

A Quantitative Approach to Factors Affecting Generation Z's Purchasing Decisions on Live Streaming Features in E-Commerce

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Abstract: Rapid technological developments have brought about new changes in the digital economy. The live streaming feature in e-commerce is a sign that e-commerce is growing rapidly in Indonesia. This live streaming feature involves various parties, such as influencers who act as streamers, playing a role in explaining and marketing products to build customer trust and influence purchasing decisions, as well as sellers as product providers who are expected to offer high-quality products to enhance customer confidence in those products. This study aims to analyze the factors that influence purchasing decisions in live streaming on e-commerce platforms. This study involved a quantitative method by employing data from the Generation Z population residing in Jakarta, processed using structural equation modelling with SmartPLS version 3.0. This study confirms that streamer interactivity, product quality, and trust have positive and significant effects on Generation Z's purchasing decisions through live streaming features in e-commerce. Interactive streamers can create an engaging atmosphere, build emotional connections, and strengthen parasocial relationships with consumers, which ultimately encourage purchase decisions.

Keywords: E-commerce, Live Streaming, Product Quality, Purchasing Decision, Trust

INTRODUCTION

The rapid development of technology has made a big change in the life of the global community, one of which is in the economic aspect. The development of e-commerce in Indonesia began in 1999 with the birth of the KASKUS Forum founded by Andrew Darwis, followed by Bhinneka.com which became a forum for online buying and selling activities in Indonesia. The emergence of buying and selling sites such as Tokopedia in 2009, Bukalapak 2010, until the peak of competition in 2015. These platforms provided new opportunities for businesses to reach a wider audience and for consumers to shop more conveniently from the comfort of their homes (Wattoo et al., 2025). Then, Indonesians began to move from conventional buying and selling models to online buying and selling (Musjianto et al., 2023).

With the continuous evolution of technology, Live streaming was born as a new form of marketing, becoming a growth factor for e-commerce. The inhibition of offline store operations was the impact of the pandemic in 2020, and became a moment for trading on online platforms to grow rapidly. This live streaming feature is a form of effort to increase sales growth, this feature becomes more attractive if it features celebrities as a form of product promotion (Yang et al., 2024). This feature allows sellers to demonstrate products in real time, interacting with customers interactively. For example, live streaming in the fashion category allows customers to see height or weight fit, fabric and model details, and obtain

immediate answers to product-related questions (Mutambik, 2024). This trend has gained significant attention, primarily from Generation Z (Rana et al., 2024).

Generation Z is the largest generation group in Indonesia with 27.94% of the total population or 74.93 million people. This generation is even bigger than the millennial generation, which is the second largest generation in Indonesia with 25.87% of the total population or 69.38 million people (Heriyanto et al., 2024). Generation Z is the generation born between 1997 and 2012 (Rainer, 2023). Generation Z was born at a time when technology had already advanced, with smartphones already in existence. For example, the adoption of digital technology and increased environmental awareness have created consumption patterns that are vastly different across generations. Generation Z grew up in an era marked by accelerated climate change, social activities, and digital connectivity (D'Acunto et al., 2025).

The atmosphere in e-commerce live streaming plays an important role in triggering consumer emotions, fostering happiness and satisfaction, and influencing their purchase intentions (Zhou & Tong, 2022). It can also stimulate positive emotional experiences, such as curiosity, interest, and enjoyment. This increases consumer value for the products or services promoted in live streaming and reduces the risks or uncertainties associated with those products or services. In summary, the live streaming feature in e-commerce is a factor that has the potential to influence consumers' purchase intentions by creating positive emotional responses and increasing perceived value (Qing & Jin, 2022).

While live streaming has become an influential tool in e-commerce globally, research on the specific factors affecting Generation Z's purchasing decisions in this context, particularly in Indonesia, remains limited. Several international studies have explored the general impact of live streaming on consumer behavior (Zhang et al., 2020; Lee et al., 2021), but these studies often overlook the unique characteristics of Generation Z. Furthermore, the role of factors like trust in influencers, social influence, and interactivity during live streaming has been highlighted in existing literature (Chen et al., 2021), but empirical research focusing on Generation Z, particularly in Indonesia, is sparse. Indonesian studies have started to examine live streaming in the e-commerce context (Addison & Aprilianty, 2022; Ittaqullah, 2025), but it sacrificed on how these factors influence Generation Z's purchasing decisions. Thus, this study aims to fill these gaps by analyzing the factors affecting Generation Z's purchasing decisions on live streaming features in e-commerce to offering valuable insights into their behavior in the Indonesian market.

The rest of paper is provided as follows. The next section provides the method used in this study. Furthermore, the following section provides results and discussions, respectively. The last section ends with the conclusion and limitation.

METHODS

Population and Sample

The population in this study was Generation Z in DKI Jakarta who made purchases using the live streaming feature in e-commerce. Generation Z in DKI

Jakarta was chosen because Generation Z in DKI Jakarta shows a high level of understanding of digital technology and social media. Generation Z is well known as digital natives, which means individuals who were born and raised in the digital technology era and who spend a significant amount of time online. In addition, DKI Jakarta also has many social and economic factors that influence their consumption behavior. The sample for this study was Generation Z in DKI Jakarta who met the following criteria: had shop using the live streaming feature. The sampling technique used in this study was non-probability sampling. According to the latest data from the DKI Jakarta Provincial Statistics Agency in 2020, there are 2,678,252 members of Generation Z living in DKI Jakarta (BPS Provinsi DKI Jakarta, 2024) and with an alpha level of 10%, the number of samples to be used is 272 respondents.

Measurement and Data Collection

The measurements in this study used a Likert scale ranging from 1 = strongly disagree and 5 = strongly agree. The distributed questionnaire contained statements related to the variables under study, namely live streaming characteristics, product quality, trust, and purchasing decisions. Data collection was conducted by distributing questionnaires to respondents, specifically members of Generation Z in Jakarta. A questionnaire is a data collection technique involving the presentation of a series of written questions to respondents for them to answer. The questionnaire used in this study is a closed-ended questionnaire, meaning it contains statements or questions with predefined answer options that respondents can select.

Common Method Bias

Common method bias (CMB) refers to the covariance among variables that is caused by the shared methods used to collect data. Current methods for addressing CMB are insufficient for identifying and correcting CMB and related errors. Consequently, they advocated using procedural solutions to effectively manage CMB instead of relying on these techniques. According to their argument, guaranteeing research participants anonymity and confidentiality of their responses mitigates evaluation anxiety. To mitigate the perceived direct relationship among respondents, psychological distinctions were established by altering the order of the research variables and incorporating demographic profile questions between them (Podsakoff et al., 2003). The Harman single-factor test was used in SPSS to assess CMB. The presence of substantial CMB will lead factor analysis to reveal a single factor that accounts for more than 50% of the covariance in the variables. A principal component analysis without rotation was performed, showing a maximum variance of 41.44%. Consequently, CMB was not considered a threat in this study. Additionally, we employed a full collinearity approach using the variance inflation factor (VIF) to detect evidence of CMB in accordance with the most recent literature.

Data Analysis

In analyzing data using PLS-SEM data analysis techniques, the hypothesis of the research on the influence between independent and dependent variables. Then

it is processed using SmartPLS version 3.0 software or application. This study uses a measurement model and a structural model. The measurement model includes several indicators, including reflective indicator loadings, internal consistency reliability, convergent validity, and discriminant validity. then, in the structural model, there is collinearity (VIF), R^2 value, Q^2 value and f^2 value.

RESULTS AND DISCUSSION

Measurement Model

The reflective indicator loadings are expected to be greater than or equal to 0.708, and the AVE result is expected to exceed 0.5 (Hair et al., 2019). The criterion for testing construct reliability is Cronbach's alpha. If the Cronbach's alpha value exceeds 0.7, the construct can be declared reliable (Hair et al., 2022). A construct can be considered reliable if the composite reliability value is above 0.7 and the HTMT value is expected to be no more than 0.9 (Hair et al., 2019).

Table 1. Result of the Measurement Model

Item	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Characteristic Live Streaming 1	0.794	0.719	0.842	0.640
Characteristic Live Streaming 2	0.807			
Characteristic Live Streaming 3	0.798			
Product Quality 1	0.878	0.712	0.874	0.777
Product Quality 2	0.885			
Trust 1	0.838	0.728	0.835	0.629
Trust 2	0.729			
Trust 3	0.809			
Purchase Decision 1	0.822	0.736	0.851	0.655
Purchase Decision 2	0.799			
Purchase Decision 3	0.807			

Table 1 shows that Cronbach's alpha values exceeding 0.7 are considered reliable, and AVE values exceeding 0.5 are considered valid in measuring the variables. The composite reliability results also show values above 0.7, so the construct can be declared reliable. In addition, Table 2 illustrates the test results with values below 0.9 for variable pairs, indicating that all indicators are discriminant valid.

Table 2. Discriminant Validity (HTMT)

	Trust	KLS	KP
Characteristic Live Streaming (KLS)	0.787		
Product Quality (KP)	0.846	0.857	
Purchase Decision (KPM)	0.767	0.884	0.868

Structural Model

A VIF value of 5 or higher indicate a critical collinearity problem among the construct indicators measured normatively. Ideally, the VIF value should be lower than 3 (Hair et al., 2019). If the value of f^2 is 0.02, it has a small effect; if it is 0.15, it has a moderate effect; and if it is 0.35, it has a large effect, and if the Q^2 value is greater than 0, it indicates that the PLS path model has high predictive power (Hair et al., 2022). Based on the test results in Table 3, which show that all results have values below 5, it can be concluded that there is no multicollinearity between variables. Then, from the R-square results in Table 3, it shows that the characteristics of live streaming, product quality, and trust influence purchasing decisions with an R-Square value of 0.522, which is classified as moderate. This R-square result indicates that 52.2% of the variability in the purchase decision construct can be explained by the variability in live streaming characteristics, product quality, and trust. The remaining 47.8% is explained by other variables. Then for f^2 , it shows that live streaming characteristics have a moderate influence, while product quality and trust have a small influence on purchasing decisions. Based on the data in Table 3, it can be seen that the Q^2 value for the PLS path model has high predictive power.

Table 3. Result of the Structural Model

	Original Sample	T statistics (O/STDEV)	P values	VIF	f^2	R ²	Q ²
Characteristic Live Streaming <-> Purchase Decision	0.356	4.880	0.000	1.384	0.151	0.522	0.494
Product Quality <-> Purchase Decision	0.301	3.504	0.000	1.411	0.100		
Trust <-> Purchase Decision	0.185	2.398	0.008	1.419	0.042		

Discussion

Based on these results, H1 is accepted. The streamer's appeal on the interactive side makes the live streaming atmosphere more interesting and fosters positive emotional attitudes. The more interactive the streamer is, the more it influences purchasing decisions because the streamer's communication style can build a parasocial relationship with consumers, thereby fostering trust in the product being promoted. As in the studies by Lawrence and Meivitanli (2023) and Shi et al. (2024), if consumers find the streamer entertaining and interesting, it has a positive influence on purchasing decisions. In the study by Yang et al. (2024), it was also found that high interactivity is one of the key factors influencing consumer purchasing decisions. This is further supported by the study Harahap and Wahyuni (2024), which found that interactivity has a positive and significant influence on purchasing decisions. This is because streamers build high levels of interaction in online sales through TikTok Live Streaming and successfully

stimulate customers' cognitive and emotional states, ultimately influencing their purchasing decisions.

Product quality has a positive effect on purchasing decisions. This can be seen from the p-value of 0.000 with a confidence level of 95%. Based on these results, H2 is accepted, as one of the best strategies for business development is to provide high-quality products. When customers watch live streams and see streamers explaining how the quality of the products, they will receive will influence their purchasing decisions. As in the study by Sofya and Purwanto (2021), which found that product quality positively influences purchasing decisions, meaning that if a product has good quality, it can increase purchasing decisions. There are also studies Lisdiani and Annisa (2022); Mumin et al. (2024) that show product quality positively influences purchasing decisions, as good product quality can meet customer expectations and differentiate the product from competitors, thereby increasing customer appeal to purchase the product.

Trust has a positive effect on purchasing decisions. This can be seen from the p-value of 0.008 with a confidence level of 95%. Based on these results, H3 is accepted. The better the explanation and communication from influencers, the more it increases consumer trust. This is because sellers currently use influencers as the face of live streaming and as the gateway to their sales activities. Therefore, when influencers can explain products effectively and their communication is well-received by consumers, it fosters trust and influences purchasing decisions. As in the study by Angelina et al. (2022), which found that trust has a positive influence on purchasing decisions. Another study Hanaysha et al. (2025) also found that trust has a positive influence on purchasing decisions, as trust is crucial in building relationships between buyers and sellers, and trust also represents consumers' perceptions of the object, its attributes, and its benefit.

According to the results in Table 3, all variables in this study are influential factors in Generation Z's purchasing decisions regarding live streaming features in e-commerce. E-commerce provides consumers with unlimited access regardless of time and place. E-commerce plays a role as a medium that facilitates lifestyle-based purchases and also provides opportunities for companies to develop product and service innovations that are more in line with consumer lifestyle trends and preferences. By utilizing consumer data collected from e-commerce platforms and live streaming, companies can identify market trends, analyze purchasing preferences, and predict growing market demand. This can be a plus in marketing strategies because products can be better tailored to consumer needs and market trends, as well as improve service quality. The ease of e-commerce accessibility has changed consumer behavior by providing flexibility, wider access to products and services, and a faster and more convenient shopping experience. Modern lifestyles play an important role in shaping consumer behavior. Consumer behavior in e-commerce is not only driven by practical needs but also influenced by emotional and social factors, which they can obtain through live streaming features.

The theoretical implications of this research are emphasizing live streaming characteristics that have not been examined in previous studies. This study focuses on streamer characteristics related to interactivity in live streaming, as previous studies have only focused on transactions in e-commerce. This variable has

important implications for marketing strategies in e-commerce because interactivity can play a role in providing cognitive and emotional stimuli to consumers, thereby influencing their purchasing behavior.

The government needs to actively support the development of e-commerce through supportive regulations, socialization of digital marketing training, and development of digital infrastructure. This will enable digital economy players to improve accessibility, efficiency, and sustainability in the world of e-commerce, which will also support national economic recovery. The practical implication for e-commerce is to continue developing the latest features in e-commerce to provide convenience and effectiveness in conducting transactions. Interactive features such as interactive chat, real-time reviews, and live product demos can be added and saved in the product details section. Live streaming users can use the live streaming feature to enhance their shopping experience and make it more interesting. Utilize live streaming to obtain quality products, learn more about product details, and find solutions to problems that often arise when purchasing products online. In addition, live streaming influencers can maximize this feature to enhance communication and interaction with customers in order to build trust in the products or brands being promoted.

CONCLUSION

This study demonstrates that purchasing decisions among Generation Z in e-commerce live streaming environments are significantly influenced by three key factors: live streaming characteristics, product quality, and trust. Among these, live streaming characteristics, including interactivity, communication style, and the ability of streamers to create an engaging atmosphere, emerge as the most influential factor. These elements enhance consumers' emotional involvement and foster social relationships, which in turn stimulate stronger purchase intentions. Product quality also plays a critical role, as consumers rely on live demonstrations and explanations to evaluate whether products meet their expectations, thereby reinforcing their willingness to purchase. Trust, although comparatively smaller in effect size, remains an essential determinant, as it reflects consumers' confidence in both the product and the information delivered during live streaming sessions. The findings imply that successful e-commerce strategies should not only focus on offering high-quality products but also on optimizing live streaming performance through engaging and credible streamers.

This study has limitations that should be considered by future researchers. The limitations of this study are that the population used only focused on Generation Z living in DKI Jakarta. The variables used were only live streaming characteristics, product quality, trust, and purchasing decisions. With the use of the SmartPLS methodology. Recommendations for future researchers include using populations other than Generation Z living in DKI Jakarta, and employing research variables beyond live streaming characteristics, product quality, trust, and purchasing decisions. Other variables such as brand image, influencer popularity, and personal charisma can be used as variables for further research.

Authors Contribution

A. P. S = Conceptualization, research design, data collection, data analysis, writing – original draft preparation, and manuscript revision; R. R = Conceptualization, methodology development, supervision, manuscript editing, and final review of the manuscript.

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Competing interests

The author has declared that there are no conflicts of interest

Data availability

The data were provided upon reasonable request to corresponding author (rizka.ramayanti@univeristas-trilogi.ac.id)

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