

ANALYSIS OF THE RELATIONSHIP BETWEEN LIVE STREAMING AND PRODUCT REVIEWS WITH IMPULSE BUYING DECISIONS IN ONLINE MARKETPLACES

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Abstract

Keywords:

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Impulse Buying,
Online Marketplace,
Consumer Behavior

The rapid growth of e-commerce has encouraged the emergence of various digital marketing strategies, particularly live streaming and product reviews, which play an important role in influencing consumer behavior. Although previous studies have widely examined factors affecting impulse buying, limited research has simultaneously highlighted the role of direct interaction through live streaming and the impact of social proof from product reviews on impulsive purchasing decisions. This study aims to analyze the relationship between live streaming (X1) and product reviews (X2) with customer impulse buying (Y) on online marketplace platforms. The research employed a quantitative approach using multiple regression analysis. The sample consisted of e-commerce users who had experienced impulsive purchases through live streaming features and product reviews. The findings revealed that live streaming significantly affects impulse buying with a significance value of $0.002 < 0.05$, while product reviews also significantly influence impulse buying with a significance value of $0.000 < 0.05$. Simultaneously, both variables significantly impact impulse buying with an F-value of $71.032 > 2.33$ and a coefficient of determination (R^2) of 0.442, indicating that 44.2% of impulse buying behavior is explained by live streaming and product reviews, while the remaining 55.8% is influenced by other factors. These results confirm that digital interaction-based marketing strategies effectively encourage consumer impulsive behavior and provide both theoretical and practical contributions to the study of digital consumer behavior.

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INTRODUCTION

The development of digital technology has brought about significant changes in consumer behaviour (Amory & Mudo, 2025). The presence of the internet not only facilitates communication, but also opens up new opportunities in commercial activities through e-commerce platforms (Xie et al., 2025). Online marketplaces have now become the primary means for consumers to meet their needs, ranging from everyday products to luxury goods, without having to visit physical stores. This phenomenon demonstrates a shift in the shopping culture of society, which is increasingly relying on digital technology (Inversini, 2025).

As competition between marketplaces intensifies, creative and interactive marketing strategies are increasingly needed to attract consumers' attention. One rapidly growing innovation is the live streaming feature, where sellers interact directly with potential buyers through real-time video broadcasts. This feature allows consumers to obtain more detailed product information while providing a shopping experience similar to face to face interaction. Product reviews (Naz et al., 2025) from previous buyers is also an important factor in influencing potential consumers' perceptions of product quality. These two elements, live streaming and product reviews, often create an emotional impulse that can trigger impulsive buying or spontaneous purchases without planning (Samosir et al., 2025).

The rationale for this study lies in the relationship between digital interaction-based marketing strategies and consumer spending behaviour. Although impulse buying is often viewed negatively, in practice this phenomenon presents a significant opportunity for businesses to increase sales. Seller interaction through live streaming (Liu et al., 2025) can create a sense of urgency and trust, while product reviews serve as social proof that reinforces purchasing decisions. The combination of the two is predicted to accelerate the consumer decision-making process, especially in the fast-paced and practical environment of online shopping.

The urgency of this research lies in the need to understand how live streaming and product reviews contribute to impulsive buying decisions in online marketplaces. The findings of this research are expected to provide insights for businesses in designing more effective digital marketing strategies, as well as serving as an academic reference in the study of consumer behaviour in the digital age (Brüggemann et al., 2025). By understanding the relationship between these three variables, it is hoped that this study will provide added value, both theoretically and practically, in the development of digital marketing literature (Martynenko et al., 2023).

LITERATURE REVIEW

Live Streaming

Live streaming is an interactive, engaging, and user centred environment that offers direct interaction between individual users and technology. The live streaming feature is one of the trending services that is in demand by various social media platforms as a feature used to interact with followers (Brewer et al., 2023).

Review Product

Product reviews are written by buyers in a section provided by e-commerce sites, describing the actual quality of the goods, including issues such as colour, specification discrepancies, difficulties in use, or durability, as well as positive experiences (Widjaja, 2025).

Impulsive Buying

Impulsive buying is an act of purchasing that occurs suddenly and immediately without prior planning, where consumers are in a certain environment and situation that triggers them to buy suddenly without considering and paying attention to the value of the item (Lim et al., 2024).

RESEARCH METHODOLOGY

Research Type

The type of research used in this study is associative quantitative research with a causal relationship between variables and the object being studied, to determine the relationship between live streaming and product reviews with impulse buying decisions in online marketplaces.

Research Location

The research location is the place where this research was conducted to obtain information about the data needed to support the research process in order to obtain the desired results. Based on the title of the research, this research was conducted in Cirebon City, West Java, Indonesia.

Population

The population is a generalised area consisting of objects or subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. The population studied in this research is customers who use the E-Commerce platform.

Sample

A sample is a group from the population that is planned to be studied in order to generalise the conclusions of the research. The sample size is determined using Hair's formula. Since the population size is unknown, it is recommended that the minimum sample size be 5-10 times the indicator variable. The sample representation for this study is 10 x 18 (statements), resulting in 180 respondents.

Teknik Analisa Data

Validity Test

Validity testing is a tool for measuring the extent to which a test or measurement instrument fulfils its function, and validity is used as an indicator of accuracy in terms of the extent to which research conclusions correspond to reality.

Reliability Test

Reliability testing is also used to test the consistency of respondents' answers based on the research instrument. The more reliable a research instrument is, the higher its consistency will be. Reliability tests are conducted using Cronbach's Alpha formula with a significance level of 0.6. If the Cronbach's Alpha value is higher than 0.6, the instrument is considered reliable, but if the Cronbach's Alpha value is lower than 0.6, the instrument is considered unreliable.

Multiple Regression Analysis

Multiple linear regression is a regression model that involves more than one independent variable. Multiple linear regression analysis is performed to determine the direction and extent of the influence of independent variables on dependent variables.

T-test

The T-test is a statistical method used to test whether the mean of a sample data differs significantly from a known or hypothesised population mean.

F-test

The F test is conducted to determine whether variables X1 and X2 jointly (simultaneously) affect Y.

Determination Coefficient Test

The coefficient of determination test, or R-square, is a way to measure how much of the variation in variable Y can be explained by variables X1 and X2 together, compared to the total variation in Y. If the coefficient of determination value in the regression model remains low or approaches zero, this indicates that the influence of all independent variables on the dependent variable is decreasing. Conversely, if the coefficient of determination approaches 100%, this indicates that the influence of all independent variables on the dependent variable is increasing.

RESULTS AND DISCUSSION

Respondent Characteristics

Based on Gender

In this study, the respondents were 182 e-commerce platform customers. They were selected from the entire population used as a sample in this study. The characteristics of the respondents based on gender were aimed at determining the ratio of male and female respondents. For further details, please refer to the following table:

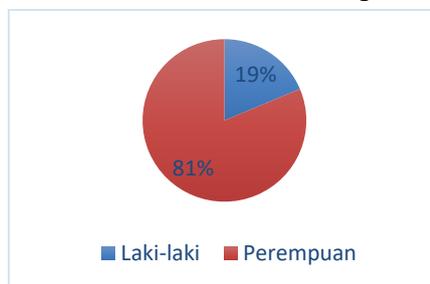


Diagram 1 Characteristics of Respondents Based on Gender

The research data was obtained from questionnaires distributed to all 182 respondents. Based on the questionnaire results shown in the table regarding the gender of respondents, it can be seen that there were 34 male respondents or around 19%, while there were 148 female respondents or around 81%. From these data, it can be seen that there are more female users of e-commerce platforms because women tend to be more active in using e-commerce platforms than men. In general, women more often purchase consumer goods such as clothing, cosmetics, household products, food, and children's needs, all of which are easily accessible through e-commerce. Women tend to be more careful and like to compare prices, quality, and reviews before buying. Especially for women who work or take care of the household, e-commerce offers a fast and time-saving way to shop.

Based on Age

Based on the respondents' answers from the questionnaire data collected according to age, the results of the identification of respondent characteristics are as follows:

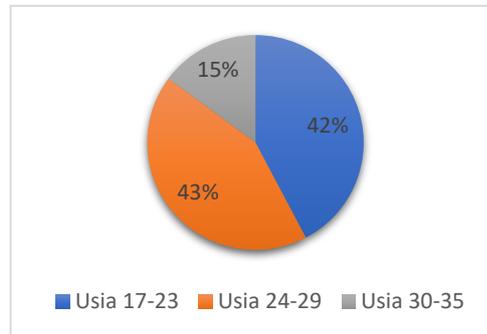


Diagram 2 Respondent Characteristics Based on Age

Based on the table regarding the age of respondents, it is known that most respondents are aged 17-23 years old, with a total of 77 people or around 42%, respondents aged 24-29 years old, with a total of 78 people or around 43%, and respondents aged 30-35 years old, with a total of 27 people or around 15%. From these data, it can be seen that more respondents aged 24-29 years old are users of e-commerce platforms because this age group has a combination of financial, technological, and lifestyle factors that most support online shopping behaviour. They are at a stage in life that is very supportive of consumptive and digital behaviour. At this age range, most individuals already have a steady income from their first job or a stable career, so they have fairly high purchasing power. In addition, this generation is classified as digital natives who have grown up with technology and are very familiar with the internet, smartphones, social media, and digital applications, including e-commerce platforms. They prioritise efficiency and convenience in shopping, so they prefer to buy goods online rather than spending time in physical stores. Their practical and consumptive lifestyle, coupled with their tendency to be active on social media and easily influenced by trends and digital promotions, makes them more likely to shop online. Furthermore, their freedom in making financial decisions and the need to fulfil an urban lifestyle make e-commerce the primary solution for meeting their daily needs quickly and easily.

Analysis Results

Validity Test

Table 1 Uji Validity Variable Live Streaming

Item	Rhitung	Rtabel	Keterangan
X1.1	0,761	0,145	Valid
X1.2	0,746	0,145	Valid
X1.3	0,759	0,145	Valid

It is known that items 1-3 on the Live Streaming variable (X1) are valid, where the calculated r value is greater than the table r value (0.145). With this, it can be said that respondents understood the content of each questionnaire statement used in the study.

Table 2 Product Review Variable Validity Test

Item	Rhitung	Rtabel	Keterangan
X2.1	0,609	0,145	Valid
X2.2	0,773	0,145	Valid
X2.3	0,769	0,145	Valid
X2.4	0,708	0,145	Valid
X2.5	0,542	0,145	Valid
X2.6	0,650	0,145	Valid

The validity test results for the Product Review variable (X2). It can be seen that all items in statements 1-6 have a calculated r value greater than the table r value (0.145). Therefore, all items for the Product Review variable are declared valid, which means that respondents understood the content of each questionnaire statement used in the study.

Table 3 Impulsive Buying Variable Validity Test

Item	Rhitung	Rtabel	Keterangan
Y1	0,675	0,145	Valid
Y2	0,532	0,145	Valid
Y3	0,680	0,145	Valid
Y4	0,687	0,145	Valid
Y5	0,711	0,145	Valid
Y6	0,609	0,145	Valid
Y7	0,663	0,145	Valid
Y8	0,605	0,145	Valid
Y9	0,455	0,145	Valid

Validity test results for the Impulsive Buying variable (Y). From the data, all items 1-9 show a calculated r value greater than the table r value (0.145). Thus, all items used to measure Impulsive Buying are declared valid, and respondents understood the content of each questionnaire statement used in the study.

Reliability Test

Table 4 Reliability Test

Variabel	Cronbach's Alpha	Minimal Reliabilitas	Keterangan
<i>Live Streaming</i> (X1)	0,621	0,60	<i>Reliable</i>
Ulasan Produk (X2)	0,763	0,60	<i>Reliable</i>
<i>Impulsive Buying</i> (X3)	0,809	0,60	<i>Reliable</i>

Reliability test results for all research variables. Live Streaming 0.621. Product Reviews 0.763. Impulsive Buying 0.809. Each variable has a value above the minimum Cronbach Alpha value of 0.60, so it is considered reliable.

Multiple Linear Regression Analysis Test

Table 5 Multiple Linear Regression Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.506	1.843		6.242	.000
	Live Streaming	.516	.164	.204	3.140	.002
	Ulasan Produk	.650	.078	.538	8.288	.000

a. Dependent Variable: Impulsive Buying

Based on the table, the multiple regression equation model:

$$Y = a + B_1 X_1 + B_2 X_2$$

$$Y = 11,506 + 0,516 X_1 + 0,650 X_2$$

From the multiple linear regression equation, the following can be determined and interpreted:

- A constant value of 11.506 means that if X1 (Live Streaming) and X2 (Product Reviews) occur, there will be an increase in Impulsive Buying of 11.506.
- The regression coefficient value of Live Streaming (X1) of 0.516 indicates that if Live Streaming increases by 1%, it will increase Impulsive Buying (Y) by 0.516, assuming that the Product Reviews (X2) variable remains constant. A positive coefficient value means that there is a direct relationship between Live Streaming and Impulsive Buying.
- The regression coefficient value of Product Reviews (X2) of 0.650 indicates that if Product Reviews increase by 1%, it will increase Impulsive Buying (Y) by 0.650, assuming that the Live Streaming variable (X1) remains constant. A positive coefficient value means that there is a direct relationship between Product Reviews and Impulsive Buying.



T-test

Table 6 T-test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.506	1.843		6.242	.000
	Live Streaming	.516	.164	.204	3.140	.002
	Ulasan Produk	.650	.078	.538	8.288	.000

a. Dependent Variable: IMPULSIVE BUYING

The following t-test results were obtained:

- 1) The significance value for variable X1 (Live Streaming) is $0.002 < 0.05$, which indicates a significance value smaller than 0.05, and the table shows a t-value of $3.140 < 1.653$ (t-table). Therefore, H0 is rejected and H1 is accepted, which means that live streaming has a significant effect on impulsive buying by customers on e-commerce platforms.
- 2) The significance value for variable X2 (Product Reviews) is $0.00 < 0.05$, which indicates a significance value smaller than 0.05, and the table shows a t-value of $8.288 > 1.653$ (t-table). Therefore, H0 is rejected and H1 is accepted, which means that Product Reviews have a significant effect on impulsive buying by customers on e-commerce platforms.

F-test

Table 7 F-test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1113.142	2	556.571	71.032	.000 ^b
	Residual	1402.551	179	7.835		
	Total	2515.692	181			

a. Dependent Variable: IMPULSIVE BUYING
b. Predictors: (Constant), PRODUCT REVIEW, LIVE STREAMING

The results of the F-test for the

effect of Live Streaming (X1) and Product Reviews (X2) on Impulsive Buying (Y) obtained an F-value of $71.032 > 2.33$ (f-table) with a significance value of $0.00 < 0.05$, so H0 is rejected and Ha is accepted, which means that Live Streaming (X1) and Product Reviews (X2) simultaneously affect customer Impulsive Buying on e-commerce platforms.

Uji Koefisien Determinasi (R²)

Table 8 Results of the Coefficient of Determination Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.665 ^a	.442	.436	2.79919

a. Predictors: (Constant), PRODUCT REVIEW, LIVE STREAMING

It can be seen that the Adjusted R Square value of Live Streaming (X1) and Product Reviews (X2) on impulsive buying customers on e-commerce platforms (Y) is 0.442. This means that 44.2% of impulsive buying customers on e-commerce platforms are influenced by Live Streaming (X1) and Product Reviews (X2), while the remaining 55.8% are influenced by other variables outside the variables studied.

1) Analysis of the Relationship Between Live Streaming and Product Reviews with Impulsive Buying Decisions in Online Marketplaces

Based on the results of data analysis, the t-count value obtained was greater than the t-table with a significant value on variable X1 (Live Streaming) of $0.002 < 0.05$, which indicates a significance value smaller than 0.05, and in the table, the t-count value obtained was $3.140 < 1.653$ (t-table), meaning that live streaming has a significant effect on impulsive buying by customers on e-commerce platforms, which means that the more frequent the live streaming, the more it will increase impulsive buying by customers.

2) Analysis of the Relationship between Live Streaming and Impulsive Buying in Online Marketplaces

Based on the results of data analysis, the t-count value obtained was greater than the t-table with a significant value on variable X2 (Product Reviews) of $0.00 < 0.05$, which indicates a significant value smaller than 0.05, and in the table, the t-count value obtained was $8.288 > 1.653$ (t-table), which means that product reviews have a significant effect on impulsive buying by customers in online marketplaces.

3) The simultaneous influence of live streaming and product reviews on impulsive buying in online marketplaces

From the results of the study, the significance value of $0.00 < 0.05$ indicates that the significance value is less than 0.05, and the table shows that the calculated f-value is $71.032 > 2.33$ (table f-value). Thus, live streaming and product reviews together have a significant effect on impulsive buying by customers on e-commerce platforms. Additionally, the R-squared coefficient of determination is 0.442.

CONCLUSION

Based on the results of the study, the Live Streaming variable (X1) was proven to have a significant effect on impulse buying behaviour among consumers on e-commerce platforms. This was evidenced by a significance value of $0.002 < 0.05$ and a t-value of 3.140, which was greater than the t-table value of 1.653.

The Product Reviews variable (X2) also shows a significant effect on customer impulse buying. This is supported by the analysis results with a significance value of $0.000 < 0.05$ and a t-count value of 8.288, which is greater than the t-table value of 1.653.

Simultaneously, the results show that live streaming and product reviews have a significant effect on impulse buying customers with a significance value of $0.000 < 0.05$ and an F-value of 71.032, which is greater than the F-table value of 2.33. The coefficient of determination (R^2) of 0.442 indicates that 44.2% of the variation in impulse buying can be explained by these two variables, while the remaining 55.8% is influenced by other factors outside the scope of this study. These findings emphasise the importance of digital interaction-based marketing strategies in increasing sales, while also opening up opportunities for further research on other factors that also influence impulse buying behaviour in the digital era.

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