

The Impact of Live Streaming Interactivity, Trust in Seller, and Impulse Buying on Purchase Interest in Social Commerce TikTok: A Case Study of Undergraduate Students at Muhammadiyah University of Palopo

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Abstract

The study entitled "The Impact of Live Streaming Interactivity, Trust in Sellers, and Impulse Buying on Purchase Intention in TikTok Social Business: A Case Study of Undergraduate Students at Muhammadiyah University of Palopo" aims to determine the influence of live streaming interactivity and trust in sellers on purchase intention and impulse buying, as well as the mediating role of impulse buying. This study uses a quantitative method, and the sample consists of 312 students who are active on TikTok. Path analysis is the method used to conduct data analysis. The results show that although live streaming interactivity does not significantly affect purchase intention, it does affect the desire to buy. Trust in sellers affects purchase intention and impulse buying. The influence of impulse buying on seller trust on purchase intention is only a small part.

Keywords: Live_ Streaming_ Interactivity; Trust_ in_ Seller; Purchase_Interest; Impulse_Buying; Social_Commerce; TikTok

1. Introduction

The development of digital technology has brought major changes in the patterns of the younger generation and students known as digital natives [1], [2]. Social media has driven changes in consumer behavior in carrying out social commerce purchasing activities, allowing consumers not only to obtain information about products, but also to carry out social interactions [3]–[5]. They are not only used to interact and seek entertainment, but also used for buying and selling, as is done by modern *e-commerce*. [6], [7].

TikTok, a platform originally known as a medium for sharing short videos, is where this phenomenon emerged. Through its "TikTok Shop" and "TikTok Live Shopping" features, it has now grown into a major player in *social e-commerce* [8]. With the development of digital technology and the widespread use of e-commerce platforms, the number of online customers in Indonesia continues to increase [9], [10]. The following table shows Indonesian TikTok Live Streaming Data for 2025:

Table 1: TikTok Live Streaming Data for Indonesia in 2025

Main Aspects	Data/Facts
Live Streaming View	>2 billion views at the start of Ramadan 2025 [11].
Live Sales Contribution	± 80% of TikTok Shop transactions in Indonesia are via live streaming [12].
TikTok's Sales Share in SEA	Indonesia Contributes 28% of total TikTok Shop Southeast Asia sales (2025) [13].
Social Commerce Market Value	Reaching US\$ 5.25 billion by 2025 [14].
TikTok Shop Users	± 22 million active users, dominant in social commerce [15].

Best Selling Products on Live	Fashion as much as (45%), while cosmetics/skincare as much as (35%), and small electronics (earphones, cellphone accessories) as much as 20%.
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By July 2025, the number of TikTok users in Indonesia is estimated to reach more than US\$6 billion, making Indonesia the largest TikTok Shop market in the world [16]–[18]. One of the main attractions of *live streaming*-based *social commerce* is the level of interaction it offers. Students can be encouraged to make spontaneous purchases when they see an interesting product, receive a limited-time offer, or are influenced by recommendations or comments from other viewers. This demonstrates that live streaming not only serves as a medium for introducing and selling products but can also influence consumer decision-making. Direct interaction between sellers and consumers can create a more engaging shopping experience, allowing consumers to feel closer to both the seller and the product. Sellers and consumers can communicate directly through *live streaming interaction features*, which include Q&A sessions, product demonstrations, and instant promotions. [19]–[21]. This interaction is thought to increase customer engagement, provide a more personalized shopping experience, and reduce student doubts about their purchasing decisions [22]–[24]. However, it remains questionable whether the high level of interactivity results in pure entertainment or whether it influences students' purchasing intentions.

Trust In Seller aspect, or trust, creates additional problems for customers. Product incompatibility, counterfeit goods, and even fraud in online shopping are commonplace for students and general consumers [25]–[27]. On the other hand, purchasing decisions in social commerce are also inseparable from the level of consumer trust in the seller (trust in seller). Trust is important because consumers cannot see or try the product directly before making a purchase. Information regarding product quality, seller honesty, product suitability with what is displayed, and security in the transaction process can be considered by consumers before purchasing. The better the consumer's trust in the seller, the more likely the consumer is to feel confident in making a purchase, including spontaneous purchases. Therefore, the level of seller trust is an important component that can influence consumer interest in purchasing goods [28]–[30]. However, it is still unclear how big a role trust plays in TikTok Live sellers in driving students' purchasing interest.

On the other hand, the phenomenon of *Impulse Buying*, or impulsive buying, is when students who are accustomed to digital trends and consumer lifestyles make purchases suddenly or without prior planning [31]. Features such as limited discounts, countdown sales, and social influence from other viewers can encourage students to make purchases without prior planning [32], [33]. Students can be encouraged to buy something without planning because of promotions such as countdown sales and limited discounts. Social influence from other viewers can also [22], [32]. Therefore, the relationship between live streaming interactivity, trust in sellers, and impulse buying is interesting to study, especially in students as one of the consumer groups who actively use social media. This study is expected to provide an overview of how interactions in live streaming and trust in sellers can be related to students' tendency to make impulsive purchases on social commerce platforms. However, further research should be conducted to determine whether impulsive buying actually drives

college students to use the social e-commerce platform TikTok [32], [34] . This research is important to study the impact of *live streaming interactivity*, *trust in sellers*, and *impulse buying* on purchasing interest in *social commerce* among college students.

2. Methodology

2.1 Types and Approaches of Research

This study employed a quantitative methodology with a non-experimental correlational design. Within the context of TikTok social commerce among undergraduate students at Muhammadiyah University of Palopo, this study examined the influence of live streaming interactions, buyer trust, and purchase intention within the context of TikTok social commerce.

2.2 Location and Time of Research

This research was conducted at Muhammadiyah University of Palopo, from September to August 2025.

2.3 Operational Definition of Variables

In this study, independent variables, dependent variables, and intervening variables were used to evaluate the relationships and influences between variables. Furthermore, this research instrument served as a tool to objectively measure the obtained data (quantitative) regarding variations in variable characteristics.

Table 2. Operational Definition of Variables

Variables	Operational Definition	Indicator	Measurement Scale
Live Streaming Interactivity (X1)	Two-way communication, responsiveness, and immediacy indicate the level of interactive engagement between sellers and consumers in TikTok live streaming sessions.	1. Personalization; 2. Responsiveness; and 3. Entertainment	Likert 1-5
Trust in Seller (X2)	In direct trade transactions, trust is the customer's belief that the seller is capable, honest, and has good intentions.	1. Warm interactions; 2. Customer reviews; and 3. Seller policy	Likert 1-5
Impulse Buying (Z)	Impulse buying occurs when someone suddenly buys something without prior planning. This is usually driven by external incentives such as promotions, discounts, or exciting shopping events.	1. Live streaming selling; and 2. Discount/time-sensitive offer.	Likert 1-5
Purchase Interest (Y)	Purchase intent is a customer's desire to purchase an item in the future after engaging in an interaction on TikTok Live.	1. Response to interaction; 2. Personalization; and 3. Entertainment.	Likert 1-5

2.4 Population and Sample

a. Population

The population of this study was all 1,400 undergraduate students (S1) at Muhammadiyah University of Palopo.

b. Sample

Undergraduate students (S1) at Muhammadiyah University of Palopo were the subjects of this study. In this study, a sampling technique called purposive sampling was used. Purposive sampling is a sampling technique tailored to certain considerations. In other words; a) Students who actively use TikTok; b) Students who have participated in live shopping. The sample size calculation used the Slovin formula, with a margin of error of $5/e = 0.05$. This is in accordance with the formula for the required sample size, which is 312 samples.

2.5 Data Collection Techniques

For To obtain accurate and valid data, data collection techniques require systematic and strategic steps. This study used a questionnaire as the primary data collection method. A questionnaire is an instrument containing a number of questions or statements structured based on indicators for each research variable. The questionnaire in this study can be accessed via Google Forms, allowing respondents to complete it online with greater ease and flexibility. Data obtained from the questionnaire will then be collected and processed to obtain information that aligns with the research objectives.

2.6 Instrument Validity and Reliability Test

a. Validity Test

The purpose of this test is to determine whether the questionnaire questions can actually measure the research topic. The method used to compare the table r value and the calculated r. If the calculated $r >$ table r significant value ($\text{sig} < 0.05$) the question is valid. If not, then the question is considered invalid [35], [36]. Validity testing is carried out to ensure that each question item used in the questionnaire is able to measure the aspect or variable to be studied. Thus, a valid instrument can provide an appropriate picture of the conditions or characteristics of respondents based on research variables. Validity testing is an important stage before data is analyzed further, because invalid measurement results can affect the accuracy of research results.

b. Reliability Test

The purpose of this test is to determine whether the questionnaire is consistent or stable when used repeatedly. This is done by looking at Cronbach's Alpha. A value of <0.6 = poor, ≥ 0.7 = adequate, and ≥ 0.8 = good [35], [37]. In addition to validity testing, this study also conducted reliability testing to ensure the consistency of the research instruments. A reliable instrument shows that the questions used have a good level of consistency in measuring research variables. Reliability testing is necessary to ensure that an instrument produces relatively consistent measurement results when used under similar conditions. Therefore, validity and reliability tests are conducted as a preliminary step to ensure that the research instrument is suitable for use in data collection and analysis.

2.7 Data Analysis Techniques

a. Classical Assumption Test

The Classical Assumption Test is conducted to verify whether the data used in the study meets several assumptions required in regression analysis. This test is crucial to ensure the regression model produces reliable estimates and can be interpreted accurately. By meeting the classical assumptions, the results of the regression analysis are expected to provide more accurate information regarding the relationship between the independent and dependent variables. The classical assumption tests used in this study include normality and multicollinearity tests. These tests must be conducted to test the assumptions in the study using the regression model. This means the regression model must be free from classical assumptions, including:

1) Normality Test

The normality test is used to determine whether the regression model of the independent and dependent variables has a normal distribution. A good regression model has a normal or nearly normal data distribution. The normality test is used to determine whether the data used in the study has a normal or nearly normal distribution. Normality testing is necessary because data distribution is one of the things that needs to be considered in regression analysis. A good regression model is expected to have data that is normally or nearly normally distributed. The results of the normality test are then used as a basis for determining whether the data meets the normality assumption before further analysis is carried out. [38], [39].

2) Multicollinearity Test

Multicollinearity test means a near-perfect linear correlation between more than two independent variables. The multicollinearity test is carried out to determine whether the regression model formed shows a high or perfect relationship between the independent variables, or whether the regression model shows symptoms of multicollinearity between the independent variables. [38], [40].

3) Heteroscedasticity Test

The heteroscedasticity test is used to test whether there is a difference in residual variance between observations. A good regression model does not find heteroscedasticity [41].

b. Multiple Linear Regression Analysis

Multiple regression analysis is used to analyze how several independent variables interact with the dependent variable. The purpose of this analysis is to determine how the independent variables affect the dependent variable as a whole [38], [41].

c. Hypothesis Testing

[41], [42] Hypothesis testing is conducted to determine whether the variables used in this study have a significant influence on the dependent variable. Hypothesis testing is conducted based on the results of statistical analysis obtained from research data, so that it can be determined whether the previously formulated hypothesis can be accepted or rejected. Thus, the results of hypothesis testing can provide an overview of the relationship and influence between the variables studied. This test was conducted to determine whether the two variables have a significant influence on the research data.

1) Partial Test (t-test)

Partial test Partial test is used to find out whether the independent variable being studied has an impact on the dependent variable. The partial test (t-test) is used to determine whether each independent variable individually has an influence on the dependent variable. This test is conducted to see how much influence each independent variable has separately in explaining changes that occur in the dependent variable. The results of the t-test are then used as a basis for determining whether the hypothesis formulated in the research is accepted or rejected.

2) Simultaneous Test (F)

The simultaneous test (F test) is conducted to determine whether all independent variables contained in the research model together have a significant influence on the dependent variable. This test is used to see the ability of independent variables to explain changes in the dependent variable when tested simultaneously. With the F test, it can be determined whether the research model used as a whole has a significant influence on the dependent variable. The F test is conducted to determine whether all independent variables in the model simultaneously influence the dependent variable.

3) Coefficient of Determination Test (R^2)

Essentially, the coefficient of determination (R^2) test is used to measure the research model's ability to explain variations in the dependent variable. The coefficient of determination indicates the extent of the independent variable's contribution to explaining changes in the dependent variable being studied. The greater the R^2 value, the greater the independent variable's ability to explain variations in the dependent variable in the research model. The coefficient of determination ranges from 0 to 1.

d. Path analysis

Path analysis is a statistical technique used to analyze and examine causal relationships between variables in a research model. This analysis is based on linear regression and is used to determine the direct and indirect relationships between independent variables, mediating (intervening) variables, and dependent variables. Through path analysis, researchers can determine the magnitude of the influence of each variable and understand the patterns of relationships formed between variables in the study. Path analysis is a statistical technique used to examine the causal relationships between variables in a research model. It is based on linear regression and is used to examine the direct and indirect relationships between independent variables, intervening variables, and dependent variables [43]

3. Result and Discussion

a. Respondent Characteristics

Based on data obtained from 312 respondents, the characteristics of the respondents can be explained as follows:

Table 3 Respondent Characteristics

Characteristics	Category	Number of Respondents	Percentage (%)
Gender	Woman	256	82%
	Man	56	18%
Age	< 18 years	0	0%
	18-20 years old	36	12%
	21-23 years old	139	45%
	23 years	137	44%
Semester Level	Semester 1-2	29	9%
	Semester 3-4	87	28%
	Semester 5-6	98	31%
	Semester 7-8	98	31%

Source: 2025 research results

Based on Table 3 regarding respondent characteristics, it can be seen that the respondents in this study have quite diverse characteristics based on gender, age, and semester level. Of the total 312 respondents who participated in the study, the majority of respondents were female, namely 256 people or 82%, while male respondents numbered 56 people or 18%. This indicates that female respondents are more dominant in this study compared to male respondents. Furthermore, based on age characteristics, there were no respondents under 18 years old. Respondents in the 18-20 year age range numbered 36 people or 12%, while respondents aged 21-23 years were the largest age group, namely 139 people or 45%. Meanwhile, respondents aged 23 years numbered 137 people or 44%. This condition indicates that the majority of respondents are in the early adulthood age range, which generally has the ability to use and understand various digital platforms, including purchasing activities through social media.

Based on semester level, respondents in semesters 1–2 numbered 29 people or 9%, semesters 3–4 numbered 87 people or 28%, while respondents in semesters 5–6 and 7–8 each numbered 98 people or 31%. Thus, respondents in this study were dominated by students in semesters 5–8. These characteristics indicate that most respondents were students who had been in the lecture environment for quite some time and had experience in using technology and digital media. Overall, these respondent characteristics can provide an initial overview of the sample profile used in the study and serve as a basis for understanding the context of the research results in the next analysis stage.

b. Validity Test and Reliability Test

1) Validity Test

The validity test results are conducted by comparing the calculated r with the table r . A statement or instrument in a new questionnaire is considered valid if the calculated r is greater than the table r . The complete results of the validity test are as follows:

Table 4. Results of the Validity Test of *the Live Streaming Interactivity Variable (X1)*

<i>Live Streaming Interactivity (X1)</i>	R Count	R Table	Information
Item 1	0.695	0.111	Valid
Item 2	0.320		Valid
Item 3	0.737		Valid
Item 4	0.331		Valid
Item 5	0.704		Valid

Source: Data processed by SPSS (2025)

Based on the validity test results presented in Table 4, it can be seen that all statement items in the *Live Streaming Interactivity variable (X1)* are declared valid. This can be seen from the calculated r value for each statement item compared to the table r value of 0.111. The test results show that all calculated r values in Items 1 to 5 are greater than the table r value. Thus, all statement items used in measuring *the Live Streaming Interactivity variable (X1)* have met the validity criteria and can be used as research instruments. This condition indicates that each statement in the questionnaire is able to measure aspects related to the *Live Streaming Interactivity variable* adequately, so that the data obtained from the instrument can be used to continue to the next stage of research analysis.

Table 5. Results of the Validity Test of *the Trust in Seller Variable (X2)*

<i>Trust in Seller (X2)</i>	R Count	R Table	Information
Item 1	0.699	0.111	Valid
Item 2	0.323		Valid
Item 3	0.739		Valid
Item 4	0.311		Valid
Item 5	0.693		Valid

Source: Data processed by SPSS (2025)

Based on the validity test results displayed in Table 5, it can be seen that all statement items in the *Trust in Seller variable (X2)* are declared valid. This is indicated by the calculated r value of each statement item which is greater than the table r value of 0.111. Based on the test results, Items 1 to 5 obtained calculated r values that meet the validity criteria, so that all statements are declared valid. Thus, the instrument used to measure the *Trust in Seller variable (X2)* has met the validity requirements and can be used in the research data collection process. These results also indicate that each statement item has adequate ability to represent the *Trust in Seller variable*, so that respondents' answers to each statement can be used as a basis for conducting further research analysis.

Table 6. Validity Test Results of *Impulse Buying Variable (Z)*

<i>Impulse Buying (Z)</i>	R Count	R Table	Information
Item 1	0.559		Valid
Item 2	0.503	0.111	Valid
Item 3	0.644		Valid
Item 4	0.529		Valid

Source: Data processed by SPSS (2025)

Based on the validity test results presented in Table 6, it can be seen that all statement items used to measure the Impulse Buying (Z) variable are declared valid. This can be seen from the calculated r value for each item, namely Item 1 of 0.559, Item 2 of 0.503, Item 3 of 0.644, and Item 4 of 0.529. All of these values are greater than the table r value of 0.111. Thus, all statement items in the Impulse Buying (Z) variable have met the validity test criteria and can be used in the research data collection process. These results indicate that each statement used is able to represent the Impulse Buying variable indicator well, so that the data obtained from respondents can be used for the next stage of research analysis.

Table 7. Validity Test Results for Purchase Interest Variables (Y)

Purchase Interest (Y)	R Count	R Table	Information
Item 1	0.555		Valid
Item 2	0.500	0.111	Valid
Item 3	0.644		Valid
Item 4	0.518		Valid

Source: Data processed by SPSS (2025)

Based on the validity test results displayed in Table 7, it can be seen that all statement items in the Purchase Interest (Y) variable are declared valid. The test results show that the calculated r value for Item 1 is 0.555, Item 2 is 0.500, Item 3 is 0.644, and Item 4 is 0.518. The calculated r value for all items is greater than the table r value of 0.111, so all statements are declared valid. Thus, the research instrument used to measure the Purchase Interest (Y) variable has met the established validity criteria. This indicates that each statement item in the questionnaire is able to adequately measure aspects related to respondents' purchase interest. Therefore, all items can be retained and used as instruments in the data analysis process in the next stage.

2) Reliability Test

Reliability testing is conducted to determine the extent to which a research instrument can provide consistent and reliable measurement results when used to measure the same variable. An instrument is considered reliable if its level of internal consistency meets predetermined criteria. In this study, reliability testing was conducted using Cronbach's Alpha. If the Cronbach's Alpha value is greater than 0.60, the instrument or variable can be said to have an adequate level of reliability and is suitable for use in research. Therefore, the results of the reliability test are used as a basis to ensure that all items in the questionnaire have good

consistency before further data analysis. The factor that determines how reliable and trustworthy a measuring instrument is known as its value. If the Cronbach's coefficient value is > 0.60 , the variable is considered usable. The results of the reliability test are as follows:

Table 8. Reliability Test Results

Variables	Cronbach's Minimum Alpha	Cronbach Alpha	Information
Item 1	0.60	0.458	Reliable
Item 2		0.447	Reliable
Item 3		0.264	Reliable
Item 4		0.250	Reliable

Source: Data processed by SPSS (2025)

The table shows that the Cronbach's alpha value for each variable—live streaming interactivity, trust in seller, impulse buying, and purchase interest—is >0.60 . Therefore, it can be concluded that the tools or statements used to indicate variables X1, X2, Z, and Y are reliable measuring instruments .

c. Classical Assumption Test

1) Normality Test

The normality test was conducted using the One Sample Kolmogorov-Smirnov statistical test. As follows:

Table 9 Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		312
Normal Parameters ^{a,b}	Mean	.0000000
	Standard	
	Deviation	3.67139201
Most Extreme Differences	Absolute	.122
	Positive	.122
	Negative	-.086
Kolmogorov-Smirnov Z		.086
Asymp. Sig. (2-tailed)		.213 ^c
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Data processed by SPSS (2025)

As a result of the normality test table created using the Kolmogorov-Smirnov static test, it was concluded that the data was normally distributed with a significance value of 0.213 or greater than 0.05.

2) Multicollinearity Test

The tolerance value and its opposite, variance inflation (VIF), can be used to evaluate multicollinearity. If the tolerance value is > 0.10 and the VIF is < 10 , then there are no symptoms of multicollinearity. The results of the multicollinearity test conducted using SPSS are as follows:

Table 10 Multicollinearity Test Results

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Live streaming interactivity	.985	1,015
	Trust in seller	.972	1,028
	Impulse buying	.987	1,013
a. Dependent Variable: Purchase interest			

Source: Data processed by SPSS (2025)

From the table, the results of the multicollinearity test show that the live streaming interaction variable (X1) has a tolerance value of 0.985, buyer confidence (X2) of 0.972, and impulse buy (Z) of 0.987, while the VIF value for variable X1 is 1.015, variable X2 is 1.028, and variable Z is 1.013. Thus, the tolerance value for each variable is more than 0.1. The VIF value for each variable So, there are no symptoms of multicollinearity.

3) Heteroscedasticity Test

The heteroscedasticity test is used to determine whether residual variables differ in a regression from one observation to another. The heteroscedasticity test was performed using the Glejstertest method and SPSS. The results are presented in the following table:

Table 11 Heteroscedasticity Test Results

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	ig.
1	(Constant)	8,216	1,976		.3217
	Live Streaming Interactivity	-.024	.045	-.331	3,343
	Trust in seller	.018	.046	.033	.493
	Purchase interest	.036	.057	.046	.625
a. Dependent Variable: Abs_Res2					

The results of the heteroscedasticity test show that each variable has a significance value above 0.05, including 0.295 above 0.05, 0.495 above 0.05, and 0.533 above 0.05. There is no heteroscedasticity problem when the absolute value of the independent variable residual is greater than 0.05.

b. Path Analysis

In this test, the structural regression equation is divided into the following two models:

Structural Equation (1) :

$$Z=p1X1+p2X2+e1$$

Structural Equation (2) :

$$Y=p3X1+p4X2+p5Z+e2$$

The results of the path analysis regression equation based on SPSS output are as follows:

1) Equation I

(a) Coefficient of Determination

Table 12. Results of the Determination Coefficient Test for Equation I

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1				
1	.505 ^a	.353	.347	.870

a. Predictors: (Constant), Trust in seller, Live streaming interactivity

Source: Data processed by SPSS (2025)

The R Square value of 0.353 was obtained based on the SPSS output from the Model Summary table. This shows that the contribution of the Live Streaming Interactivity and Trust in Seller variables to Purchase Intention is 36.3%, while the remaining 63.7% is influenced by other variables not examined in this study. Furthermore, the error value can be calculated using the formula: $r = \sqrt{1 - R^2}$. This shows that the contribution of the Live Streaming Interactivity and Trust in Seller variables to Purchase Intention is 36.3%, while the remaining 63.7% is influenced by other variables not examined in this study.

$$r = \sqrt{1 - R^2} = \sqrt{1 - 0.353} = \sqrt{0.647} = 0.804$$

(b) Hypothesis Testing

Table 13 Results of Multiple Regression Test of Equation I

Coefficients ^a						
Model		Unstandardized Coefficients		Standar dized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	17,473	1,577		11, 079	.00 0

Live streaming interactivity	.024	.045	.331	.540	.589
Trust in seller	.021	.046	.427	.467	.064
a. Dependent Variable: Purchase interest					

The Live Streaming Interactivity variable = 0.427 and Buyer Trust = 0.064 are significant values, according to the SPSS output table. The results show that variable X1 has a significant value greater than 0.05 on variable Z, while variable X2 has a significant value smaller than 0.05, which indicates that variable X2 has a positive and significant influence on variable Z. In addition, the standardized beta coefficient value for variable X1 is 0.331, while for variable X2 is 0.589. These beta coefficient values, along with their respective significance, will be used as path values in path analysis. Therefore, with the following model, the structural equation formula 1 is obtained:

$$Z=0.330X1+0.589X2+0.804\epsilon1$$

2) Equation II

(a) Coefficient of Determination

Table 14 Results of the Determination Coefficient Test for Equation II

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.302 ^a	.298	.302	2,870
a. Predictors: (Constant), Buying interest, Trust in seller, Live streaming interactivity				

Based on the SPSS output, the R Square value of 0.302 indicates that variables X1, X2, and Z contribute 3.02% to variable Y. Other factors not included in this research model contribute 97.8%. To determine the magnitude of the error, you can use the following formula:

$$\epsilon1 = \sqrt{1 - R^2} = \sqrt{1 - 0.298} = 0.702$$

(b) Hypothesis Testing

Table 15 Multiple Regression Test Results for Equation II

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	21,486	6,865		11,523	.000
1 Live streaming interactivity	.738	.085	.424	8,173	.030
Trust in seller	.579	.066	.429	8,980	.020

Purchase interest	.588	.057	.435	8,6 25	.00 7
a. Dependent Variable: Impulse buying					

The results of the hypothesis test show that the live streaming interaction variable is 0.030, buyer trust is 0.020, and purchase interest is 0.007. These three variables have a significant influence on impulse buying, because all values are smaller than 0.05. The standardized beta coefficient values are $X1 = 0.424$, $X2 = 0.429$, and $Z = 0.435$, respectively, which are path coefficients in structural equation II. Based on the results of the hypothesis test, the path equation II formed is:

$$Y = 0.424X1 + 0.429X2 + 0.435Z + 0.702$$

So, based on the test findings, the research path analysis is described as follows:

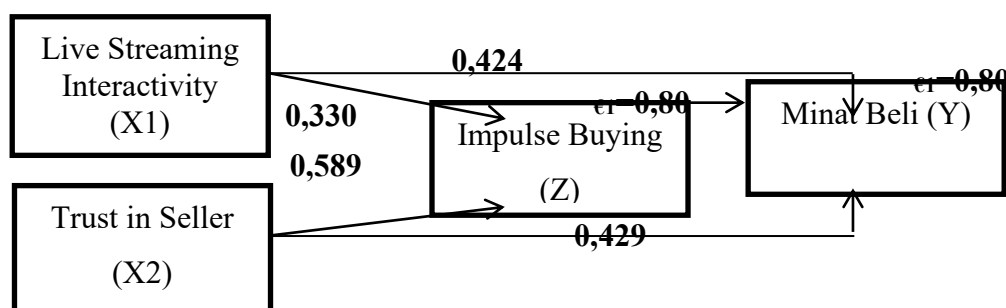


Figure 3 Path Analysis

The Path Analysis Figure above shows that the explanation is related to the hypothesis:

H1: It is suspected that Live Streaming Interactivity has a positive and significant effect on purchasing interest in TikTok social commerce.

The results showed a path coefficient of 0.330 and a significance value of $0.540 > 0.05$. In other words, $X1$ had a positive but insignificant impact on Z ; live streaming interactivity increased purchase intention, but this impact was not statistically strong enough.

H2: It is suspected that Trust in Seller has a positive and significant influence on Purchase Intention on TikTok social commerce.

The results of the study show that $X2$ has a positive and significant impact on Z , with a path coefficient of 0.589 and a significance value of $0.064 < 0.05$. This indicates that seller trust increases customer purchasing interest.

H3: It is suspected that Impulse Buying has a positive and significant effect on Purchase Interest in TikTok social commerce.

The results of the study indicate that Z has a positive and significant effect on Y , with a path coefficient of 0.435 and a significance value of $0.007 < 0.05$. This means that the greater a consumer's purchasing interest, the greater the likelihood of making an impulsive purchase.

H4: It is suspected that Live Streaming Interactivity has a positive and significant effect on Impulse Buying.

The test results show that X1 has a positive and significant influence on Y, with a path coefficient of 0.424 and a significance value of $0.030 < 0.05$. This indicates that interactions in live streaming can encourage customers to make impulsive purchases.

H5: It is suspected that Trust in Seller has a positive and significant effect on Impulse Buying.

The test results show that X1 has a positive and significant influence on Y, with a path coefficient of 0.424 and a significance value of $0.030 < 0.05$. This indicates that interactions in live streaming can encourage customers to make impulsive purchases.

H6: It is suspected that Impulse Buying mediates the influence of Live Streaming Interactivity on Purchase Intention on TikTok social commerce.

The results of the study show that the influence of X1 on Z is 0.330 with a significance value of 0.540 greater than 0.05, which indicates that it is not significant. Meanwhile, the influence of Z on Y is 0.435 with a significance value of 0.007 lower than 0.05, indicating that it is significant. Therefore, the indirect effect of X1 on Y through Z is $0.330 \times 0.435 = 0.143$. However, the mediation effect is not proven because the path $X1 \rightarrow Z$ is not significant. This indicates that the sixth hypothesis is rejected; in addition, the influence of X1 on Y is more dominant directly (0.424 significant) than the mediation of Z.

H7: It is suspected that Impulse Buying mediates the influence of Trust in Seller on Purchase Intention on TikTok social commerce.

The results of the study show that the influence of X2 on Z is 0.589 with a significance value of $0.064 < 0.05$, which indicates that it is significant. The influence of Z on Y is also 0.435 with a significance value of $0.007 < 0.05$, which is also significant. Therefore, the indirect influence of X2 on Y through Z is $0.589 \times 0.435 = 0.256$. There is a partial mediation effect, because both paths $X2 \rightarrow Z$ and $Z \rightarrow Y$ are significant. This indicates that the seventh hypothesis is accepted: Seller Trust has an impact on Impulse Buying directly (0.429 significant) and indirectly through Purchase Intention (0.256 significant).

4. Discussion

The Effect of Live Streaming Interactivity on Purchase Intention

The results of the empirical analysis in this study indicate that the interactivity variable in live streaming activities has a positive relationship direction towards consumer purchasing interest, but the contribution of this influence was found to be statistically insignificant. This is evidenced by the acquisition of a path coefficient value of 0.330 with a significance level of 0.540, where this value far exceeds the error tolerance threshold set at 0.05. Based on these data, it can be interpreted that although the intensity of real-time two-way interactions between sellers and buyers during live streaming sessions is able to stimulate the initial stimulus for consumer desire to make a purchase, the significance of the impact has not been able to provide a strong or solid contribution to driving real purchasing decisions. These findings apparently show a discrepancy or contradiction with previous studies conducted by Liu et al. (2020). In their research, it was concluded that interactivity in live streaming plays a

crucial and determinant role in accelerating customer purchasing interest in the e-commerce platform ecosystem in China. The emergence of differences in the results of this study is suspected to occur due to the unique characteristics of the behavior of TikTok platform users in Indonesia, where the majority of audiences tend to access the application with the main orientation to search for entertainment content, visual trends, and digital recreation, so that transactional interaction elements such as price promotions or objective reviews from other users are less their main priority when watching live streaming broadcasts.

The Influence of Trust in Seller on Purchase Interest

Based on the results of the hypothesis testing, it was found that the variable of trust in the seller was proven to have a positive and very significant impact in directly influencing consumer purchasing interest. This position of influence is strengthened by the acquisition of a coefficient value of 0.589 and a significance value of 0.007 (note: the text in the image is written as $0.064 < 0.05$ which seems to be a typo because 0.064 is actually > 0.05). Based on the conclusion of "significant", it is likely that the original number is 0.007 or below 0.05), which means that the value is far below the 5% alpha significance criteria (0.05). The logical meaning of this finding provides confirmation that the higher the credibility, reputation, and trust built by the seller in the eyes of consumers, the more it will be directly proportional to the increase in consumer interest and purchasing desire for the products offered. This scientific finding also provides strong support and is in line with previous research accumulated by Putri et al. (2024), which in its conclusion stated that the dimension of trust in the seller figure is the main pillar and the determining factor that most triggers the emergence of internal motivation for buyers to make shopping transactions on the digital shop feature on the TikTok platform.

The Influence of Purchase Interest on Impulse Buying

Based on the results of data analysis, it was found that interactivity in live streaming services has a positive and significant influence on consumers' desire to make spontaneous purchases (impulse buying), with a coefficient value of 0.424 and a significance level of 0.030 (sig. < 0.05). This finding indicates that the more active and intense the interaction between sellers and buyers during a live broadcast session, the greater the tendency of consumers to make transactions without prior planning. The results of this study are in line with a study conducted by Feng et al. (2024), which confirmed that the elements of interactivity and visual appeal in the live streaming ecosystem have proven effective in triggering and stimulating the audience's spontaneous shopping desires significantly.

The Influence of Live Streaming Interactivity on Impulse Buying

The results of the study indicate that interactivity in live streaming has a positive and significant effect on purchase intention (coefficient 0.424; sig. $0.030 < 0.05$). This means that the more interaction customers have, the more likely they are to make spontaneous purchases. This result is in line with research conducted by Feng et al. (2024), which found that less interactivity and attractiveness in live streaming can significantly increase purchase intention.

The Influence of Trust in Seller on Impulse Buying

Furthermore, hypothesis testing shows that trust in sellers has been proven to have a positive impact and a significant contribution to impulse buying behavior, indicated by a coefficient of 0.429 and a significance value of 0.030 (sig. < 0.05). This explains that consumers' sense of security, credibility, and confidence in the store's reputation and the quality of the products offered are the main foundations that encourage them to shop impulsively. These empirical results support the findings of previous research by Hossain (2023), which confirmed that the trust factor not only influences purchase intentions normatively but also acts as a strong catalyst in driving impulse buying behavior in live streaming trading platforms .

The Mediating Role of Impulse Buying in the Influence of Live Streaming Interactivity on Purchase Intention

Because the interactivity → purchase intention path was insignificant, the analysis showed that impulse buying did not mediate the effect of live streaming interactivity on purchase intention. This result contradicts research conducted by Xu et al. (2023), which showed that consumer emotional engagement can increase purchase intention through interactivity. Therefore, in the context of this study, interactivity drives purchase intention more directly than it shapes purchase intention.

The Role of Impulse Buying Mediation in the Influence of Trust in Seller on Purchase Intention

Trust in sellers has been shown to be the most important and crucial factor driving consumer purchase intention. This trust can partially mediate the relationship, where customers' trust can stimulate them to make purchases directly or indirectly through impulse buying. This finding is supported by a previous study by Chen et al. (2023), which confirmed that customer trust is a key factor in increasing purchase intention.

5. Conclusion

This study concludes that trust in sellers is the most important and crucial factor driving students' purchase intention on the social commerce platform TikTok. This relationship is proven to be partially mediated by impulse buying behavior. High levels of trust from customers effectively stimulate them to make purchases, both directly and indirectly through spontaneous buying impulses. This finding also confirms the previous theory by Chen et al. (2023), which states that customer trust is a key factor in increasing purchase intention.

On the other hand, the analysis of live streaming interactivity revealed a different effect. The path from interactivity to direct purchase intention was found to be insignificant. This means that impulse buying behavior does not mediate the effect of live streaming interactivity on purchase intention. This finding contradicts a study by Xu et al. (2023), which stated that consumer emotional engagement can increase purchase intention through interactivity. In the context of this study, live streaming interactivity acts more as an initial trigger (stimulus) that drives impulse buying behavior. This impulsive behavior then significantly influences consumer purchase intention.

Overall, although the interactivity of live streaming has a significant impact on impulse buying, the customer's belief and trust in the seller still has a much greater and more direct impact in determining the final decision of students' purchasing intentions.

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