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Social Presence in Live Streaming: A Catalyst for Impulsive Purchases

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Abstract: The aim of this research is to examine impulse buying in society, particularly focusing on the significant role of social presence within live streaming platforms in influencing impulsive purchases. This study utilizes the Stimulus-Organism-Response (SOR) model to investigate the causal relationship between the independent variable—social presence of live streaming platforms—and the dependent variable—impulsive buying behavior. Employing an explanatory research design, this study aims to establish the relationship between these variables. Data collection involved quantitative analysis using Smart PLS 3.9.2 Software. A total of 166 respondents were selected based on specific criteria relevant to the study's objectives. The findings indicate a positive and significant impact of the social presence of live streaming platforms on consumer trust and the flow state. Furthermore, consumer trust exhibits a substantial and positive influence on the flow state. Both consumer trust and the flow state significantly and positively affect impulsive buying behavior.

Keyword: Impulsive buying behavior, social presence of live streaming platforms, SOR model.

Abstrak: Tujuan dari penelitian ini adalah untuk mengkaji pembelian impulsif dalam masyarakat, dengan fokus terutama pada peran penting kehadiran sosial dalam platform live streaming yang mempengaruhi pembelian impulsif. Penelitian ini menggunakan model Stimulus-Organisme-Respon (SOR) untuk menyelidiki hubungan sebab-akibat antara variabel independen—kehadiran sosial platform live streaming—dan variabel dependen—perilaku pembelian impulsif. Dengan menerapkan desain penelitian penjelasan, studi ini bertujuan untuk menetapkan hubungan antara kedua variabel tersebut. Pengumpulan data melibatkan analisis kuantitatif menggunakan perangkat lunak Smart PLS 3.9.2. Sebanyak 166 responden dipilih berdasarkan kriteria khusus yang relevan dengan tujuan penelitian. Hasil penelitian menunjukkan dampak positif dan signifikan dari kehadiran sosial platform live streaming terhadap kepercayaan konsumen dan keadaan aliran pikiran (flow state). Selain itu, kepercayaan konsumen menunjukkan pengaruh positif dan substansial terhadap

keadaan aliran pikiran. Baik kepercayaan konsumen maupun keadaan aliran pikiran berpengaruh secara signifikan dan positif terhadap perilaku pembelian impulsif.

Kata Kunci: *Perilaku pembelian impulsif; Kehadiran sosial platform live streaming; Model SOR.*

INTRODUCTION

The development of the internet has changed the way consumers' shopping. (Li et al., 2022) One of the new trends that is attracting attention in the e-commerce industry is live streaming e-commerce which combines elements of e-commerce with video, and viewers can see the products offered live and make purchases in a short time through the platform (Ming et al., 2021). Nowadays, business actors also use technology as a media to help their products sold (Riza & Luhur, 2023).

Indonesia is one of the countries where people have a massive interest in live streaming, at least 83.7% of Indonesian have watched online shopping features via live broadcasts (Live Shopping) (Annur, 2022), therefore live streaming is able to provide communication in form of images and sound in real time (Chen & Lin, 2018). Live streaming activity is considered as a capable media and provide a shopping environment similar to a physical store, so that consumers become more comfortable in term of having a real interaction with other buyers via live chat as well as in real life. (C. H. Lee & Chen, 2021).

The success of e-commerce live streaming can be explained by combining the social aspects along with the social media (Cai & Yvette Wohn, 2019). Live streaming e-commerce can be interpreted as a new form of e-commerce that combines social interaction real-time via live streaming (Cai & Yvette Wohn, 2019). Social interactions and social media are reflected in real-time conversations between hosts and viewers. E-commerce live streaming allows hosts to showcase products through real-time videos and allows viewers to ask questions or leave comments, providing a closer experience and influencing purchase intent (Wongkitrungrueng & Assarut, 2020). Although many studies has been paid attention to various aspects of live streaming e-commerce, unfortunately there has not been any adequate research regarding to social pressure in impulse buying behavior.

Impulse buying has long been a phenomenon of interest to researchers and practitioners in the field of marketing. Impulse buying occurs when consumers make purchases without a well-planned planning of purchasing their needs. This kind of things are often influenced by emotional and situational factors. In the context of e-commerce live streaming, the opportunity to interact between the live streaming host and other viewers can increase the level of consumer social presence. (C. H. Lee & Chen, 2021).

Another factor that influences purchase is the role of the host and the situation during live streaming which is called social presence. Social presence, refers to an individual's perception about how far that people can feel connect by other presence with others through communication media, as one of the factor that might influenced an impulsive buying in e-commerce live streaming (Zhu et al., 2020). Through this interactions that occur during live streaming, consumers can be emotionally as well as socially involved with the host and other viewers (C. H. Lee & Chen, 2021). This thing could triggered consumers to have an impulsive purchase which is driven socially also emotionally.

Although e-commerce live streaming has become a popular phenomenon, the research about this topic remains a bit at this time. Previously, in terms of the research limitations created a knowledge gap that needs to be filled. Therefore, this research will be focused by the presence of the social influenced towards impulsive buying in e-commerce live streaming by using the SOR as the model (Stimulus-Organism-Response).

By understanding the factors that influence impulse buying in live streaming e-commerce (Ming et al., 2021), This research can provide new insights for practitioners in the e-commerce industry who are involved in developing efficient marketing strategies. Apart from that, this research can also enhance the existing academic literature in the marketing field by delving into a more comprehensive analysis of consumer behavior in context of e-commerce live streaming. In order to overcome the limitations of previous research and increase our understanding of the connection between social presence and impulsive buying in e-commerce live streaming , this research will be conducted using a systematic and structured research method. Thus, it is hoped that this research can make a significant contribution to both theoretical knowledge and practical applications within the field of marketing.

Aerostreet, a local shoe brand founded in 2015 in Klaten, Central Java Province, focuses on offering a wide array of men's footwear styles, encompassing sports, casual, and formal shoes through online platforms. Notably, Aerostreet has been featured as one of the highlighted brands. In 2019, the brand strategically implemented robust sales and promotional strategies, aiming to firmly establish its presence in marketplaces as a brand offering a diverse range of fashion products, particularly emphasizing its shoes, such as sneakers. In the eyes of its customers, the brand is perceived to offer affordably priced items while maintaining superior quality, with prices ranging from IDR 99,900 to IDR 129,900.

LITERATURE REVIEW

SOR Model

The SOR analyze cognitif and affective of human behavior while they are stimulated with their environment (Ming et al., 2021; Woodworth, 1929)SOR originally proposed by(Ming et al., 2021) as the extention of traditional stimulus-response theory. Mehrabian & Russell, (1974); SOR included organism element between stimulus and response. Therefore, the SOR model is considered capable of fulfilling the perfection of this research. In detail, the SOR model consists of Stimulus-Organism-Response.

“Organism” in the SOR model refers to the intermediary affective and cognitive states of humans that mediate the influence of stimuli on individual responses (Wu & Li, 2018). Affective states refer to an individual's emotional response to environmental stimuli (Sun & Zhang, 2015; Ming et al., 2021) while cognitive states are associated with mental processes when facing stimuli (Fu et al., 2018). This study uses consumer beliefs and flow states to explore viewers' affective and cognitive states regarding the sense of presence in live streaming commerce.

The "Response" model in SOR refers to the final decision and individual behavior based on affective and cognitive states that enable consumers to make a purchase(Ming et al., 2021; Sherman et al., 1997). There are three main types of consumer behavior (purchase intention, unplanned purchase intention and intention to return (Koufaris, 2002; Ming et al., 2021). This research focused on impulse buying. Recent studies have used the SOR model to examine consumers' online behavior in e-commerce, such as online repurchase intentions (Zhu et al., 2020), purchase intention (Liu et al., 2018), and impulse buying intentions (Zhu et al., 2020). These studies have confirmed the relevance of the SOR model and increased the rationality of this research. Previous research also used the SOR model in conducting research on the relationship between consumer behavior in e-commerce and repurchase(Zhu et al., 2020), purchase intensity(Liu et al., 2018), and impulse purchase intensity(Zhu et al., 2020). From this research , it appears that people's buying interest specifically through live streaming commerce can be increased through the SOR method, therefore this research can examine the types of interactions that occur between livestreamers and viewers as well as the

detailed product presentations that can easily trigger Impulse buying behavior. because both ends of the screen pull towards the purchase(Wongkitrungrueng & Assarut, 2020).

Impulse Buying

Impulse buying refers to the act of making unplanned or spontaneous purchases without much forethought or consideration. It involves buying items on impulse, often driven by sudden desires, emotions, or impulses at the moment, rather than a deliberate and planned decision (Hausman, 2000). Impulse purchases are usually made swiftly, without extensive evaluation or comparison shopping (Hosseini et al., 2020). These purchases can range from small items like snacks or magazines to larger and more expensive items, influenced by various factors such as emotions, advertisements, product placement, or peer influence. Impulse buying may occur through the broadcast live via social media (Rodrigues et al., 2021).

Consumer purchasing behaviors are evolving due to the increasing prevalence of network technology. Presently, online shopping has emerged as the dominant method of shopping, holding a substantial share in the consumer market, particularly amid the COVID-19 pandemic (Lim & Kim, 2020). The rise of the e-commerce sector has notably amplified consumers' tendencies towards impulse buying behavior (IBB) and has emerged as a critical pillar of the market economy (Lins & Aquino, 2020), a fact supported by numerous studies.

Impulse buying becomes a part of a behavior in term of purchasing patterns in society (Rizqi Cahya Putri & Artanti, 2022). The convenience of making online purchases through live streaming facilitate consumers to see the product virtually as if like reality that in turn provoke them to buy the product instantly (Hosseini et al., 2020). Therefore, sales strategies aimed at increasing the likelihood of capturing digital audiences for unplanned purchases have become one of the strategies in sales through digital platforms today.

Sosial Presence in Live Streaming

Social presence also refers to how far viewers perceive the presence of other viewers in a live broadcast (Ming et al., 2021). Social presence is becoming a factor in this research since social presence is able to influence people towards their buying interest specifically through live streaming. Social Presence is also able to escalate the competitive spirit among consumers so that they will compete to be at the forefront of social life, especially on social media. Social presence has a major significance in terms of creating a person's social interaction regarding to a interpersonal relation. So that individual can be easily feel the presence by having two-way communication, (Li et al., 2022) which is carried by the talent that particularly shown in the live streaming.

Live streaming refers to the broadcasting or transmission of real-time audio and video content over the internet. It allows users to broadcast events, activities, or performances as they happen, enabling viewers to watch and engage with the content in real time. Live streaming can cover various topics such as gaming, entertainment, news, educational sessions, product demonstrations, or live events like concerts and sports matches (Li et al., 2022). This technology enables immediate interaction between content creators or hosts and their audience through features like live chat or comments, fostering a more engaging and interactive experience compared to pre-recorded content.

Social media utilize live streaming to carry out promotions and execute transactions (Li et al., 2022). This happens as the convenience of using it as well as the talent that is shown in the live streaming easily attract people's interest, especially when they are making purchases online, since buyers seller can interact virtually with less effort to make a purchase (Chen & Lin, 2018). Lu et al., (2018), live streaming is becoming an activity that is

quite popular among viewers and invited many brands as well as companies also carry out promotions and sales via live streaming (Chen & Lin, 2018).

Consumer Trust

Consumer trust in e-commerce includes salesperson, vendor, product, channel, and company (Ming et al., 2021). In the context of this research, consumer trust is defined as the confidence and reliance placed by the consumer in both the product and the presenter involved in the commercialization of live streaming. The level of trust that consumers have in a product relates to their belief in the accuracy of the features, quality, and after-sales service discussed by the host during a live broadcast (Wongkitrungrueng & Assarut, 2020). While trust in the host explains the extent to which viewers trust that the host is willing to understand the consumer's position and has the ability to provide high-quality and personalized service (Wongkitrungrueng & Assarut, 2020).

The talent presenting to the audience is acknowledged as an integral component within the chain of buying and selling processes. Furthermore, talent is recognized for its capacity to offer a sense of satisfaction to the audience, achieved through real-time explanations provided during live broadcasts. Consequently, this dynamic interaction contributes to the emergence of a new perspective in communication through social media platforms (Fai, 2022).

The presence of the audience is mainly to convince other buyers to make a transaction at the moment. This condition is more likely making consumers have any time to find an alternative. Therefore, the comments column feature on live broadcasts also influences social presence because the interactions that occur can provide new knowledge and experiences to the audience, which can lead to a high desire to buy (Li et al., 2022). Therefore, the presence of the audience can be an important factor in social presence.

Flow State

Flow state can be a driving force for unplanned purchases, because increased positive feelings will encourage consumers to make impulse purchases (Wu et al., 2020). In this research, the flow state involved the experience of intrinsic enjoyment and a level of concentration. Consumer exploratory behavior, including incremental browsing, can be motivated by the intrinsic enjoyment derived from it. This, in turn, can lead to impulsive purchases (Ming et al., 2021). In addition, consumers who concentrate on shopping via live streaming are more susceptible to the influence of marketing promotions on the platform, thereby triggering impulse purchases (Xu et al., 2020).

HYPOTHESIS DEVELOPMENT

Social presence of live streaming platforms, consumer trust and the flow state

The social presence of live streaming platforms will bridge the psychological distance between buyers and sellers, thereby increasing consumer trust both in the product and the host, (Darke et al., 2016; Ming et al., 2021), as the inherent uncertainty and risk can be reduced in live broadcasts (S. (Ally) Lee, 2018). Previous research has confirmed the positive impact of social web presence on consumer trust (Ye et al., 2020). Therefore, it is assumed that there exists a correlation between between the social presence of live streaming platforms and consumer trust. A live broadcast on social media can build a great interpersonal communication. Interpersonal communication should be carried out by 2 or more people (Fai, 2022). This caused by a good communication which is carried out by two or more people, especially when they are in a live streaming. So that the conversation occurs a sense of satisfaction for both parties, between the talent (seller) as well as the audience (buyer).

H1a: Social presence of live streaming is positively related to consumer trust in e-commerce live streaming.

The social presence of the live streaming platform has an influence on the flow state. In traditional e-commerce, buyers make online transactions by interacting through websites (Lu et al., 2016) whereas in (Ming et al., 2021) live streaming commercialization, viewers engage with the platform by purchasing products and interacting through messages and virtual gifts. Live streaming allows viewers to access and watch live video streams, enhancing their social interactions by facilitating real-time communication through various channels (Ming et al., 2021). When the audience remains focused and happy in live streaming, a flow state occurs (Chen & Lin, 2018). The transmission technology in live streaming platforms can synchronously and instantly transmit sound and images from remote locations, making viewers feel as if they are physically present during the live streams. Shared experiences with live streaming hosts also enhance the viewing experience (Ming et al., 2021), thereby increasing viewer concentration and enjoyment. Previous research has explored the relationship between web social presence and flow state (Y. L. Wu & Li, 2018). In light of the similarities between live streaming platforms and websites, this research propose that the connection between the platform's social presence and the flow state also exists in the commercialization of live streaming. Therefore, the following hypotheses are proposed:

H1b: Social presence of live streaming platform is positively related to flow state in e-commerce live streaming.

Customer trust and flow state

Trust can help alleviate consumers' hesitation when it comes to adopting new purchasing methods, thus diminishing the sense of uncertainty or concern they may experience during live trading. (Wongkitrungrueng & Assarut, 2020b). It can be challenging for customers to fully engage in consumption activities when they are unsure or worried. (Ming et al., 2021) When consumers is confidence in live streaming e-commerce, they are more likely to feel happiness and focus on the activity. Negative emotions are often ignored when attention is focused on the tasks in question, which promotes a flow state (Shin & Hall, 2018).

Recent research has investigated the relationship between trust and flow state. Wang and his team have shown that trust has a positive impact on flow state experiences (Wang et al., 2021). In 2019 researchers revealed how flow state feelings are connected to consumer trust (Chang et al., 2019). Therefore, the following hypothesis is proposed:

H2: Consumer trust is positively related to flow state in e-commerce live streaming.

Consumer trust and impulsive buying behavior

Based on Uncertainty reduction theory, relationships can be formed when the other person's behavior can be predicted due to reduced uncertainty (Ballantine & Martin, 2005); (Leeraphong & Sukrat, 2018; (Ming et al., 2021). In online shopping, the lack of face-to-face communication and physical touch causes social uncertainty (Song et al., 2019). Uncertainty and risk in online shopping can hinder consumers' purchase intentions (Ariffin et al., 2018). Conversely, the higher the level of trust a potential customer feels, the less uncertainty and worry they experience (Tonkin et al., 2019), thereby increasing the likelihood of impulse buying behavior.

Previous research has investigated the positive influence of consumer trust on impulse buying behavior. (Wu et al., 2016) states that consumer confidence can trigger impulse buying. (Danish Habib & Qayyum, 2018) found that increasing perceived trustworthiness has

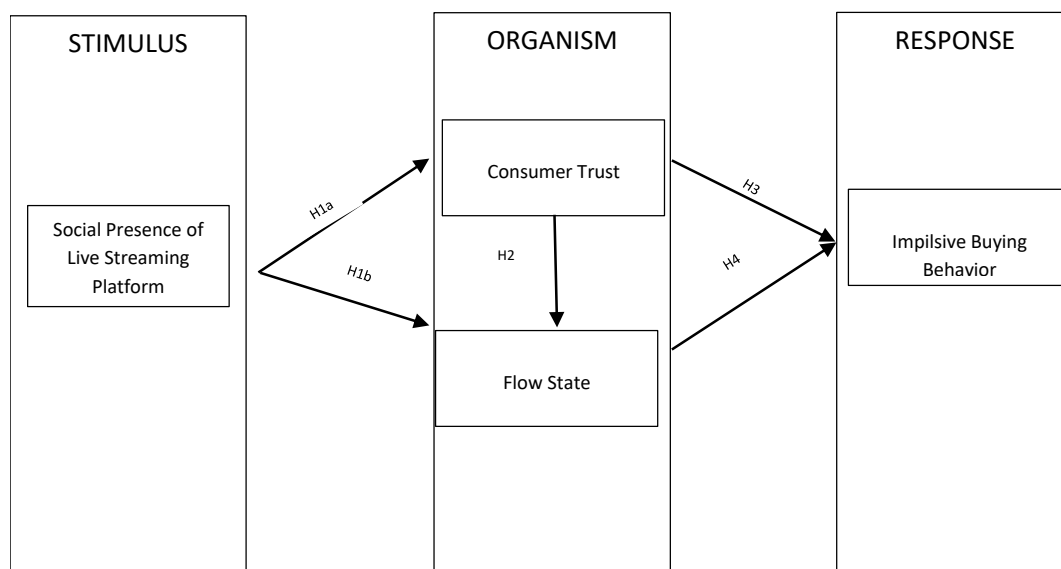
a positive impact on impulse buying behavior through increasing emotional responses. (Yi & Jai, 2020) confirmed that a sense of trust can trigger consumers' impulse purchases. In the context of live streaming trading, we believe that the same logic can be applied. Therefore, the following hypothesis is proposed:

H3: Consumer trust is positively related to impulsive buying behavior in e-commerce live streaming.

Flow states and impulsive buying behavior

A number of previous research have revealed a positive relationship between flow state and impulsive buying behavior in the context of online shopping. (Wu et al., 2016) examined the influence of flow state on online impulse buying. Furthermore, (Wu et al., 2020) examined how flow state directly and indirectly influence online impulsive buying. Given that commerce via live streaming is also a part of e-commerce, we hypothesize that the same logic may apply in the context of e-commerce live streaming . Therefore, the following hypothesis is proposed:

H4: Flow state is positively related to impulsive buying behavior in e-commerce live streaming.



Source: Research Results

Figure 1. Conceptual Framework

METHOD

General Description of Research Objects and Subjects

This research employs a quantitative approach, utilizing numerical data to conduct the analysis (Yani Balaka & Abyan, 2022). The object of this research is the influence of social presence on impulse buying behavior in the context of e-commerce live streaming. The subjects of this research are consumers who actively participate in Aerostreet live streaming e-commerce and make impulse purchases through Shopee live streaming platforms.

This research employs the survey method and use questionnaire to collect data. Social presence of live streaming's, Consumer trust, flow state, and impulse buying behaviour are adapted from (Ming et al., 2021). All the items were measured by a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The study's population includes individuals who have engaged in impulsive purchases of Aerostreet products while watching Aerostreet live

streams on the Shopee application. The sample was purposefully selected, focusing on individuals who have conducted impulsive buying of the brand through Shopee's e-commerce live streaming within a maximum period of one year.

Table 1. Demographic of samples

Characteristics	Quantity	Groups	Frequency	Percentage
Gender	166	Male	76	45.8%
		Female	90	54.2%
Age	166	<16 years	5	3%
		16-25 years	108	65.1%
		26-35 years	30	18.1%
		36-45 years	21	12.7%
		>45 years	2	1.1%
Order Location	166	East Jakarta	25	15.1%
		West Jakarta	43	25.9%
		Central Jakarta	34	20.5%
		North Jakarta	32	19.3%
		South Jakarta	32	19.3%
Education Level	166	Elementary-Senior High School/ Equivalent	33	19.9%
		Diploma (D1-D3)	31	18.7%
		Undergraduate (S1-S3)	102	61.4%
Employment	166	Students	81	48.8%
		Self-Employed	35	21.1%
		Entrepreneurship	42	25.3%
		Others	8	4.8%

Source: Research data

The dataset portrays the demographic and behavioral characteristics of Aerostreet buyers engaged in impulsive purchases via Shopee live streams. The sample comprises 166 individuals, with a fairly balanced gender distribution—45.8% male and 54.2% female. The majority of buyers fall within the age bracket of 16 to 25 years, accounting for 65.1% of the sample, while the remaining age groups are represented to a lesser extent. Geographically, West Jakarta demonstrates the highest frequency of purchases at 25.9%, closely followed by Central Jakarta at 20.5%. Educationally, the majority hold undergraduate degrees (S1-S3), constituting 61.4% of the sample. In terms of employment, students represent the largest segment at 48.8%, followed by entrepreneurship at 25.3%, reflecting the diverse occupational backgrounds of the buyers.

Validity and Reliability

The study initiates with Confirmatory Factor Analysis (CFA) to assess hypotheses, internal reliability, validity, and model structure. During CFA, items with factor loadings below 0.5 are removed, and covariance paths between error items within factors are introduced to refine model fit. Criteria for item removal involve standardized loadings below 0.5 and limited omissions(Hair et al., 2019). SmartPLS 3.2.9 is used for data processing. The research also employs Heterotrait–Monotrait Ratios of Correlations (HTMT) for validity assessment (Henseler et al., 2015). A benchmark of 0.9 indicates discriminant validity; all 32 items met convergent validity requirements with loadings >0.7 and AVE >0.5, ensuring their validity in measuring latent variables (Table 2). This affirms the validity of all indicators used in the study.

Table 2. Overall Reliability of the Constructs and Factor Loading of Indicators

	Factor Loading	CA	rho_A	CR	AVE
Consumer Trust		0.753	0.758	0.844	0.574
- I trust in the information that streamers provide through live streaming.	0.747				
- I believe sellers in live streaming can be trusted.	0.773				
- I don't think that streamers will take advantage of me.	0.792				
- I believe that the product I received will be the same as the one shown on the live stream	0.719				
Flow State		0.870	0.871	0.903	0.607
- I don't want to take divert my view when watching a live stream.	0.758				
- I ignore what's happening around me when watching a live stream	0.773				
- I forgot what I wanted to do while watching the live stream	0.817				
- I feel comfortable when watching live streaming	0.776				
- I feel interested when watching live streaming	0.782				
- I feel good when watching live streaming	0.769				
Impulsive Buying Behavior		0.780	0.782	0.859	0.603
- I find it difficult to decline an offer from a seller while watching a live stream	0.761				
- I feel rash in buying products while watching live streaming	0.778				
- I spontaneously bought a product offered by the seller during a live stream	0.820				
- I can't resist buying products while watching live streaming	0.745				
Social Presence of Live Streaming Platform		0.801	0.803	0.863	0.557
- I feel that there is a relationship between someone and the live streaming platform	0.752				
- I feel there is a relationship between a person's personality and the live streaming platform	0.739				
- I feel there is a connection between a person's social nature and the live streaming platform	0.739				
- I feel that the live streaming platform provides a sense of comfort	0.768				
- I feel more sensitive when shopping through live streaming platforms	0.733				

Source: Research data

Moreover, the reliability assessment confirms the reliability of each variable, with Cronbach's alpha values exceeding 0.60. Specifically, the values stand at 0.753 for customer trust, 0.870 for flow state, 0.780 for impulsive buying behavior, and 0.801 for the social presence of the live streaming platform.

Table 3. Discriminant and Validity Test Results (HTMT)

Variabel Laten	Customer Trust	Flow State	Impulsif Buying Behavior	Social Presence of Live Streaming Platform
Customer Trust	-			
Flow State	0.755	-		
Impulsif Buying Behavior	0.835	0.877	-	
Social Presece of Live Streaming Platform	0.848	0.746	0.751	-

Sumber: Research data

To evaluate of discriminant validity, the research used the Heterotrait-monotrait Correlation Ratio (HTMT), proposed by (Henseler et al. 2015). A threshold of 0.9 was used to determine whether discriminant validity was met; in other words, the HTMT value must be below 0.9. The results recorded in Table 3 show that all HTMT scores met this threshold, confirming the existence of good discriminant validity between the two reflective factors (Kline, 2015).

RESULTS AND DISCUSSION

The following part step involves assessing the structural model, often termed the inner model (structural measurement). This evaluation stage encompasses determining the path coefficient, specifically appraising the significance of relationships among variables and factors, as well as quantifying correlation values or the impact of concealed constructs. This

process is carried out through a bootstrapping procedure or resampling method (Hair et al., 2019).

Table 4. Hypothesis Testing

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Hajil Uji
Social Presence of Live Streaming Platform -> Consumer Trust	0.387	4.259	0.000	Accepted
Social Presence of Live Streaming Platform -> Flow State	0.226	2.199	0.028	Accepted
Consumer Trust -> Flow State	0.294	3.507	0.000	Accepted
Consumer Trust -> Impulsif Buying Behavior	0.287	4.003	0.000	Accepted
Flow State -> Impulsif Buying Behavior	0.430	3.560	0.000	Accepted

Source: Research data

The overall hypothesis can be accepted based on the data from Table 4, yielding positive and significant results with a p-value <0.05 and a t-statistic value >1.96. All hypotheses are accepted as they demonstrate a positive effect, indicated by the original sample's positive values.

Table 5. Coefficient of Determination

Variabel Laten	R-Square
Customer Trust	0.496
Flow State	0.491
Impulsif Buying Behavior	0.598

Source: Research data

The coefficient of determination (R²) for customer trust is 0.496, signifying that 49.6% of customer trust is influenced by the social presence of live streaming platforms. The remaining 50.4% is attributed to other factors not considered in this study. Similarly, the flow state demonstrates an (R²) of 0.491, indicating that 49.1% of the flow state is influenced by the social presence of live streaming platforms, while the remaining 50.9% is influenced by other factors not considered in this study. Regarding purchase intention, the (R²) is 0.598, suggesting that 59.8% of impulsive buying behavior is influenced by the social presence of live streaming platforms, leaving 40.2% influenced by other factors not considered in this study.

The outcomes of hypothesis testing affirm the variables contributing to impulsive buying behavior, namely the social presence of live streaming platforms, flow state, and consumer trust. Hypothesis 1a suggests a positive correlation between the social presence of live streaming platforms and consumer trust in e-commerce live streaming, aligning with the Stimulus-Organism-Response (SOR) theory. Shah et al., (2021) support these findings, emphasizing the substantial positive impact of environmental stimuli on consumers' intentions to make in-store purchases, with attitudes toward influencers and products mediating this relationship. Noteworthy is that consumer trust is recognized as a consumer attitude (Ye et al., 2020). Hypothesis 1b, asserting the influence of the social presence of live streaming platforms on the flow state, is deemed acceptable. This finding resonates with the SOR theory, proposing that stimuli can generate individuals' enjoyment of streaming content for extended durations.

Flow state is a mental state that immerses a person in their activity. Immersion here interprets as a state of focus that engrosses someone in their activities or work (Ming et al.,

2021). Social live streaming platforms impact a person's positive motivation, enabling impulsive purchases(Ming et al., 2021).These findings strengthen previous research suggesting that consumer trust(Ye et al., 2020) and flow states(Ming et al., 2021) can be formed through streaming platforms without physical interactions.

Hypothesis 2, proposing the influence of customer trust on the flow state, is accepted in this research. Consumer trust reduces doubts about making purchases, facilitating impulsive purchases(Wongkitrungrueng & Assarut, 2020). Joy during consumer activities contributes to alleviating worry and uncertainty(Lauterbach et al., 2009; Ming et al., 2021). When engaging in e-commerce live streaming, consumers concentrate on pleasurable emotions, fostering the flow state (Shin & Hall, 2018). Positive influences of customer trust on flow state(Chang et al., 2019),(Wang et al., 2021), and(Ming et al., 2021) reinforce these findings.

Establishing communication and relationships among buyers creates certainty, reducing uncertainty(Ballantine & Martin, 2005; Ming et al., 2021). Enhanced trust from various sources reduces customer worries(Tonkin et al., 2019), potentially stimulating impulsive buying despite the absence of physical communication in online shopping, which may elevate consumer uncertainty and purchase intentions (Kim et al., 2019)(Kamalul Ariffin et al., 2018)but paradoxically stimulating impulsive buying(Ming et al., 2021).

Hypothesis 3, the influence of customer trust on impulsive buying behavior, is supported by this research. This confirms previous research indicating a positive influence between customer trust and impulsive buying behavior(Ming et al., 2021). Trust encourages impulsive purchases(IWu et al., 2016a), with increased trust making consumers more prone to impulsive purchases(Danish Habib & Qayyum, 2018)(Yi & Jai, 2020). Therefore, this research substantiates that consumer trust significantly impacts impulsive purchasing behavior.

Flow state positively influences a person's feelings, increasing impulsive buying in consumers(Wu et al., 2020). Hypothesis 4, the influence of flow state on impulsive buying behavior, is deemed acceptable. Previous research supports a positive relationship between flow states and impulsive buying behavior (Wu et al., 2016). Further studies confirm the direct or indirect influence of flow states on impulsive buying(Wu et al., 2020)and (Ming et al., 2021), strengthening the association between flow states and impulsive buying.

CONCLUSION

In conclusion, this study significantly contributes on two critical fronts. It delves into the understanding of impulsive customer purchases in live streaming, a relatively novel phenomenon in e-commerce. Primarily, it introduces a multi-dimensional conceptualization of social presence in live streaming, surpassing the limitations of the prior one-dimensional understanding. Secondly, the research underscores the crucial role of social presence factors in e-commerce live streaming, capable of instigating impulse purchases through intermediary human affective and cognitive states that mediate stimuli's influence on individual responses, such as customer experience and flow states.

While commendable, this study acknowledges certain limitations, notably its specific focus on live streaming e-commerce in Indonesia. Future research endeavors could enhance the generalizability of these findings by testing them on samples of live streaming users in diverse countries. Moreover, exploring the effects of social presence across various modes of live e-commerce streaming would further enrich our comprehension of this dynamic phenomenon.

REFERENSI

- Annur, C. M. (2022, July 6). *Platform Belanja Online Lewat Siaran Langsung Paling Banyak Digunakan (2022)*. Databoks.
- Ballantine, P. W., & Martin, B. A. S. (2005). *Forming parasocial relationships in online communities*.
- Cai, J., & Yvette Wohn, D. (2019). *Live Streaming Commerce: Uses and Gratifications Approach to Understanding Consumers' Motivations*. <https://hdl.handle.net/10125/59693>
- Chang, H. H., Wong, K. H., & Ho, P. W. (2019). The determinants of trust transfer on mobile shopping decision: flow experience as a moderator. *International Journal of Mobile Communications*, 17(2), 213. <https://doi.org/10.1504/IJMC.2019.098064>
- Chen, C. C., & Lin, Y. C. (2018). What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. *Telematics and Informatics*, 35(1), 293–303. <https://doi.org/10.1016/j.tele.2017.12.003>
- Danish Habib, M., & Qayyum, A. (2018). Cognitive Emotion Theory and Emotion-Action Tendency in Online Impulsive Buying Behavior. *Journal of Management Sciences*, 5(1), 86–99. <https://doi.org/10.20547/jms.2014.1805105>
- Darke, P. R., Brady, M. K., Benedicktus, R. L., & Wilson, A. E. (2016). Feeling Close From Afar: The Role of Psychological Distance in Offsetting Distrust in Unfamiliar Online Retailers. *Journal of Retailing*, 92(3), 287–299. <https://doi.org/10.1016/j.jretai.2016.02.001>
- Fai. (2022, March 2). *Contoh, Ciri, dan Tipe Hubungan Interpersonal*. <https://umsu.ac.id/hubungan-interpersonal/>.
- Fu, S., Yan, Q., & Feng, G. C. (2018). Who will attract you? Similarity effect among users on online purchase intention of movie tickets in the social shopping context. *International Journal of Information Management*, 40, 88–102. <https://doi.org/10.1016/j.ijinfomgt.2018.01.013>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hausman, A. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing*, 17(5), 403–426. <https://doi.org/10.1108/07363760010341045>
- Hosseini, S. H., Zadeh, F. H., Shafiee, M. M., & Hajipour, E. (2020). The effect of price promotions on impulse buying: the mediating role of service innovation in fast moving consumer goods. In *Int. J. Business Information Systems* (Vol. 33, Issue 3).
- Kamalul Ariffin, S., Mohan, T., & Goh, Y.-N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, 12(3), 309–327. <https://doi.org/10.1108/JRIM-11-2017-0100>
- Kim, J., Kim, M., Choi, J., & Trivedi, M. (2019). Offline social interactions and online shopping demand: Does the degree of social interactions matter? *Journal of Business Research*, 99, 373–381. <https://doi.org/10.1016/j.jbusres.2017.09.022>
- Koufaris, M. (2002). Applying the Technology Acceptance Model and flow theory to online Consumer Behavior. *Information Systems Research*, 13(2), 205–223. <https://doi.org/10.1287/isre.13.2.205.83>
- Lauterbach, D., Truong, H., Shah, T., & Adamic, L. (2009). Surfing a Web of Trust: Reputation and Reciprocity on CouchSurfing.com. *2009 International Conference on Computational Science and Engineering*, 346–353. <https://doi.org/10.1109/CSE.2009.345>
- Lee, C. H., & Chen, C. W. (2021). Impulse buying behaviors in live streaming commerce based on the stimulus-organism-response framework. *Information (Switzerland)*, 12(6). <https://doi.org/10.3390/info12060241>
- Lee, S. (Ally). (2018). Investigating antecedents and outcome of telepresence on a hotel's website. *International Journal of Contemporary Hospitality Management*, 30(2), 757–775. <https://doi.org/10.1108/IJCHM-12-2015-0722>
- Leeraphong, A., & Sukrat, S. (2018). How Facebook Live Urge SNS Users to Buy Impulsively on C2C Social Commerce? *Proceedings of the 2nd International Conference on E-Society, E-Education and E-Technology*, 68–72. <https://doi.org/10.1145/3268808.3268830>

- Li, M. ; Wang, Q. ; Cao, Y., Foroudi, P., Qi, J., Tchounwou, P. B., Li, M., Wang, Q., & Cao, Y. (2022). Citation: Understanding Consumer Online Impulse Buying in Live Streaming E-Commerce: A Stimulus-Organism-Response Framework. <https://doi.org/10.3390/10.3390/ijerph19074378>
- Lim, S. H., & Kim, D. J. (2020). Does Emotional Intelligence of Online Shoppers Affect Their Shopping Behavior? From a Cognitive-Affective-Conative Framework Perspective. *International Journal of Human-Computer Interaction*, 36(14), 1304–1313. <https://doi.org/10.1080/10447318.2020.1739882>
- Lins, S., & Aquino, S. (2020). Development and initial psychometric properties of a panic buying scale during COVID-19 pandemic. *Heliyon*, 6(9), e04746. <https://doi.org/10.1016/j.heliyon.2020.e04746>
- Liu, Y., Luo, X., & Cao, Y. (2018). Investigating the influence of online interpersonal interaction on purchase intention based on stimulus-organism-reaction model. *Human-Centric Computing and Information Sciences*, 8(1). <https://doi.org/10.1186/s13673-018-0159-0>
- Lu, B., Fan, W., & Zhou, M. (2016). Social presence, trust, and social commerce purchase intention: An empirical research. *Computers in Human Behavior*, 56, 225–237. <https://doi.org/10.1016/j.chb.2015.11.057>
- Lu, Z., Xia, H., Heo, S., & Wigdor, D. (2018). You watch, you give, and you engage: A study of live streaming practices in China. *Conference on Human Factors in Computing Systems - Proceedings, 2018-April*. <https://doi.org/10.1145/3173574.3174040>
- Ming, J., Jianqiu, Z., Bilal, M., Akram, U., & Fan, M. (2021). How social presence influences impulse buying behavior in live streaming commerce? The role of S-O-R theory. *International Journal of Web Information Systems*, 17(4), 300–320. <https://doi.org/10.1108/IJWIS-02-2021-0012>
- Riza, F., & Luhur, N. A. (2023). NAVIGATING THE INNOVATION LANDSCAPE: THE CRUCIAL ROLE OF TECHNOLOGY AND ENTREPRENEURIAL ORIENTATION. *Jurnal Ekonomi Bisnis Dan Kewirausahaan*, 12(2), 148. <https://doi.org/10.26418/jebik.v12i2.61447>
- Rizqi Cahya Putri, F., & Artanti, Y. (2022). PEMBELIAN IMPULSIF PADA MARKETPLACE: PENGARUH PERSONALITY, PRICE DISCOUNT DAN MEDIA SOSIAL. *SIBATIK JOURNAL: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya, Teknologi, Dan Pendidikan*, 1(5), 509–522. <https://doi.org/10.54443/sibatik.v1i5.59>
- Rodrigues, R. I., Lopes, P., & Varela, M. (2021). Factors Affecting Impulse Buying Behavior of Consumers. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.697080>
- Shah, A. M., Yan, X., Shah, S. A. A., & Ali, M. (2021). Customers' perceived value and dining choice through mobile apps in Indonesia. *Asia Pacific Journal of Marketing and Logistics*, 33(1), 1–28. <https://doi.org/10.1108/APJML-03-2019-0167>
- Sherman, E., Mathur, A., & Smith, R. B. (1997). Store Environment and Consumer Purchase Behavior: Mediating Role of Consumer Emotions. In *Psychology & Marketing* (Vol. 14, Issue 4). John Wiley & Sons, Inc.
- Shin, S. Il, & Hall, D. J. (2018). *Trust and the Flow Experience on Facebook: What Motivates Social Network Usage?* (pp. 496–512). https://doi.org/10.1007/978-3-319-91716-0_40
- Song, J., Moon, H., & Kim, M. (2019). When do customers engage in brand pages? Effects of social presence. *International Journal of Contemporary Hospitality Management*, 31(9), 3627–3645. <https://doi.org/10.1108/IJCHM-10-2018-0816>
- Sun, H., & Zhang, P. (2015). *The role of affect in information systems research*.
- Tonkin, E., Wilson, A. M., Coveney, J., Meyer, S. B., Henderson, J., McCullum, D., Webb, T., & Ward, P. R. (2019). Consumers respond to a model for (re)building consumer trust in the food system. *Food Control*, 101, 112–120. <https://doi.org/10.1016/j.foodcont.2019.02.012>
- Wang, L., Yang, Y., & Li, Y. (2021). Extending lead-user theory to a virtual brand community: the roles of flow experience and trust. *Asian Business & Management*, 20(5), 618–643. <https://doi.org/10.1057/s41291-019-00097-9>
- Wongkitrungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556. <https://doi.org/10.1016/j.jbusres.2018.08.032>
- Woodworth, R. S. (1929). *Psychology, 2nd Rev, Oxford, Holt* (R. S. Woodworth, Ed.).

- Wu, I.-L., Chen, K.-W., & Chiu, M.-L. (2016). Defining key drivers of online impulse purchasing: A perspective of both impulse shoppers and system users. *International Journal of Information Management*, 36(3), 284–296. <https://doi.org/10.1016/j.ijinfomgt.2015.11.015>
- Wu, I.-L., Chiu, M.-L., & Chen, K.-W. (2020). Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues. *International Journal of Information Management*, 52, 102099. <https://doi.org/10.1016/j.ijinfomgt.2020.102099>
- Wu, Y. L., & Li, E. Y. (2018). Marketing mix, customer value, and customer loyalty in social commerce: A stimulus-organism-response perspective. *Internet Research*, 28(1), 74–104. <https://doi.org/10.1108/IntR-08-2016-0250>
- Xu, X., Wu, J.-H., & Li, Q. (2020). *WHAT DRIVES CONSUMER SHOPPING BEHAVIOR IN LIVE STREAMING COMMERCE?*
- Yani Balaka, M., & Abyan, F. (2022). *METODOLOGI PENELITIAN KUANTITATIF*. www.penerbitwidina.com
- Ye, S., Lei, S. I., Shen, H., & Xiao, H. (2020). Social presence, telepresence and customers' intention to purchase online peer-to-peer accommodation: A mediating model. *Journal of Hospitality and Tourism Management*, 42, 119–129. <https://doi.org/10.1016/j.jhtm.2019.11.008>
- Yi, S., & Jai, T. (2020). Impacts of consumers' beliefs, desires and emotions on their impulse buying behavior: application of an integrated model of belief-desire theory of emotion. *Journal of Hospitality Marketing & Management*, 29(6), 662–681. <https://doi.org/10.1080/19368623.2020.1692267>
- Zhu, B., Kowatthanakul, S., & Satanasavapak, P. (2020). Generation Y consumer online repurchase intention in Bangkok: Based on Stimulus-Organism-Response (SOR) model. *International Journal of Retail and Distribution Management*, 48(1), 53–69. <https://doi.org/10.1108/IJRDM-04-2018-0071>