer perceptions, increase trust, and influence unplanned purchasing decisions. This is relevant to current consumer behavior trends, which increasingly rely on brand perceptions and social influences for quicker decision-making. Many factors influence the development of the fast-food industry, such as crispy chicken, one of which is product innovation. The emergence of a new menu item in an area likely spurs residents to try it. However, PokPok My Crispy Snack already has a strong image and reputation among crispy chicken lovers. A strong brand can attract consumers to use it as a determining factor in their purchasing decisions, while a strong brand image is essential.

However, a strong brand image does not necessarily encourage impulse buying if it is not supported by social cues such as crowds at the outlet. In other words, the attraction of crowds is a variable that mediates the influence of brand image on impulsive buying. The attractiveness of a crowd around a store not only reflects product popularity but is also a key variable linking the influence of e-WOM and brand image on consumer impulsive behavior. When large crowds gather around a food outlet, it can convey the impression that the product is of high quality or value. The attractiveness of the physical and social environment plays a crucial role in shaping consumer perceptions. Attractiveness in the form of store atmosphere, crowds, lighting, and crowd cues can increase attention and positive expectations for a brand, even before consumers interact directly with the product (Zhang et al., 2022).

The proliferation of businesses has resulted in an increase in similar businesses, leading to increasingly fierce competition. Therefore, to navigate these situations, entrepreneurs must be able to make quick and responsive decisions so that their businesses can thrive.

In this study, the PokPok My Crispy Snack stand, located on the 5th floor of Kediri Mall, Jl. Hayam Wuruk No. 46, Dandangan, Kota District, Kediri City, is the subject of this research. PokPok My Crispy Snack stand is one of the food stands that has a good reputation and presence in the fast food industry.

2. Theoretical Background

Electronic Word of Mouth (e-WOM)

Electronic word of mouth (e-WOM) is a form of informal communication between consumers about products or services disseminated through digital platforms such as social media, online forums, and marketplaces. In the context of digital marketing, e-WOM is an important source of information because it allows consumers to share experiences, opinions, and recommendations widely and quickly. According to Ngo et al., (2024), e-WOM is information shared by consumers through social media that can influence the perceptions and purchase intentions of other consumers. This information can be in the form of reviews, comments, ratings, or personal experience content published online. In line with this, Anastasiei et al., (2025) explained that the credibility of e-WOM has a significant influence on consumers' affective responses, which ultimately drives purchase intentions. This means that the higher the level of trust in information circulating online, the more likely consumers are to be encouraged to make a purchase.

Brand Image

Brand image is the perception formed in consumers' minds regarding the characteristics and values of a brand. Brand image is also related to attitudes, including beliefs and alternatives to that brand. Consumers with a positive image of a brand are more likely to make a purchase. Brand image is a key determinant in attracting impulsive buying interest. Runtulalo et al., (2023) stated that a strong brand image can build positive consumer perceptions, increase trust, and influence unplanned purchasing decisions. This is relevant to current consumer behavior trends, which increasingly make decisions based on brand perception and social influence.

Crowd Attractiveness

A busy atmosphere in a place can create a sense of urgency for consumers to make a purchase, especially for attention-grabbing products like snacks. When many people gather around a food outlet or culinary product, it can convey the impression that the product is of high quality or value. The attractiveness of the physical or social environment also plays a significant role in shaping consumer perceptions. Attractiveness in the form of store atmosphere, crowds, lighting, and crowd cues can increase attention and positive expectations for a brand, even before consumers interact directly with the product (Zhang et al., 2022).

Impulsive Buying

Tarigan et al., (2020) stated that impulse buying is a purchasing action carried out by consumers without any prior plans to purchase. Consumers make impulse purchases without thinking about purchasing a particular product or brand. Impulsive buying is the behavior of purchasing goods or services that occurs suddenly, spontaneously, and without rational planning (Fadillah & Kusumawati, 2022). Impulsive purchases are generally triggered by emotional stimuli, environmental conditions, or external influences such as promotions and store atmosphere. According to Kang & Namkung, (2024), impulsive buying is closely related to the perception of hedonic value, where consumers feel emotional satisfaction that drives sudden purchasing decisions. Impulsive buying can be said to be consumer behavior in purchasing a product without any planning. Impulsive buying arises from an individual's emotional drive due to interest in a product without further thought.

Theory of Relationships Between Variables

This study aims to determine the influence of electronic word of mouth, brand image, and crowd appeal on impulsive buying. The relationships between the research variables are as follows:

The Influence of Electronic Word of Mouth on Impulsive Buying

Electronic word of mouth (e-WOM) is a digital information source that influences consumer attitudes and purchasing decisions. Anastasiei et al. (2025) explained that e-WOM credibility significantly influences purchase intentions through consumer affective responses.

Furthermore, Ngo et al. (2024) stated that e-WOM information on social media can influence consumer purchasing behavior, especially among the younger generation. In a digital context, intense exposure to information can accelerate the decision-making process without lengthy evaluation. Research by Singh et al. (2023) also showed that social media influence correlates with increased impulsive buying behavior. Thus, credible and persuasive e-WOM has the potential to increase impulsive buying.

The Influence of Brand Image on Impulsive Buying

Brand image plays a role in shaping consumer perception and trust in a product. Ani Lumanauw, et al., (2021) stated that brand image significantly influences consumer purchasing decisions on e-commerce platforms. Gustini, (2021) also found that brand image has a positive influence on purchasing decisions. In the context of impulsive buying, a strong brand image can reduce consumer doubt, resulting in quick and spontaneous decisions. Furthermore, Ngo et al., (2024) in their study on brand image congruence and impulsive buying showed that brand image congruence can increase the tendency for impulsive buying in the context of digital commerce. Thus, brand image influences impulsive buying.

The Influence of Electronic Word of Mouth on Crowd Attraction

Electronic word of mouth (e-WOM) is digital communication that allows consumers to share experiences, recommendations, and opinions about a product or place through social media and online platforms. Widely disseminated information can shape collective perceptions about the popularity of a brand or location.

According to Anastasiei et al. (2025), the credibility of e-WOM influences consumers' affective responses and purchase intentions. When consumers receive positive and credible reviews, they tend to be more interested in visiting or trying the product. This increased interest in visiting can, in aggregate, drive visitor numbers. Ngo et al. (2024) also explain that e-WOM information on social media can shape perceptions and encourage consumer engagement in purchasing activities. The intensity of digital interactions, such as comments, reviews, and the number of recommendations, can create the perception that a product or place is highly popular. Furthermore, research by Thomas & Sukendro (2024) shows that social media exposure influences visitor numbers at shopping centers. This indicates that digital information can significantly influence visiting behavior. Conceptually, when positive and credible e-WOM is widely disseminated, consumers will be encouraged to visit. This increased number of visitors creates a crowded atmosphere, which is then perceived as a unique attraction for other consumers. Thus, electronic word of mouth influences the attraction of crowds.

The Influence of Brand Image on Crowd Attraction

Brand image is a comprehensive representation of consumer perceptions, beliefs, and associations toward a product or company. Brand image is the perceptions, impressions, and associations formed in consumers' minds about a brand. A positive brand image creates trust and confidence in product quality, thereby increasing consumer interest in visiting and purchasing.

Ani, Lumanauw, et al., (2021) stated that brand image significantly influences consumer purchasing decisions on e-commerce platforms. This indicates that positive brand perceptions can increase consumer interest in choosing and visiting a product over other alternatives. Gustini, (2021) also found that brand image positively influences purchasing decisions. In a retail context, increased purchasing decisions will result in an increase in the number of consumers visiting the sales location. Furthermore, Gunardi & Erdiansyah, (2019) explained that a positive brand image influences customer satisfaction. This satisfaction encourages repeat visits and recommendations to other consumers, which indirectly increases the number of visitors.

Conceptually, when a brand has a strong and positive image, consumers will be more interested in visiting. This increased interest and visits collectively create a crowded atmosphere that is then perceived as a unique attraction. Thus, brand image influences the appeal of the crowd.

The Role of Crowd Attraction in Mediating the Influence of Electronic Word of Mouth on Impulsive Buying

In this study, the attraction of crowds is positioned as an intervening variable that bridges the influence of electronic word of mouth (e-WOM) on impulsive buying. Conceptually, e-WOM and brand image act as external stimuli that shape consumer perceptions. Anastasiei et al. (2025) and Ngo et al. (2024) explain that credible digital information can influence consumers' affective responses and purchase intentions. This increased interest significantly encourages visits.

Conversely, a positive brand image increases trust and the tendency to choose a brand (Ani et al., 2021) and Gustini (2021).

Increased purchase decisions and repeat visits will impact the number of visitors. From a Stimulus-Organism-Response (SOR) perspective, external stimuli such as digital information and brand perceptions will influence consumers' internal states through environmental perceptions, including perceptions of crowds (Errajaa et al., 2022). These perceptions of crowds then play a role in shaping behavioral responses, one of which is impulsive buying. Santini et al. (2020) also showed that perceived retail crowding influences consumer behavior in a retail context. This means that an increase in the number of visitors perceived as crowded can strengthen the emotional urge to make impulsive purchases. Thus, the appeal of crowds is not only influenced by e-WOM and brand image but also acts as a mechanism that channels the influence of these two variables on impulsive buying.

The Role of Crowd Attraction in Mediating the Influence of Electronic Word of Mouth on Impulsive Buying

A positive brand image shapes consumers' perceptions of quality, trust, and confidence in a product. Ani et al. (2021) stated that brand image significantly influences consumer purchasing decisions. Gustini (2021) also found that brand image has a positive influence on purchasing decisions. In the retail context, increased purchasing decisions due to a strong brand image can drive increased visitor numbers. The more consumers attracted and visited, the more crowded the store, which is perceived as an indicator of popularity. Gunardi & Erdiansyah (2019) explained that a positive brand image increases customer satisfaction and encourages repeat visits and recommendations. These recommendations and repeat visits, in aggregate, strengthen the perception of crowding.

Based on the Stimulus-Organism-Response (SOR) approach used by Errajaa et al. (2022) and Zhang et al. (2022), external stimuli such as brand perception can influence consumers' internal states through environmental perceptions, including perceptions of crowding. This perception of crowding then influences behavioral responses such as impulsive buying.

Santini et al. (2020) also showed that perceived retail crowding influences consumer behavior in a retail context. This means that when consumers perceive a place as busy and popular, the emotional urge to make impulse purchases can increase.

Thus, brand image not only directly influences impulsive buying but also indirectly through the attraction of crowds as a mediating variable.

Hypothesis Formula

1. The Influence of Electronic Word of Mouth on Impulsive Buying

H0: There is no influence of electronic word of mouth on impulsive buying at the PokPok My Crispy Snack food stand.

H1: There is an influence of electronic word of mouth on impulsive buying at the PokPok My Crispy Snack food stand.

2. The Influence of Brand Image on Impulsive Buying

H0: There is no influence of brand image on impulsive buying at the PokPok My Crispy Snack food stand.

H2: There is an influence of brand image on impulsive buying at the PokPok My Crispy Snack food stand.

3. The Influence of Electronic Word of Mouth on Crowd Attraction

H0: There is no influence of electronic word of mouth on crowd attraction at the PokPok My Crispy Snack food stand.

H3: There is an influence of electronic word of mouth on crowd attraction at the PokPok My Crispy Snack food stand.

4. The Influence of Brand Image on Crowd Attraction

H0: There is no influence of brand image on crowd attraction at the PokPok My Crispy Snack food stand.

H4: There is an influence of brand image on crowd attraction at the PokPok My Crispy Snack food stand.

5. The Influence of Crowd Attraction on Impulsive Buying

H0: There is no influence of crowd attraction on impulsive buying at the PokPok My Crispy Snack food stand.

H5: There is an influence of crowd attraction on impulsive buying at the PokPok My Crispy Snack food stand.

6. The Role of Crowd Attraction in Mediating the Effect of Electronic Word of Mouth on Impulsive Buying

H0: There is no effect of electronic word of mouth on impulsive buying through the intervening variable of crowd attraction at the PokPok My Crispy Snack food stand.

H6: There is an effect of electronic word of mouth on impulsive buying through the intervening variable of crowd attraction at the PokPok My Crispy Snack food stand.

7. The Role of Crowd Attraction in Mediating the Effect of Brand Image on Impulsive Buying

H0: There is no effect of brand image on impulsive buying through the intervening variable of crowd attraction at the PokPok My Crispy Snack food stand.

H7: It is suspected that there is an influence of brand image on impulsive buying through the intervening variable Crowd Attraction at the PokPok My Crispy Snack food stand.

3. Methodology

This study was designed within a quantitative framework to examine the relationships between electronic word of mouth (e-WOM), brand image, and impulsive buying, with crowd attractiveness as an intervening variable. The research was limited to consumers of Pok-Pok My Crispy Snack at Kediri Mall to ensure a focused scope. A quantitative associative approach was employed to analyze causal relationships among variables, where e-WOM and brand image act as independent variables, impulsive buying as the dependent variable, and crowd attractiveness as the mediating variable.

The research was conducted at the Pok-Pok My Crispy Snack outlet located on the fifth floor of Kediri Mall. The population in this study was considered infinite due to the unknown total number of consumers. Therefore, accidental sampling was applied, where respondents were selected based on convenience and their suitability to the research criteria, namely customers who had made purchases at the outlet. The sample size was determined using Malhotra's formula, resulting in a minimum of 115 respondents based on 23 indicators. However, to improve data reliability and representativeness, the final sample size was increased to 150 respondents.

Primary data were collected directly from respondents using structured questionnaires distributed offline. The questionnaire employed a five-point Likert scale ranging from strongly disagree to strongly agree. In addition to questionnaires, data collection techniques also included observation and interviews to support preliminary understanding and contextual insights. The variables were operationalized into measurable indicators based on established literature, covering dimensions of e-WOM, brand image, crowd attractiveness, and impulsive buying. Data analysis was conducted using statistical methods with the assistance of SPSS software. Instrument testing included validity and reliability tests, where validity was assessed using significance values below 0.05, and reliability was determined using Cronbach's alpha with a threshold above 0.60. Classical assumption tests were also performed, including normality, heteroscedasticity, multicollinearity, and autocorrelation tests, to ensure the robustness of the regression model

Furthermore, path analysis was employed to examine both direct and indirect effects among variables. Hypothesis testing was conducted using t-tests for partial effects and F-tests for simultaneous effects, along with the coefficient of determination (R^2) to measure the explanatory power of the model. The mediating role of crowd attractiveness was tested using the Sobel test to determine the significance of indirect effects. This comprehensive analytical approach enabled a thorough evaluation of the proposed research model and its underlying relationships.

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 0.159. For each instrument thing, the r count regard is at that point calculated by comparing the r count with the r table.

Table 1. Validity Test Results

No	Statement	r table	Pearson product correlation	Description
1	X1.1	0.159	0.752	Valid
2	X1.2	0.159	0.691	Valid
3	X1.3	0.159	0.715	Valid
4	X1.4	0.159	0.763	Valid
5	X1.5	0.159	0.684	Valid
6	X1.6	0.159	0.760	Valid
7	X2.1	0.159	0.744	Valid
8	X2.2	0.159	0.683	Valid
9	X2.3	0.159	0.669	Valid
10	X2.4	0.159	0.732	Valid
11	X2.5	0.159	0.746	Valid
12	X2.6	0.159	0.708	Valid

13	X2.7	0.159	0.554	Valid
14	X2.8	0.159	0.505	Valid
15	Z.1	0.159	0.714	Valid
16	Z.2	0.159	0.821	Valid
17	Z.3	0.159	0.847	Valid
18	Z.4	0.159	0.742	Valid
19	Y.1	0.159	0.717	Valid
20	Y.2	0.159	0.784	Valid
21	Y.3	0.159	0.729	Valid
22	Y.4	0.159	0.748	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 0.159, 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

Var	Cronbach's Alpha	Standard	Information
X.1	0, 822	0,6	Reliable
X.2	0,826	0,6	Reliable
Z.1	0,788	0,6	Reliable
Y.1	0,791	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 0.822; 0,826; 0,788; 0,791 and a total value of > 0.60 . Therefore, it can be concluded that all items in the variable are reliable.

Test of normality

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

No	Regression Model	N	Test Statistic	Asymp. Sig. (2-tailed)	Description
1	X1, X2, Z \rightarrow Y	150	0,047	0,200	Normal

Source: 2025 processed original data

From the results above, the Kolmogorov-Smirnov value in the normality test of structure I is 0.047 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.

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 4. Autocorrelation Test Results

Regression Model	Durbin-Watson	Description
X1, X2, Z \rightarrow Y	1,801	No Autocorrelation

Source: 2025 processed original data

Based on the results of data processing using SPSS on the main regression model (Structure II), the Durbin-Watson value obtained was 1.801. This value is in the range of 1.5 to 2.5, so it can be concluded that there is no autocorrelation in the regression model.

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

Variable	Tolerance	VIF
X1	0,824	1,214
X2	0,763	1,311
Z	0,644	1,554

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 (0.824; 0,763; 0,644) which is greater than 0.10 and the Variance Inflation Factor (VIF) which is less than 10.00, namely 1,214; 1,311; 1,554. Therefore, it can be concluded that there is no multicollinearity among the independent variables.

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.

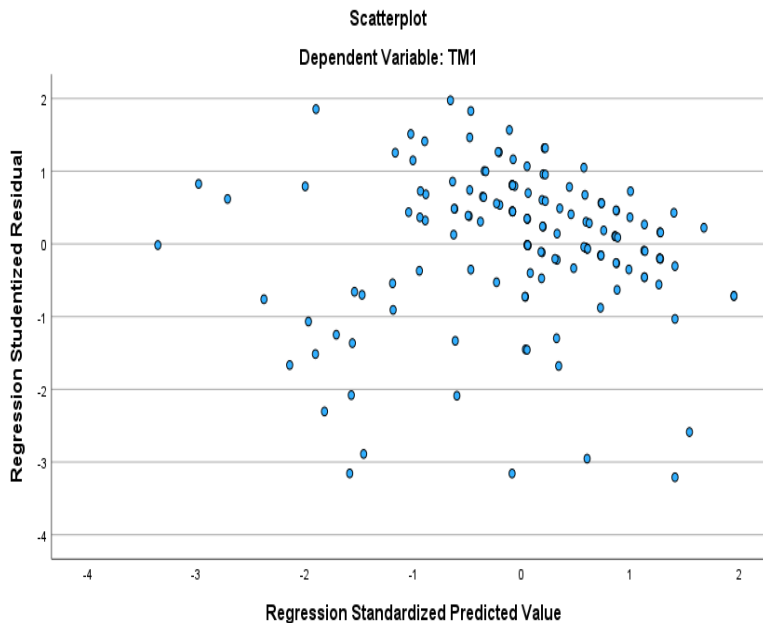


Figure 1. Heteroscedasticity Test Results

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 6. Results of Structural Path Analysis Coefficient I

Variabel	B	Std.Error	Beta	t	Sig.
(Constant)	0,362	1,742	-	0,208	0,836
E-WOM(X1)	0,274	0,050	0,361	5,432	0,000
Brand Image (X2)	0,284	0,043	0,439	6,604	0,000

Source: 2025 processed original data

Based on the processing results in the table above, the path coefficients obtained are $\rho_{zx1} = 0.361$ and $\rho_{zx2} = 0.439$. To calculate the error (ϵ_1), the R Square value in the summary model is used, which is 0.356:

$$\epsilon_1 = 1 - R^2 = 1 - 0,356 = 0,644$$

So the equation for the path analysis of Structure I is:

$$Z = 0,361X1 + 0,439X2 + 0.644 \epsilon_1$$

OR

$$\text{Crowd attraction} = -0,361 \text{ Electronic word of mouth} + 0,439 \text{ Brand Image} + 0,644 \epsilon_1$$

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 7. Results of Structural Path Analysis Coefficient II

Variabel	B	Std.Error	Beta	t	Sig.
(Constant)	2,910	1,888	-	1,542	0,125
E-WOM (X1)	0,283	0,060	0,339	4,724	0,000
Brand Image (X2)	0,172	0,053	0,241	3,231	0,002
Crowd Attraction (Z)	0,277	0,089	0,252	3,102	0,002

Source: 2025 processed original data

Based on the results of the processing in the table above, the path coefficients are

$$\rho_{yx1} = 0.339, \rho_{yx2} = 0.241, \text{ and } \rho_{yz} = 0.252.$$

The R-square value for the summary model is 0.381.

$$\epsilon^2 = 1 - R^2 = 1 - 0.381 = 0.619$$

Therefore, the equation for the path analysis of Structure II is:

$$Y = \rho_{yx1}X1 + \rho_{yx2}X2 + \rho_{zy}Z + \epsilon^2$$

$$Y = 0.399X1 + 0.241X2 + 0.252Z + 0.619\epsilon^2$$

Or

$$\text{Impulsive Buying} = 0.399 \text{ electronic word of mouth} + 0.241 \text{ brand image} + 0.252 \text{ crowd attraction} + 0.619\epsilon^2$$

Calculation of Influence

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 8. Calculation of Influence

Variable	Direct Effect	Indirect Effect	Total Direct
X1 to Y	0.339	0,361 x 0,252 = 0,091	0,430
X2 to Y	0.241	0,439 x 0,252 = 0,110	0,351
X1 to Z	0.361	-	0,361
X2 to Z	0.439	-	0,439
Z to Y	0.252	-	0,252

Source: 2025 processed original data

Based on the calculation of direct and indirect effects, it was found that the variable Electronic Word of Mouth (X1) has a direct effect on Impulsive Buying (Y) of 0.339. Furthermore, the indirect effect through the variable Crowd Attraction (Z) is 0.091, bringing the total effect of X1 on Y to 0.430. This indicates that variable Z strengthens the effect of X1 on Y.

Furthermore, the variable Brand Image (X2) has a direct effect on Impulsive Buying (Y) of 0.241 and an indirect effect through variable Z of 0.110, bringing the total effect to 0.351. This indicates that variable Z also strengthens the effect of X2 on Y.

Meanwhile, the variable Crowd Attraction (Z) has a direct effect on Impulsive Buying (Y) of 0.252.

Overall, it can be concluded that the Electronic Word of Mouth (X1) variable has the greatest total influence on Impulsive Buying (Y), followed by the Brand Image (X2) variable. In addition, the Crowd Attraction (Z) variable acts as a mediating variable that strengthens the relationship between the independent and dependent variables.

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 9. Results of Determination Coefficient Test

Regression Model	R	R Square	Adjusted R Square	Std. Error	Keterangan
X1, X2, Z → Y	0,617	0,381	0,368	3,01572	38,1 %

Source: 2025 processed original data

Based on the table above, it shows that the coefficient of determination is 0.381. This means that the contribution of the word of mouth variable, brand image, is 38,1%, while the remaining 61,9% 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 H_a. Therefore, it can be concluded that there is a partial influence between the independent and dependent variables, and vice versa.

Table 10. Results of t test

Variable	t calculate	Sig.	Description
<i>Electronic word of mouth (X1)</i>	4,724	0,000	Significant
Brand Image (X2)	3,231	0,002	Significant
Crowd Attraction (Z)	3,102	0,002	Significant

Source: 2025 processed original data

Based on the t-test results in the table, it can be seen that the variable Electronic Word of Mouth (X1) has a significance value of 0.000, which is less than 0.05. Therefore, it can be concluded that Electronic Word of Mouth has a significant effect on Impulsive Buying. The variable Brand Image (X2) has a significance value of 0.002, which is less than 0.05. Therefore, it can be concluded that Brand Image has a significant effect on Impulsive Buying. Furthermore, the variable Crowd Attraction (Z) has a significance value of 0.002, which is less than 0.05. Therefore, it can be concluded that Crowd Attraction has a significant effect on Impulsive Buying. Thus, all independent variables in this study have been proven to have a significant effect on Impulsive Buying, partially.

Based on the table above, it is shown that the variable Electronic Word of Mouth has a significance value of 0.000, which is less than 0.05. Therefore, according to the test criteria, it can be concluded that the variable Electronic Word of Mouth has a significant effect on Impulsive Buying. These results indicate that H0 is rejected and H1 is accepted. Furthermore, the Brand Image variable has a significance value of 0.002, which is less than 0.05. Thus, it can be concluded that the Brand Image variable has a significant effect on Impulsive Buying. These results indicate that H0 is rejected and H2 is accepted. Then, the Crowd Attraction variable has a significance value of 0.002, which is less than 0.05. Thus, it can be concluded that the Crowd Attraction variable has a significant effect on Impulsive Buying. These results indicate that H0 is rejected and H3 is accepted.

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 11. Result of F test

Model	F calculate	Sig.	Description
X1, X2, Z → Y	29,873	0,000	Significant

Source: 2025 processed original data

Based on the F-test results in Table 4.X, a significance value of 0.000 was obtained, which is less than 0.05. This indicates that the variables Electronic Word of Mouth, Brand Image, and Crowd Attraction simultaneously have a significant effect on Impulsive Buying. Therefore, it can be concluded that H0 is rejected and H4 is accepted, meaning that all independent variables in this study collectively have a significant effect on the dependent variable

These results also indicate that the regression model used in this study is suitable for explaining the relationship between variables.

Sobel Test Result

The Sobel test is conducted to measure whether the intervening variable, in this case the crowd attraction variable, can be used as an instrument for the independent and dependent variables. The test is considered significant if the calculated t-value is greater than the table t-value. To determine the standard error, see the coefficient table above before 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:

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

For:

$$a = 0,361$$

$$Sa = 0,050$$

$$b = 0,252$$

$$Sb = 0,089$$

So:

$$Sab = \sqrt{(0,252^2 \times 0,050^2 + (0,361^2) \times (0,089^2)}$$

$$Sab = \sqrt{(0,0635 \times 0,0025) + (0,130 \times (0,0079)}$$

$$Sab = \sqrt{0,000158 + 0,001027}$$

$$Sab = \sqrt{0,001185}$$

$$Sab = 0,0344$$

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

$$Z = \frac{a \times b}{Sab}$$

$$Z = \frac{0,361 \times 0,252}{0,0344}$$

$$Z = \frac{0,091}{0,0344}$$

$$Z = 2,64$$

The calculation results above obtained a calculated Z value of $2.64 > 1.96$ so it can be concluded that H_0 is rejected and H_6 is accepted. This means that the Crowd Attraction (Z) variable is able to significantly mediate the influence of Electronic Word of Mouth (X1) on 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 Sab is:

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

For :

$$a = 0,439$$

$$Sa = 0,043$$

$$b = 0,252$$

$$Sb = 0,089$$

So:

$$Sab = \sqrt{(0,252^2) \times (0,043^2) + (0,0439^2 \times 0,089^2)}$$

$$Sab = \sqrt{(0,0635 \times 0,001849) + (0,1927 \times 0,0079)}$$

$$Sab = \sqrt{0,000117 + 0,001523}$$

$$Sab = \sqrt{0,001640}$$

$$Sab = 0,0405$$

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

$$Z = \frac{a \times b}{sab}$$

$$Z = \frac{0,439 \times 0,252}{0,0405}$$

$$Z = \frac{0,110}{0,0405}$$

$$Z = 2,72$$

The calculation results above obtained a calculated Z value of $2.72 > 1.96$, so it can be concluded that H_0 is rejected and H_1 is accepted. This means that the Crowd Attraction variable (Z) is able to significantly mediate the influence of Brand Image (X2) on Impulsive Buying (Y).

5. Discussion

The results of the hypothesis testing conducted showed that Electronic word of mouth (X1) on Impulsive Buying (Y) has a path coefficient value of 0.339, which means there is a positive influence of 33.9%. Then the significance value is smaller than 0.05, which is 0.000. So the influence given by the Electronic word of mouth variable (X1) on Impulsive Buying (Y) is proven to be significant. This shows that Electronic word of mouth (X1) has a positive and significant influence on Impulsive Buying (Y), which means that in accordance with the first hypothesis (H1) it is accepted.

The results of the hypothesis testing indicate that Brand Image (X2) has a path coefficient of 0.241 on Impulsive Buying (Y), indicating a positive effect of 24.1%. Furthermore, the significance value is less than 0.05, at 0.002. Therefore, the influence of Brand Image (X2) on Impulsive Buying (Y) is proven to be significant. This indicates that Brand Image (X2) has a positive and significant effect on Impulsive Buying (Y), which indicates that the second hypothesis (H2) is accepted.

The results of the hypothesis testing indicate that Electronic Word of Mouth (X1) on Crowd Attraction (Z) has a path coefficient of 0.361, indicating a positive effect of 36.1%. Furthermore, the significance value is less than 0.05, at 0.000. So the influence given by the Electronic word of mouth variable (X1) on the Attraction of Crowds (Z) is proven to be significant. This shows that Electronic word of mouth (X1) has a positive and significant influence on the Attraction of Crowds (Z), which means that in accordance with the third hypothesis (H3) it is accepted.

The results of the hypothesis testing indicate that Brand Image (X2) has a path coefficient of 0.439 on Crowd Attraction (Z), indicating a positive effect of 43.9%. Furthermore, the significance value is less than 0.05, at 0.000. Therefore, the influence of Brand Image (X2) on Crowd Attraction (Z) is proven to be significant. This indicates that Brand Image (X2) has a positive and significant effect on Crowd Attraction (Z), which indicates that the fourth hypothesis (H4) is accepted.

The results of the hypothesis testing indicate that Crowd Attraction (Z) has a path coefficient of 0.252 on Impulsive Buying (Y), indicating a positive effect of 25.2%. Furthermore, the significance value is less than 0.05, at 0.002. Therefore, the influence of the Crowd Attraction (Z) variable on Impulsive Buying (Y) is proven to be significant. This indicates that Crowd Attraction (Z) has a positive and significant influence on Impulsive Buying (Y), which means that the fifth hypothesis (H5) is accepted.

The results of the hypothesis testing conducted using the Sobel test and path analysis indicate that Electronic Word of Mouth (X1) on Impulsive Buying (Y) through Crowd Attraction (Z) has an indirect effect of 0.091. Furthermore, the calculated Z-value is 2.64, which is greater than the critical value of 1.96 at the 0.05 significance level. Therefore, the influence of Electronic Word of Mouth (X1) on Impulsive Buying (Y) through Crowd Attraction (Z) is proven to be significant. This shows that Electronic word of mouth (X1) has a significant indirect influence on Impulsive Buying (Y) through Crowd Attraction (Z), which means that in accordance with the sixth hypothesis (H6) it is accepted.

The results of hypothesis testing conducted through the Sobel test and path analysis show that brand image (X2) on impulsive buying (Y) through crowd attraction (Z) has a path coefficient value of 0.4250. Then, the t-statistic value is 0.4816 where the value is smaller than the t-table in this study, which is 1.98932. So the influence given by the brand image construct (X2) on impulsive buying through crowd attraction (Z) is not proven to be significant. This shows that brand image (X2) does not have a significant indirect influence on impulsive buying (Y) through crowd attraction (Z) which means it is not in accordance with the seventh hypothesis (H7) rejected.

6. Conclusions

Based on the results of the study and hypothesis testing regarding the effect of electronic word of mouth and brand image on impulsive buying through crowd attractiveness as an intervening variable at PokPok My Crispy Snack, Kediri Mall, several conclusions can be drawn. First, electronic word of mouth has a positive and significant direct effect on impulsive buying. Second, brand image also has a positive and significant direct effect on impulsive buying. Third, electronic word of mouth positively and significantly influences crowd attractiveness. Fourth, brand image has a positive and significant direct effect on crowd attractiveness. Fifth, crowd attractiveness has a positive and significant direct effect on impulsive buying.

Furthermore, electronic word of mouth indirectly influences impulsive buying through crowd attractiveness as an intervening variable. Similarly, brand image also has a positive and significant indirect effect on impulsive buying through crowd attractiveness. These findings indicate that both electronic word of mouth and brand image play important roles in increasing impulsive buying, either directly or indirectly through crowd attractiveness.

Based on the findings of this study, several recommendations are proposed. For the management of PokPok My Crispy Snack, it is important to enhance electronic word of mouth strategies by actively engaging in creative digital promotions, such as interactive social media campaigns, utilizing customer reviews, and collaborating with local influencers. Additionally, maintaining and strengthening brand image through consistent product quality, service excellence, and strong brand identity is essential to foster positive consumer perceptions and loyalty. For consumers, it is recommended to be more selective in responding to information obtained from electronic word of mouth, ensuring that purchasing decisions are based on actual needs and rational considerations rather than purely emotional impulses. For future researchers, it is suggested to include additional variables that may influence impulsive buying, such as sales promotions, digital payment convenience, or psychological factors. Moreover, expanding the research scope to different objects and locations is encouraged to obtain more diverse and comprehensive results.

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