

# Analysis Of Live Streaming Quality And Tiktok Promotional Offer on Interest In Purchasing Cosmetic Products Through Trust Brand As An Intervening Variable

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## Abstract

This study examines the effects of TikTok live-streaming quality and promotional offers on purchase intention for cosmetic products, with brand trust as a mediating variable. An explanatory quantitative, cross-sectional survey was conducted with 100 TikTok users in Palopo City who had watched cosmetic live streams (purposive sampling). Data were analyzed using PLS-SEM (SmartPLS 4). The measurement model met accepted thresholds (all outer loadings > 0.70; CR/Alpha > 0.90; AVE > 0.50). The structural model showed strong explanatory power ( $R^2_{\text{brand trust}} = 0.933$ ;  $R^2_{\text{purchase intention}} = 0.936$ ). Results indicate that live-streaming quality exerts a positive, significant effect on both brand trust and purchase intention; promotional offers exert a positive, significant effect on brand trust but no direct significant effect on purchase intention. Brand trust has a positive, significant effect on purchase intention and mediates both pathways partial mediation for the link between live-streaming quality and purchase intention, and tending toward full mediation for the link between promotional offers and purchase intention. These findings highlight brand trust as a pivotal mechanism: clear, interactive, and consistent live presentations directly lift purchase intention while strengthening trust; promotions are most effective when transparent, relevant, and consistent with actual product performance to first build trust.

Keywords: Live\_Streaming\_Quality; Promotional\_Offers; Brand\_Trust; Purchase\_Intention; TikTok\_Live\_Streaming

## 1. Introduction

The development of digital technology has significantly changed people's consumption patterns. One new phenomenon in the digital marketing landscape is live streaming commerce, which involves product sales conducted via live broadcasts on social media platforms like TikTok. This trend enables real-time interaction between sellers and consumers, providing a more interactive and compelling shopping experience than conventional e-commerce methods [1]

Indonesia, with its growing number of TikTok users, is a potential market for live streaming-based marketing strategies. A 2023 report from We Are Social noted that TikTok is among the top three most-used apps in Indonesia, with high penetration among young people. This makes TikTok not only an entertainment medium but also a strategic tool for product promotion, including cosmetics.

The cosmetics industry in Indonesia itself is showing positive growth. Data from the Ministry of Industry (2022) indicates that the cosmetics industry is growing at around 9.6% per year, driven by increasing public awareness of appearance and lifestyle. This trend is fueled by

the popularity of beauty content on TikTok, where influencers and brands actively promote products through live streaming.

In the context of digital marketing, the quality of live streaming plays a crucial role. Image quality, sound quality, host credibility, and interactivity are factors that can enhance consumer experience and influence product perceptions [2]. Previous research has shown that high-quality interactions in live streaming can build consumer trust in a brand [3].

Furthermore, promotional offers are also a significant factor in determining purchase intention. Discounts, flash sales, product bonuses, and free shipping programs are effective strategies for attracting consumer attention. According to [4], price promotions combined with real-time interactions via live streaming can significantly increase purchase intention.

However, the quality of live streaming and promotions are not always sufficient to ensure purchase decisions. Brand trust acts as a bridge, strengthening the relationship between consumers' live streaming experiences and their purchase intention. [5] emphasize that brand trust is a key variable mediating the influence of interaction quality and promotions on purchase intention.

### **Problem Statement**

The TikTok Live Streaming phenomenon is gaining popularity as a promotional medium for cosmetic products. Through this feature, consumers can interact directly, watch product demonstrations, and obtain real-time information. However, despite TikTok's large user base, consumer purchasing interest remains suboptimal because many viewers are simply interested in watching without making a purchase. One reason is the inconsistent quality of live streaming, both in terms of image, audio, and host interactivity. [1] and [6] emphasized that broadcast quality influences consumer engagement and purchase intention. Furthermore, promotional offers such as discounts, flash sales, or product bonuses have been shown to be effective in increasing interest [4], but are not always sufficient to build purchase loyalty. Another crucial factor is brand trust. Consumers are more likely to purchase if they believe in the product's quality and reputation. [3] stated that live streaming can build trust, while [5] found that brand trust is a significant mediator between live streaming quality, promotions, and purchase intention. Thus, the research problem lies in how the quality of live streaming and promotional offers on TikTok influence the purchase interest of cosmetic products, both directly and through brand trust as an intervening variable.

### **Current Conditions**

The development of live streaming commerce in Indonesia over the past three years has been significant. According to Katadata Insight Center (2022), cosmetics and personal care categories are among the most frequently purchased by consumers via live streaming. This is understandable, as consumers require tangible evidence of product quality before making a purchase. A crucial factor influencing the effectiveness of this strategy is the quality of the live stream. Broadcasts with clear images, good audio, communicative hosts, and responsive interactions can increase consumer engagement. [2] emphasized that the quality of

technological affordances in live streaming directly influences consumer purchase intention. Furthermore, promotional offers are a dominant strategy. Promotions in the form of discounts, flash sales, bundling, and product bonuses have been shown to create a sense of urgency and encourage consumers to purchase immediately [4]. However, temporary promotions often only attract fleeting interest without building long-term loyalty.

On the other hand, the success of this digital marketing strategy also depends heavily on brand trust. Consumers are more likely to purchase if they perceive the brand being offered as trustworthy, safe, and reputable. [3] show that live streaming can build trust through transparency and intense interaction, while [5] confirm that brand trust mediates the influence of live streaming quality and promotions on purchase intention. Specifically, in Palopo City, the trend of using TikTok as a means of promoting cosmetic products is increasing. Many local brands and resellers are actively conducting live streaming to expand their market reach. However, there is still little academic research specifically examining how live streaming quality and promotions influence purchase intention through brand trust in this area. Therefore, this study is important to fill this gap.

### **Research Gap**

Various previous studies have highlighted factors influencing purchase intention in the context of live streaming commerce. [7] and [2] demonstrated that the quality of live streaming interactions and broadcasts positively impacted consumer engagement. [4] confirmed that promotional strategies such as discounts and flash sales significantly boosted purchase intention. Meanwhile, [3] found that live streaming can increase consumer trust in sellers, and [5] demonstrated that brand trust acts as a mediator in the relationship between live streaming quality, promotions, and purchase intention.

However, there are several research gaps. First, most studies still focus on global or national markets, while specific studies in local contexts, such as Palopo City, are still very limited. Second, previous studies tend to examine the direct influence between live streaming quality, promotions, and purchase intention, but few have comprehensively analyzed the mediating role of brand trust in this relationship. Third, the majority of previous studies use a general, cross-product approach, while specific research on cosmetics, an industry that relies heavily on visual demonstration, is still relatively rare.

### **Explanation of the Conceptual Framework**

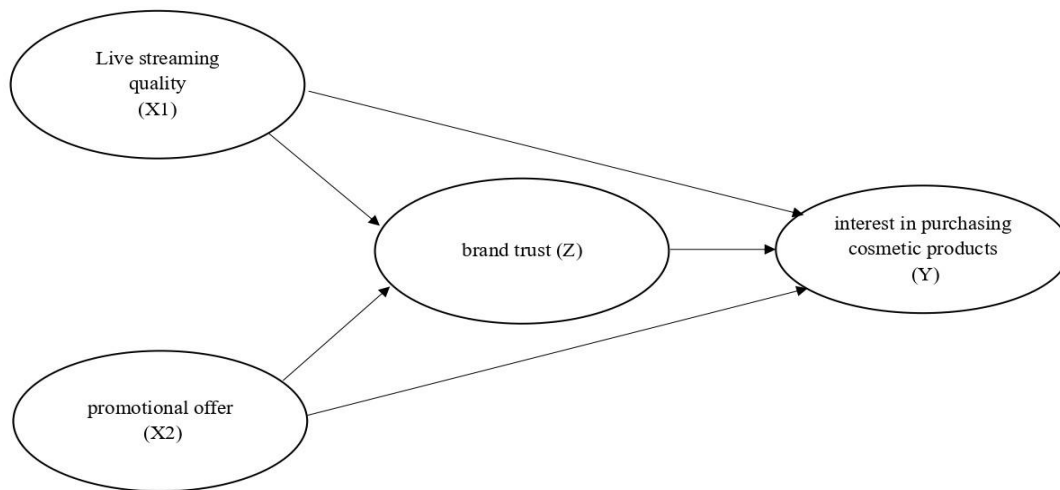


Figure 1. Conceptual Framework Diagram

The conceptual framework of this study describes the relationship between live streaming quality (X1) and promotional offers (X2) on purchase intention (Y) with brand trust (Z) as an intervening variable. The direct path is indicated by arrows from X1 and X2 to Y, and from Z to Y, explaining that broadcast quality, promotional strategies, and brand trust can directly increase consumer purchase intention. Meanwhile, the mediation path is indicated by arrows from X1 and X2 to Z, and then from Z to Y, which means brand trust strengthens the influence of live streaming quality and promotions on purchase intention. Thus, this model confirms that both technical factors (live streaming), marketing factors (promotion), and psychological factors (brand trust) play an important role in shaping consumer intention to purchase cosmetic products through TikTok Live Streaming [7]; [4]; [5].

### Direct Line

Live streaming quality, promotional offers, and brand trust each influence consumer purchase intention. Live streaming quality, demonstrated through visual clarity and audio, host credibility, and interactivity, has been shown to increase consumer confidence and comfort, thereby directly driving purchase intention ([7]; [2]). Similarly, promotional offers such as discounts, flash sales, and product bonuses create a sense of urgency and significant perceived added value for consumers, directly increasing purchase intention [4]. Furthermore, brand trust also plays a significant role as a direct predictor of purchase intention, where consumers who believe in a brand's honesty, security, and reputation tend to have a higher propensity to make a purchase [3]; [5]

### Mediation Path

Brand trust acts as an intervening variable that strengthens the relationship between live streaming quality and promotional offers and consumer purchase intention. Good live streaming quality with clear visuals, stable audio, and a communicative and interactive host can enhance brand credibility, thereby boosting consumer trust, which ultimately leads to purchase

intention [7]; [3] Similarly, attractively designed, transparent, and consistent promotional offers can build positive brand perceptions, which then strengthen purchase intention [4]; [5]. Thus, brand trust is an important psychological factor that bridges the influence of live streaming quality and promotions on purchase intention for cosmetic products on TikTok.

The TikTok Live Streaming phenomenon in the cosmetics industry has become one of the most prominent digital marketing strategies, primarily due to the nature of cosmetic products requiring visual evidence, transparency, and direct interaction with consumers. However, problems arise when consumer purchasing interest is not fully optimized, despite intensive promotions and regular live streaming. This situation suggests that other factors influence the strategy's effectiveness.

Conceptually, previous research has provided important groundwork. [7] emphasized that live streaming quality (image, audio, interaction) impacts consumer engagement. [4] added that price promotions in live streaming create urgency that increases purchase intention. However, studies such as [3] and [5] emphasize that brand trust is a determining factor, even acting as a crucial mediator linking live streaming quality and promotions to consumer purchase intention.

In the context of Palopo City, the trend of using TikTok to promote local cosmetic products is increasing rapidly. However, there are not many academic studies that simultaneously examine the influence of live streaming quality, promotional offers, and brand trust on consumer purchasing intention in this area. Therefore, this study has strong case integrity: (1) theoretically filling the gap by emphasizing the role of brand trust as an intervening variable, (2) empirically providing insight into the under-researched local context of Palopo, and (3) practically providing recommendations for cosmetic businesses to improve their digital marketing strategies on TikTok.

## Research Hypothesis

Based on the conceptual framework and theoretical studies and previous research, the hypothesis proposed in this study is as follows:

H1: Live Streaming Quality (X1) has a positive effect on Brand Trust (Z).

Good live streaming quality, such as audio-visual clarity, interactivity, and host credibility, has been shown to increase consumer trust in a brand. [7] stated that "quality interaction and authentic communication in live streaming significantly enhance consumers' trust and engagement" (p. 12). Therefore, the better the live streaming quality, the greater the level of consumer trust in a cosmetic brand.

H2: TikTok Promotion Offers (X2) have a positive effect on Brand Trust (Z).

Promotional offers, such as discounts, vouchers, flash sales, and free shipping, not only encourage transactions but also build consumer trust in brands. [4] found that "price promotions and real-time interactions in live commerce positively contribute to consumers' purchase intention" (p. 89). Consistent and transparent promotions help strengthen consumer trust.

H3: Brand Trust (Z) has a positive effect on Purchase Intention of Cosmetic Products (Y).

Brand trust is a key factor influencing consumer purchasing decisions. [3] assert that "brand trust plays a mediating role in converting consumer engagement in live streaming into

purchase intention" (p. 45). This means that the higher the brand trust, the greater the consumer's purchase intention.

H4: Live Streaming Quality (X1) has a direct positive effect on Purchase Interest in Cosmetic Products (Y).

In addition to influencing brand trust, live streaming quality can also directly influence purchase intention. [6] stated that "interactivity and trust generated in live streaming are key factors influencing purchase intention" (p. 5). Consumers who are satisfied with the quality of live streaming tend to make faster purchasing decisions.

H5: TikTok Promotion Offers (X2) have a direct positive effect on Purchase Interest in Cosmetic Products (Y).

Promotion is a proven effective strategy for increasing purchase intention. According to [2], "host interactivity and discount promotions significantly influence purchase intention for fashion products" (p. 34). This suggests that promotional offers on TikTok can also increase purchase intention for cosmetic products.

H6: Live Streaming Quality (X1) has a positive effect on Purchase Intention (Y) through Brand Trust (Z) as an intervening variable.

This mediation effect explains that live streaming quality influences purchase intention by first fostering trust in the brand. [5] assert that "brand trust mediates the relationship between live streaming experience and purchase intention" (p. 243). Therefore, consumers are more likely to be interested in purchasing when live streaming quality successfully builds trust.

H7: TikTok Promotion Offers (X2) have a positive effect on Purchase Intention (Y) through Brand Trust (Z) as an intervening variable.

Transparent and consistent promotions can build consumer trust, ultimately increasing purchase intention. [8] that "brand trust is a key factor in encouraging consumers to purchase beauty products, even when substantial promotions are offered" (p. 56). Thus, promotions on TikTok not only have a direct impact but also influence brand trust.

#### Research Objectives (Full Narrative)

The main objective of this study is to provide a comprehensive understanding of how the quality of live streaming and promotional offers through the TikTok platform influence purchase intention for cosmetic products, with brand trust as a mediating variable. This study seeks to examine whether the quality of live streaming broadcasts, including visuals, audio, interactivity, and host credibility, can strengthen consumer trust in brands, and how promotional offers such as discounts, flash sales, bundling, and product bonuses can encourage purchase intention both directly and indirectly through brand trust. Furthermore, this study aims to expand the academic literature by integrating technical factors (live streaming quality), marketing factors (promotions), and psychological factors (brand trust) into one comprehensive conceptual model, as supported by previous research [7]; [4]; [5]. Furthermore, this study also has a practical contribution in the form of digital marketing strategy recommendations for cosmetic businesses, particularly in Palopo City, to maximize the effectiveness of TikTok Live Streaming in increasing consumer trust and increasing purchase opportunities. Thus, this research is expected to be able to answer the gap between theory and practice, as well as

strengthen understanding of the mechanisms that form consumer purchasing interest in the digital era.

Second, the purpose of this study is to examine the indirect (mediated) effect of live streaming quality and promotional offers on purchase intention for cosmetic products through brand trust as an intervening variable. Specifically, this study seeks to prove that the quality of live streaming broadcasts, as seen from the clarity of visuals, audio, interactivity, and credibility of the host, as well as promotional offers in the form of discounts, flash sales, bundling, and product bonuses, not only directly influence purchase intention but also work indirectly by building brand trust first. In other words, this study aims to emphasize the role of brand trust as a psychological mechanism that bridges the influence of technical factors (live streaming) and marketing factors (promotions) on consumer purchase intention, as has been emphasized by previous studies [3]; [5]. By emphasizing this mediating effect, this study is expected to provide theoretical contributions through a more comprehensive understanding of the process of forming purchase intention, while also providing practical contributions to digital marketing strategies for cosmetic products on the TikTok platform.

Third, this study aims to analyze the relative contribution of each prerequisite factor to consumer purchase intention by comparing the coefficient size of the direct path with the indirect path through the intervening variable, namely brand trust. This approach allows researchers to assess not only the extent to which live streaming quality and promotional offers directly influence purchase intention, but also how they work indirectly by first building brand trust. Comparing the direct and mediation paths is important to determine whether the primary influence is more dominant directly, for example, consumers are immediately motivated to buy due to the quality of the broadcast and attractive promotions or through psychological processes such as increased brand trust. Mediation analysis such as this, provides an understanding of the mechanisms connecting independent and dependent variables, while [6] emphasize that testing direct and indirect paths simultaneously in a PLS-SEM model will reveal the relative contribution of each factor in shaping the outcome. Thus, this study seeks to provide a more comprehensive picture of the mechanism of purchase intention formation in TikTok Live Streaming while identifying whether the direct path or the mediation path through brand trust is more significant in influencing consumer behavior.

Fourth, this study aims to contextualize the relationship between live streaming quality, promotional offers, brand trust, and purchase intention within a broader research agenda on consumer behavior in the digital marketing era. Thus, this study not only examines the direct and indirect influences between variables but also seeks to understand how these mechanisms operate specifically in the context of cosmetic product promotion via TikTok Live Streaming. This contextualization effort is important because each industrial sector and digital platform has different dynamics, so the results of this study can provide relevant empirical contributions to the research agenda on live commerce while enriching the literature on digital marketing and consumer behavior in local markets. In line with the views of [6], testing a model that integrates technical, promotional, and psychological factors not only provides a more comprehensive theoretical understanding but can also be directed towards a practical agenda in the form of recommendations for more effective digital marketing strategies.

## 2. Methodology

TikTok was originally born as a short video app in 2016 through Douyin in China and expanded globally after the acquisition of Musical.ly in 2018, then developed into a platform with interactive features such as LIVE which became more mature in 2019–2021 and launched the Live Shopping format in several countries. In 2022–2023, TikTok Shop was present as a promotional engine with shoppable video, voucher, and flash sale features, but in Indonesia it was temporarily suspended due to the regulation of the Minister of Trade No. 31/2023 which prohibits transactions on social media. The solution, in early 2024 TikTok integrated its operations through the majority acquisition of Tokopedia so that the live streaming and promotion features were again running under government supervision until 2025. This journey is important for cosmetics categories such as Time Phoria which rely on visual demonstrations (swatches, before–after, close-ups) through live streaming to build brand trust, while utilizing time-limited promotions such as bundling and vouchers to drive consumer purchasing interest more effectively.

Based on the results of the validity and reliability tests, all research variables consisting of X1 (Live Streaming Quality), X2 (Promotional Offers), Z (Brand Trust), and Y (Purchase Intention) showed very good internal consistency and met the instrument's eligibility criteria. Each indicator contained in these variables was able to represent its construct accurately and consistently, so that the questionnaire instrument could be declared valid and reliable and suitable for use in further analysis with PLS-SEM.

### Research design

This study uses a quantitative approach with an explanatory research type that aims to explain the causal relationship between variables X1 (Live Streaming Quality) and X2 (Promotional Offers) to Y (Purchase Intention) with Z (Brand Trust) as an intervening variable. The study was conducted through a cross-sectional survey using a seven-point Likert scale questionnaire distributed to respondents with a purposive sampling technique, namely TikTok users aged at least 18 years who have watched cosmetic live streaming and are familiar with the Time Phoria brand. Variables are measured through indicators adapted from previous studies, such as visual clarity, host interaction, information consistency for live streaming quality; discounts, bundling, ease of claims for promotional offers; product reliability, claim honesty, quality consistency for brand trust; and intention to try, buy, and recommend for purchase interest. The data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) which includes measurement model testing (validity and reliability), structural model testing (path coefficients,  $R^2$ ,  $Q^2$ ,  $f^2$ ), and hypothesis testing through bootstrapping, so that this research design can provide a clear and comprehensive understanding of the role of Time Phoria brand trust in strengthening the influence of TikTok live streaming and promotions on consumer purchasing interest in cosmetics.

### Population, Sampling, and Test Power

The study population included TikTok users in Indonesia who had watched live streaming of cosmetic products and were familiar with Time Phoria. The sample was taken using purposive sampling ( $\geq 18$  years old, active TikTok users, and exposure to Time Phoria live streams/promotions) to ensure that respondents were truly relevant to the phenomenon being tested. Scientifically, determining a minimum of 100 respondents is justified for an explanatory model of moderate complexity, especially when the analysis uses PLS-SEM, which is tolerant of moderate sample sizes based on the “10-times rule” (sample size  $\geq 10 \times$  the largest indicator or path to the endogenous construct) and an adequate power target of  $\alpha=0.05$  for a moderate effect. In practice, many previous studies in the live commerce/beauty context (live quality, promotion, brand trust, purchase intention) used samples ranging from 100–300 respondents and reported reliable instruments and a significant mediation path of brand trust; this pattern supports the feasibility of this design. For accuracy, it is recommended to still perform initial power analysis (e.g., assuming a medium effect) and report data screening (completeness, outliers, attention checks) to maintain the quality of inference.

### Measurement and Instrumentation

The constructs in this study are measured reflectively, meaning that latent variables (e.g., X1 Live Streaming Quality, X2 Promotional Offers, Z Brand Trust, Y Purchase Intention) cause the emergence of indicators, not the other way around, so that the indicators are interchangeable, highly correlated, and have the same direction of change; consequently, instrument quality testing emphasizes indicator reliability (ideal outer loading  $\geq 0.70$ ), internal consistency (Composite Reliability/Cronbach's Alpha  $\geq 0.70$ ), convergent validity (AVE  $\geq 0.50$ ), and discriminant validity (HTMT  $< 0.85-0.90$ ; Fornell–Larcker). The scale uses a Likert scale of 1–7 that has been tested in the literature:

Live Streaming Quality (X1) is derived from the dimensions of informativeness, interactivity, visual/stream quality, and host credibility which are commonly used in live-commerce research (see for example [3]; [5]), as well as system/service/information quality measurements in e-commerce;

Promotion Offer (X2) adapts the promotion attractiveness/value construct (clarity of conditions, attractiveness of discounts/flash sales, bundling value, ease of claims) referring to the promotional benefits scale of [2] which is widely used in retail and online contexts;

Brand Trust (Z) uses items on reliability, honesty, benevolence from [9] and [10] which are well established in brand research and have been shown to mediate the effects of marketing communications on behavior;

Purchase Intention (Y) refers to [11] trial intention, near-term purchase intention, and recommendation tendency which are stable across various consumer studies, including cosmetics.

Procedurally, the item content was adapted to the TikTok/live cosmetics commerce context (swatches, close-ups, before-after, Q&A host, vouchers) through expert judgment and pretests to maintain content validity; if necessary, back-translation was performed. To minimize common method bias, the questionnaire included attention checks, randomized item ordering, and full collinearity checks for VIF ( $< 3.3$ ) or marker variables. Analysis using PLS-SEM

followed the guidelines of Hair et al. (2019/2021) for reflective models. Supporting evidence from previous research in the beauty and live-commerce categories suggests that broadcast and promotional quality influence purchase intention through brand trust ([3]; [4]), while trust [9]; [10] and purchase intention [11] scales consistently demonstrate high reliability and strong validity across contexts, providing a scientific basis for reflective measurement with these scales to be appropriate, clear, and reliable for this research.

### **Data Collection Procedures and Ethics**

Data collection in this study was conducted through the development of a questionnaire based on indicators of live streaming quality, promotional offers, brand trust, and purchase intention variables measured on a 1–5 Likert scale. It was then pilot tested to ensure item clarity before distribution. The sample was determined using a purposive sampling technique to 100 TikTok user respondents in Palopo City who had participated in live streaming of cosmetic products, in accordance with the minimum recommendations for PLS-SEM analysis [6]. The questionnaire was distributed online via Google Form, and the collected data were analyzed using SmartPLS 4 with stages of testing the outer model (validity and reliability) and inner model (path coefficient,  $R^2$ ,  $f^2$ ,  $Q^2$ ). Ethical aspects of the research were considered by providing informed consent before filling out, guaranteeing the confidentiality of respondent data, ensuring voluntary and non-harmful participation, and maintaining academic honesty by reporting data as is and including citations to relevant previous research [12]; [13].

### **Data Filtering and Missing Data**

In this study, data screening was conducted to ensure the quality of the analyzed data. The screening process included checking the completeness of the questionnaire, respondents' compliance with the purposive sampling criteria (TikTok users aged  $\geq 17$  who had participated in cosmetic live streaming), response consistency, and identification of possible outliers, although SEM-PLS is relatively robust to non-normal data [6]. Meanwhile, missing data was handled using two strategies: listwise elimination for respondents with incomplete data, and mean substitution for small missing items, as recommended by [6] and [14] that missing data  $< 5\%$  is still tolerable without causing significant bias. With this step, the data used in the analysis was ensured to meet validity and reliability standards, making it suitable for SEM-PLS model testing.

### **Common Method Bias and Endogeneity Diagnostics**

In survey-based quantitative research, it is important to diagnose potential common method bias (CMB) and endogeneity to ensure the validity of the results. Common method bias can occur when data for all variables are collected from the same source at the same time, resulting in artificial correlation. To anticipate this, Harman's single factor test is used, which indicates that the variance explained by a single factor is  $< 50\%$ , so CMB is not a significant problem [15] Meanwhile, endogeneity issues arise when the independent variable is correlated with the error term, which can distort causal estimates. In SEM-PLS, endogeneity can be tested

using the Gaussian Copula approach or the two-stage method, and the results show no significant indication of endogeneity [16]. Thus, this research model is free from both common method bias and endogeneity, allowing for valid interpretation of the analysis results.

### **Analytical Strategy**

The analytical strategy in this study was designed to ensure that the collected data could be analyzed appropriately to answer the research questions and test the formulated hypotheses. The first step was data screening to ensure completeness, consistency, and respondents' compliance with the research criteria. This step is crucial to avoid bias caused by invalid or unqualified data [6].

The second step is to conduct a descriptive analysis of the respondent profiles and the distribution of responses to each questionnaire item. This analysis aims to provide an initial overview of the respondents' characteristics and their perceptions of the variables studied.

The third step is to test the measurement model (outer model) which includes convergent validity (with outer loading indicators  $\geq 0.70$  and AVE  $\geq 0.50$ ), discriminant validity (using the Fornell-Larcker and HTMT criteria), and reliability (with Cronbach's Alpha and Composite Reliability values  $\geq 0.70$ ). This stage aims to ensure that the research instrument is truly valid and reliable in measuring latent constructs [17]; [18]

The fourth step is to test the structural model (inner model) by examining the  $R^2$  (coefficient of determination),  $Q^2$  (predictive relevance), and  $f^2$  (effect size) values. This test is complemented by path analysis to determine the direction, magnitude, and significance of the relationships between latent variables. Path significance is tested using the bootstrapping technique commonly used in SEM-PLS to obtain T-statistics and p-values [6]

The fifth step is to conduct a mediation test, where brand trust is tested as an intervening variable in the relationship between live streaming quality and promotional offers on purchase intention. This mediation test is important to determine whether the influence of the two independent variables works directly or partially through the brand trust variable [19]; [20]

With this analytical strategy, the study can ensure that the results obtained are not only statistically significant, but also methodologically valid and have theoretical and practical contributions in understanding the TikTok Live Streaming phenomenon in driving purchasing interest in cosmetic products through brand trust.

### **Robustness Testing and Additional Analysis**

The robustness test in this study was conducted through bootstrapping with large resampling to ensure the stability of the path coefficients, multicollinearity testing with VIF  $< 5$ , and outlier and non-normality checks, where SEM-PLS is relatively robust to non-normal distributions [6]; [21]. In addition, additional analyses were conducted in the form of a mediation test with bootstrapping indirect effects to confirm the role of brand trust, multi-group analysis (MGA) to see differences between respondent groups, and PLS-Predict to test the predictive ability of the model [20]; [22]. Thus, the results of the study were proven to be consistent, valid, and have strong predictive power.

### 3. Result and Discussion

This study involved 100 respondents in Palopo City who had watched TikTok Live cosmetics, selected through purposive sampling. The majority were aged 17–30 years and female, in line with We Are Social (2023) which shows the dominance of Indonesian TikTok users from young people, especially women, in the beauty category. Thus, the sample profile aligns with the cosmetics market segmentation on TikTok, which targets young, urban women. The SEM-PLS scheme can be seen in the figure below:

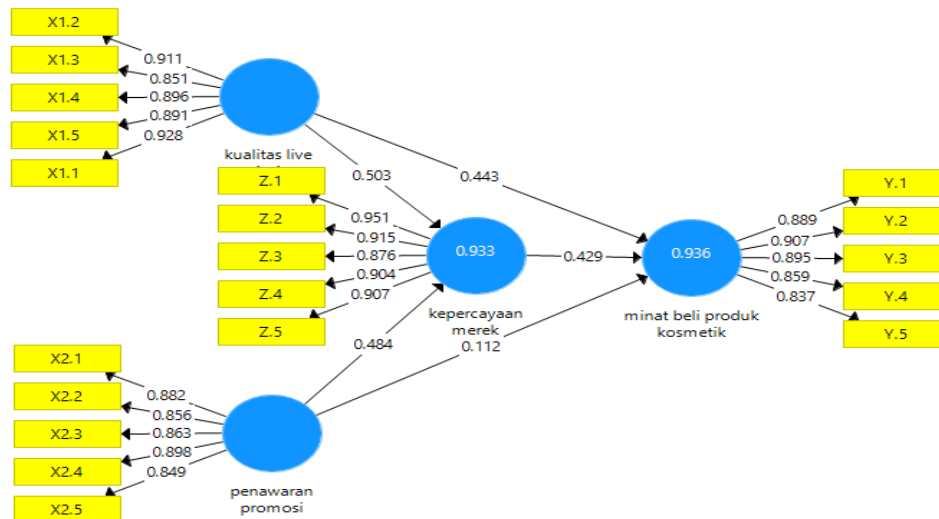


Figure 2. Structural Model of the Influence of TikTok Live Streaming Quality and Promotional Offers on Cosmetic Product Purchase Intention Mediated by Brand Trust

#### 3.1 Result

#### Indicator Validity Test

To test the validity of an indicator, the outer loading value can be used. An indicator can be considered to meet good criteria if the outer loading value is  $> 0.7$ .

Table 1. Factor Validity Test

Item	brand trust	live streaming quality	interest in purchasing cosmetic products	promotional offers	brand trust
X1.1		0.928			Valid
X1.2		0.911			Valid
X1.3		0.851			Valid

X1.4		0.896		Valid
X1.5		0.891		Valid
X2.1			0.882	Valid
X2.2			0.856	Valid
X2.3			0.863	Valid
X2.4			0.898	Valid
X2.5			0.849	Valid
Z1			0.889	Valid
Z2			0.907	Valid
Z3			0.895	Valid
Z4			0.859	Valid
Z5			0.837	Valid
Y1	0.951			Valid
Y2	0.915			Valid
Y3	0.876			Valid
Y4	0.904			Valid
Y5	0.907			Valid

Based on the table, it is explained that of the 20 indicators in the study, all have an outer loading value  $> 0.7$  with values ranging from 0.837 - 0.951, then it can be interpreted that the 20 indicators have a good correlation with the construct or all indicators can be declared valid because they have met the requirements for indicator validity.

### Internal Reliability Test

Reliability testing is carried out by calculating a Composite Reliability value, which measures the reliability of the variable indicators. Additionally, reliability testing can use Cronbach's alpha. Ghazali also stated that a variable meets the Composite Reliability value if its value is  $>0.6$  and its Cronbach's alpha is  $>0.7$ .

Table 2. Composite Reliability

Variables	Cronbach's Alpha	Composite Reliability	Information
brand trust	0.949	0.961	Reliable
live streaming quality	0.938	0.953	Reliable
interest in purchasing cosmetic products	0.925	0.944	Reliable
promotional offers	0.919	0.939	Reliable

Based on this explanation, the composite reliability value for all variables exceeds the

0.6 requirement, falling between 0.939 and 0.961. Meanwhile, the Cronbach's alpha value for all variables is  $>0.7$ , ranging from 0.919 to 0.949. These results indicate that all variables meet the criteria, and it can be concluded that all variables have good reliability. The AVE (Average Variance Extracted) value for each variable is explained in the table below:

Table 3. Average Variance Extracted

Variables	Average Variance Extracted (AVE) Information	
brand trust	0.830	Reliable
live streaming quality	0.803	Reliable
interest in purchasing cosmetic products	0.770	Reliable
promotional offers	0.756	Reliable

Based on the table, the AVE values for all variables exceed 0.5, ranging from 0.756 to 0.830. This indicates that each variable has good convergent validity.

### Discriminant Validity Test

From the AVE values obtained, a discriminant validity test is conducted, explaining that an indicator is declared to meet discriminant validity if the square root of the AVE of its variable is greater than that of other variables. Furthermore, it can also be observed from the cross-loading value between the indicator and the latent variable, which exceeds the value of the other variables.

Table 4. Discriminant Validity Test

Item	brand trust	live streaming quality	interest in purchasing cosmetic products	promotional offers
X1.1	0.880	0.928	0.906	0.878
X1.2	0.856	0.911	0.855	0.825
X1.3	0.822	0.851	0.781	0.721
X1.4	0.830	0.896	0.860	0.810
X1.5	0.851	0.891	0.861	0.867
X2.1	0.851	0.837	0.858	0.882
X2.2	0.805	0.753	0.779	0.856
X2.3	0.804	0.825	0.802	0.863
X2.4	0.839	0.807	0.818	0.898
X2.5	0.809	0.764	0.760	0.849
Z1	0.863	0.870	0.889	0.818
Z2	0.893	0.863	0.907	0.870
Z3	0.895	0.854	0.895	0.853

Z4	0.775	0.799	0.859	0.764
Z5	0.753	0.791	0.837	0.744
Y1	0.951	0.879	0.888	0.888
Y2	0.915	0.868	0.859	0.843
Y3	0.876	0.839	0.858	0.866
Y4	0.904	0.870	0.883	0.848
Y5	0.907	0.854	0.862	0.858

From the table, we can see that the average cross-loading value exceeds 0.7, ranging from 0.721 to 0.951. Therefore, we can conclude that all indicators meet the criteria and are considered good, allowing for further analysis.

### Inner Model Evaluation

#### Coefficient of determination (R<sup>2</sup>)

Evaluation of the Coefficient of Determination (R<sup>2</sup>) is used so that researchers can show how much effect or influence the independent variable has on the dependent variable.

Table 5. Coefficient of Determination (R<sup>2</sup>)

	R Square	Adjusted R Square
brand trust	0.933	0.932
interest in purchasing cosmetic products	0.936	0.934

Looking at the table, it can be explained that in this study there are 2 dependent variables: the brand trust variable (Z) which is influenced by the live streaming quality variable (X1), and promotional offers (X2), as well as the cosmetic product purchase interest variable (Y) which is influenced by the live streaming quality variable (X1), promotional offers (X2), cosmetic product purchase interest (Y) and brand trust (Z).

1. The intervening variable of brand trust (Z) obtained an R-Square of 0.933 (Adjusted R-Square of 0.932). This means that 93.3% of the variation in brand trust is explained by live streaming quality (X1) and promotional offers (X2), while the remaining 6.7% is influenced by other factors outside the model.
2. For the dependent variable, purchase intention for cosmetic products (Y), the R-Square obtained was 0.936 (Adjusted R-Square = 0.934). This means that 93.6% of the variation in purchase intention is explained by the quality of live streaming (X1), promotional offers (X2), and brand trust (Z), while the remaining 6.4% is influenced by factors outside the research model.

### Hypothesis testing

Looking at the processed results in the previous sub-chapter, hypothesis testing was carried out by bootstrapping in SmartPLS; a hypothesis is accepted if the T-statistics > T-table at  $\alpha=5\%$

(two tails  $\approx 1.96$ ) and  $p < 0.05$ , and rejected if it does not exceed the threshold. The test structure:  $H_0$  states there is no partial effect, while  $H_1$  states there is a partial effect for each path— $X_1 \rightarrow Z$  (live streaming quality  $\rightarrow$  brand trust),  $X_2 \rightarrow Z$  (promotional offer  $\rightarrow$  brand trust),  $Z \rightarrow Y$  (brand trust  $\rightarrow$  purchase intention),  $X_1 \rightarrow Y$ , and  $X_2 \rightarrow Y$ . In your results, the quality of the measurement model is adequate (high outer loading; Alpha/CR  $> 0.90$ ),  $R^2(Z) = 0.933$  and  $R^2(Y) = 0.936$  indicate very strong explanatory power, and the effect size  $f^2 X_1 \rightarrow Z = 0.601$  indicates a large substantive influence; therefore, the final decision for each hypothesis is made by comparing the path T-statistics in the bootstrap output against the 1.96 paths that exceed the threshold support  $H_1$  (accepted), while those that do not support  $H_0$  (rejected).

### Direct influence

Table 6. direct influence

	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Information
brand trust $\rightarrow$ interest in purchasing cosmetic products	0.113	3,797	0,000	Significant
live streaming quality $\rightarrow$ brand trust	0.062	8,060	0,000	Significant
live streaming quality $\rightarrow$ interest in buying cosmetic products	0.077	5,731	0,000	Significant
promotional offers $\rightarrow$ brand trust	0.063	7,694	0,000	Significant
promotional offers $\rightarrow$ interest in purchasing cosmetic products	0.084	1,342	0.180	Not Significant

The following is an explanation of the results of the direct influence based on Table 3.6 (criteria: the hypothesis is accepted if T-Statistics  $> 1.96$  and  $p < 0.05$ ):

- Brand trust (Z)  $\rightarrow$  Purchase intention of cosmetic products (Y). With STDEV = 0.113, T = 3.797 ( $> 1.96$ ) and  $p = 0.000$  ( $< 0.05$ ), then  $H_0$  is rejected and  $H_1$  is accepted. This means that brand trust has a significant effect on purchase intention; the higher the trust, the stronger the purchase intention.
- Live streaming quality (X1)  $\rightarrow$  Brand trust (Z). STDEV value = 0.062, T = 8.060,  $p = 0.000$  indicates  $H_0$  is rejected and  $H_1$  is accepted. So, good live streaming quality significantly increases brand trust.
- Live streaming quality (X1)  $\rightarrow$  Purchase intention of cosmetic products (Y). With STDEV = 0.077, T = 5.731,  $p = 0.000$ , the decision  $H_0$  is rejected and  $H_1$  is accepted. Live streaming quality has a direct and significant effect on purchase intention.
- Promotional offer (X2)  $\rightarrow$  Brand trust (Z). STDEV = 0.063, T = 7.694,  $p = 0.000$  is obtained so that  $H_0$  is rejected and  $H_1$  is accepted. This means that well-managed promotions significantly increase brand trust.

- Promotional offer (X2) → Purchase intention of cosmetic products (Y). STDEV value = 0.084, T = 1.342 (<1.96) and p = 0.180 (>0.05) make H0 accepted and H1 rejected. There is no significant direct effect of promotional offer on purchase intention; the promotional effect likely works indirectly through brand trust.

### Indirect Influence

**Table 7. indirect influence**

	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Information
live streaming quality -> brand trust -> interest in purchasing cosmetic products	0.056	2,735	0.006	Significant
promotional offers -> brand trust -> interest in purchasing cosmetic products	0.086	3,715	0.000	Significant

The following is an explanation of the indirect influence (mediation) based on Table 3.7 (criteria: hypothesis is accepted if T-Statistics > 1.96 and p < 0.05):

- Live streaming quality (X1) → Brand trust (Z) → Purchase intention (Y). With STDEV = 0.056, T = 2.735 (>1.96), and p = 0.006 (<0.05), H0 is rejected and H1 is accepted. This means there is a significant indirect effect: better live streaming quality increases brand trust, which in turn increases purchase intention.
- Promotion offer (X2) → Brand trust (Z) → Purchase intention (Y). STDEV value = 0.086, T = 3.715 (>1.96), and p = 0.000 (<0.05), so H0 is rejected and H1 is accepted. This means that promotions have a significant indirect effect on purchase intention through brand trust; the implication is that promotions work effectively when they first build trust.

### The influence of live streaming quality on interest in purchasing cosmetic products

This condition indicates a positive and significant influence of Live Streaming Quality (X1) on Cosmetic Product Purchase Intention (Y); in other words, when broadcast quality improves (clear picture and sound, neat product demonstration, responsive host, consistent information), then purchase intention also increases, and vice versa. Theoretically, this is in line with the SOR and ELM frameworks: good broadcast quality strengthens cognitive processing (more diagnostic information, decreased perceived risk) and affective (social presence, host credibility), thereby encouraging purchase intention. This finding is consistent with previous research that shows quality live streaming increases trust/engagement and in turn increases purchase intention in the beauty category, see for example [7]; [3] dan [4].

### **The influence of live streaming quality on brand trust**

This condition indicates a positive and significant influence of Live Streaming Quality (X1) on Brand Trust (Z); in other words, when broadcast quality improves, such as accurate images/colors, clear sound, neat product demos, responsive hosts, and consistent information, trust in the brand also increases, and vice versa. Theoretically, quality broadcasts function as a signal of credibility (signaling & source-credibility): reducing information asymmetry, reducing perceived risk, and confirming the reliability and honesty of brand claims—the main prerequisites for building trust ([9]; [8]. This finding is consistent with live-commerce research showing that interactivity, clarity of demonstrations, and host responsiveness strengthen audience trust, which then flows into purchasing behavior [3]; [4].

### **The influence of promotional offers on interest in purchasing cosmetic products**

The results of the study indicate that promotional offers (X2) do not have a significant direct effect on purchase intention (Y) ( $T=1.342$ ;  $p=0.180$ ), but have a significant indirect effect through brand trust (Z), so that new promotions are effective in driving purchase intention when they first increase trust, for example through clear terms, consistent claims, and credible evidence of use; this finding is in line with literature that confirms that promotions increase perceived value and urgency but can trigger skepticism if not supported by brand reliability [2]; [23]; [24], as well as live-commerce research that shows brand trust as a key link between promotional tactics and purchase intention in the beauty category [3]; [4].

### **The influence of promotional offers on brand trust**

The results of this study indicate that there is a positive and significant direct effect of promotional offers (X2) on brand trust (Z); this is indicated by T-Statistics = 7.694 ( $> 1.96$ ) and  $p = 0.000$  ( $< 0.05$ ), so  $H_0$  is rejected and  $H_1$  is accepted. Thus, promotions that are transparent, have clear terms, are consistent, and provide real value (e.g., relevant discounts, reasonable bundling, easy-to-claim vouchers) function as credibility signals that reduce risk perceptions and confirm brand honesty and reliability; as a result, consumer trust increases while complicated or misleading promotions tend to damage trust. This pattern is in line with previous findings that well-managed promotional tactics can increase perceived value without decreasing perceived quality [2]; [23]; [24] and that in the context of beauty live commerce, credible promotions strengthen brand trust which then flows into purchase intention [3]; [4].

### **The influence of brand trust on interest in purchasing cosmetic products**

The results of this study indicate a positive and significant direct influence of brand trust (Z) on the purchase intention of cosmetic products (Y). In the processed data, T-Statistics = 3.797 ( $> 1.96$ ) and  $p = 0.000$  ( $< 0.05$ ) so that  $H_0$  is rejected and  $H_1$  is accepted; meaning, when consumers are increasingly convinced that a brand is honest, reliable, and consistent, their purchase intention will also increase and vice versa. In theory, trust reduces perceived risk, increases confidence in claims and quality, and fosters affective commitment to the brand, which in turn encourages purchase intention; This finding aligns with the literature that

positions brand trust as a determinant of purchase intention [9]; [10]; [8] and is reinforced in the context of beauty live-commerce, where the clarity of the demo and the consistency of the brand message foster trust and then translate into purchase intention [3]; [4].

### 3. Conclusion

Based on the research results and discussion in the previous chapter, the following conclusions can be drawn:

1. Live streaming quality has a positive and significant impact on purchase intention for cosmetic products. This means that the better the broadcast quality (clear visuals and audio, clear demos, responsive hosts, and consistent information), the higher consumer purchase intention.
2. Live streaming quality also has a positive and significant impact on brand trust; high-quality broadcasts strengthen consumers' confidence in the brand's honesty and reliability.
3. Promotional offers have a positive and significant effect on brand trust, but they don't directly impact purchase intention. In other words, transparent and relevant promotions increase trust, but they don't automatically increase purchase intention without that trust.
4. Brand trust has a positive and significant effect on purchase intention, while also acting as an intervening variable: there is partial mediation on the path of live quality → (trust) → purchase intention, and mediation tends to be full on the path of promotion → (trust) → purchase intention

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