Increasing Customer Live Streaming Engagement in Online Shopping Platforms

Phebie Carissa Hartono[1*]; Cynthia Susanty Priyana[2]; Marleen Levia[3]; Evi Rinawati Simanjuntak[4]

[1] *phebie.hartono@binus.ac.id, BINUS Business School, Indonesia*
[2] *cynthia.priyana@binus.ac.id, BINUS Business School, Indonesia*
[3] *marleen.levia@binus.ac.id, BINUS Business School, Indonesia*
[4] *esimanjuntak@binus.edu, BINUS Business School, Indonesia*
*) Corresponding Author

ABSTRACT

Nowadays, small business entrepreneurs use a new marketing tool to promote their products. This tool is named Live streaming.

Objectives: *This study aims to help online shop owners maintain customer live-streaming engagement so it can enhance viewers' participation through live-streaming commerce.*

Methodology: *This study used quantitative data, utilizing a survey methodology and employing Indonesian citizens as the research's object. Respondents were obtained through Google form with 225 respondents to be analyzed using PLS-SEM. Variables were measured using a Likert scale.*

Finding: *The result of this study suggests that interactivity, informativeness, and personalization correlate with customer engagement in live-streaming commerce.*

Conclusion: *This research shows how to make a live streaming engagement using e-commerce which was influenced by interactivity, a response to an interaction between subscribers and streamers during live streaming. In addition, there is also informativeness that affects customer live-streaming engagement which is seen from the information provided by the streamer to customers. There is personalization which also affects live-streaming commerce. Future studies can be done in other countries by using the enormous shopping platform in their country with specific shopping platforms, specific sectors (fashion, electronics, food, and others), and measure customer live-streaming engagement using attractiveness because not many papers discuss this topic in Indonesia. Future studies also can distribute more questionnaires for more relevant and valid results and also add more factors like the increase in customer engagement in purchase intention or value co-creation.*

Keywords: *customer live-streaming engagement, interactivity, informativeness, personalization.*

INTRODUCTION

The Indonesian market has been changing rapidly into the era of online shopping and the internet has been the most significant factor in these changes (Hasanah & Aziz, 2022; Kusmaharani & Halim, 2020). Like in other countries, many prominent online shopping platforms are also rising (Santy & Iffan, 2023). Here are the most comprehensive online shop platforms in Indonesia: Shopee, Tokopedia, Lazada, Blibli, and JD.ID, etc. Although shopping online gives lots of benefits, people still prefer shopping in-store because they can try and see the product directly. Compared with shopping online where customers can't see the actual product, this often leads to disappointments, such as the product that arrived didn't meet their expectations, fake branded, low quality, different colors, etc. Due to this, clients have less faith in independent vendors than in huge and well-known companies (Jarvenpaa et al., 2000; Yao-bin et al., 2006).

Therefore, online store platforms and social media provide live-streaming commerce as their new marketing features. Live streaming commerce which is on social media or online store platforms is a new way to show product directly to the viewers, how it is used, worn and presenting various aspects of products that can clarify any areas of customer confusion, answer customer questions in real-time, and show live activities that stimulate immediate customer purchase (Kang et al., 2021; Liu et al., 2021). Live streaming platforms are helping potential customers to see the overall products (Guo et al., 2022).

The advantage of online stores and social media that provide live streaming services is that it can increase trust and curiosity from the consumer because they can see the product or service that was provided, so it can convince them that the product they sell is exactly like the description. Live streaming can also be interactive so the audience can ask about the product that they are interested in. The demand for live-streaming commerce is increasing nowadays and it has become the most popular e-commerce as a place to interact between sellers and customers. This is because live streaming offers real-time interaction where viewers can ask questions through comments that can be seen directly by streamers and other viewers so that streamers can immediately react to these comments efficiently (Hou et al., 2019).

Customers can communicate with the streamer and other viewers in the community of real-time live streaming. Live streaming contributes to the value of online shop platforms and SNS; Instagram and Tiktok are implied as SNS by supporting online communities (Lu et al., 2018; Wongkitrungrueng & Assarut, 2020). Especially, where the streamer acts as an information source by giving exciting content to the potential customer (viewer). Such live streaming facilitates social contact and presence can improve the shopping experience by lowering uncertainty and boosting customer confidence in online retailers (Hajli, 2015).

Good live-streaming commerce will lead to engagement between the viewer (potential customer/ customer) and streamer (a person representing a store or a brand of online shop that does live streaming) which is called customer live-streaming engagement. Factors influencing customer live-streaming engagement can also depend on a few factors. Despite the importance of developing live-streaming engagement, there is still a limited understanding of how to promote customer engagement. This paper focuses on three factors influencing customer live-streaming engagement: interactivity, informativeness, and personalization.

Prior studies on interactivity focused on the origins of customer engagement (Kang et al., 2021; Liu et al., 2021; Ul Islam & Rahman, 2017; Arief, H., 2022) mainly comes from the customer side like trust, utilitarian motive, hedonic motive, commitment, etc (Busalim et al., 2021; Guo et al., 2022; Wongkitrungrueng & Assarut, 2020; F. Yu & Zheng, 2022). In this study, we divide the factors that influence customer live-streaming engagement from two sides: First, from the streamer itself (interactivity and informativeness) and second, from the customer side (personalization). Most previous studies only discussed one side which is mainly from the side of the customer (Guo et al., 2022; Hu & Chaudhry, 2020; Wongkitrungrueng & Assarut, 2020; F. Yu & Zheng, 2022). Prior studies tended to concentrate more on the social commerce scenario (Bazi et al., 2019; Nadeem et al., 2021; C.-H. Yu et al., 2020).

Informativeness consists of facts and descriptions comprehensively shared by the streamer accurately to reducesomeone's curiosity. This paper argues that informativeness is vital in live-streaming engagement. We also argue that personalization can affect live streaming engagement. Personalization contributes to constructing value perceptions by supporting clients in understanding how a service will benefit them (Alimamy & Gnoth, 2022; Iacobucci et al., 1995; Tian et al., 2001). Live streaming with personalization can fill the viewer's needs and fit the viewer's interest. In this paper, streamers represent an online store or a brand. The interaction between streamers also represents the interaction with the online store or a brand.

This journal aims to encourage online shop owners to engage with the customer. Based on earlier research, this study aims to develop a new model investigating factors that affect customer live-streaming engagement from both customer and streamer factors. Further, we consider the moderating effect of various live-streaming genres in the online shopping platform and SNS in the influence mechanism of customer live-streaming engagement.

LITERATURE REVIEW

Social Exchange Theory

Social exchange is a short and long-term relationship where tangible resources (i.e., money) and intangible resources (i.e., social support) are exchanged (Blau, 1964). The social exchange of tangibles and intangibles is referred to as a social exchange process in the social exchange theory. This theory was used to illuminate numerous circumstances and behaviors. An example of social exchange is the reciprocal process between interaction partners (Adams, 1963). For instance, the receiving exchange partner would reciprocate a transaction of tangible or intangible resources at a future stage (Wang et al., 2021).

Although researchers have examined creativity from numerous theoretical angles (Ali et al., 2021; Klasmeier & Rowold, 2020; Santos et al., 2015; Tu et al., 2019), due to the social nature of invention (Amabile et al., 1996; Grosser et al., 2014; Perry-Smith & Shalley, 2003), utilizing enterprise social media, the theory of social exchange offers a valuable lens for examining social exchange activities amongst organizational members that ultimately foster employee innovation.

Live streaming commerce

Living streaming commerce is a new method to influence customer purchase intention through e-commerce by using social media that supports online transaction interactivity and enriches consumers'knowledge through online shopping (Kang et al., 2021; Liang & Turban, 2011; Shen

& Eder, 2011). Live streaming commerce is becoming the most popular e-commerce system for interaction between sellers and customers. This is because live streaming offers real-time interaction where viewers can ask questions through comments that can be seen directly by streamers and other viewers so that streamers can immediately react to these comments efficiently (Hou et al., 2019).

For the customer to follow and watch the live streaming commerce, we need customer engagement on live streaming commerce. Live streaming commerce also becomes a platform that provides all the potential information customers need regarding the products offered. This paper will discuss customer live-streaming engagement and what factors support it.

Interactivity

Interactivity is a conceptualized stimulus that is important in online advertising (Fortin & Dholakia, 2005; Kang et al., 2021; Sheng & Joginapelly, 2012) because it can stimulate customer psychology indirectly (Kang et al., 2021). The interaction level between two people's reciprocal communication is called "interactivity" (Bonner, 2010; Kang et al., 2021). Especially between a customer and seller mediated with digital technology, interactivity becomes faster and more effective (Hamdani et al., 2023; Hou et al., 2019). Interactivity is also the key to online communication (Hou et al., 2019). It has also become a characteristic of modern e-commerce which is expected to change customer manners, opinions, and attitudes so that this interactivity will continue (Busalim et al., 2021).

Direct interaction between customers and sellers during live streaming can reduce the distance between customers and sellers. Streamers can also answer customer questions directly during live-streaming broadcasts which can't be done only by using an online shop's chat tools. In live streaming broadcasts, customers can also ask streamers to show products in detail from various angles to convince customers.

Previous papers have discussed a lot about interactivity in various situations. In this study, we only focus on the interaction between streamers and customers when live-streaming commerce is carried out to create a special bond between customers and streamers of a store during live streaming.

Informativeness

Informativeness is looking for information, advice, or opinions for changing and receiving real-time information (Vlachvei et al., 2021). Information sharing requires psychological openness to disclose and exchange private information and knowledge (Wasko & Faraj, 2005). Information sharing is the primary motivation for engaging in social commerce (Li et al., 2018). Content that provides information about special offers, discounts, and other promotions is intended to attract customers and increase customer engagement (Verlegh et al., 2013). Live streaming activities that provide accurate, helpful, and comprehensive information will be considered informative (Yadav & Rahman, 2017). This information is usually offered and contains creative and innovative content. In addition, Tsai & Men (2014) and Pletikosa Cvijikj & Michahelles (2013) describe how companies create live-streaming videos to communicate informative posts and entertain users to encourage active interaction between consumers and streamers during live streaming.

Personalization

Personalization is the act of adjusting communication or an experience based on information from a company that learned about an individual. Personalization of services, products, and communications has gained prominence in marketing practice and theory due to the increased interest in one-to-one marketing over the past decade (Ball et al., 2006). One store or brand will be doing live streaming based on the viewer's personalization or request. Nevertheless, there hasn't been enough research to measure and estimate how personalization affects other key theory concepts (Day & Montgomery, 1999), especially in the relationship of viewer personalization in the marketing context of live-streaming commerce as a new platform in the online shopping industry.

When marketers have the means to employ personalization for a competitive advantage, it is a feature of all goods and services (Ball et al., 2006). For example, A company offers a wide variety of colors in a product to match customers' preferences. Not only products but now all kinds of services provided by a company are also given according to their customer's personalization, offering the customer a wide variety of options, including legal service (entirely personalized) and live streaming commerce without exception also made according to the viewer's personalization. The part of the marketing mix can be personalized in its products and services, pricing, distribution, and the promotion of Amazon.com and other websites (Ansari et al., 2000; Ansari & Mela, 2003; Ball et al., 2006) which uses individualized product recommendations to market its goods better effectively.

Customer Engagement

Customer engagement is the term for the emotional bond that exists between a client and a brand. Customer engagement changes the attitude of psychology that encourages someone emotionally to invest in a product/brand (Busalim et al., 2021; Thakur, 2018; Wongkitrungrueng & Assarut, 2020). Customer engagement is a psychological condition when customers use an interactive platform (Busalim et al., 2021). It depends on the degree of the client's relationship with the brand in terms of product purchases, social media activity, client closeness, and impact over time (Achmad et al., 2022; Safko & Brake, 2009). It is relevant for understanding customers' initial brand experiences in computer-mediated environments because of its context-dependent character (Bowden, 2009; Hollebeek, 2011; Mollen & Wilson, 2010; Sawhney et al., 2005).

Effect of Interactivity on customer live streaming engagement

In this study, we propose how interactivity affects customer engagement through live-streaming commerce and ultimately affects engagement with a particular product or brand. In previous studies, it was assumed that interactivity contributed to high-quality interpersonal communication during live streaming. According to Social Exchange Theory, when a person receives a response from another person, they feel appreciated for the time and effort others give. This process makes viewers feel like they can reach and know the streamer and freely comment in real time (Hou et al., 2019).

This balance positively affects customer trust in online communities (Kang et al., 2021; T. Lee, 2005). Through this interaction, customers can get to know the streamer better because sometimes they can see the streamer's natural face and personality. Businesses that offer high interactivity in specific environments will form customer engagement because customers feel they can control the medium and request exciting content to be streamed (Busalim et al., 2021).

In live streaming broadcasts, customers can ask streamers to show products in detail from various angles and reduce their purchasing doubt.

H1: Interactivity has a positive effect on customer live-streaming engagement.

Effect of Informativeness on customer live streaming engagement

Using video with audio in live-streaming commerce can be a form of visual information used by brands to provide informative information to customers that can increase customer engagement in live-streaming. Information that is accurate, useful, and complete is referred to as informative (Yadav & Rahman, 2017). Informative content or messages provided by brands to customers will increase customer engagement with the brand (Shareef et al., 2019). Informative content can increase customer engagement even more so that it generates likes, comments, and during live streaming (Aydin, 2019; Kitirattarkarn et al., 2019; Pletikosa Cvijikj & Michahelles, 2013). Visual information provided in a video along with audio gets a better response from customers (Kusumasondjaja, 2019). This can trigger customers to engage with the brand (Nedra et al., 2019; Vlachvei et al., 2021). So, we hypothesize:

H2: Informativeness positively influences customer live-streaming engagement.

Effect of Personalization on customer live streaming engagement

Personalization is a crucial component of internet business since it fosters client interaction (Blasco-Arcas et al., 2016; Kwon & Kim, 2012; J. Lee et al., 2012). In this paper, we will discuss implicit personalization, the degree to which an e-retailer's live streaming can identify the customer and then modify the selection of goods, services, and shopping experiences during the broadcast of live-streaming commerce for the viewer's interest. The user of the tools to interact with other viewers or the streamer offered in the live streaming platform engages in explicit personalization (Blasco-Arcas et al., 2016; Fan & Poole, 2006; Hearst, 2009). The tools provided in the live streaming enable the viewer to foster the customer's capacity to design the offering (Bendapudi & Leone, 2003; Etgar, 2008).

This viewer personalization enables the viewer (customer) to acquire more information they want to hear or need, picture it, and as a result, foresee the potential value derived from the offering's future use (Blasco-Arcas et al., 2016) and may also increase the live-streaming engagement. Live streaming provides personalization-related cues to promote customer engagement by giving the viewer an experience to customize their choices of products, content, and services they prefer (Blasco-Arcas et al., 2016). As a result, customer personalization acts as a source of learning by both sides in a virtual environment and may improve customer live streaming engagement between the viewer and streamer.

H3: Personalization positively influences customer live-streaming engagement.
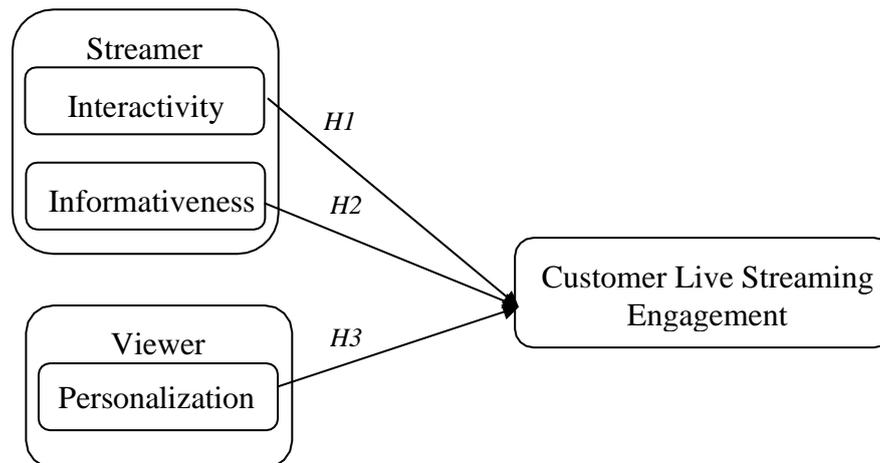
Figure 1. Theoretical Framework
Source: Prepared by Authors

METHOD

A. Measure

This research focuses on live-streaming commerce. The variables in this study will be measured using a Likert scale with a 5-point scale from 1 = strongly disagree to 5 = strongly agree. The Likert scale has been widely used in previous studies. This measurement is taken from pre-existing research and adapted to the context of live-streaming commerce. Four questions regarding interactivity were taken from Chen & Lin (2018). Three questions regarding informativeness were taken from Kim & Park (2013). Six questions regarding personalization were taken from Alimamy & Gnoth (2022). Finally, four questions regarding customer live-streaming engagement were taken from Wongkitrungrueng & Assarut (2020). It is recommended that the number of samples is ten times or greater than the number of questions (Sekaran & Bougie, 2016). From a total of 16 questions, we will use 230 samples.

B. Data Collection

This study used quantitative data that was calculated and collected after the participants answered several questions (Sekaran & Bougie, 2016). The source of data is derived from primary data. The primary data used in this study is the result of a survey in the form of a questionnaire distributed to the public. The sampling technique uses purposive sampling, namely, all Indonesian citizens who have watched live-streaming commerce events at least once on any platform. The population of this study has Indonesian citizenship from more than 17 years old and already has an Indonesian citizen card (KTP) which is already considered an adult and can take responsibility for their actions.

Indonesian citizens who are not yet 17 years old or have never participated in a live-streaming event will be automatically eliminated and not included in this study.

Respondents will be given a questionnaire with various questions related to existing variables and hypotheses which will be distributed online across Indonesia. Respondents will assess customer live streaming engagement as the dependent variable, interactivity as the first independent variable, information as the second independent variable, and personalization as the third independent variable. Because live-streaming commerce is still relatively new in

Indonesia, we filter questions first to ensure all respondents have watched live-streaming commerce before.

From the 262 respondents who filled out the questionnaire, 225 valid data were obtained. The questionnaire was declared valid and acceptable if the respondent filled out all the questions in the questionnaire.

C. Data Analysis

This study examined the construct-level hypotheses using partial least squares structural equation modeling (PLS-SEM) to analyze the data gathered. In many different study domains, including IS, PLS-SEM is frequently employed as a multivariate approach (Busalim et al., 2021; Hair et al., 2017; Urbach & Ahlemann, 2010). In theory-building research, PLS-SEM largely analyzes the variance in the PLS-SEM or partial least squares structural equation modeling. This was employed in this investigation for validity tests, reliability tests, and statistical calculations. The PLS-SEM application has been widely used in previous studies. In several study disciplines, PLS-SEM is employed as a multivariate approach (Busalim et al., 2021). This study uses PLS-SEM because PLS-SEM can help analyze data regarding the factors that affect customer engagement. In addition, PLS-SEM can analyze the constructed model which can be applied to research with a small sample.

RESULTS AND DISCUSSION

Results

A. Measurement model assessment

By computing individual loadings, composite reliability scores, Cronbach's alpha, and AVE (average variance extracted), the measurement model was estimated (for a summary, see Tables 2 and Tables 3). To assess the reliability of individual items, individual item loadings must have a number above the suggested threshold is 0.6. According to Table 2, each item loading for the final measurement items is greater than 0.6. For all latent variables, the internal consistency is determined by composite reliability and Cronbach's alpha values which is more than 0.7 (Busalim et al., 2021).

The thresholds for Cronbach's Alpha; AVE; and CR values are 0.7; 0.5; 0.7, respectively (Fornell & Larcker, 1981; Hair et al., 2013). A reliability test is used to test consistency and stability (Sekaran & Bougie, 2016). The reliability test used in this paper is Cronbach's Alpha Test. Internal consistency reliability can be tested adequately using Cronbach's alpha. Reliabilities test results below 0.60 are considered poor, those between 0.70 and 0.80 are acceptable, and those over 0.80 are considered good (Sekaran & Bougie, 2016). The AVE was calculated to evaluate the convergent validity; AVEs were calculated for all components greater than 0.5 and the variables CLE and VCC had AVEs over 0.6, indicating that the latent variables can explain more than 50% of the variation of the indicators. Considering that the stated AVE value is more than 0.5, this is regarded as appropriate validity (Fornell & Larcker, 1981). The discriminant validity of a construct is tested using the AVE to determine whether it is unique from other constructs (Fornell & Larcker, 1981). To develop sufficient discriminant validity criteria, each concept should be more strongly correlated with its construct than other constructs.

The findings in Table 4 demonstrate that the off-diagonal elements (correlations among

constructs) include diagonal elements (the square root of the AVE retrieved between the constructs and their measures) that are more than 0.5, indicating a respectable level of discriminant validity. Table 3 shows that the standardized Cronbach's Alpha and CR values are higher than 0.7 and the CR values are higher than 0.8. The outcomes of the measuring model show that all the items' loading is more than 0.6.

B. Structural model and hypothesis testing

The structural model is the following stage to test the inner model after measurement model evaluation. This study uses 225 valid respondents that shown in Table 1. From the valid results, the results of this study used bootstrapping test into 5000 subsamples as recommended (Hair et al., 2017), and two-tailed was used in this research.

Table 1. Respondent Profiles

		Frequency	Percentage (%)
Gender	Male	134	60
	Female	91	40
Age	17-22	36	16
	23-28	103	46
	29-34	53	24
	35-40	14	6
	>40	19	8
Length watching live streaming commerce	<30 min	118	52
	30-60 min	93	41
	62-90 min	14	6
	>90 min	0	0
Live streaming platform	Instagram		28
	Tokopedia		19
	Shopee		19
	Lazada		8
	Tiktok		26
Frequency watching in a month	1-3 times	77	34
	4-6 times	115	51
	7-9 times	22	10
	>9 times	11	5

Source: Prepared by Authors

The structural model results are presented in Figure 1. The results of the bootstrapping test demonstrate that four hypotheses in this research were accepted (Table 6). With a coefficient of determination R Square (Table 5) shows 0.516 for consumer live streaming engagement. The final model explains a significant percentage of the variation. Interactivity ($\beta = 0.277$; t = 3,811), informativeness ($\beta = 0.185$; t= 3,269), and personalization ($\beta = 0.384$; t = 5,393) of

live-streaming commerce can positively impact customer live-streaming commerce engagement in support of our hypothesis; H1, H2, and H3.

Table 2. Assessment of Measurement Model (Validity)

	Indicator Loadings	Standard Deviation	T-Statistics
Interactivity			
INT01	0.750	0.046	16.368
INT02	0.742	0.041	17.987
INT03	0.800	0.030	26.384
INT04	0.802	0.033	24.462
Informativeness			
INF01	0.778	0.034	22.628
INF02	0.767	0.038	20.129
INF03	0.777	0.044	17.804
Personalization			
PSN01	0.719	0.039	18.441
PSN02	0.715	0.040	17.906
PSN03	0.828	0.025	33.591
PSN04	0.811	0.022	36.610
PSN05	0.789	0.032	24.673
Customer Live Streaming Engagement			
CLE01	0.853	0.019	43.760
CLE02	0.878	0.015	58.555
CLE03	0.906	0.012	72.772
CLE04	0.824	0.024	33.950

Source: Prepared by Authors

Table 3. Assessment of Measurement Model (Reliability)

	Composite Reliability	Cronbach's Alpha	AVE	Rho_A
INT	0.856	0.776	0.599	0.778
INF	0.817	0.669	0.599	0.671
PSN	0.881	0.831	0.599	0.836
CLE	0.923	0.888	0.749	0.893

Source: Prepared by Authors

Table 4. Discriminant Validity of The Measurement

	CLE	INF	INT	PSN
CLE				
INF	0.658			
INT	0.740	0.718		
PSN	0.752	0.653	0.780	

Source: Prepared by Authors

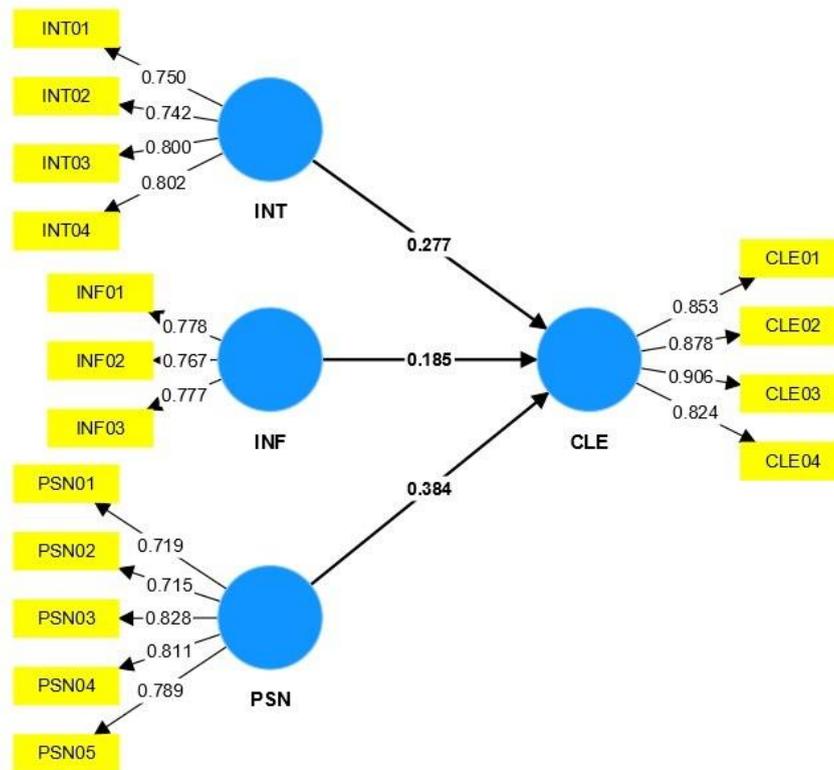The results obtained above the research model and the results in this study can be described in Figure 2.

Figure 2. Result of The Structural Model
Source: Prepared by Authors

Table 5. Coefficient of Determination Testing Result

	R Square	R Square Adjusted
CLE	0.516	0.509

Source: Prepared by Authors

Based on what is presented in Table 5, it can be seen that the R square value in this study is 0.509 for CLE. This result is a moderate result, according to Ghozali (2014), if the R Square value above 0.67 is a good result, and if the result is above 0.33, it can be said that this study shows moderate results. Furthermore, as noted in Table 5 above, the adjusted R square value is 0.516 (51.6%) which means that interactivity, informativeness, and personalization have a combined effect of 51.6% while other factors influence the remaining 48.4%.

Table 6. Hypothesis Testing Results

	Hypothesis	Path Coefficients	Standard Deviation	T-Statistic	P-values	Result
H1	$INT \rightarrow CLE$	0.277	0.073	3.811	0.000	Supported
H2	$INF \rightarrow CLE$	0.185	0.057	3.269	0.000	Supported
H3	$PSN \rightarrow CLE$	0.384	0.071	5.393	0.000	Supported

Source: Prepared by Authors

This study uses a significance level of 5%. According to Hair et al. (2017), if a hypothesis's T-statistic value is greater than 1.96 and its significance level is 0.05, it will be considered valid. The hypothesis is not supported if a hypothesis has a T-statistic value < 1.96 and a significance value > 0.05. Based on Table 6 regarding the hypotheses testing results, H1 is supported. This finding is in line with Busalim et al. (2021) that revealed interactivity has a positive effect on customer live-streaming engagement. H2 is supported, a previous study revealed that customer live-streaming engagement was positively and significantly influenced by informativeness (Kitirattarkarn et al., 2019). H3 is supported and in line with previous findings that revealed personalization positively influences customer live-streaming engagement (Blasco-Arcas et al., 2016). All of the hypotheses are supported because all of the hypotheses have T-statistics >1.96 and P-values < 0.05.

Discussion

A live streaming service that provides practical, fun, and meaningful real-time services that solve the problems of conventional online shopping. This study examines the factors that affect customer live-streaming engagement as a platform to sell products in live social commerce. This study analyzes the relationship between streamer factors, audience factors, and customer engagement. Our findings suggest different mechanisms by which interactivity, informativeness, and personalization affect live streaming engagement.

We found a direct relationship between interactivity, informativeness, and personalization with customer engagement in live-streaming commerce. This result is supporting the previous study about live streaming engagement (Kang et al., 2021; Aydin, 2019; Kitirattarkarn et al., 2019; Blasco-Arcas et al., 2016). Interactivity is a two-way relationship between customers and sellers that can change customer behavior, opinions, and attitudes, and affect customer live-streaming interactions. Personalization is the customer's experience in getting the service that suits them where it can affect the customer's live streaming engagement and the creation of shared value. Informativeness is the streamer being clear by providing accurate and complete information about the product or services they provide. An informative streamer can affect the engagement of customers to watch the live streaming commerce. This result can be seen in Table 2.

CONCLUSION

The goal of this study was to use Blau's social exchange theory to gain a thorough understanding of the variables that influence value co-creation through live-streaming involvement. The findings of this study showed that elements related to live streaming, such as interactivity, informativeness, and personalization have a moderate impact on live-streaming engagement which is supported our prior hypothesis. Individuals who have already interacted with an e-commerce store via live streaming are willing to communicate their demands by making suggestions for personalization and contributions to streamers to improve their live streaming offerings. This outcome is consistent with findings from earlier research by Molinillo et al. (2020) that customization on the part of the viewers has the most effects on live-streaming customers.

Theoretical Implication

This paper contributes various critical theoretical ideas. Being one of the first empirical research that examines live-streaming commerce engagement, it advances the field of online commerce research. Since most of the live-streaming commerce study was done in other Asian countries like China and Thailand, our current research focuses on the Indonesian market as Indonesia is

the fourth most populated country in the world. The comprehensive model of this study provides a basis for future research like value co-creation or purchase intention in e-commerce to extend the effect of increasing customer engagement concept in e-commerce by empirically examining the other potential factors. Previous studies examine the connection between customer engagement and value co-creation in the hotel industry (Nangpiire et al., 2022).

Three elements that support consumer engagement have been identified by the study. The outcome of the hypothesized relationship's analysis demonstrates that the streamer and viewer factors' content-related elements have a favorable impact on customer engagement. According to the study, these three elements are only slightly responsible for client live-streaming engagement on social media or e-commerce platforms. Moreover, those users who engage themselves more in brand-related activities such as communicating with the streamer and watching videos on store SNS increase their engagement with the store and experience a special connection (Kujur & Singh, 2019). Live streaming that offers product and service that can satisfy the customer's needs especially if the product can't be found in other places draw instant attention that influences the users to view the content. As the streaming allows the user to ask a question which then they are provided with complete and detailed information creating an unbreakable bond with the live streaming this process goes further to engage the viewers on a personal level and helps in gaining the idea about what they need to improve their products.

The result of the streamer factors highlights that interactivity and informativeness in the live-streaming platform play a moderate role in customer live-streaming engagement which is consistent with the result of the previous study (Busalim et al., 2021; Hazzam, 2022). The results of this study advance the current knowledge and understanding of live-streaming engagement by showing what customers are looking for in their online shopping. Moreover, the customer is looking for a new experience while shopping online that can pass through the online barrier rather than the traditional marketing that mainly focuses on the purchase intention.

Practical and Managerial Implication
The finding of this paper is consequential to practitioners and e-commerce managers. The model of this study has shown the factors that motivate customers to engage with live streaming. It informs e-commerce streamers of a suitable online environment for their customer that can keep them engaged with the live streaming and prevent customers from switching to another store. This study highlights the crucial factors such as interactivity, informativeness, and personalization to engage customers not only with their online content but also with their products and services mention during the live streaming. Live streaming is not always about selling the products but to build the brand they must engage with customers. In this finding, we encourage e-commerce store managers to do live streaming that can engage the customer to get more value from the brand by sharing product knowledge while interacting with customers during the live broadcast which can open an opportunity for customers to get closer to the brand and also attract new customers. It can also relieve the customer's doubts and also solve the problem that they have during online shopping. Furthermore, this study can also help managers to improve their e-commerce environment to be more communicative and supportive of customer needs by providing better products and services. Moreover, live-streaming commerce can be directed in terms of content creation, quality improvement, and providing an interactive customer experience to encourage live-streaming engagement.

Second, this research provides insight into how sales in online shopping, especially new online stores can promote their store better using the untraditional marketing method by engaging with the customer and creating a customer-centric strategy through live streaming. Live streaming commerce will make it easier for new online stores to be remembered by new customers. Live streaming commerce can communicate and sell the product indirectly to customers. Customers will also prefer this live-streaming because they can see the real product in real-time and ask the sellers directly to show some parts of the products.

In addition, real-time live-streaming commerce can allow sellers to introduce themselves. The streamer's self-introduction to the customer will reduce the possibility of fraud on the goods the customer purchases. Forgery refers to a product that does not match the photo with the actual product. Meanwhile, the live-streaming commerce seller or streamer will show directly that the product is genuine and the quality will be seen in the live streaming held. This can make live-streaming commerce easier for customers to trust because the product can be presented in absolute terms and reduce the difference between the photographed product and the product sent. In addition, this research also provides knowledge about how live streaming is formed to attract more viewers.

Limitations and future work
Certain limitations need to be taken into account in future studies. The present study was limited to Indonesia only, using the biggest Indonesian Shopping e-commerce like Shopee, Tokopedia, and Lazada. Future studies can also be done in other countries by using the enormous shopping platform in their country with specific shopping platforms, especially in Western contexts since customers in North America and China are influenced by e-retail websites differently by their experiential value (Shobeiri et al., 2018). Therefore, live-streaming engagement components can vary across cultures. This study has not discussed the context of live streaming in a specific industry. Future studies can be done in more specific sectors, such as fashion, electronics, food, and others. Future research can measure customer live-streaming engagement using the attractiveness of the streamer and also coupon or discounted price that the streamer gives during the broadcast since not many papers discuss this. In this study, the researchers only provide three factors that can affect customer engagement. Future studies can also distribute more questionnaires for more relevant and valid results and provide more factors that can affect customer engagement from various perspectives, not only from the live streaming process.

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