

The Influence of Customer Engagement and Perceived Interactivity on Purchase Decisions in TikTok Live Commerce of Batik MSMEs in Surakarta

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ABSTRACT

Keywords:

Batik SMEs,
Customer Engagement,
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Purchase Decision,
TikTok Live Commerce.

Abstract: The development of digital technology has changed how consumers search for information, interact with sellers, and make purchasing decisions. One digital marketing innovation is Live Commerce through TikTok Live, which is utilized by Batik SMEs in Surakarta to promote products and interact directly with consumers. The effectiveness of Live Commerce depends not only on product presentation but also on Customer Engagement and Perceived Interactivity. This study aims to examine the effects of Customer Engagement and Perceived Interactivity on Purchase Decision in TikTok Live Commerce among Batik SMEs in Surakarta. A quantitative explanatory approach was employed with 100 respondents who had watched and purchased Batik products through TikTok Live. Data were collected using a structured questionnaire and analyzed through multiple linear regression. The results indicate that Customer Engagement and Perceived Interactivity have positive and significant effects on Purchase Decision.

Kata Kunci:

UMKM Batik,
Customer Engagement,
Perceived Interactivity,
Purchase Decision,
TikTok Live Commerce.

Abstrak: Perkembangan teknologi digital telah mengubah cara konsumen mencari informasi, berinteraksi dengan penjual, dan mengambil keputusan pembelian. Salah satu inovasi pemasaran digital adalah Live Commerce melalui TikTok Live, yang dimanfaatkan UMKM Batik di Surakarta untuk mempromosikan produk dan berinteraksi dengan konsumen secara langsung. Efektivitas Live Commerce tidak hanya bergantung pada penyajian produk, tetapi juga pada keterlibatan konsumen (Customer Engagement) dan persepsi terhadap interaktivitas (Perceived Interactivity). Penelitian ini bertujuan menganalisis pengaruh Customer Engagement dan Perceived Interactivity terhadap Purchase Decision pada TikTok Live Commerce UMKM Batik di Surakarta. Penelitian menggunakan pendekatan kuantitatif dengan desain eksplanatori dan melibatkan 100 responden yang pernah menonton serta membeli produk Batik melalui TikTok Live. Data dikumpulkan menggunakan kuesioner dan dianalisis dengan regresi linear berganda. Hasil penelitian menunjukkan bahwa Customer Engagement dan Perceived Interactivity berpengaruh positif dan signifikan terhadap Purchase Decision.

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A. LATAR BELAKANG

Digital technology keeps evolving, changing how consumers find information, interact with sellers, and make purchasing decisions. Live Commerce is one of the newer innovations in digital marketing, gaining attention for enabling real-time interaction between sellers and consumers through livestreaming. Unlike regular e-commerce, it combines entertainment, communication, and buying and selling in one platform, making shopping feel more engaging. TikTok Live is a good example of this—it has become a popular marketing tool for businesses of all sizes, including Micro, Small, and Medium Enterprises (MSMEs), letting them show and sell products directly to consumers (Sari et al., 2025). In Surakarta, Batik MSMEs have also used TikTok Live to reach more customers, share product details, demonstrate features, and talk directly with

potential buyers. As a result, Live Commerce has become a strategic digital marketing tool that can influence consumers' Purchase Decisions.

Purchase Decision represents the process by which consumers assess the available information before deciding whether to purchase a product (Nirwana, 2023). Within the context of Live Commerce, consumers' purchasing decisions are shaped not only by product attributes but also by the experiences they gain throughout live-streaming sessions. One factor that is expected to contribute to this decision-making process is Customer Engagement, which describes the extent to which consumers participate in marketing activities, such as watching live broadcasts, posting comments, sharing opinions, distributing content, and interacting directly with sellers during live sessions (Yudha et al., 2022). Existing studies have generally reported that stronger Customer Engagement enhances both purchase intention and Purchase Decisions (Cao et al., 2025; Nabila Ayu & Muzakar Isa, 2025). Nevertheless, the findings remain inconclusive, as Febriano et al. (2025) found that Customer Engagement had no significant effect on Purchase Decisions. Such conflicting results indicate that the link between Customer Engagement and Purchase Decisions still requires further examination in varying research contexts.

Perceived Interactivity is another factor that may contribute to consumers' Purchase Decisions. It describes consumers' perceptions of the quality and intensity of interactions that occur between sellers and consumers within digital platforms. A higher level of interactivity allows consumers to access product information more easily, communicate directly with sellers, and receive immediate responses to their inquiries. These interactive experiences can strengthen consumers' trust while reducing uncertainty during the purchasing process. Empirical evidence reported by Hanifah et al. (2024) and Muna and Putri (2025) shows that Perceived Interactivity has a positive effect on Purchase Decisions. However, Hamid et al. (2024) presented different findings, indicating that Perceived Interactivity does not directly influence Purchase Decisions but exerts its effect through the mediating role of enjoyment. These inconsistent findings highlight the need for further empirical investigation in different research contexts.

Despite the growing body of research on Customer Engagement and Perceived Interactivity, empirical findings regarding their influence on Purchase Decisions remain inconsistent. In addition, studies investigating these variables within the context of TikTok Live Commerce among Batik MSMEs in Surakarta are still relatively scarce. Unlike many other consumer products, Batik products require consumers to carefully evaluate several aspects, including fabric quality, motifs, size, color, and product suitability before making a purchase. These distinctive characteristics may lead consumers to exhibit purchasing behaviors that differ from those observed in other product categories. Considering these research gaps, this study investigates the effects of Customer Engagement and Perceived Interactivity on Purchase Decisions in TikTok Live Commerce among Batik MSMEs in Surakarta. The findings are expected to contribute empirical evidence to the growing literature on consumer behavior in Live Commerce while providing practical recommendations for Batik MSMEs to strengthen their digital marketing strategies through TikTok Live.

B. METODE PENELITIAN

1. Research Design

Using a quantitative survey method, this study examined how Customer Engagement and Perceived Interactivity influence Purchase Decisions in TikTok Live Commerce among Batik MSMEs located in Surakarta. A structured questionnaire was distributed to respondents selected based on specific research criteria to obtain the required data.

2. Population and Sample

Based on Sugiyono (2023), the population for this study included consumers who had watched Batik product Live Commerce on TikTok and had purchased Batik products through the platform. Since the population size was unknown, the Lemeshow formula was used to calculate the sample size, resulting in 100 respondents. This study used purposive sampling, where respondents were selected based on criteria set by the researcher. Respondents had to be at least 17 years old, have watched Batik product Live Commerce on TikTok, and have purchased Batik products through TikTok Live Commerce.

3. Data Collection

This research gathered data from two sources: primary and secondary. Primary data were derived from initial observations and structured questionnaires given to respondents who had both viewed and bought Batik products via TikTok Live Commerce. The questionnaire contained closed-ended items measured on a

five-point Likert scale, from 1 to 5. Meanwhile, secondary data were obtained by reviewing relevant literature including books and prior research that supported the study's theoretical framework

4. Research Variables

This study employed two independent variables and one dependent variable. Customer Engagement (X_1) refers to the level of consumer involvement in Live Commerce activities, reflected in consumers' attention, participation, and interaction with the content presented during live-streaming sessions. According to Cao et al. (2025), Customer Engagement was measured through consumers' activities of watching Live Commerce content, showing interest in the displayed content, providing comments or reactions, sharing the content with others, and disseminating information about the promoted products.

Perceived Interactivity (X_2) refers to consumers' perceptions of the level of interaction occurring between sellers and consumers during live-streaming sessions. Based on Hamid et al. (2024), this variable was measured through communication between consumers and streamers, direct communication from streamers to viewers, direct interaction between viewers and streamers, and streamers' immediate responses to viewers' questions.

Purchase Decision (Y) refers to consumers' decisions to purchase a product after evaluating the information obtained during Live Commerce sessions. According to Kotler and Keller (2022), Purchase Decision was measured through consumers' willingness to purchase products after viewing promotions on TikTok, recommend the products to others, and make repeat purchases in the future.

5. Data Analysis

IBM SPSS Statistics version 25 was used to analyze the collected data. The analytical procedures included testing the research instrument for validity and reliability, conducting classical assumption tests, performing multiple linear regression analysis, testing hypotheses via partial (t) and simultaneous (F) tests, and calculating the coefficient of determination (R^2).

C. HASIL DAN PEMBAHASAN

1. Respondent Characteristics

A total of 100 respondents participated in this study.

Table 1. Respondent Characteristics

No	Characteristic	Category	Frequency	Percentage (%)
1.	Gender	Male	59	59%
		Female	41	41%
2.	Age	17–22 years	82	82%
		23–30 years	17	17%
		>30 years	1	1%
		Student	86	86%
3.	Occupation	Employee	5	5%
		Entrepreneur	2	2%
		Others	7	7%

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Table 1 shows that the majority of respondents were male (59%), aged 17–22 years (82%), and predominantly students (86%). These findings indicate that TikTok Live Commerce for Batik products is primarily used by younger consumers, particularly students.

2. Quantitative Analysis

This section presents the results of the quantitative analyses performed in this study.

a. Validity Test

Table 2. Validity Test Results

Variable	Item	r-value	r-table	Result
Customer Engagement	X1	0,659	0,1966	Valid
	X2	0,714	0,1966	Valid
	X3	0,703	0,1966	Valid
	X4	0,728	0,1966	Valid
	X5	0,754	0,1966	Valid
Perceived Interactivity	X1	0,776	0,1966	Valid
	X2	0,742	0,1966	Valid

	X3	0,708	0,1966	Valid
	X4	0,600	0,1966	Valid
	Y1	0,720	0,1966	Valid
Purchase Decision	Y2	0,834	0,1966	Valid
	Y3	0,729	0,1966	Valid

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Table 2 shows that all questionnaire items for Customer Engagement, Perceived Interactivity, and Purchase Decision have r-count values higher than the r-table value of 0.1966 ($\alpha = 0.05$; $df = 98$). This means all items are valid and suitable for measuring the research variables, and each item can represent its construct well for further statistical analysis.

b. Reliability Test

Table 3. Reliability Test Results

Variabel	Cronbach's Alpha	Reliability Standard	Result
Customer Engagement	0,748	> 0,60	Reliabel
Perceived Interactivity	0,731	> 0,60	Reliabel
Keputusan Pembelian	0,606	> 0,60	Reliabel

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Table 3 shows that the Cronbach's Alpha values for Customer Engagement, Perceived Interactivity, and Purchase Decision are all above the 0.60 reliability threshold. This means all variables are reliable, showing that the questionnaire items have good internal consistency and are suitable for further statistical analysis

c. Normality Test

Table 4. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.23360987
Most Extreme Differences	Absolute	.064
	Positive	.039
	Negative	-.064
Test Statistic		.064
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

The One-Sample Kolmogorov–Smirnov test in Table 4 shows a significance value of 0.200, which is above 0.05. This means the residuals are normally distributed, so the normality assumption is met and the data can proceed to multiple linear regression analysis.

d. Multicollinearity Test

Table 5. Multicollinearity Test Results

Variabel	Tolerance Value	VIF Value	Result
Customer Engagement (X1)	0,748	> 0,60	Reliabel
Perceived Interactivity (X2)	0,731	> 0,60	Reliabel

Keputusan Pembelian (Y)	0,606	> 0,60	Reliabel
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Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Table 5 reveals that Customer Engagement (X_1) and Perceived Interactivity (X_2) each yielded a Tolerance value of 0.785 alongside a Variance Inflation Factor (VIF) of 1.274. Given that the Tolerance values exceed 0.10 while the VIF values remain under 10, it follows that the regression model is not affected by multicollinearity. Consequently, the independent variables lack strong correlation with one another, confirming their suitability for the multiple linear regression model.

e. Heteroscedasticity Test

Table 6. Heteroscedasticity Test Results

Variabel	Significance Value	Result
Customer Engagement (X1)	0,260	Reliabel
Perceived Interactivity (X2)	0,900	Reliabel

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Based on Table 6, the heteroscedasticity test shows a significance value of > 0.05 for the independent variables. This means the regression model does not have a heteroscedasticity problem, and the homoscedasticity assumption is fulfilled.

f. Multiple Linear Regression Analysis

Table 7. Multiple Linear Regression Analysis Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.426	.965		2.514	.014
Customer_Engagement	.199	.040	.393	4.983	.000
Perceived_Interactivity	.354	.061	.455	5.780	.000

a. Dependent Variable: Keputusan_Pembelian

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

The constant value of 2.426 means the Purchase Decision score stays at 2.426 when both independent variables are constant. The coefficient for Customer Engagement ($\beta = 0.199$) shows that a one-unit increase in this variable raises Purchase Decision by 0.199 units, assuming Perceived Interactivity is unchanged. Likewise, Perceived Interactivity's coefficient ($\beta = 0.354$) indicates that a one-unit increase raises Purchase Decision by 0.354 units, assuming Customer Engagement is unchanged. Since both coefficients are positive, both variables positively influence Purchase Decision

g. Partial Hypothesis Test (t-Test)

Table 8. Partial Hypothesis Test Results (t-Test)

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.426	.965		2.514	.014
Customer_Engagement	.199	.040	.393	4.983	.000
Perceived_Interactivity	.354	.061	.455	5.780	.000

a. Dependent Variable: Keputusan_Pembelian

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Table 8 shows the partial test results for each independent variable's effect on Purchase Decision. Customer Engagement (X_1) obtained a t-value of 4.983 and a significance value of 0.000 (< 0.05), meaning it has a positive and significant effect on Purchase Decision. Thus, H_1 is accepted. Perceived Interactivity (X_2) also showed a significant result, with a t-value of 5.780 and a

significance value of 0.000 (< 0.05). This means Perceived Interactivity has a positive and significant effect on Purchase Decision as well, so H_2 is accepted.

h. Simultaneous Hypothesis Test (F-Test)

Table 9. Simultaneous Hypothesis Test Results (F-Test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.994	2	.497	.913	.405 ^b
	Residual	52.801	97	.544		
	Total	53.795	99			

a. Dependent Variable: ABS_RES

b. Predictors: (Constant), Perceived_Interactivity, Customer_Engagement

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

Table 9 presents the outcome of the simultaneous (F) test, which produced an F-value of 54.116 and a significance value of 0.000—well under the 0.05 cutoff. This confirms that Customer Engagement and Perceived Interactivity, taken together, exert a positive and significant influence on Purchase Decision. In other words, the overall regression model is statistically sound and effectively captures the relationship between the independent variables and the dependent variable

i. Coefficient of Determination (R^2)

Table 10. Coefficient of Determination (R^2) Test Results^v

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.726 ^a	.527	.518	1.24626

a. Predictors: (Constant), Perceived_Interactivity, Customer_Engagement

Source: Primary Data Processed Using IBM SPSS Statistics, 2026.

As shown in Table 10s the coefficient of determination (R^2) test produced an Adjusted R Square of 0.518. This figure indicates that Customer Engagement and Perceived Interactivity jointly account for 51.8% of the variation in Purchase Decision, leaving the remaining 48.2% attributable to factors beyond the scope of this study.

3. The Influence of Customer Engagement on Purchase Decision

The partial test results show that Customer Engagement (X_1) has a positive and significant effect on Purchase Decision, with a t-value of 4.983, a significance value of 0.000 (< 0.05), and a regression coefficient of 0.199. Thus, H_1 is accepted. This means that higher customer engagement in TikTok Live Commerce leads to stronger purchase decisions among consumers.

This finding suggests that consumers who actively engage during live streaming, such as paying attention to the broadcast, interacting with the host, and participating in discussions, are more likely to develop confidence in the products being offered and ultimately make purchase decisions. Active engagement enables consumers to obtain more product information while creating a more enjoyable and interactive shopping experience, thereby encouraging purchasing behavior.

The findings are consistent with Customer Engagement Theory, which explains that consumers with higher engagement tend to develop stronger relationships with a brand, leading to more favorable behavioral outcomes, including purchase decisions. These results also support the findings of Cao et al. (2025), who reported that customer engagement positively influences purchase intention, and Nabila Ayu and Muzakar Isa (2025), who found that customer engagement significantly affects purchase decisions through increased consumer involvement in digital marketing activities.

4. Perceived Interactivity's Effect on Purchase Decision

Results of the partial test reveal that Perceived Interactivity (X_2) exerts a positive and statistically significant influence on Purchase Decision, as reflected in a t-value of 5.780, a significance level of 0.000 (below 0.05), and a regression coefficient of 0.354, leading to the acceptance of H_2 . Notably, this coefficient exceeds that of Customer Engagement, pointing to Perceived Interactivity as the stronger predictor of Purchase Decision.

This implies that consumers who perceive greater interactivity while watching TikTok Live Commerce are more inclined to complete a purchase. When viewers can communicate directly with hosts, get instant answers to their questions, and access real-time product details, their confidence grows and their uncertainty diminishes. Such two-way communication fosters a more engaging shopping atmosphere and helps consumers assess whether a product suits their needs before buying.

This outcome aligns with earlier research by Hanifah and colleagues (2024) and by Muna and Putri (2025), both of which found that perceived interactivity plays a meaningful role in shaping consumer purchasing decisions during Live Commerce sessions. The results further underscore how essential interactive communication is within digital marketing—especially for Batik MSMEs in Surakarta, whose customers typically need detailed information about motifs, materials, colors, and sizing before deciding to purchase.

D. SIMPULAN DAN SARAN

This study concludes that Customer Engagement and Perceived Interactivity significantly influence Purchase Decisions in TikTok Live Commerce among Batik MSMEs in Surakarta. Customer Engagement encourages consumers to become more actively involved during live-streaming sessions, thereby increasing their confidence and willingness to purchase Batik products. Meanwhile, Perceived Interactivity exerts a stronger influence, indicating that two-way communication, prompt responses, and the availability of real-time product information play an important role in supporting consumers' purchase decisions. These findings highlight the importance of creating an engaging and interactive Live Commerce experience to improve consumer purchasing behavior.

These findings have practical implications for Batik MSMEs in Surakarta, showing the importance of building stronger consumer engagement and better interaction quality during TikTok Live sessions, such as through responsive communication, clear product presentations, and active consumer participation. Future studies are encouraged to expand this model by including other variables like trust, perceived value, brand image, product quality, and price, and to explore other Live Commerce platforms or broader settings for a fuller understanding of consumer purchasing behavior in digital marketing.

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