

# The Influence of Seller's Interactivity on Consumer's Purchase Intention in Live Streaming Shopping in Indonesia

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## ABSTRACT

*Live streaming commerce is a rising phenomenon, with a greater potential to enrich customers' shopping experience. The phenomenon of e-commerce growth in Indonesia that expanded dramatically, may lead to fierce competition among retailers and it is becoming more difficult to produce online purchase intentions among consumers. This study using S-O-R model, that consist of interactivity (responsiveness and personalization) variable as stimuli, customer engagement and trust as organism, to examine purchase intention in live streaming shopping. The research was tested using the PLS-SEM analysis method. A survey is done through an online questionnaire, 300 Respondents fit the criteria that are suitable for the hypothesis testing. This study found that Responsiveness and Personalization have affected Customer engagement and Trust positively and significantly. However Responsiveness and Personalization does not have a significant positive effect on Purchase Intention. Customer Engagement has a significant positive effect on Trust. Trust has a significant positive effect on Purchase Intention. Customer Engagement has a significant positive effect on Purchase Intention*

**Keywords:** Live Streaming, Interactivity, Responsiveness, Personalization, Customer engagement, Trust, Purchase Intention

## 1. INTRODUCTION

Nowadays, online transaction environment grows faster, in the context of live streaming, which is currently emerging in Indonesian e-commerce as

one of the main features for interacting between consumers and sellers in creating purchase intentions. Live streaming commerce is a rising phenomenon, with a greater potential to enrich customers' shopping experience and build virtually social relationships between sellers or streamers, and eventually engage with actual purchase intention (Addo, Fang, Asare, & Kulbo, 2021). The phenomenon of e-commerce growth in Indonesia that expanded dramatically, may lead to fierce competition among retailers and it is becoming more difficult to produce online purchase intentions among consumers (Dabrynin & Zhang, 2019). As a consequence, e-commerce platforms within the competitive environment will face challenges and crises, new opportunities present themselves for the firms that can strategize and adapt fast (Yasin, 2020). One of the ways to obtain a competitive advantage with the recent technology of e-commerce, live streaming seeks an innovative way to capture consumer attention and keep their products and services competitive. The gap in this research will be filled through conducting research from the case's Indonesia live streaming commerce by using the S-O-R model, that consist of interactivity (responsiveness and personalization) variable as stimuli, customer engagement and trust as organism and purchase intention as response. This research will also help to enrich the S-O-R theory and live streaming commerce literature by analysing the relationship between interactivity, popularity, customer engagement, trust, and purchase intentions.

## 2. LITERATURE REVIEW

### 2.1 Stimulus-Organism-Response

The S-O-R framework was found successful in explaining behavioral variances resulting from various marketing stimuli and cognitive factors. The S-O-R paradigm has been used as conceptual framework to investigate how situational cues impact individuals' internal processes and behavioral responses (Zhu, Li, Wang, He, & Tian, 2020). The primary strength of the S-O-R framework is flexibility and includes opportunities to examine various internal and external stimuli; tangible and intangible stimuli; experiential and non-experiential organisms, including attitude, emotion, perception, feeling, judgement, belief, motivation, and thinking, and several response factors, including, intention, behavior, avoidance, and the like (Jacoby, 2002). The final outcome in the S-O-R paradigm is the behavioral response affected by the internal state, which can be classified as either approach or avoidance.

### 2.2 Interactivity

Interactivity is defined as "an expression of the extent that in a given series of communication exchanges". Other definition of interactivity based on four dimensions "the extent to which an actor involved in a communication episode perceives the communication to be reciprocal, responsive, speedy, and characterized by the use of nonverbal communication". There is a strong distinction between interaction and interactivity. As the suffix 'ity' is used to form nouns that denote a quality or condition, interactivity has been defined as the 'quality or condition of interaction'. The distinction between interaction and interactivity is important since interaction may be present in any given setting, but the quality of the interaction varies from low and high (Parsons & Sedig, 2014). Two dimensions of interactivity were identified by previous research: responsiveness and personalization. Many scholars have addressed elements of responsiveness in terms of intensity and richness of the interaction, it also indicated the interactivity level of online communities. Personalization concept enables interactive process for presenting specific needs and designed unique to each customer (Kang, Lu, Guo, & Li, 2021).

### 2.3 Customer Engagement

Customer Engagement is a relationship of marketing component that can be applied in marketing strategies with the aim of attracting, building, and maintaining relationships with customers and potential customers. Customer Engagement is also described by the intensity of a person's participation to carry out activities on the offering of the brand or product (Vivek, Beatty, & Morgan, 2012). Customer engagement has been variously defined as a state of mind, a kind of behavior, and a kind of psychological process. As a state of mind, customer engagement can be generated by a customer's experience. Customer engagement as a marketing activity that is oriented towards customer behavior and psychology. Customer engagement as "customers' behavioral manifestation toward a brand or firm beyond purchase" in live streaming shopping and found that customers' perceived value positively impacts on their engagement in live streaming shopping (Wongkitrungrueng & Assarut, 2018).

### 2.4 Trust

Trust is a consumer's understanding of an object, its attributes and interests. Objects can be products, people, companies, or anything that anyone believes in. Moreover, Trust is the perception of the party who believes (in this case the consumer) to the trusted party (in this case the shop seller) that the seller has characteristics that will benefit consumer (Sangadji & Sopiah, 2013). There are multi dimension of Offline and online trust, it can be differ with respect to generality, the breadth of trust and it extends from general to specific trust; kind, there are slow trust (occurs over time in long term relationship) and swift trust (quickly created and ended); degree, the depth of trust that a person has and it extends from basic to guarded to extended; and stage, the trust development stages (Corritore & Wiedenbeck, 2003). Some of trust principles on the online trust literature are: trust depends on identity, is based on information, is the function of perception of risk, deepens over time and with increased reciprocity, is a matter of degree, first party information is important in developing trust, second party opinions are important in developing trust, and third party ratings are important in developing trust (Daignault, Shepherd & Watters, 2002).

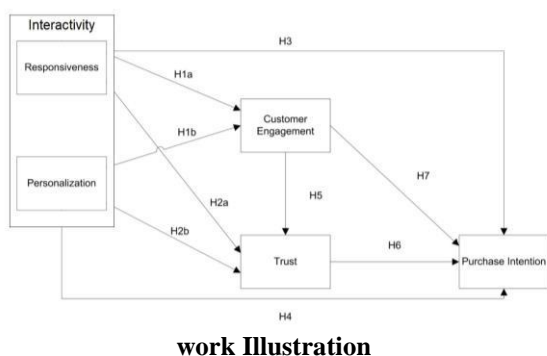
## 2.5 Purchase Intention

Purchase intention is a situation where a consumer tends to buy a certain product or a particular brand in certain conditions (Shah, Aziz, Jaffari, & Waris, 2012). Online purchase intention can be defined as a situation where a consumer is willing and intends to make online transactions with purchase behavior via the internet. This term is used when customers are willing to search, select and purchase products via the Internet. Based on the argument of (Pavlou, 2003) online purchase intention is the situation when a customer is willing and intends to become involved in online transactions. Online transactions can be considered as an activity in which the process of information retrieval, information transfer, and product purchase take place.

## 3. METHODOLOGY

The following is the framework of this research which is taken from the previous research model in the journal “The dynamic effect of interactivity on customer engagement behavior through tie strength: Evidence from live streaming commerce platforms” by (Kang, Lu, Guo, & Li, 2021), also adopted model from journal “Research on the impact of consumer interaction behavior on purchase intention in an SNS environment: evidence from China” by (Chang & Dong, 2014). In this study there are 2 variables forming Interactivity, namely Responsiveness, and personalization; two mediating variables are customer engagement and trust; one dependent variable is Purchase Intention.

**Figure 1.**  
**Frame**



**work Illustration**

## 3.1 Data Collection

Primary data is a firsthand data that gathered to support a new exploration of a related topic. This study was conducted on the Shopee live streaming

platform, which is one of Indonesia’s most popular ecommerce platforms. The author will share the questionnaire as primary data source by opening a live streaming room on Shopee with the aim of distributing questionnaires to respondents. The questionnaire distributed the form of a link that will be connected to the google form. Collecting data and using a list of questions (questionnaires) compiled based on measurements of variables can be said to be quantitative methods (Asikin & Amiruddin, 2010).

## 3.2 Variables Model

The hypothesis was developed based on four major categories that include: Interactivity (include Responsiveness and personalization), Customer engagement, Trust and Purchase Intention. The proposed model and the related hypotheses are drawn from the Stimulus-Organism-Response (S-O-R) model.

**Table 1. Variable and Indicator**

Variable	Indicator
Responsiveness : an involvement of reacting or even anticipating what customers want information.	RE1 : Streamer facilitated two-way communication between herself/himself and viewers RE2 : Streamer show an interest in solving my problems. RE3 : Streamer can answer my questions in time. RE4 : Streamer can answer my requests in time. RE5 : The response of streamers is closely related to my problems and requests. RE6 : Streamer can provide relevant information for my inquiry in time.
Personalization : the information or service is tailored to meet a user 's needs.	PE1 : Personalization is effective in building long-term customer relationships PE2 : Streamers will offer professional suggestions that suit me according to the situation when I browsing products. PE3: Streamer provide me with information on all alternative products I intend to buy PE4: Streamers help me identify which product attributes best fit my needs PE5 : Streamers will provide personalized products or information for my personal needs.
Consumer Engagement: Intensity of a person's participation to carry out activities on the offering of the product.	CE1 : I would interact with the broadcaster and other viewers CE2 : I spend more time on pages that have live video. CE3 : I would encourage friends and relatives to shop from a seller that uses live streaming. CE4 : I would be likely to try and keep track of the activities of a seller that uses live streaming. CE5 : I am likely to revisit the seller's page to watch their new live videos in the near future.
Trust : perception of the customer who believes to the shop seller.	TR1 : I trust that the products I receive will be the same as those shown on live streaming TR2 : I believe in the information that streamers provide through live streaming. TR3 : I believe live streamers in live streaming are trustworthy. TR4 : I believe that I will be able to use products like those demonstrated on live streaming. TR5 : I do not think that streamers would take advantage of me.
Purchase Intention : Purchase intention is a situation where a consumer tends to buy a certain product	PI1 : I intend to purchase products or services through live streaming shopping. PI2 : I will consider live streaming shopping as my first shopping choice. PI3 : Given the chance, I intend to spend money in live streaming PI4 : It is likely that I will spend money in live streaming in the near future PI5 : Given the chance, I predict that I should spend money in live streaming in the future

Five variables tested using a questionnaire with a Likert scale of 1-5 which examines the importance of this variable related to the live streaming shopping experience.

### 3.3 Sampling Method

This study focuses on targeting Indonesian respondents who have an experience of shopping through live streaming feature on Indonesia's e-commerce apps. In considering the number of samples, this study uses the Partial Least Square-Structural Equation Modeling or PLS-SEM data analysis method. According to Hair et al. (2011), the minimum number of samples used for this method is 10 times the largest number of structural paths to latent constructs in structural models or hypothesis testing. This study consisted of 26 test variables, so the minimum number of samples used was 26 x 10, which means a total of 260 samples. This study will take a sample of at least 300 respondents who have at least watched or made purchases through the live streaming feature, in the clothes, shoes, hijab and other complements categories.

## 4. RESULT & DISCUSSION

Data collection was done through an online questionnaire that was distributed to 300 respondents so as to represent the whole population. A total of 331 responses were collected. Among 331 respondents who have participated in the online questionnaire, it was filtered out and deletion was done in order to exclude improper, missing responses, only 300 respondents fit the criteria that are suitable for the main hypothesis testing.

### 4.1 Analysis of Validity and Reliability Test

**Table 2. Validity Test Result**

Variable	Item	Loading Factor	Average Variance Extracted (AVE)	Conclusion
Responsiveness (RE)	RE1	0.714	0.569	Valid
	RE2	0.719		
	RE3	0.748		
	RE4	0.802		
	RE5	0.741		
	RE6	0.798		
Personalization (PE)	PE1	0.704	0.638	Valid
	PE2	0.819		
	PE3	0.816		
	PE4	0.841		
	PE5	0.807		
Consumer Engagement (CE)	CE1	0.786	0.68	Valid
	CE2	0.796		
	CE3	0.881		
	CE4	0.865		

Trust (TR)	CE5	0.791	0.662	Valid
	TR1	0.843		
	TR2	0.818		
	TR3	0.841		
	TR4	0.842		
Purchase Intention (PI)	TR5	0.715	0.672	Valid
	PI1	0.744		
	PI2	0.768		
	PI3	0.844		
	PI4	0.87		
	PI5	0.865		

Based on Table 2, the Loading Factor of every variable are above 0.7, which is acceptable and therefore can proceed to the average variance extracted. Following the Loading Factor, the average variance extracted is also acceptable as they are all above 0.5. After making sure that the results of the Loading Factor and average variance extracted acceptable, the examination continues on to reliability test. As seen on Table 4.9, this indicates that all questions in the questionnaire are valid and that the data is suitable for hypothesis testing.

**Table 3. Reliability Test Result**

Variable	Cronbach's Alpha	Composite Reliability	Conclusion
Responsiveness	0.848	0.888	Reliable
Personalization	0.857	0.898	Reliable
Consumer Engagement	0.881	0.914	Reliable
Trust	0.871	0.907	Reliable
Purchase Intention	0.877	0.911	Reliable

Based on Table 3, the Cronbach's Alpha of the five variables are all above 0.6, which is acceptable and therefore can proceed to the Composite Reliability. Following the Cronbach's Alpha, the Composite Reliability is also acceptable as they are all above 0.7. This indicates that the questionnaire is reliable and that it has a high internal consistency. Therefore, the questionnaire is reliable and the data is suitable for hypothesis testing.

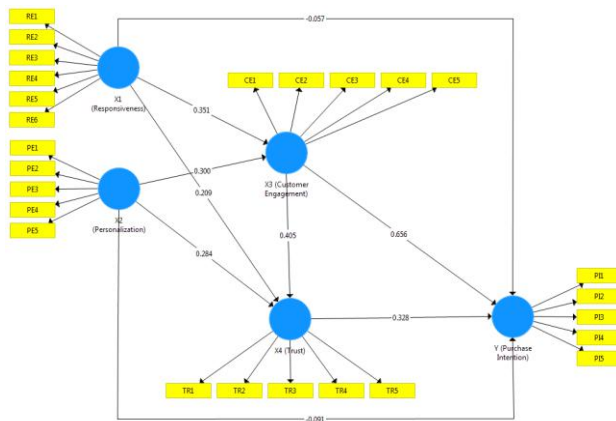
**Table 4. Discriminant Validity Test Result**

	RE	PE	CE	TR	PI
RE	0.754				
PE	0.716	0.799			

CE	0.581	0.569	0.825		
TR	0.663	0.675	0.689	0.813	
PI	0.472	0.461	0.797	0.681	0.82

Based on Table 4, the research variables used have a higher AVE square root result than the correlation between constructs, so that overall the research data can be stated as discriminant valid data.

### 4.2 Analysis of Hypothesis Test



**Figure 2. Hypothesis Framework Result**

Interactivity as an important feature of live streaming shopping are impactful and could be beneficial for seller and also customer, it triggering the customer reaction whether liking, commenting, or continuously participate while the streaming room is available. Based on the results of hypothesis testing (H1a) it is found that responsiveness has a significant positive effect on customer engagement, thus indicating that the rate of response given by the seller affects the occurrence of consumer engagement in live streaming shopping. Responsiveness is closely relate to the degree of exchange of information, moreover in online shopping environment the consumer requests should be response as soon as possible. Based on the results of hypothesis testing (H2a) it is found that personalization has a significant positive effect on customer engagement, thus indicating that the personal interaction and individualize customer experience given by the seller affects the occurrence of consumer engagement in live streaming shopping. Personalization would motivate customers to thumb up, send gifts or comments actively in the

live streaming shopping, and triggering customer commitment.

Trust in live streaming shopping context refer to the consumer believe that seller will behave as promised to create a trusted relationship. The seller should have an integrity when sells the product, such as promised the quality of product, similarity between display product with the real product, the explanation of details in live streaming should be same with the received product. Based on the results of hypothesis testing (H1b) it is found that responsiveness has a significant positive effect on trust, thus indicating that the rate of response given by the seller affects the trust relationship in live streaming shopping. Similar with responsiveness, the results of hypothesis testing (H2b) it is found that personalization has a significant positive effect on trust, thus indicating that the personal interaction and individualize customer experience given by the seller affects the trust relationship in live streaming shopping. This outcome in line with the previous research about dominant factors for online trust, the results stated that interactivity with a trustworthy seller or online vendor should increase consumer trust.

The importance of the purchase experience not only as a transactional stage but should be considered as a social activity that contributes to developing and maintaining meaningful relationships between customers and the sellers. It is not exclusively a transaction in which the participants give a product and/or money; it involves interactions and relationships that generate value. Based on the results of hypothesis testing (H3a), the path coefficients value is -0.057 and T-Statistics value 1.273 (<1.96) means there is no positive influence of responsiveness on purchase intention. Similar result was found on hypothesis testing (H3b), the path coefficients value is -0.091 and the T-Statistics value 1.529 (<1.96) means there is no positive influence of personalization on purchase intention. Altogether the result of (H3a) and (H3b) does not satisfy the hypothesis, interactivity does not have a significant positive effect on Purchase Intention (PI).

Based on the results of hypothesis testing (H4) it is found that customer engagement has a significant positive effect on trust, thus indicating that increasing customer engagement level will have

positive impact to the trust purchase intention in live streaming shopping. Previous research shows exploring customer relationships beyond purchase, the research indicates positive interactions in customer engagement relationship contribute to trust in exchange relationship

Hypothesis testing (H5) found that trust has a significant positive effect on purchase intention, thus indicating that higher trust level will generate more purchase intention in live streaming shopping. This outcome inline with the previous research about evidence from apparel consumers, stated that Trust has a strong positive relationship with Purchase Intention. This finding confirms the literature that a positive relationship between Trust and Purchase intention exists. Combining together with the previous hypothesis testing of interactivity and trust (H1b and H2b), it shows trust as an mediate variable between interactivity and purchase intention in live streaming shopping. Trust is a feeling of security held by the consumer that the other party will meet his or her expectation, while interactivity involves product-related stimuli and social psychological stimuli, involvement has often been regarded as one of the important moderators that determine purchase decisions.

In a virtual shopping environment, customers can more easily experience a state of pleasure when they are in immersed they will more actively participate in shopping activities and directly influence their purchase intention. Based on the results of hypothesis testing (H6) it is found that customer engagement has a significant positive effect on purchase intention, thus indicating that increasing customer engagement level will have higher consumer purchase intention in live streaming shopping. A research on social commerce platforms, the results stated significant impacts on live streaming shopping engagement, which is positively associated with customer purchase intention.

## 5. CONCLUSION

Through this research, it can be concluded that the fulfillment of interactivity, namely responsiveness and personalization, through customer engagement and trust are crucial in generating purchase intention towards live streaming shopping. In order to increase customer engagement and trust, it is important for sellers to

increasing the interactivity between seller-consumer or consumer-consumer. However, the outcome of interactivity towards purchase intention might differ for both direct and indirect relationship. Direct relationship between interactivity and purchase intention does not have a significant positive effect, there should be another variable between them. Hence, indirect relationship through customer engagement and trust plays an important role to motivated consumers increasing their level of interactivity and purchase intention. This is in line with the S-O-R framework, where the Stimuli factor (interactivity) cannot have a direct relationship with the Response factor (purchase intention), but requires the Organism factor (customer engagement and trust) to connect the framework. Live streaming sellers' must focus their efforts towards increasing interactivity, customer engagement and trust in order to generate consumers purchase intention. This opportunity exists due to reasons consumers preferred shopping through live streams rather than traditional online shopping, in the way were product demonstration, product information, the excitement about the novelty of shopping, and the interaction.

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