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The Influence of TikTok's Recommendation Algorithm (the 'FYP Destiny' Effect) and TikTok Live Chat on Purchase Decisions with Perceived Personalization as an Intervening Variable

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ABSTRAK

Tujuan. This study aims to analyze how TikTok's recommendation system (the "FYP destiny" effect) and Live Chat feature influence purchasing decisions, with perceived personalization as a mediating variable. This study explores how TikTok users' perception of personalization strengthens the relationship between Live Chat interactions, recommendation algorithms, and purchasing decisions.
Material dan Metode. This study used a quantitative survey design. The sample consisted of 200 TikTok users in Wonocolo District, Surabaya, who were selected through purposive sampling based on the following criteria: active use of TikTok, interaction with FYP and Live Chat, and making purchases through TikTok Shop. Data were collected using a questionnaire with 20 indicators to measure four latent variables on a 1–5 Likert scale. Data analysis was performed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.
Hasil. The findings show that both the Live Chat feature and the FYP algorithm have a positive influence on perceptions of personalization and purchasing decisions. In addition, perceived personalization proved to be a significant mediator, linking the influence of Live Chat and the FYP algorithm on purchasing decisions.
Kesimpulan This study confirms that perceived personalization is a key psychological mechanism that links user interactions through Live Chat and algorithmic recommendations with purchasing decisions. To increase purchasing decisions on TikTok, an effective personalization strategy integrated with platform features is required.

Kata Kunci
TikTok; Recommendation Algorithm; Live Chat; Perceived Personalization; Purchase Decision.

ABSTRACT

Backgrounds. *This study aims to analyze how TikTok's recommendation system (the "FYP destiny" effect) and Live Chat feature influence purchasing decisions, with perceived personalization as a mediating variable. This study explores how TikTok users' perception of personalization strengthens the relationship between Live Chat interactions, recommendation algorithms, and purchasing decisions.*
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Results. *The findings show that both the Live Chat feature and the FYP algorithm have a positive influence on perceptions of personalization and purchasing decisions. In addition, perceived personalization proved to be a significant mediator, linking the influence of Live Chat and the FYP algorithm on purchasing decisions.*
Conclusions *This study confirms that perceived personalization is a key psychological mechanism that links user interactions through Live Chat and algorithmic recommendations with purchasing decisions. To increase purchasing decisions on TikTok, an effective personalization strategy integrated with platform features is required.*

Key Words
TikTok; Recommendation Algorithm; Live Chat; Perceived Personalization; Purchase Decision.

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I. INTRODUCTION

Significant changes in consumer behavior today are driven by advances in digital technology. Social media platforms have evolved beyond merely serving as communication tools; they now function as advertising media, information dissemination channels, and business transaction platforms. In Indonesia, social media usage is widespread. According to the We Are Social report (2024), over 167 million Indonesians (60% of the population) actively use social media. TikTok is one of the fastest-growing platforms, with more than 157 million monthly active users in 2024 (KompasTekno, 2024), making Indonesia one of the largest TikTok user bases in the world. TikTok's For You Page (FYP), powered by a recommendation algorithm, displays content based on user behaviors such as watch duration, comments, interactions, and other preferences. The accuracy of these recommendations gives rise to a phenomenon known as "FYP Destiny", in which users feel that the content appearing on their feed is "predestined" to match their interests without actively searching for it. This phenomenon presents a strategic opportunity for companies to target consumers more efficiently and relevantly. Previous studies have shown that recommendation algorithms can enhance consumer engagement and purchase intention (Yin et al., 2025; Zhang, 2025). However, research specifically examining how FYP influences purchase decisions through psychological mechanisms in the Indonesian context remains limited (Kirana et al., 2025; Muhammad Rafli Pratama & Latifah Putranti, 2024).

In addition to algorithmic systems, TikTok provides interactive features such as live streaming and Live Chat, allowing sellers to interact directly with potential buyers. Through these features, consumers can ask questions, receive real-time product explanations, and watch product demonstrations. Previous research indicates that interactivity in live streaming commerce increases trust, satisfaction, and purchase intention (Song et al., 2022; Ma et al., 2023). In Indonesia, shopping via TikTok Live has become increasingly popular, especially for fashion, cosmetics, and household goods, as it reduces the psychological distance between sellers and buyers. In this context, perceived personalization serves as a key mechanism linking digital stimuli such as FYP algorithms and Live Chat features with consumer responses. This concept reflects the extent to which consumers feel that their experiences are tailored to their individual preferences, interests, and characteristics. Perceived personalization can enhance the relevance of communication and strengthen purchase intention (De Keyzer et al., 2022). While Live Chat enables more intimate, two-way communication between sellers and buyers, FYP provides a tailored content recommendation experience. Therefore, perceived personalization acts as a mediating variable, bridging the influence of algorithmic cues and interactivity on purchase decisions. This study offers two main contributions. Theoretically, it expands understanding of how algorithm-based stimuli and digital interactivity influence purchase decisions through perceived personalization on the TikTok platform. Practically, the findings provide insights for business practitioners, particularly SMEs in Gayungan, Surabaya, on strategically leveraging FYP and Live Chat features to increase engagement and purchase conversion within the digital ecosystem.

1.1 TikTok Recommendation Algorithm (The "FYP Destiny" Effect)

Digital platforms employ recommendation algorithms, which are systems that choose and present content according to user preferences gleaned from their behavioral data. The For You Page (FYP) algorithm on TikTok is a special feature that provides pertinent material without the need for direct searches. Because consumers frequently unintentionally find products or material that aligns with their interests, this occurrence is referred to as "FYP destiny." Behavior-based recommendation systems boost engagement and buy intention in social media-based e-commerce, according to research. Additionally, according to (Mo et al., 2023), the efficacy of recommendation algorithms might boost perceived relevance, which reinforces buying decisions. Nevertheless, rather than directly examining purchase decisions, the majority of research focuses more on how algorithms affect engagement or loyalty.

1.2 TikTok Live Chat

One way to interact in social commerce is through live chat. During live streaming sessions and on product sites, this function enables real-time communication between buyers and sellers. By lowering information uncertainty, live chat can boost trust and speed up purchasing choices, according to a study by (Reni et al., 2024). According to research conducted in Indonesia, live chat improves consumer happiness and promotes recurring business on e-commerce platforms. However, there are currently few studies specifically on TikTok, and the majority of live chat research still focuses on traditional e-commerce (Shopee, Tokopedia). However, TikTok offers a distinctive function that combines live conversation with brief video material, which may affect users differently.

1.3 Perceived Personalization

The idea that the communications, materials, or services a customer receives are customized to suit their tastes, requirements, and unique traits is known as perceived personalization. A high degree of personalization can raise perceived value and relevance, which in turn increases the possibility that customers will make a purchase (Nazwa & Salya, 2025a). Additionally, local research found that personalizing digital information improves client engagement. However, when customisation is deemed excessively obtrusive, some literature draws attention to possible privacy issues. Personalization on TikTok results from direct communication via live chat as well as the FYP algorithm. Because of this, perceived personalization is important as a mediating factor that connects the stimulus (interaction & algorithm) to the response (choice to buy).

1.4 Purchase Decision

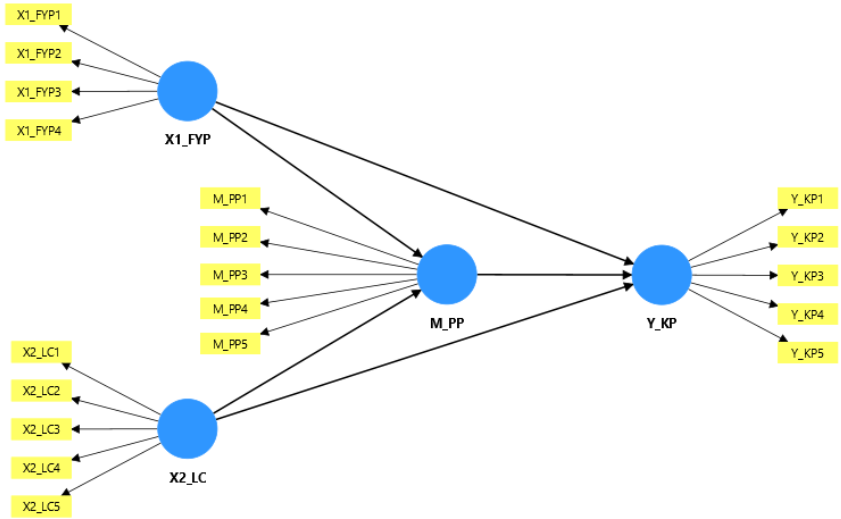
The last step in the consumer's decision-making process when choosing and buying the available products is the purchase decision. Purchase decisions are impacted by both external (environment, marketing stimuli) and internal (motive, perception) aspects, claim (Kotler & Keller, 2020) discovered that platform interaction (live chat, reviews, and recommendations) affects trust, which in turn affects purchasing decisions in the setting of social commerce. The importance of the TikTok platform as a transactional medium is demonstrated by a study conducted in Indonesia on TikTok Shop, which also reveals that live streaming and product reviews significantly influence purchasing decisions.

II. MATERIAL AND METHOD

This study employs a quantitative approach with a survey design to examine the relationships among the latent variables constructed in the conceptual framework. This approach provides empirical insights into how the TikTok recommendation algorithm (FYP effect) and live chat features influence purchase decisions, with perceived personalization serving as a mediating variable. The study's population consists of TikTok users residing in the Wonocolo District, Surabaya. Respondents were selected using a purposive sampling technique based on three criteria: (1) they have actively used TikTok for at least the past three months; (2) they have interacted with both FYP and live chat features; and (3) they have made at least one purchase via TikTok Shop. Referring to Hair et al. (2017), who recommend a minimum sample size of 5–10 times the number of indicators, this study involved 200 respondents sufficient to ensure validity and reliability given the total of 20 measurement indicators.

A structured questionnaire using a five-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree") was used as the primary data collection instrument. The questionnaire comprised four latent constructs: FYP algorithm, live chat, perceived personalization, and purchase decision, each measured by five indicators adapted from relevant previous studies. A pilot test involving 30 respondents was conducted prior to the main survey to ensure clarity and preliminary reliability. The results showed acceptable internal consistency, with Cronbach's alpha values exceeding 0.70 for all constructs, confirming that the instrument was suitable for large-scale data collection. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4 software. The PLS-SEM technique was selected not only due to the moderate sample size but also because of its robustness to non-normal data distributions, its predictive relevance (Q^2), and its ability to handle complex models involving mediating variables. The analysis included outer model evaluation (convergent validity, construct reliability, and discriminant validity) and inner model evaluation (R^2 coefficient, path coefficients, and hypothesis testing through bootstrapping with 5,000 resamples). This method allows for a comprehensive examination of both direct and indirect effects, including the mediating role of perceived personalization.

2.1 Hypothesis



Grounded in the Stimulus–Organism–Response (S–O–R) framework and Personalization Theory, this study examines how TikTok's digital features—specifically the recommendation algorithm (FYP) and live chat affect purchase decisions, both directly and indirectly, through perceived personalization as a mediating variable. According to the S–O–R model, stimuli (FYP algorithm and live chat) trigger internal psychological responses (organism), such as perceived personalization, which ultimately drive behavioral outcomes (response) in the form of purchase decisions.

H1: TikTok's recommendation algorithm (the "FYP destiny" effect) positively affects perceived personalization.

H2: TikTok's live chat feature positively affects perceived personalization.

H3: Perceived personalization positively affects purchase decisions.

H4: TikTok's recommendation algorithm (FYP) positively affects purchase decisions.

H5: TikTok's live chat positively affects purchase decisions.

H6: Perceived personalization mediates the relationship between TikTok's recommendation algorithm and purchase decisions.

H7: Perceived personalization mediates the relationship between TikTok's live chat and purchase decisions.

III. RESULT

Tabel 1. Characteristics of Respondents

Demographics	Frequency	Percentage
Gender		
Male	87	43.5
female	113	56.5
Age		
<18 years	22	11.0
18–24 years	94	47.0
25–34 years	42	21.0
35–44 years	34	17.0
≥45 years	8	4.0
occupation		
Student	81	40.5
Private employee	51	25.5
PNS/ASN	23	11.5
Entrepreneur	25	12.5
Housewife	20	10.0
tiktok_usage		
Rarely	89	44.5
Once a Week	58	29.0
Several times a week	28	14.0
Once a Day	20	10.0
Several times a day	5	2.5
live_experience	19	20
Never	78	39.0
Sometimes, but rarely	83	41.5
Occasionally	34	17.0

Often	5	2.5
purchase_from_tiktok		
Never	36	18.0
Sometimes	77	38.5
Often	62	31.0
Often	25	12.5
Total	200	100.0

The results of data collection from 200 respondents show the demographic and behavioral distribution of TikTok users in the study area. Based on gender, the majority of respondents were female (56.5%), while male respondents accounted for 43.5%. This finding suggests that women are relatively more active in consuming and interacting with product-related content on TikTok compared to men. In terms of age, the dominant group consisted of respondents aged 18–24 years (47.0%), followed by those aged 25–34 years (21.0%) and 35–44 years (17.0%). Respondents aged under 18 years represented 11.0%, while those aged 45 years and above accounted for 4.0%. These results indicate that TikTok is primarily used by younger generations—particularly Generation Z and early Millennials—who are more receptive to digital marketing exposure. Regarding occupation, the largest proportion of respondents were students (40.5%), followed by private employees (25.5%), entrepreneurs (12.5%), civil servants (11.5%), and housewives (10.0%). This distribution implies that the majority of users who are actively engaged in TikTok commerce activities come from the student segment, which is characterized by high social media interaction and exploratory purchasing behavior.

With respect to the frequency of TikTok usage, most respondents reported using the application rarely (44.5%) or once a week (29.0%). A smaller percentage used it a few times a week (14.0%), once a day (10.0%), and several times a day (2.5%). This suggests that most users are exposed to TikTok's recommendation system periodically rather than intensively. In terms of TikTok Live experience, 41.5% of respondents indicated that they had watched live streams but rarely, 39.0% had never watched, 17.0% occasionally watched, and only 2.5% frequently watched. These results imply that TikTok Live features are not yet fully utilized by users, though they hold potential for interactive marketing engagement. Finally, regarding purchases influenced by TikTok, 38.5% of respondents stated that they rarely purchased products based on TikTok exposure, 31.0% sometimes purchased, 18.0% never purchased, and 12.5% frequently purchased. This indicates that TikTok exerts a measurable influence on consumer purchase decisions, even though it has not yet become the main determinant of buying behavior among all users.

Table 2. List of Statements

No	Statement	Variable	Item Code	Measurement Scale
1	The product content that appears on my FYP is usually relevant to my interests.	TikTok Recommendation Algorithm (X1)	X1.1	Likert (1–5)
2	I often see the same or similar product content repeatedly on my FYP.	TikTok Recommendation Algorithm (X1)	X1.2	Likert (1–5)
3	I often discover new and interesting products through FYP without searching for them beforehand.	TikTok Recommendation Algorithm (X1)	X1.3	Likert (1–5)
4	I believe that the content appearing on my FYP is a trustworthy recommendation.	TikTok Recommendation Algorithm (X1)	X1.4	Likert (1–5)
5	The live chat feature on TikTok makes it easy for me to directly ask questions to the seller/presenter.	TikTok Live Chat (X2)	X2.1	Likert (1–5)
6	When using live chat, I usually receive quick responses or feedback.	TikTok Live Chat (X2)	X2.2	Likert (1–5)
7	Live chat helps me obtain more complete information about the product.	TikTok Live Chat (X2)	X2.3	Likert (1–5)
8	Interaction through live chat makes the shopping experience feel more personal.	TikTok Live Chat (X2)	X2.4	Likert (1–5)

9	Interaction in live chat often encourages me to immediately purchase a product.	TikTok Live Chat (X2)	X2.5	Likert (1–5)
10	I feel that the product content appearing on TikTok is tailored to my preferences.	Perceived Personalization (M)	M.1	Likert (1–5)
11	I feel that product recommendations on TikTok are made specifically for me.	Perceived Personalization (M)	M.2	Likert (1–5)
12	The ads or offers I receive through TikTok are relevant to my needs or interests.	Perceived Personalization (M)	M.3	Likert (1–5)
13	Interactions on TikTok (e.g., live chat, DM, comments) make the shopping experience feel personalized.	Perceived Personalization (M)	M.4	Likert (1–5)
14	I feel that TikTok "remembers" my preferences so that product suggestions become increasingly accurate.	Perceived Personalization (M)	M.5	Likert (1–5)
15	After viewing or interacting with content on TikTok, I tend to intend to purchase the product.	Purchase Decision (Y)	Y.1	Likert (1–5)
16	Content on TikTok influences my consideration when choosing a product.	Purchase Decision (Y)	Y.2	Likert (1–5)
17	I have purchased a product influenced by content or interaction on TikTok.	Purchase Decision (Y)	Y.3	Likert (1–5)
18	After being exposed to content or recommendations on TikTok, I make purchase decisions more quickly.	Purchase Decision (Y)	Y.4	Likert (1–5)
19	If I am satisfied with a product discovered on TikTok, I am willing to recommend it to friends or family.	Purchase Decision (Y)	Y.5	Likert (1–5)

3.1 Outer Model (Convergent Validity)

	M_Perceived Personalization	X1_Takdir FYP	X2_Live Chat	Y_Keputusan Pembelian
M_PP1	0.822			
M_PP2	0.779			
M_PP3	0.732			
M_PP4	0.763			
M_PP5	0.737			
X1_FYP1		0.856		
X1_FYP2		0.752		
X1_FYP3		0.757		
X1_FYP4		0.816		
X2_LC1			0.811	
X2_LC2			0.781	
X2_LC3			0.783	
X2_LC4			0.741	

X2_LC5	0.751	
Y_KP1		0.829
Y_KP2		0.818
Y_KP3		0.717
Y_KP4		0.839
Y_KP5		0.711

Based on the table above, it can be seen that the loading factor values for all statement items are > 0.70, so it can be concluded that all statement items are valid and convergent.

3.2 Discriminant Validity

	M_Perceived Personalization	X1_FYP Destiny	X2_Live Chat	Y_Purchase Decision
M_Perceived Personalization	0.767			
X1_FYP Destiny	0.446	0.796		
X2_Live Chat	0.441	0.278	0.774	
Y_Purchase Decision	0.622	0.517	0.421	0.785

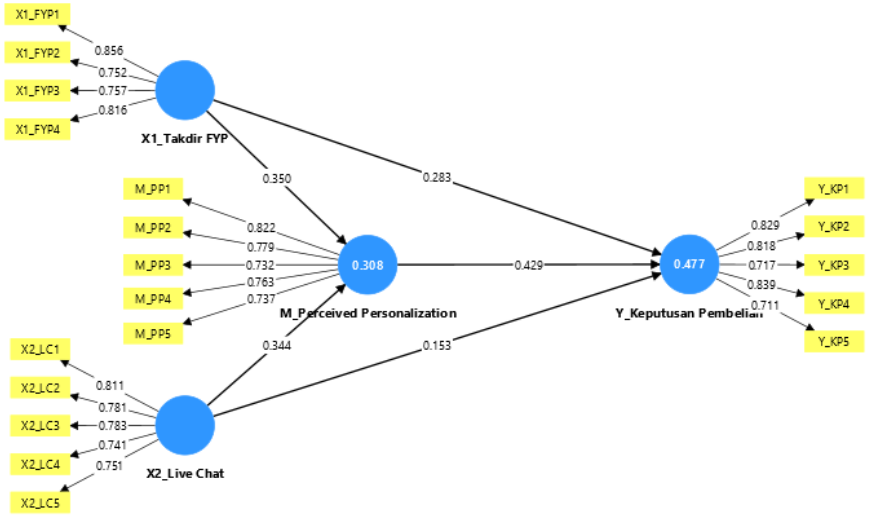
Based on the table above, it can be seen that the AVE root values of each variable are greater than the correlations between constructs and other constructs. Therefore, it can be concluded that all variables are discriminant valid.

3.3 Uji Reliabilitas

	Cronbach's alpha	Composite reliability (rho_c)
M_Perceived Personalization	0.825	0.877
X1_FYP Destiny	0.807	0.874
X2_Live Chat	0.832	0.882
Y_Purchase Decision	0.843	0.888

Cronbach's Alpha and Composite Reliability values for all variables are > 0.70, meaning that all variables are reliable.

3.4 R-Square



	R-square	R-square adjusted
M_Perceived Personalization	0.308	0.301
Y_Purchase Decision	0.477	0.469

The adjusted R-square value of the Perceived Personalization mediation variable is 0.301, which indicates that the TikTok Recommendation Algorithm (FYP 'Destiny' Effect) and TikTok Live Chat variables are able to explain 30.1% of the Perceived Personalization mediation variable. Therefore, it can be concluded that the model is considered moderate. Meanwhile, the adjusted R-square value of the Purchase Decision variable is 0.466, indicating that the TikTok Recommendation Algorithm variable (FYP Destiny Effect), TikTok Live Chat, and Perceived Personalization are able to explain 46.6% of the Purchase Decision variable. Therefore, it can be concluded that the model is considered strong.

3.5 F-square

	M_Perceived Personalization	Y_Purchase Decision
M_Perceived Personalization		0.243
X1_FYP Destiny	0.164	0.122
X2_Live Chat	0.158	0.036
Y_Purchase Decision		

F-square analysis was conducted to determine the relative contribution of exogenous variables to endogenous variables in the research model. Based on the results of calculations using SmartPLS, the f^2 values shown in the following table were obtained:

- X1_FYP Destiny → M_Perceived Personalization = 0.164
- X2_Live Chat → M_Perceived Personalization = 0.158
- M_Perceived Personalization → Y_Purchase Decision = 0.243
- X1_FYP Destiny → Y_Purchase Decision = 0.122
- X2_Live Chat → Y_Purchase Decision = 0.036

According to the criteria of Cohen (1988) and Hair et al. (2017), an f^2 value of 0.02 indicates a small effect, 0.15 indicates a moderate effect, and > 0.35 indicates a large effect.

The results show that the TikTok recommendation algorithm (FYP) variable has a moderate effect on perceived personalization ($f^2 = 0.164$). This indicates that the more the content displayed on FYP matches user preferences, the stronger the user's perception of a personalized experience. Similarly, TikTok live chat contributes moderately to perceived personalization ($f^2 = 0.158$). Direct interaction with sellers via chat can strengthen consumers' perception that the shopping experience on TikTok suits their personal needs.

Furthermore, the perceived personalization variable has been proven to have a moderate effect on purchasing decisions ($f^2 = 0.243$). This means that the higher the level of personalization felt, the greater the likelihood of consumers making a purchase. This finding confirms that personalization is an important factor in driving consumer decisions on the TikTok platform.

Meanwhile, the direct effect of FYP on purchasing decisions is relatively small ($f^2 = 0.122$), while live chat has almost no direct effect ($f^2 = 0.036$). This shows that both variables are more effective when working through the mediation mechanism of perceived personalization. In other words, consumers do not immediately decide to buy just because of the FYP or live chat features, but because these two features first enhance the impression of personalization, which then drives purchasing decisions.

3.6 Uji Hipotesis

Jalur	Path Koefisien	T statistics	P values
M_PP -> Y_KP	0.429	8.040	0.000
X1_FYP -> M_PP	0.350	6.057	0.000
X1_FYP -> Y_KP	0.283	4.936	0.000
X2_LC -> M_PP	0.344	5.657	0.000
X2_LC -> Y_KP	0.153	2.711	0.007

The data can be explained as follows:

a. The FYP Algorithm Path → Perceived Personalization obtained a p-value of 0.000 < 0.05, so H1 is accepted, meaning that FYP has a significant positive effect on personalization.
b. The Live Chat → Perceived Personalization path obtained a p-value of 0.000 < 0.05, so H2 is accepted, meaning that live chat increases perceived personalization by consumers.
c. The Perceived Personalization → Purchase Decision path obtained a p-value of 0.000 < 0.05, so H3 is accepted, meaning that the higher the perceived personalization, the greater the purchase decision.
d. FYP Path → Purchase Decision obtained a p-value of 0.000 < 0.05, so H4 is accepted, meaning that FYP has a direct effect on purchase decisions.
e. Live Chat Path → Purchase Decision obtained a p-value of 0.007 < 0.05, so H5 is accepted, meaning that live chat also has a positive effect on purchase decisions, although the effect is small.
f. The FYP → Purchase Decision path through Perceived Personalization obtained a p-value < 0.05, so H6 is accepted, meaning that the influence of FYP on purchase decisions is strengthened by the presence of personalization as a mediator.
g. Live Chat Path → Purchase Decision through Perceived Personalization obtained a p-value < 0.05, so H7 is accepted, meaning that the influence of live chat on purchase decisions is more dominant through personalization as a mediator.

IV. DISCUSSION

The Effect of TikTok's Recommendation Algorithm (FYP Effect) on Purchase Decision

The findings indicate that TikTok's recommendation algorithm, commonly referred to as the "For You Page" (FYP), significantly influences users' purchase decisions. This underscores the role of algorithm-driven content personalization in creating an engaging digital shopping environment. When users perceive that content on their FYP aligns with their personal interests, they develop a sense of relevance and familiarity, which encourages product consideration and purchase. This

process can be interpreted through the Stimulus–Organism–Response (S–O–R) framework, where algorithmic recommendations (stimulus) trigger psychological engagement (organism), leading to behavioral responses in the form of purchase intention. The persuasive power of the FYP arises from its ability to learn and predict users' preferences through repeated exposure and interaction patterns. Users often perceive the appearance of certain products or creators as serendipitous, generating emotional resonance that enhances impulsive or unplanned purchases. These emotional triggers reduce cognitive resistance and increase trust toward the promoted products. Previous studies support this mechanism, showing that algorithmic personalization enhances consumer engagement and purchase likelihood (Wang & Oh, 2023).

Consistent with Gao et al. (2022), personalized video content fosters stronger affective bonds between users and brands by increasing perceived relevance and authenticity. Similarly, research in Frontiers in Psychology (2021) found that short-form video algorithms evoke a sense of social presence and inspiration, indirectly driving impulsive buying behavior. Collectively, these findings confirm that algorithmic personalization not only improves content visibility but also establishes a psychological pathway that influences consumer cognition and affective responses. From a theoretical perspective, this study contributes by highlighting how recommendation algorithms operate as psychological stimuli, filling a gap in understanding the mechanisms through which algorithmic exposure affects purchase intention. Practically, marketers and content creators should design strategies compatible with platform algorithms—optimizing hashtags, engagement timing, and creator collaborations—to increase the likelihood of appearing on the FYP of relevant audiences. By leveraging the perception of serendipity in content appearance, they can strengthen product resonance and stimulate purchase intention.

The Effect of TikTok's Recommendation Algorithm (FYP Effect) on Perceived Personalization

The findings demonstrate that TikTok's recommendation algorithm significantly contributes to users' perceived personalization. This study was conducted in Wonocolo, a district in Surabaya to explore how TikTok users perceive personalized content and how it influences their behavior. The "For You Page" (FYP) mechanism dynamically tailors video content based on individual preferences, interactions, and engagement patterns. This creates a perception that the platform understands users on a personal level, enhancing perceived relevance and satisfaction. Within the Stimulus–Organism–Response (S–O–R) framework, algorithmic recommendations serve as external stimuli that trigger cognitive and emotional responses, including perceived personalization and emotional engagement. These responses subsequently influence user behavior. The high adaptability of TikTok's algorithm relies on real-time behavioral data, such as watch duration, likes, comments, and replays, which continuously refine the content appearing in each user's feed. This predictive personalization fosters perceived serendipity, whereby users feel that content naturally aligns with their interests rather than being deliberately targeted. Such perceptions strengthen emotional connections and trust toward the platform. Previous research confirms this mechanism: Wang (2025) observed that algorithmic transparency and adaptability significantly shape users' trust and perception of personalization in short-video contexts, while Rejeb et al. (2022) found that personalized recommendation systems enhance engagement by increasing relevance and reducing information overload.

These findings align with Taylor & Chen (2024), who argued that algorithmic curation strengthens perceived personalization and perceived control, leading to more favorable user attitudes toward both the platform and its advertising content. Collectively, prior studies suggest that algorithmic personalization is not solely data-driven but also psychological, reflecting how users interpret algorithmic behavior as intentional and socially meaningful. From a theoretical perspective, this research extends current understanding by highlighting perceived personalization as a mediating construct linking algorithmic exposure to consumer behavior, addressing a gap in previous studies that primarily focus on behavioral outcomes without exploring the underlying psychological mechanisms. Practically, marketers and content strategists can leverage these insights by designing content that resonates emotionally while aligning with algorithmic signals such as engagement rates and dwell time. Such strategies ensure that marketing content integrates naturally into the personalized experience, enhancing user satisfaction and purchase intention.

The Effect of TikTok Live Chat on Purchase Decision

The results of this study indicate that TikTok's Live Chat feature significantly influences consumers' purchase decisions. This finding reinforces the understanding that real-time two-way communication enhances trust and user engagement in online shopping contexts. Through Live Chat, consumers can directly interact with sellers or hosts, seek product clarification, and observe real-time reviews from other buyers. These interactions reduce information uncertainty and strengthen consumer confidence prior to making a purchase decision. Theoretically, this result aligns with Social Presence Theory and Media Richness Theory, which posit that richer media in delivering information and higher perceived social presence lead to stronger impacts on purchase decisions. Previous studies support this view: Wongkitrungrueng & Assarut (2020) found that live streaming interactions build consumer trust and encourage impulsive buying behavior, while Wang et al. (2021) reported that interactive communication during live streaming increases purchase intention by enhancing social proof and product clarity.

In the Indonesian context, similar findings have been reported. Nandini et al. (2024) showed that live streaming features on e-commerce platforms such as Shopee Live and TikTok Live enhance purchase decisions by strengthening trust and familiarity between sellers and buyers. Chandraa et al. (2024) further noted that real-time interaction through live chat increases perceived engagement and creates a more personalized shopping experience. Importantly, in the local context of Wonocolo, Surabaya, this dynamic is also evident among TikTok users. Consumers frequently engage with TikTok Live and Live Chat to evaluate product authenticity and seller credibility before making purchases. The interactivity of Live Chat fosters a sense of social closeness and immediacy, which reduces hesitation and increases purchase intention. These findings indicate that interactive features not only reflect national consumer behavior trends but also exert significant influence in local markets such as Wonocolo.

The Effect of TikTok Live Chat on Perceived Personalization

The findings of this study indicate that TikTok's Live Chat feature significantly enhances users' perceived personalization. Users who engage actively through Live Chat tend to perceive that their preferences are directly acknowledged and addressed, strengthening their sense of individualized experience. This aligns with Baris & Heruwasto (2023), who found that personalized and authentic TikTok content fosters users' perception of relevance and convenience. Similarly, Andriani & Haniyah (2025) reported that engagement through TikTok Live enhances trust and perceived value, both of which are crucial psychological antecedents of personalization. However, these findings extend previous research by emphasizing that interpersonal interactivity, rather than solely algorithmic recommendation, plays a vital role in shaping personalization. This contrasts with Rajaobelina et al. (2022), who noted that Live Chat interactions may not enhance personalization when users' trust in the seller is low. The divergence suggests that the psychological mechanism underlying personalization depends on social presence and reciprocity, where real-time communication makes users feel acknowledged and understood. This interpretation is consistent with Social Presence Theory (Short et al., 1976), which posits that synchronous, human-like interactions strengthen emotional closeness and perceived individual attention.

In the local context of Wonocolo, Surabaya, where digital adoption and community-based entrepreneurship are increasingly prominent, Live Chat holds strategic potential. Many local micro-entrepreneurs use TikTok not only to sell products but also to build relationships with customers. Real-time communication allows sellers to demonstrate responsiveness, empathy, and authenticity—qualities that enhance perceived personalization even in informal business ecosystems. This observation aligns with Nandini et al. (2024), who highlighted that live features in Indonesian e-commerce platforms stimulate purchase decisions through familiarity and trust-building dynamics. From a theoretical perspective, this study broadens the understanding of personalization by proposing that perceived personalization is co-created, arising not only from algorithmic tailoring but also from interactive, socially rich communication between users and sellers. Practically, marketers and content creators, particularly in localized settings such as Gayungan, should treat Live Chat not merely as a customer service tool but as an interactive personalization strategy. By offering prompt responses, conversational warmth, and a sense of social closeness, they can reinforce emotional engagement and accelerate consumer decision-making processes.

The Effect of Perceived Personalization on Purchase Decision

The results of this study reveal that Perceived Personalization significantly influences purchase decisions among TikTok users in Gayungan, Surabaya. When users perceive that product recommendations or interactions are tailored to their preferences, they experience stronger emotional connection and purchase intention. This finding aligns with Personalization-Privacy Paradox Theory (Awad & Krishnan, 2006), which posits that personalized experiences enhance user satisfaction and behavioral intention when trust and relevance are established. Similarly, Obiegbu & Larsen (2025) emphasized that personalized recommendation systems strengthen consumer attitudes and behavioral intention through perceived relevance and individual attention. Nazwa & Salya (2025b) also found that perceived personalization in e-commerce platforms increases users' purchase confidence and reduces perceived risk. In this context, personalization serves as a psychological mechanism bridging consumer expectations and decision-making outcomes. This study extends prior findings by demonstrating that perceived personalization can be socially constructed through human interaction, such as Live Chat, rather than solely algorithmic curation. This highlights the dual nature of personalization: algorithmic and interpersonal. Social cues conveyed during live interactions such as name recognition or real-time responses enhance users' perception that content is specifically designed for them, resulting in higher purchase likelihood. This interpretation is consistent with Social Exchange Theory (Blau, 1964), which suggests that reciprocal communication builds relational trust and motivates positive consumer actions.

In the local context of Wonocolo, Surabaya, personalization exhibits a distinct dynamic. Many TikTok users in this area are part of small business ecosystems and rely heavily on social proof and interpersonal trust in online commerce. Personalized interactions whether through customized product suggestions or live engagement help bridge the trust gap

typical in community-based digital transactions. These observations align with Lubis (2025), who found that live, personalized communication fosters familiarity and accelerates purchase intention within Indonesian social commerce platforms. From a theoretical perspective, this study contributes to understanding personalization in social media commerce by showing that perceived personalization functions as a trust amplifier, bridging algorithmic relevance and emotional connection. Practically, marketers and small business owners in Gayungan should integrate personalization not only into algorithmic recommendation systems but also into customer-facing communication strategies, ensuring that users feel individually recognized, emotionally engaged, and socially connected throughout the purchase journey..

The Effect of TikTok's Recommendation Algorithm on Purchase Decisions Mediated by Perceived Personalization

The findings indicate that TikTok's recommendation algorithm significantly influences purchase decisions through the mediating role of perceived personalization. Users' sense of individualized content generated by algorithmic curation strengthens their trust, emotional engagement, and eventual purchasing behavior. Yun & Chun (2024) argue that personalized recommendations in big data environments increase users' purchase intention by enhancing perceived trust and mind-flow experience, making consumers feel that the content they receive is uniquely tailored to their preferences. Similarly, Zhao et al. (2025) highlight that algorithmic recommendations fulfill consumers' psychological needs for autonomy, competence, and relatedness, thereby influencing both perception and behavior. Shen (2024) also found that high-quality algorithmic recommendations on platforms like Douyin enhance users' trust in content and sellers, which subsequently strengthens purchase intentions.

In the Indonesian context, particularly within the community of Wonocolo, Surabaya, these findings suggest that TikTok's recommendation algorithm functions as an effective digital marketing tool. Users in this area, who are frequently exposed to personalized short-video content, perceive recommendations as relevant and trustworthy, especially when they align with local lifestyles, language nuances, and cultural preferences. Such perceived personalization fosters emotional closeness between consumers and sellers, reduces uncertainty, and facilitates faster purchasing decisions. Practically, marketers operating in Surabaya should focus on optimizing TikTok's algorithmic system by curating content that resonates with user interests and behavioral patterns. Enhancing perceived personalization through adaptive messaging, authentic creator interactions, and localized content can strategically strengthen consumer engagement and accelerate purchase conversion. In summary, perceived personalization is not merely a technological output of algorithmic systems but also a psychological bridge that transforms content exposure into consumer action.

The Effect of TikTok Live Chat on Purchase Decisions Mediated by Perceived Personalization

The findings reveal that TikTok's Live Chat feature significantly influences purchase decisions, with perceived personalization serving as a mediating variable. Real-time interaction between buyers and sellers fosters a sense of immediacy, authenticity, and personal connection, which enhances consumers' confidence in making purchase decisions. In live commerce environments, interactive features such as live comments, reactions, and instant responses strengthen consumers' perception that content and communication are tailored to them personally. This result aligns with Ma et al. (2023), who found that interpersonal interaction in e-commerce live broadcasting positively impacts consumers' purchase intentions through perceived value, emphasizing that real-time dialogue and emotional resonance create a more engaging and personalized experience. Similarly, Song et al. (2022) reported that interactivity and authenticity in live-streaming features promote stronger buying willingness through perceived trust and personal relevance.

In the Indonesian context, particularly in Wonocolo, Surabaya, where TikTok usage is increasingly embedded in daily digital interactions, Live Chat functions as a mediator between social and commercial engagement. Users perceive Live Chat not merely as a customer support feature but as a personalized communication channel where sellers can directly address individual preferences, language styles, and emotional cues. Such localized personalization increases trust, reduces uncertainty, and enhances consumers' readiness to purchase. From a managerial perspective, these findings suggest that sellers and marketers should strategically utilize TikTok Live Chat not only for transactional purposes but also to cultivate relational engagement. Personalized greetings, real-time responses, and authentic interactions can amplify perceived personalization, thereby strengthening customers' emotional attachment and accelerating purchase decisions. Ultimately, the success of Live Chat lies in its dual function: enhancing social presence and delivering personalized engagement that translates into consumer action.

V. CONCLUSION

This study demonstrates that both TikTok's algorithmic recommendation system (For You Page/FYP) and Live Chat features significantly influence users' purchase decisions, with perceived personalization serving as a critical mediating variable. The findings indicate that algorithmic personalization enhances users' perception of relevance, emotional

engagement, and trust, transforming content exposure into actionable purchase behavior. Meanwhile, interpersonal interactivity through Live Chat reinforces perceived personalization by providing real-time, human-like communication that fosters social presence, relational trust, and emotional closeness. In the local contexts of Wonocolo and Gayungan, Surabaya, these mechanisms are particularly salient. Users in these areas rely on a combination of algorithmically curated content and live, personalized interactions to assess product authenticity, seller credibility, and alignment with personal preferences. This demonstrates the dual nature of personalization: algorithmic and interpersonal, both contributing to stronger purchase intention and engagement in social commerce ecosystems.

Theoretically, this study extends understanding of perceived personalization as a psychological bridge linking algorithmic exposure, social interaction, and consumer behavior. Practically, marketers and content creators should design integrated strategies that leverage algorithmic recommendation systems while actively engaging users through interactive Live Chat. By combining data-driven personalization with relational engagement, sellers can enhance trust, emotional attachment, and purchase likelihood, particularly in localized markets. Future research may explore additional mediating factors, such as social influence or community engagement, and examine cross-cultural differences to further understand how personalization dynamics operate in diverse social commerce environments.

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