

The Role of Customer Engagement as a Mediator of the Effects of Digital Ad Personalization and Interactive Digital Content on Consumer Trust on TikTok Shop

Muchlis Abbas ^{1*} Rahmawati Umar ² Arnida ³

^{1*} Program Studi Manajemen, Universitas Lamappapoleonro, Soppeng, Indonesia

² Sekolah Tinggi Ilmu Ekonomi (STIE) YPUP, Makassar, Indonesia

³ Program Studi Kewirausahaan, Universitas Handayani, Makassar, Indonesia

Email: muchlis@unipol.ac.id

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ABSTRACT

Purpose: This study aims to analyze the effect of Digital Ad Personalization and Interactive Digital Content on Consumer Trust, with Customer Engagement as a mediating variable, among TikTok Shop users in the Generation Z segment in Indonesia.

Research Method: This study employed a quantitative approach with an explanatory survey design. Data were collected from 200 active TikTok Shop users through purposive sampling using an online questionnaire. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS 4.0 software to test the measurement model, structural model, and mediating effects.

Results and Discussion: The results of the study indicate that Digital Ad Personalization and Interactive Digital Content have a positive and significant effect on Customer Engagement and Consumer Trust. In addition, Customer Engagement has a positive effect on Consumer Trust and was found to partially mediate the relationship between Digital Ad Personalization and Interactive Digital Content and Consumer Trust.

Implications: These findings suggest that digital marketing strategies that integrate ad personalization and interactive content can increase consumer engagement while strengthening consumer trust in social commerce platforms. Further research is recommended to develop a model by adding other variables and expanding the characteristics of the respondents.

Originality: The novelty of this study lies in integrating Digital Ad Personalization, Interactive Digital Content, Customer Engagement, and Consumer Trust into a single PLS-SEM-based mediation model in the context of TikTok Shop in Indonesia.

Keywords: digital ad personalization; interactive digital content; customer engagement; consumer trust; TikTok Shop.

1. Introduction

The transformation of Indonesia's digital commerce ecosystem in recent years has been marked by the emergence and exponential growth of short-video-based social commerce platforms, particularly TikTok Shop. Unlike conventional marketplace platforms that rely on keyword-based product searches, TikTok Shop leverages artificial intelligence (AI) to proactively present product content to users through its hyper-personalized "For You Page" (FYP) mechanism. This phenomenon has created a digital

marketing ecosystem that fundamentally changes how consumers discover, evaluate, and trust products and digital sellers (We Are Social & Hootsuite, 2024). These changes indicate that the success of transactions in the social commerce environment is no longer determined solely by product quality, but also by the platform's ability to create a digital experience that captures attention, increases engagement, and builds consumer trust.

Amid these dynamics, the two key drivers of purchase conversions on TikTok Shop are digital ad personalization and interactive digital content. Digital ad personalization—enabled by recommendation algorithms based on user behavior data—allows the platform to deliver highly relevant content to each individual at the most opportune moment (Tam & Ho, 2006; Vesanen, 2007). Meanwhile, interactive digital content—in the form of interactive live streams, product tutorial videos, live Q&A features, and user-generated content (UGC)—creates an immersive and participatory shopping experience that conventional static ads cannot offer (Hollebeek *et al.*, 2014). These characteristics set TikTok Shop apart from conventional e-commerce platforms because marketing, social interaction, entertainment, and transactions occur simultaneously within a single digital ecosystem.

Various previous studies have highlighted the importance of digital ad personalization, interactive digital content, and customer engagement in building relationships between consumers and digital platforms. Digital ad personalization is understood as a platform's ability to present information tailored to users' needs and preferences, thereby enhancing the relevance of marketing communications (Tam & Ho, 2006; Vesanen, 2007). At the same time, interactive digital content allows consumers to actively engage through live streaming, interactive videos, and two-way communication, thereby improving the quality of the user experience (Hollebeek *et al.*, 2014). Furthermore, Brodie *et al.*, (2011) define customer engagement as a contextual motivational state manifested in the quality of interactions between consumers and a brand or platform, encompassing cognitive, emotional, and behavioral dimensions. In the context of TikTok Shop, customer engagement manifests through active user behaviors such as watching videos until the end, leaving comments, sharing content, clicking on product links, and participating in sellers' live-streaming sessions. These various forms of engagement are believed to strengthen the relationship between consumers and the digital platform.

On the other hand, consumer trust serves as a highly strategic endogenous construct in the context of social commerce. Mayer, Davis, and Schoorman (1995), in their seminal theory of trust, identified three dimensions of trust: ability (the trustee's capacity to fulfill their promises), benevolence (the trustee's goodwill toward the trustor), and integrity (the alignment of the trustee's values and principles). In the TikTok Shop environment, which is dominated by individual sellers and small-to-medium enterprises without strong brand reputations, consumer trust is the primary determining factor that distinguishes viewers who merely enjoy content from consumers willing to make transactions (McKnight *et al.*, 2002). Therefore, building consumer trust is a major challenge that must be addressed by both business operators and social commerce platform managers.

Nevertheless, research on the formation of consumer trust in the social commerce environment still leaves several gaps. First, most studies on consumer trust in e-commerce still focus on conventional marketplace platforms such as Shopee, Tokopedia, and Lazada, while research in the context of short-video-based social commerce like TikTok Shop remains very limited, particularly in Indonesia. Second, although digital ad personalization and interactive digital content have been extensively studied as antecedents of trust, most studies still test these two variables in isolation and thus have not been able to explain the mechanisms by which these two digital marketing strategies build consumer trust. Third,

the role of customer engagement as a mediating mechanism in the relationship between digital ad personalization, interactive digital content, and consumer trust has never been tested simultaneously within a single comprehensive structural model. Furthermore, the PLS-SEM approach allows for the simultaneous estimation of direct effects and indirect effects (via mediation), thereby providing a more comprehensive understanding compared to conventional hierarchical regression approaches (Hair *et al.*, 2021).

Based on this research gap, this study seeks to answer whether Digital Advertising Personalization and Interactive Digital Content influence Customer Engagement and Consumer Trust, and whether Customer Engagement acts as a mediating variable in these relationships among TikTok Shop users from the Generation Z segment in Indonesia. To answer these questions, this study aims to empirically test and analyze a partial mediation model of Customer Engagement in the relationship between Digital Advertising Personalization and Interactive Digital Content on Consumer Trust using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. The novelty of this study lies in integrating Digital Advertising Personalization, Interactive Digital Content, Customer Engagement, and Consumer Trust into a single structural model tested simultaneously within the context of short-video-based social commerce in Indonesia. Through this model, this study is expected to provide an empirical contribution to the development of Customer Engagement Theory, Signaling Theory, and Trust-Based Models, while also expanding our understanding of the mechanisms underlying the formation of consumer trust within the social commerce ecosystem.

2. Literature Review and Hypothesis Development

This study is based on three complementary theoretical frameworks that explain the mechanisms underlying the formation of consumer trust in social commerce platforms. Customer Engagement Theory, developed by Brodie *et al.*, (2011) and Hollebeek (2011), explains that consumer engagement is a psychological state that arises through ongoing interactions between consumers and brands or digital platforms. This engagement is not merely viewed as transactional behavior but also encompasses cognitive, emotional, and behavioral dimensions that serve as a bridge between marketing stimuli and long-term consumer responses, including the development of trust. Furthermore, Signaling Theory (Spence, 1973; Erdem & Swait, 2004) explains that under conditions of information asymmetry in digital transactions, consumers heavily rely on various signals provided by platforms and sellers. Ad personalization and the quality of digital content serve as indicators that help consumers assess a seller's credibility, competence, and quality before making a transaction. Meanwhile, the Trust-Based Model developed by Mayer, Davis, and Schoorman (1995)—and adapted to the digital context by McKnight, Choudhury, and Kacmar (2002)—explains that consumer trust is built through three main dimensions: ability, benevolence, and integrity. These three theories serve as the conceptual foundation for explaining the relationship between digital ad personalization, interactive digital content, customer engagement, and consumer trust among TikTok Shop users.

Digital ad personalization refers to a platform's ability to deliver advertising content tailored to users' characteristics, preferences, and behaviors through algorithmic mechanisms (Vesanen, 2007). Tam and Ho (2006) explain that personalization consists of two main dimensions: content personalization and contextual personalization. Within the TikTok Shop ecosystem, these two dimensions are realized through the For You Page (FYP) algorithm, which analyzes user behavior in real time to deliver the most

relevant content to each individual. From the perspective of Signaling Theory, ad personalization signals that the platform understands its consumers' preferences, thereby eliciting a positive affective response that enhances users' emotional engagement (Hollebeek *et al.*, 2014). Research by Aguirre *et al.*, (2015) shows that when consumers perceive personalization as relevant and non-intrusive, their level of engagement with the platform increases significantly. These findings are reinforced by the study by Mulyono and Fitria (2022), which shows that digital content personalization has a positive effect on customer engagement on content-based platforms. Based on this theoretical framework and the results of previous studies, this research proposes the hypothesis that Digital Ad Personalization has a positive and significant effect on Customer Engagement among TikTok Shop users (H1).

In addition to ad personalization, interactive digital content is also a key factor in building consumer engagement. McMillan and Hwang (2002) define interactive digital content as digital content that enables active user participation through two-way communication. In the context of TikTok Shop, this interactivity is realized through live streaming, product tutorial videos, Q&A features, duets, stitches, and user-generated content, which allow consumers to interact directly with sellers and other users. Hollebeek, Glynn, and Brodie (2014) demonstrated that content interactivity is one of the strongest antecedents in shaping customer engagement on social media. Psychologically, interactivity enhances users' sense of agency, thereby strengthening cognitive and emotional engagement, while also building a community that fosters behavioral engagement through group social norms (Islam & Rahman, 2017). The results of the meta-analysis by Islam and Rahman (2017) also indicate that content interactivity is a consistent predictor of customer engagement with a large effect size ($d = 0.72$), surpassing even posting frequency and visual quality. These findings suggest that interactive digital content not only increases the time consumers spend interacting with the platform but also enhances the overall quality of consumer engagement. Therefore, this study proposes the hypothesis that interactive digital content has a positive and significant effect on customer engagement among TikTok Shop users (H2).

From the perspective of Customer Engagement Theory, consumer engagement does not stop at mere interaction but evolves into a psychological relationship capable of fostering trust in the platform. From the perspective of Social Exchange Theory (Blau, 1964), repeated interactions generate positive experiences that foster the formation of a relationship of mutual trust through the mechanism of reciprocity. Pansari and Kumar (2017) explain that consumers with high levels of customer engagement are not only more likely to make repeat purchases but also have higher levels of trust in both the brand and the platform. Furthermore, based on the perspective of psychological safety theory, consumers' active participation in live-streaming activities, comments, and product discussions creates a sense of familiarity and safety, which is a prerequisite for the formation of trust (Brodie *et al.*, 2011). Kim and Park (2013) demonstrated that the behavioral engagement dimension exerts the strongest influence on consumer trust, while Moriuchi and Takahashi (2016) found that consumers who are highly engaged with sellers' content develop a higher level of trust compared to consumers who merely engage in passive information-seeking. Based on these arguments, this study proposes the hypothesis that Customer Engagement has a positive and significant effect on Consumer Trust among TikTok Shop users (H3).

In addition to examining the mediating mechanism, this study also tests the direct effects of personalized digital ads and interactive digital content on consumer trust. According to Signaling Theory, personalized ads signal the platform's ability to understand its consumers' needs, thereby directly enhancing trust (Mayer *et al.*, 1995; Aguirre *et al.*, 2015). On the other hand, interactive digital content also signals the seller's benevolence and integrity through open communication, transparent

product demonstrations, and the seller's ability to respond directly to consumer questions during live-streaming sessions (McKnight *et al.*, 2002). Kim and Park (2013) demonstrated that the quality of interactive content is a significant predictor of consumer trust through both direct and indirect channels. Based on this theoretical framework, this study proposes the hypothesis that Digital Ad Personalization has a positive and significant effect on Consumer Trust (H4) and that Interactive Digital Content has a positive and significant effect on Consumer Trust (H5).

Furthermore, this study posits Customer Engagement as a mediating variable that explains the mechanism of the relationship between digital marketing strategies and the formation of consumer trust. In the mediation model, customer engagement explains how digital ad personalization and interactive digital content first increase consumer engagement before ultimately fostering consumer trust. Mediation testing was conducted using the bootstrapping approach as recommended by Preacher and Hayes (2008) and Hair *et al.*, (2021), thereby allowing for the simultaneous testing of both direct and indirect effects. Based on this theoretical framework, this study proposes two mediation hypotheses: Customer Engagement partially mediates the effect of Digital Ad Personalization on Consumer Trust (H6), and Customer Engagement partially mediates the effect of Interactive Digital Content on Consumer Trust (H7).

3. Research Method

This study employs a quantitative approach using a causal-explanatory survey design to test the causal relationships among variables formulated based on the theoretical framework. This approach was chosen because the study aims not only to describe the phenomenon but also to explain the effects of Digital Advertising Personalization and Interactive Digital Content on Consumer Trust through the mediating role of Customer Engagement (Sugiyono, 2019). Data analysis was conducted using Partial Least Squares-based Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS 4.0 software. The selection of the PLS-SEM method was based on its ability to simultaneously estimate both direct and indirect relationships within a mediation model, its lack of requirement for the assumption of multivariate normality, its suitability for medium-sized samples, and its effectiveness in research oriented toward developing predictive models with reflective constructs (Hair *et al.*, 2021; Ringle *et al.*, 2022). The study population consisted of active TikTok Shop users from Generation Z aged 18–26 who had watched live streams and made purchases through TikTok Shop at least once in the past three months (APJII, 2023; We Are Social, 2024). The sample was selected using purposive sampling based on the following respondent criteria: (1) active use of the TikTok app for at least three months; (2) prior interaction with TikTok Shop content through likes, comments, or shares; and (3) prior purchase transactions via TikTok Shop (Sugiyono, 2019). The sample size was determined based on the recommendations of Hair *et al.*, (2021) and Kline (2016), namely a minimum of 5–10 times the number of research indicators. With a total of 22 indicators, the recommended sample size falls within the range of 110–220 respondents; therefore, this study utilized 200 respondents, which was deemed sufficient for analysis using PLS-SEM. The research data consisted of primary data collected through an online questionnaire distributed via Google Forms over approximately four weeks. The questionnaires were distributed through the TikTok Shop user community, social media, and a network of respondents who met the study criteria using purposive sampling (Sugiyono, 2019). All constructs were measured using a five-point Likert scale, ranging from a score of 1 = Strongly Disagree to 5 = Strongly Agree, with all

indicators treated as reflective constructs (Likert, 1932). The research model consists of two exogenous variables, namely Digital Advertising Personalization (X_1) and Interactive Digital Content (X_2), one mediator variable, Customer Engagement (M), and one endogenous variable, Consumer Trust (Y). The relationships among the variables were established through seven hypotheses covering both direct and indirect effects via the mediator variable. Data analysis was conducted in two stages according to the procedures recommended by Hair *et al.*, (2021). The first stage involved evaluating the measurement model (outer model) to ensure the quality of the research instruments. The evaluation was conducted by testing convergent validity using outer loadings (≥ 0.70) and Average Variance Extracted (AVE) (≥ 0.50), internal consistency reliability using Composite Reliability (CR) and Cronbach's Alpha (≥ 0.70), and discriminant validity using the Heterotrait-Monotrait Ratio (HTMT), with a value below 0.85 serving as an indicator that each construct possesses adequate discriminant validity (Fornell & Larcker, 1981; Henseler *et al.*, 2015; Nunnally, 1994).

The next step was to evaluate the structural model (inner model) to test the research hypotheses. The evaluation was conducted by testing the Variance Inflation Factor (VIF) to ensure there was no multicollinearity among variables, the coefficient of determination (R^2) to measure the model's ability to explain the variation in the endogenous construct, the effect size (f^2) to determine the contribution of each exogenous variable to the endogenous variable, and path coefficients, which were tested using a bootstrapping procedure with 5,000 subsamples at a significance level of $\alpha = 0.05$ (two-tailed test) (Hair *et al.*, 2021; Cohen, 1988; Ringle *et al.*, 2022). Mediation analysis was conducted using the bootstrapping approach as recommended by Preacher and Hayes (2008) and Hair *et al.*, (2021). Mediation is considered to occur if the path from Digital Advertising Personalization or Interactive Digital Content to Customer Engagement is significant, the path from Customer Engagement to Consumer Trust is significant, and the 95% confidence interval for the specific indirect effect does not include zero. Furthermore, if the direct effect of the exogenous variable on Consumer Trust remains significant after including the mediator variable, the mediation is categorized as partial mediation. Conversely, if the direct effect is no longer significant, the mediation is categorized as full mediation. The bootstrapping approach was chosen because it produces more accurate estimates of the mediation effect compared to the Sobel test, particularly when the distribution of the indirect effect does not meet the assumption of normality, making it more suitable for the characteristics of PLS-SEM analysis (Preacher & Hayes, 2008).

4. Results and Discussion

4.1 Analysis Results

4.1 Analysis Results

Before testing the hypotheses, the characteristics of the respondents are first presented to provide an overview of the profile of the respondents who are the subjects of this study. Respondent characteristics were analyzed based on gender and age, as these two characteristics are considered representative of the demographic profile of respondents who are active TikTok Shop users. The presentation of these characteristics aims to provide information on the distribution of respondents involved in the study, thereby supporting the interpretation of subsequent analysis results. The distribution of respondent characteristics is presented in Table 1.

Table 1. Respondent Characteristics

Variable	Category	Frequency (n)	Percentage (%)
Gender	Man	112	56
	Woman	88	44
Age (Year)	18	20	10
	19	24	12
	20	14	7
	21	21	10,5
	22	16	8
	23	19	9.5
	24	23	11.5
	25	17	8.5
	26	46	23

Based on Table 1, the study involved 200 respondents who are active TikTok Shop users from Generation Z. By gender, the majority of respondents were male, totaling 112 people (56.00%), while females numbered 88 (44.00%). By age, the respondents were predominantly in the 26-year-old age group, with 46 people (23.00%), followed by the 19-year-old age group with 24 people (12.00%) and the 24-year-old age group with 23 people (11.50%). Meanwhile, the 20-year-old age group had the fewest respondents, at 14 people (7.00%). Overall, the distribution of respondent characteristics indicates that the study was dominated by Generation Z within the productive age range who actively use TikTok Shop as a platform to obtain information and purchase digital products. These findings indicate that the respondents' characteristics align with the study's objectives, making the collected data representative for examining the influence of Brand Credibility, Electronic Word of Mouth (e-WOM), and Digital Ad Personalization on Purchase Decisions.

Data analysis in this study was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach with the assistance of SmartPLS software. The PLS-SEM analysis was conducted in two stages: evaluation of the measurement model (outer model) to test the validity of the indicators in representing the research constructs, and evaluation of the structural model (inner model) to test the relationships between latent variables in accordance with the proposed hypotheses. The results of the research model estimation are presented in Figure 1.

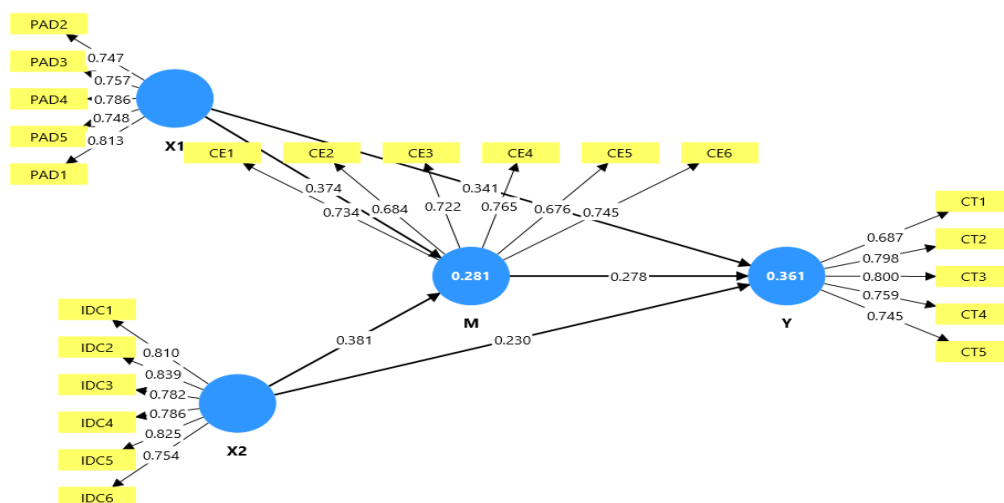
**Figure 1. Results of the research model estimation**

Figure 1 shows the results of the structural model estimation using Partial Least Squares Structural Equation Modeling (PLS-SEM). The research model consists of two exogenous variables—Digital Advertising Personalization (X1) and Interactive Digital Content (X2)—one mediating variable, Customer Engagement (M), and one endogenous variable, Consumer Trust (Y). All indicators have outer loadings above 0.60, thus meeting the initial requirements for indicator validity. The path coefficient values indicate that Digital Advertising Personalization has an effect on Customer Engagement of 0.374, Interactive Digital Content has an effect on Customer Engagement of 0.381, Customer Engagement has an effect on Consumer Trust of 0.278, Digital Advertising Personalization has a direct effect on Consumer Trust of 0.341, and Interactive Digital Content has a direct effect on Consumer Trust of 0.230. The R^2 values of 0.281 for Customer Engagement and 0.361 for Consumer Trust demonstrate the model's ability to explain the variation in both endogenous constructs.

Table 2. Results of the Measurement Model Evaluation (External Loadings)

Variable	Indicator	Outer Loading	Info
Digital Advertising Personalization	PAD1	0.813	Valid
	PAD2	0.747	Valid
	PAD3	0.757	Valid
	PAD4	0.786	Valid
	PAD5	0.748	Valid
Interactive Digital Content	IDC1	0.810	Valid
	IDC2	0.839	Valid
	IDC3	0.782	Valid
	IDC4	0.786	Valid
	IDC5	0.825	Valid
	IDC6	0.754	Valid
Customer Engagement	CE1	0.734	Valid
	CE2	0.684	Retained
	CE3	0.722	Valid
	CE4	0.765	Valid
	CE5	0.676	Retained
	CE6	0.745	Valid
Consumer Trust	CT1	0.687	Retained
	CT2	0.798	Valid
	CT3	0.800	Valid
	CT4	0.759	Valid
	CT5	0.745	Valid

All indicators have outer loading values above 0.60. Most indicators have values above 0.70, indicating that they adequately represent the construct. Indicators CE2, CE5, and CT1 have values between 0.60 and 0.70 and should therefore be retained. Overall, the measurement model meets the initial requirements for indicator validity.

The R^2 value for Customer Engagement, at 0.281, indicates that Digital Advertising Personalization and Interactive Digital Content account for 28.1% of the variation in Customer Engagement. The R^2 value for Consumer Trust, at 0.361, indicates that the three variables in the model

account for 36.1% of the variation in Consumer Trust, while the remainder is influenced by other factors outside the model.

Table 3. Coefficient of Determination Values (R^2)

Endogenous Variables	R^2	Interpretation
Customer Engagement	0.281	28.1% of the variation is explained by X1 and X2
Consumer Trust	0.361	36.1% of the variation is explained by X1, X2, and M

Table 4. Results of the Direct Effect Test (Direct Effect)

Hypothesis	Relationships	β	T	P	Decision
H1	X1 $\rightarrow$ M	0.374	6.982	<0.001	Accepted
H2	X2 $\rightarrow$ M	0.381	6.910	<0.001	Accepted
H3	M $\rightarrow$ Y	0.278	3.983	<0.001	Accepted
H4	X1 $\rightarrow$ Y	0.341	5.589	<0.001	Accepted
H5	X2 $\rightarrow$ Y	0.230	3.944	<0.001	Accepted

All direct effects were significant because the t-statistics were greater than 1.96 and the p-values were less than 0.05. These findings indicate that personalized digital ads and interactive digital content increase both customer engagement and consumer trust. Customer engagement also contributes positively to building consumer trust.

Table 5. Results of the Indirect Effect Test (Indirect Effect)

Hypothesis	Mediation Relationships	β	T	P	Decision
H6	X1 $\rightarrow$ M $\rightarrow$ Y	0.104	3.392	<0.001	Accepted
H7	X2 $\rightarrow$ M $\rightarrow$ Y	0.106	3.454	<0.001	Accepted

Customer Engagement has been shown to significantly mediate the effects of Digital Advertising Personalization and Interactive Digital Content on Consumer Trust. Since the direct effects of both exogenous variables on Consumer Trust are also significant, the form of mediation observed is partial mediation.

4.2 Discussion

The test results show that Digital Advertising Personalization has a positive and significant effect on Customer Engagement, with a path coefficient of $\beta = 0.374$, a t-statistic of 6.982, and a p-value < 0.001. The magnitude of this coefficient indicates that ad personalization makes a fairly strong contribution to increasing consumer engagement on TikTok Shop. This finding not only demonstrates a statistically significant relationship but also indicates that personalization is one of the key determinants shaping users' active engagement with short-form video-based social commerce platforms.

Theoretically, these results reinforce the Stimulus–Organism–Response (SOR) Theory, which serves as the conceptual foundation of this study. Within this framework, ad personalization acts as a stimulus relevant to individual characteristics. TikTok Shop's algorithm presents products based on search history, viewing behavior, content preferences, and user interactions, ensuring that the stimuli

received are highly relevant. This relevance influences users' psychological state (organism) by increasing their attention, perceived benefits, and interest in the content. The ultimate response is reflected in increased customer engagement through activities such as watching, liking, commenting on, and sharing content, as well as visiting product pages.

In addition to explaining the psychological mechanisms, these findings also reinforce Signaling Theory. In a digital environment rife with information asymmetry, consumers cannot directly evaluate product quality. Therefore, ad personalization serves as a signal that the platform has the ability to understand consumer needs. When users see product recommendations that align with their preferences, they interpret this as the platform's capability to provide relevant information. This signal enhances the perceived quality of the shopping experience while encouraging consumers to engage more actively with the displayed content.

In the context of TikTok Shop, these results differ from those of conventional marketplaces. On platforms like Shopee or Tokopedia, consumers actively search for products using keywords. In contrast, on TikTok Shop, the initial decision to interact is triggered by the For You Page (FYP) algorithm, which proactively presents content to users. Therefore, the quality of the algorithm's personalization is a determining factor in whether users will simply scroll past or pause, pay attention, interact, and ultimately begin building a relationship with the seller.

When compared to other variables in this study, the coefficient of personalization's effect on Customer Engagement ($\beta = 0.374$) is only slightly lower than that of Interactive Digital Content ($\beta = 0.381$). This very small difference indicates that consumer engagement on TikTok Shop is shaped not only by content quality but also by the algorithm's ability to deliver relevant content to the right users. In other words, compelling content will not generate optimal engagement if it is not distributed to the appropriate audience, while personalization without high-quality content is also insufficient to sustain user attention.

These findings align with the research by Tam and Ho (2006), Aguirre *et al.*, (2015), and Montgomery and Smith (2009), which show that personalization increases user engagement by enhancing the relevance of information. However, this study offers a new contribution by demonstrating that this mechanism also applies to short-video-based social commerce platforms, where recommendation algorithms play a more dominant role than product search mechanisms. Thus, this study expands the application of personalization theory from the context of conventional e-commerce to the social commerce ecosystem, which integrates entertainment, social interaction, and transactions within a single platform.

In practical terms, these findings indicate that businesses on TikTok Shop cannot simply increase the intensity of their digital advertising. A more effective strategy is to optimize the quality of consumer data, market segmentation, and content design tailored to user characteristics so that the platform's algorithms can distribute content more precisely to the target audience. This approach has the potential to increase customer engagement while strengthening the overall effectiveness of digital marketing strategies.

5. Conclusion

This study aims to analyze the influence of Digital Advertising Personalization and Interactive Digital Content on Consumer Trust, with Customer Engagement serving as a mediating variable among TikTok



Shop users. Based on the results of an analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM), this study shows that digital marketing strategies that integrate ad personalization and interactive digital content can increase consumer trust, both directly and through increased Customer Engagement. The findings indicate that customer engagement is the primary mechanism explaining the process of consumer trust formation within the social commerce ecosystem. Digital ad personalization tailored to users' needs, along with interactive digital content, encourages consumers to engage more actively through activities such as watching videos, commenting, sharing content, participating in live streams, and exploring featured products. This engagement subsequently strengthens consumers' trust in the platform and sellers, thereby increasing their confidence in making transactions on TikTok Shop. Thus, Customer Engagement functions not only as a consequence of digital marketing activities but also as a psychological mechanism that strengthens the relationship between digital marketing strategies and the formation of Consumer Trust.

From a theoretical perspective, this study contributes to the development of social commerce literature by integrating Customer Engagement Theory, Signaling Theory, and the Trust-Based Model into a single structural model that explains the process of consumer trust formation on short-video-based platforms. This study demonstrates that ad personalization and content interactivity do not operate independently but rather complement each other in building Customer Engagement, which in turn strengthens Consumer Trust. These findings expand the application of these theories from the context of conventional e-commerce to the social commerce environment, characterized by simultaneous social interaction, entertainment, and transactions. From a practical perspective, the research results imply that businesses and TikTok Shop administrators need to develop marketing strategies that focus not only on increasing ad exposure but also on enhancing the relevance of personalization and the quality of digital content interactions. The use of appropriate recommendation algorithms, the presentation of authentic, interactive content that is responsive to consumer needs, and the management of ongoing communication will increase customer engagement and ultimately strengthen consumer trust as the foundation for business success on social commerce platforms.

Overall, this study confirms that the success of building consumer trust on TikTok Shop is determined not only by the platform's ability to deliver relevant information but also by its ability to create interactive experiences that foster sustained consumer engagement. Therefore, customer engagement serves as a strategic element that links the effectiveness of digital marketing strategies to the development of consumer trust within the short-video-based social commerce ecosystem.

Statement of Use of Generative AI

During the preparation of this work, the author used generative artificial intelligence tools to support the scientific writing process. Grammarly was used to check grammar, refine writing style, and improve clarity in scientific writing. All interpretations, analyses, and conclusions presented in this study are the sole responsibility of the author.

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Corresponding author

Muchlis Abbas can be contacted at: muchlis@unipol.ac.id