The Role of Customer Engagement as Mediation and Deal Proneness as Moderation

Marda Cahyanti Retnosari
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
E-Mail: 6032221200@student.its.ac.id

Reny Nadlifatin
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
E-Mail: reny.nadlifatin@gmail.com

ABSTRACT

Generation Z is a challenge and an opportunity for new businesses, considering that despite the high consumption rate, marketers often have difficulty influencing them. This study analyzes the influence of trust, flow experience, and perceived value on purchase intention, with customer engagement as mediation and deal proneness as moderation. This study uses a quantitative approach involving 402 Generation Z respondents actively using TikTok live-streaming e-commerce in Jakarta. Data was collected through a questionnaire which was then analyzed using partial least square path modeling (PLS-SEM). The findings show that trust in community members, trust in the broadcaster, trust in the platform, perceived value, and flow experience have a significant positive effect on customer engagement, while trust in the product has no significant effect. In addition, trust in community members, trust in the broadcaster, trust in the product, perceived value, and flow experience had a significant positive effect on purchase intention, while trust in the platform had no significant effect. Customer engagement partially mediates the influence of trust, perceived value, and flow experience on purchase intention, while deal proneness strengthens the influence of customer engagement on purchase intention. The managerial implications of these findings include developing marketing approaches that improve the quality of live-streaming interactions, building strong communities, leveraging trusted influencers, highlighting product value, and leveraging promotions to capture the attention of Generation Z. Marketers can design more relevant and relevant live-streaming experiences, creating a more dynamic and consumer-oriented e-commerce ecosystem to increase sales.

Keywords: E-commerce, Live-Streaming, Purchase Intention, Customer Engagement, Deal Proneness.
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derhadap niat membeli, sedangkan rawan transaksi memperkuat pengaruh keterlibatan pelanggan terhadap niat membeli. Implikasi manajerial dari temuan ini mencakup pengembangan pendekatan pemasaran yang meningkatkan kualitas interaksi streaming langsung, membangun komunitas yang kuat, memanfaatkan influencer tepercaya, menyoroti nilai produk, dan memanfaatkan promosi untuk menarik perhatian Generasi Z. Penasaran dapat merancang desain yang lebih relevan dan relevan. pengalaman streaming langsung, menciptakan ekosistem e-commerce yang lebih dinamis dan berorientasi konsumen untuk meningkatkan penjualan.

**Kata kunci:** Perdagangan Elektronik, Streaming Langsung, Niat Membeli, Keterlibatan Pelanggan, Rawan Transaksi.

**INTRODUCTION**

Live-streaming e-commerce, as a fast-growing business model innovation, has become a significant global phenomenon, especially accelerated by the COVID-19 pandemic. This has become the main alternative for shopping for products amidst widespread travel restrictions, supported by advances in digital technology and widespread internet availability (Sun et al., 2019; Wongkitrungrueng et al., 2020). This model combines direct interaction via live-streaming with e-commerce, allowing broadcasters or hosts to show products live, provide real-time explanations, and adjust offers based on direct interactions with consumers (Lu & Siegfried, 2021). TikTok, with its presence in Indonesia, has become a major competitor in the live-streaming e-commerce space, although the Shopee Live platform still dominates with 83.4% usage compared to TikTok's 42.2% (Databoks, 2022). The emergence of TikTok, especially popular among Generation Z, reflects significant changes in consumer behavior and generational preferences for how to shop and interact with brands. The COVID-19 pandemic has not only accelerated the adoption of live-streaming e-commerce, but also forced companies to adapt to a significantly changing environment. Studies show that before the pandemic, many companies were in a financially stable zone, but conditions changed drastically during the pandemic with a significant increase in companies potentially going bankrupt (Dewi et al., 2021). This encourages companies to switch to digital business models and look for ways to reach consumers more effectively through digital platforms, including live-streaming.

Generation Z born between 1997 and 2012 dominates the use of e-commerce live-streaming, with their large population in Indonesia having a significant impact on the market and changes in consumer behavior (BPS, 2020). This generation is familiar with technology and has a high level of digital consumption, making them the main target for retailers and companies who want to utilize e-commerce live-streaming to increase sales and customer engagement (Hemastuti et al., 2022). In this context, factors such as trust, flow experience and perceived value play a key role in influencing Generation Z's customer engagement and purchase intention in e-commerce live-streaming TikTok. Trust in the community, broadcaster, product, and platform has a significant influence on customer engagement and purchase intention (Guo et al., 2021; Zheng et al., 2022). Meanwhile, positive flow experiences and high perceived value are also found to contribute positively to customer engagement and purchase intention (Sun et al., 2022; Zhang et al., 2023). Customer engagement acts as a significant mediator between these factors and purchase intention, indicating that building a strong emotional connection between brands and consumers are key in driving purchasing decisions (Chatterjee et al., 2022). Luo et al. (2024), deal proneness acts as a moderator that strengthens the relationship between customer involvement and purchase intentions, especially in generations that tend to be sensitive to special offers.

**LITERATURE REVIEW**

The Stimulus-Organism-Response (S-O-R) model is a theoretical framework originally proposed to explain the impact of the environment on human psychology and behavior
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(Mehrabian & Russell, 1974). This model consists of three key elements: Stimulus (S) which includes various situational factors that act as antecedents, Organism (O) which refers to the individual’s internal emotional or cognitive response to the stimulus, and Response (R) which is the final behavior or action that occurs, resulting from the organism's processing of a stimulus. S-O-R Theory Research from Guo et al. (2021), has been widely applied in consumer behavior research, including the study of purchase intentions, online repeat purchase intentions, and impulse purchase behavior, especially in the context of e-commerce and live-streaming platforms. In recent years, with the rapid development of e-commerce live streaming, scholars have explored the impact of live streaming on consumer purchase intention and purchasing behavior based on the SOR model to study how relational ties can increase customer engagement. Xue et al. (2020), found that perceived control over the live-streaming platform had a positive impact on perceived usefulness, further increasing user engagement. From research conducted by Vukadin et al. (2018), user engagement refers to the level of involvement in an operator's product or activity, and increasing user engagement is very important, greatly helping in retaining users and developing competitive advantage (Kang et al., 2021). Customer trust refers to a customer's confidence in the reliability and performance of another party, which in this case could be a seller or the product being offered. (Wongkitrungrueng and Assarut, 2020). Trust in research (Guo et al, 2021) refers to customers' confidence that the information conveyed by broadcasters is accurate and useful, confidence that the products displayed will correspond to reality when received, and confidence in community members to provide suggestions that help in making decisions. buying decision. Zhang et al. (2023), flow experience refers to an intrinsically optimal state in which an individual is intensely involved in an activity to the exclusion of all other ideas, being a critical determinant of online experiences such as online shopping. Flow experience involves consumers making unplanned purchasing decisions when visiting online stores because consumers have higher levels of loyalty and satisfaction. According to Vries & Carlson (2014), Social aspects play an important role in social media, the social or symbolic value of shopping is also considered. More concretely, perceived value is a value that involves superiority (quality, benefits, usefulness, value) and weaknesses (price, sacrifice) that customers feel regarding the use of a product or service (Vukadin et al., 2018). Deal proneness According to Flacandji & Vlad (2022), offer susceptibility is defined as consumer responsiveness to promotions and offers, such as coupons, discounts and sales. It reflects the extent to which consumers tend to modify their purchasing behavior in response to promotions across different channels or types. Offer susceptibility can be conceptualized at both an offer-specific level (coupon susceptibility, brochure susceptibility) and a general level, indicating a broader propensity to respond to different types of promotional offers. Purchase intention is a component of consumer cognitive behavior about how someone intends to buy a particular product or service (Ling et al., 2010). Consumers may make purchases because of constraints and not because of actual preferences, intention measures are more effective than behavioral measures, thereby adopting customers' purchase intentions, as directly demonstrated by purchase intentions relying on live-streaming pages (Addo et al., 2021).
METHOD

This research uses a quantitative approach involving 402 Generation Z respondents who actively use TikTok live-streaming e-commerce in Jakarta. Data was collected through a questionnaire which was then analyzed using Partial Least Square Path Modeling (PLS-SEM). This research uses a simple random sampling technique, which is random sampling, where each sample unit from a population has the same opportunity to be included in the sample and so that the sample can be generalized to the entire population. Some researchers believe that sample size considerations do not play a role in the application of PLS-SEM. This idea is fostered by the oft-cited 10 times rule (Hair, 2017). This rule of thumb is equivalent to saying that the minimum sample size should be 10 times the maximum number of arrowheads pointing to the latent variable anywhere in the PLS path model. While the 10 times rule offers a rough guideline for minimum sample size requirements, PLS-SEM like any statistics-requires researchers to consider sample size against the background of the model and data characteristics (Hair, 2017). Divided into several variables including independent variables (trust in community members (X1), trust in broadcaster (X2), trust in the product (X3), trust in the platform (X4), perceived value (X5), flow experience (X6) Dependent variable is purchase intention (Y). Mediating variable is customer engagement (M) and Moderation Variable is deal Proneness (W).

RESULT

This research uses data analysis with the PLS-SEM method. The software used is SmartPLS version 4.0. Data analysis using this method begins by analyzing the research model, namely the outer model and inner model. Next, after the model is accepted, the research carries out hypothesis testing based on analysis of the model that has been accepted. Outer Model Analysis (Measurement Model), at this stage an analysis is carried out to test the validity and reliability of the constructs used to measure the research variables. The resulting calculations include loading factor, Cronbach’s Alpha, CR, AVE, R square, F square, Q square, VIF, model fit.
Based on the results of validity testing as shown in Table 1, it is known that all research construct indicators have loading factors >0.7. These results indicate that all indicators used in the research are valid. The smallest loading factor value is 0.788 (TB4) and the largest is 0.915 (FE2), so that all factor loadings are greater than 0.7. The smallest Cronbach's Apha value is 0.784 (Trust in the Platform) and the largest is 0.949 (customer engagement), while the lowest CR value is 0.874 (Trust in the Platform) and the largest is 0.957 (customer engagement). Then the Inner Model Analysis (Structural Model), in the first evaluation of the structural model, the results of the coefficient of determination are discussed which are shown in Table 2.

The results of calculating the coefficient of determination (R square) as presented in Table 2 for the endogenous/dependent variable purchase intention obtained $R^2 = 0.643$. These results show that 64.3% of the variation in the purchase intention variable is influenced by customer engagement. Meanwhile, for the customer engagement variable, the coefficient of determination was obtained at 0.648, which means that 64.8% of the variation in the purchase intention variable is influenced by trust in community members.
trust in broadcaster, trust in product, trust in the platform, perceived value, and flow experience. Table 3, the results of the Q square predictive relevance calculation are presented to show how good the prediction of the resulting observation value is.

<table>
<thead>
<tr>
<th>Endogenous Variables</th>
<th>Q-square</th>
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<tbody>
<tr>
<td>Purchase Intention</td>
<td>0.451</td>
</tr>
<tr>
<td>Customer Engagement</td>
<td>0.468</td>
</tr>
</tbody>
</table>

Q-Square predictive relevance analysis aims to measure how good the observation values produced by the model and its parameter estimates are. If the Q-square value > 0 indicates the model has predictive relevance, and if the Q-Square value ≤ 0 then the model lacks predictive relevance. Another criterion that can be used is if a Q square of 0.02 has a weak influence, 0.15 has a moderate influence, and 0.35 has a strong influence. Referring to the calculation results in Table 3 above, it is known that the Q square for purchase intention is 0.451 and customer engagement is 0.468. From these results, both have Q square > 0 and ≥ 0.35, so it can be concluded that the models produced for both purchase intention and customer engagement have good predictive relevance.

<table>
<thead>
<tr>
<th>Index</th>
<th>Estimated Model</th>
<th>Cut-Off Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.051</td>
<td>&lt;0.08</td>
<td>Fit</td>
</tr>
<tr>
<td>NFI</td>
<td>0.862</td>
<td>&gt;0.9</td>
<td>Marginal fit</td>
</tr>
</tbody>
</table>

The most important criterion for goodness of fit in Table 4 is SRMR, where if the SRMR value is <0.08 it means the model is fit. The test results obtained SRMR 0.051 in both the saturated and estimated models. Another index is NFI, if > 0.9 it means the model fits well. The results of the test show an SRMR value of 0.051 < 0.08, so it can be concluded that the model has good fit, so that the empirical model is in accordance with the theoretical model.

The description in Figure 2 explains the results of statistical analysis to prove whether the hypothesis is accepted or rejected. The values calculated are the path coefficient (loading factor), t-count and significance or p-value. The results of calculating the path coefficient using SmartPLS software, the results of the direct influence, indirect influence and total influence can be summarized as follows in Table 5.
The results of hypothesis testing show that there are two variables that have a direct effect that are rejected, namely trust in the platform on purchase intention and trust in product on customer engagement. Meanwhile, other variables are accepted. In a mediation relationship (customer engagement), the role of customer engagement does not mediate trust in the product, so this research shows a type of partial mediation. The moderating role is demonstrated by the results of PLS-SEM analysis based on T-count and P-value showing a positive and significant relationship, so that the deal proneness variable moderates the influence of customer engagement on purchase intention. That deal proneness strengthens the influence of customer engagement on purchase intention.

The first hypothesis (H1) in this research is "there is a positive influence of trust in community members on customer engagement". The path coefficient indicating the influence of trust in community members on customer engagement is 0.112 with a p-value of 0.013. Hypothesis The path coefficient value is positive, which describes a straight-line direction, where increasing trust in the community has an impact on increasing customer engagement. Furthermore, the significance or p-value is 0.013 < 0.05, so H1 is supported. Therefore, it can be stated that there is a direct positive influence of trust in community members on customer engagement. This is in accordance with research from Zhao et al.
(2019) as a community, live chat rooms provide a platform for customers to interact with other people through screens in real-time.

The second hypothesis (H2) formulated in this research is "there is a positive direct influence of trust in broadcaster on customer engagement". The calculation results showing the influence of trust in broadcaster on customer engagement obtained a path coefficient of 0.178 and a p-value of 0.003. The path coefficient is positive, which means that increasing trust in broadcasters will increase customer engagement. From these results it is known that the p-value is 0.003 < 0.05, so H2 is supported. Thus, it can be concluded that there is a direct positive influence of trust in broadcaster on customer engagement. In agreement with Liu et al. (2018), trust in broadcasters is a positive driver of customer engagement. Trust has been explored in many studies. The third hypothesis (H3) formulated in the research is "there is a positive influence of trust in product on customer engagement". The calculation results show that for the direct influence of trust in product on customer engagement, the path coefficient is 0.066 and the p-value is 0.120. The path coefficient results are positive, indicating that increasing trust in the product has an impact on increasing customer engagement. Referring to the p-value of 0.120 > 0.05, H3 is rejected. Shows that trust in product does not have a significant direct influence on customer engagement. Trust in product is not in accordance with previous research by Guo et al. (2021) and Park and Lin (2020), which has a positive effect on customer engagement, thereby reducing customers' positive feelings towards the product and reducing their intention to buy and recommend the product to others.

The formulation of the fourth hypothesis (H4) in this research is "there is a positive influence of trust in the platform on customer engagement". The path coefficient indicating the influence of trust in the platform on customer engagement is 0.197 with a p-value of 0.000. A positive path coefficient indicates that the direction of influence is directly proportional, so that increasing trust in the platform has the impact of increasing customer engagement. Next, for a p-value of 0.000 < 0.05, then H4 is supported. Therefore, it can be stated that there is a direct positive influence of trust in the platform on customer engagement. This hypothesis is based on the understanding that the trust that users build towards a platform can be considered an important belief that precedes a positive attitude towards behavior, which in turn increases user engagement with the platform (Zhai & Chen, 2023). The formulation of the fifth hypothesis (H5) in this research is "there is a direct positive influence of perceived value on customer engagement". The results of statistical analysis show the influence of perceived value on customer engagement, with a path coefficient of 0.205 and a p-value of 0.000. The path coefficient obtained is positive, indicating that increasing perceived value has an impact on increasing customer engagement. Referring to these results, the p-value is 0.000 < 0.05, so H5 is supported. Thus, it can be concluded that there is a direct positive influence of perceived value on customer engagement. In accordance with research by Sun et al. (2022), perceived value has a significant positive impact on customer engagement. This refers to consumers' perceptions of the value of information, product quality, shopping time, and efficiency presented in e-commerce live-streaming content.

The sixth hypothesis (H6) formulated in this research is "there is a direct positive influence of flow experience on customer engagement". The calculation results show that for the direct influence of flow experience on customer engagement, a path coefficient of 0.242 with a p-value of 0.000 is obtained. The path coefficient results are positive, indicating that increasing flow experience has an impact on increasing customer engagement. Referring to the p-value of 0.000 < 0.05, then H6 is supported. Thus, it can be concluded that flow experience has a direct positive effect on customer engagement. This is in accordance with Liu et al. (2022), explains that frequent interactions in e-commerce live-streaming make consumers detach from reality and become immersed in the live-streaming environment, resulting in a flow experience.

The seventh hypothesis (H7) formulated in this research is there is a positive direct influence of customer engagement on purchase intention. The results of statistical calculations for the direct influence of customer engagement on purchase intention, a path
coefficient of 0.274 with a p-value of 0.000 was obtained. The coefficient obtained has a positive value, indicating that strong customer engagement has an impact on increasing purchase intention. Referring to the p-value 0.000 < 0.05, then H7 is supported. Thus, it can be concluded that there is a direct positive influence of perceived value on customer engagement. Therefore, it can be concluded that customer engagement has a direct positive effect on purchase intention. The eighth hypothesis (H8) formulated in this research is "there is an influence of customer engagement on purchase intention which is moderated by deal proneness". Based on the results of statistical calculations, a path coefficient of 0.193 with a p-value of 0.000 was obtained. The coefficient obtained has a positive value, indicating that deal proneness strengthens the influence of customer engagement on purchase intention. Referring to the p-value 0.000 < 0.05, then H8 is supported. Therefore, it can be concluded that deal proneness moderates the influence of customer engagement on purchase intention. The results of this research are in line with Flacandji & Vlad (2022), transaction proneness refers to customers' tendency to pursue special offers and promotions.

CONCLUSION
This study highlights that trust in community members and broadcasters has a positive and significant effect on customer engagement and purchase intentions. Trust in a product, while important to purchase intent, does not directly increase customer engagement significantly. Trust in the platform has a positive effect on customer engagement but does not directly influence purchase intention. Perceived value and flow experience also play an important role by influencing both customer engagement and purchase intention positively and significantly. Customer engagement itself has a significant partial mediating role in the relationship between trust in community members, broadcasters, platforms, perceived value, and flow experiences with purchase intentions. Sensitivity to offers (deal proneness) moderates the relationship between customer involvement and purchase intention, strengthening the influence of customer involvement on purchase intention. From the primary data, it was found that transaction frequency has a significant negative influence on purchase intention, indicating that increasing transaction frequency can reduce consumer purchase intention, perhaps due to saturation or selectivity towards offers on the platform. On the other hand, the duration of watching live-streaming positively influences purchasing intentions, indicating that longer viewing of live-streaming can increase consumers' purchasing intentions. Job type also has a significant positive effect on purchase intentions, indicating that job characteristics can influence how willing a person is to make a purchase via live-streaming e-commerce. Overall, these findings underscore the importance of trust, customer engagement, perceived value, and user experience in shaping consumer purchase intentions on live-streaming platforms, with certain factors such as transaction frequency and job type playing additional significant roles in online purchasing dynamics when this.

REFERENCES
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