

How Impulsive Buying Is Formed During Live Streaming Shopping: It Affordance Perspective On E-Commerce

Qorina Qurrota ¹, Aina Haura¹, Mahrinasari Ms², Roslina³

Faculty Of Economics And Business, Indonesia

Faculty Of Economics And Business, Indonesia

Abstract:

Background: The rapid advancement of internet technology represents a breakthrough in the realm of business. The most significant advance in online shopping is the expansion of e-commerce. Live streaming shopping has become a popular phenomenon in the rapidly expanding field of e-commerce, and businesses are using it as a marketing tactic. Live streaming has become a useful and accessible medium for customers due to the growing use of mobile devices and high-speed internet. Live streaming shopping has become a new popular strategy for businesses to increase sales

Materials and Methods: This study examined how technology and information accessibility affect impulsive purchasing during live streaming shopping, with a focus on the Shopee app in Indonesia. This study uses SEM-LISREL v8.8 software to analyze data. This study used survey method with questionnaire to gather data from 250 respondents of Shopee's users in Indonesia. The study uses sSa quantitative research approach to measure and analyze data with the goal of examining the cause-and-effect relationship between variables.

Results: The result of this study shows that IT affordance affect the customers' engagement to purchase through live streaming shopping. This study also finds that visibility affordance does not significantly affect immersion in live streaming engagement. The research result may not represent consumer's behavior in another country.

Conclusion: In particular, it was discovered that sight affordance had no discernible impact on immersion. These results are in contrast to earlier research that discovered a robust relationship between immersion and impulsive purchasing, as well as visibility and immersion. The variations may result from things like clients not finding the products intriguing, a lack of enthusiasm during the live broadcast, or procedural hiccups. It's crucial to keep in mind that impulsive purchasing is influenced by a variety of circumstances and isn't usually the result of online or live streaming activities.

Key Word: IT Affordance, e-commerce, live streaming shopping, impulsive buying

Date of Submission: 16-12-2023

Date of Acceptance: 26-12-2023

I. Introduction

The rapid development of internet technology is an innovation in the world of commerce. The growth of e-commerce is the most striking aspect where consumers can shop online. According to data from Databoks (2023), the gross merchandise value (GMV) of the e-commerce sector is expected to reach US\$62 billion by 2023. This contribution amounts to about 75.6% of Indonesia's GDP in the digital economy, which is estimated to be US\$82 billion this year. The growth of e-commerce that helps Indonesia's economic growth creates a phenomenon that is a major factor in the rise of live streaming shopping as a marketing strategy for businesses in e-commerce.

In the dynamic growth of e-commerce, the phenomenon of live streaming shopping has emerged, which is used as a marketing strategy for businesses. The availability of high-speed internet and the widespread use of mobile devices have made live streaming a practical and accessible medium for consumers. This can provide an interactive, informative and immersive online shopping experience through real-time interaction between businesses and consumers^[42].

Live streaming shopping has attracted the attention of many researchers. Previous research focused live streaming shopping on viewers and sellers who are motivated to use live streaming^{[41][26]}. Some other researchers discuss how the impact of live streaming features such as user interface design and gift-giving while other studies discuss how live streaming shopping affects the purchase intention of customers^[42]. Parasocial interactions, experience, persuasion of permanence and perceptions of price can drive cognitive and affective reactions that encourage consumers to make impulse purchases on live streaming shopping^[26].

Live streaming is a necessary strategy for businesses in the business world because live streaming can take advantage of consumers who have the concept of "see now-buy now"^[36]. However, there are still few researchers who discuss live streaming shopping studies related to impulse purchases, most researchers discuss live

streaming shopping that focuses on user engagement and viewing in live streaming shopping (Zuo & Xiao, 2021).

Live Streaming

Live streaming commerce where sellers live stream to engage with consumers in real-time is emerging as a new marketing channel^[24]. The real-time interaction of live streaming commerce is its most appealing aspect. While broadcasting, sellers communicate with viewers or consumers in real time, demonstrating the product in a way that is tailored to their needs and explaining how to use the product.

Live streaming features can provide potential consumers with a more thorough understanding of the product, increasing the persuasiveness and advertising potential of the product^[14]. According to previous studies, sellers provide consumers with a lot of product information in a short period of time which helps speed up the decision-making process. In addition, buyers receive coupons and discounts during live streaming, which will encourage impulse purchases^[24].

IT Affordance

Affordability is a potential behavior associated with tangible achievement results that arise from the relationship between objects in the near future and have a purpose^[23]. IT affordability is an opportunity for businesses to analyze the interaction between sellers and buyers. IT affordability as an opportunity for purchase-oriented activities that technology objects offer to buyers and sellers based on their capabilities and goals^[42]. Researchers have separated IT affordability into categories based on online purchase history: visibility, metavoicing and guidance shopping. The concept of affordability can help consider aspects of live streaming shopping and how users can use IT aspects. The interaction between users and technical aspects will form affordance. IT affordance consists of visibility affordance, metavoicing affordance and guidance shopping^[17].

Live streaming shopping enables instant transmission of visuals and sound from one location to another^[41]. On the one hand, online video-based live streaming shopping is a highly visible method of product promotion. Consumers will focus their attention on live streaming shopping to receive product information because they need more product knowledge to make purchasing decisions. Consumers can watch in-depth videos transmitted through live streaming while shopping and make it possible to view products. The affordances of visibility in the context of live streaming may have a real impact on the level of engagement of the audience in viewing-related situations. Immersion begins when a person is fully engaged in the content they are viewing, to the point where they have understood their surroundings and are fully in tune with what they understand. The level of immersion can be enhanced by having good visibility to the content being streamed live. The seller can also show viewers how to utilize the product. Consumers can see the seller during this process, which makes them feel the social presence of the seller. Based on the affordance of visibility, live streaming shopping can provide product details and product information as if they were viewing the product directly from a physical store. Visible affordances allow consumers to feel a sense of presence as social presence and telepresence collectively form the concept of presence^[42].

Consumers can respond to the seller's response with further questions, and the seller will respond with more information. The ability to communicate directly with the seller through the use of metavoicing reduces the visible barrier between consumers and sellers and gives them a pleasant and friendly impression^[26]. Metavoicing capabilities help improve the relationship between the audience and the stream. Information provided by sellers that may not be easily visible in plain language, metavoicing can increase the engagement and level of involvement of the audience (consumers). It can help people understand what is happening more clearly, increase the level of consumer commitment and help consumers feel more connected to the product and live streaming shopping. Metavoicing can build a narrative by providing information, comments and experiences that can help consumers be more interested and engaged with live streaming. The affordability of metavoicing in live streaming will have an impact on the presence and engagement of consumers while following the live stream. Easily accessible metavoicing can provide insight into how users interact and engage with live streaming shopping content. Providing opportunities for interpersonal engagement or provoking imagined interpersonal interactions can increase one's perception of social presence^[31]. Consumers are more likely to buy when they perceive greater value and benefits^[28].

Consumers can receive product services that match their interests and demands thanks to the shopping guide option^[17]. The advice provided by sellers during live streaming shopping is based on the unique needs of the audience. Therefore, consumers will concentrate on watching live streaming sales^[28]. Although clients use live streaming shopping, shopping guidance also helps them in solving problems, which increases the perceived utilitarian value^[17]. By facilitating more active and lively interactions while making purchases, guided shopping can increase the number of participating viewers. When consumers actively participate in the process of purchasing the goods or services offered, they will feel a sense of presence during live streaming shopping. Consumers will see the seller as a real person present during live streaming shopping which helps develop a sense

of social presence and telepresence^[42]. In addition, customer perceptions of telepresence and social presence can be enhanced through guided shopping to engage thanks to increased interaction between sellers and customers^[17].

- H1** Visibility affordance has influence immersion
- H2** Visibility affordance has influence presence
- H3** Metavoicing affordance has influence immersion
- H4** Metavoicing affordance has influence presence
- H5** Guidance shopping has influence immersion
- H6** Guidance shopping has affects presence

Live Streaming Shopping Engagement

Customer engagement has been considered a successful acquisition and retention strategy to establish and maintain relationships with customers. It has been identified as an important factor in predicting and explaining consumer behavior outcomes, such as purchase intentions. Customer engagement can be thought of as the collection of responses that users have to brand-related content on social media, including reactions, comments, shares and posts of user-generated content. New technologies and the Internet have changed the role of customers and businesses in the customer engagement process, elevating engagement studies to revolutionary levels. Immersion can increase the emotional response to the product being presented. A viewer who has a history of unsatisfactory work results may be more susceptible to the urge to make an impulse purchase of the product. Immersion in live streaming shopping can present the benefits and value of a product needed by consumers^[31]. When consumers know the value and benefits of a product, consumers will find it easier to make purchasing decision^[28].

Consumers can more easily enter live streaming shopping when they are immersed in a virtual retail environment and customer enjoyment will have a direct impact on their purchasing behavior. Immersion can increase the emotional response to the products presented. This will be an impetus for consumers to make impulse purchases. Immersion in live streaming shopping can create the feeling that consumers need the product as a necessary and urgent solution. Consumers tend to reduce rational considerations when feelings are involved with live streaming shopping and will make spontaneous purchases by following sudden feelings and desires.

Through a number of important aspects, live streaming strongly influences impulse buying behavior. First, viewers can communicate with presenters or influencers in real time on live streaming platforms, which builds trust and encourages impulse purchases. Secondly, the visual and immersive experience offered by product demonstrations and reviews during live streaming increases the desire to own and encourages impulse purchases. In addition, the use of exclusive offers and time-limited promotions fosters a sense of urgency and scarcity, encouraging viewers to make impulse purchases before the opportunity is lost. Influencers are important because followers are influenced by their recommendations and personal perception of their competence, leading to impulse purchases based on their advice. The social component of live streaming, where viewers can interact with the community and see others make purchases, creates social proof and encourages impulse shopping. The seamless shopping process built into live streaming platforms can make it easier for viewers to make impulse purchases.

- H7** Immersion has influence on impulsive buying
- H8** Presence has influence on impulsive buying

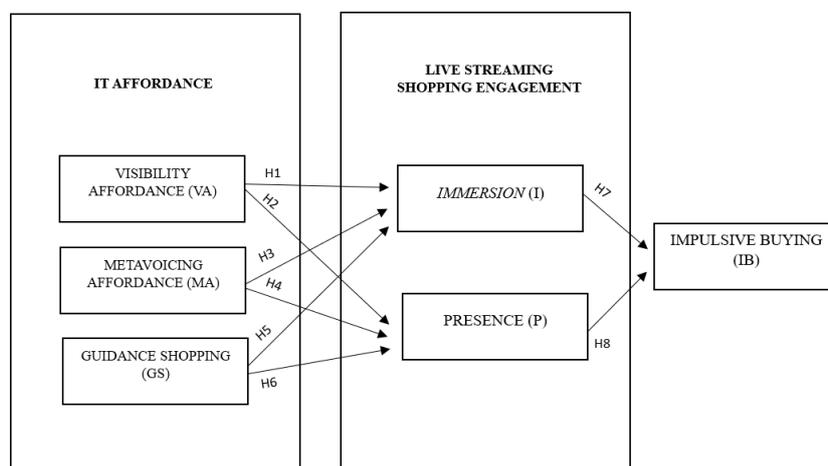


Figure 1. Conceptual Model
II. Material And Methods

This prospective comparative study was carried out on Shopee’s users in Indonesia from November 2023 to December 2023. A total 250 subjects (both male and females) were for in this study.

Study Design: Quantitative research uses survey method by questionnaire

Study Location: This study based on Indonesia

Study Duration: November 2023 to December 2023.

Sample size: 250 users.

Sample size calculation: The target of our sample was considered 250. We assumed that the confidence interval of 10% and confidence level of 95%. The sample size actually obtained for this study was 250 Shopee’s users in Indonesia

Subjects & selection method: The study population is Shopee’ users in Indonesia that have ever watch live streaming shopping and have ever do unplanned buying through live streaming shopping between November 2023 to December 2023.

With dyslipidemia were as follows:

Inclusion criteria:

1. Have ever watch live streaming shopping
2. Have ever buy impulsively through live streaming shopping

Procedure methodology

This study uses survey methods to gather data from respondents. We used google-forms to gather the respondents from Indonesia. Our questionnaire includes six variables including visibility affordance, metavoicing affordance, shopping guidance, immersion, presence, and impulsive buying. We used a 5-point Likert scale to measure each item (1=strongly disagree, 5=strongly agree). We distributed the questionnaire through social media every day. Our samples are Shopee users who have ever purchased products impulsively through live streaming shopping in Indonesia. We also gave the specific questions to ensure the suitability of a potential respondent asking if they ever watch live streaming shopping and do the unplanned purchased through live streaming shopping.

Statistical analysis

This research uses *Structural Equation Model (SEM)* with *Linear Structural Relation (LISREL)* v8.80 software. SEM is a statistical model used to find relationships between variables. SEM will analyze the interconnection structure expressed in a set of equations that resemble multiple regression equations. All relationships between constructs (dependent and independent variables) in the research are shown in the analysis.

Table 1. Demographics of Respondents (n=250)

Items		Frequency	Percentage
Gender	Female	146	58%
	Male	104	42%
Age	< 18 years old	5	2%
	18 - 25 years old	145	58%
	26 - 33 years old	72	29%
	34 - 41 years old	16	6%
	42 - 49 years old	7	3%
	50 - 57 years old	3	1,5%
	> 57 years old	2	0,5%
Education Level	JHS	2	2%
	SHS	60	23%
	Diploma (D3)	2	2%
	Bachelors (S1)	159	63%
	Master (S2)	26	19%
	PhD	1	1%
Monthly Income	< IDR 1,000,000	42	17%
	IDR 1,000,001 - IDR 3,000,000	55	22%
	IDR 3,000,001 - IDR 5,000,000	57	23%

Items		Frequency	Percentage
	IDR 5,000,001 - IDR 7,000,000	50	20%
	IDR 7,000,001 - IDR 9,000,000	15	6%
	> IDR 9,000,000	31	12%
Location	Western Indonesia	192	77%
	Central Indonesia	41	16%
	Eastern Indonesia	17	7%
Time spent on live streaming shopping in one week	1-5 times	181	72%
	6-10 times	47	19%
	>10 times	22	9%
Most purchased product	Fashion	107	43%
	Beauty products	59	24%
	Household products	28	11%
	Toys and Video games	11	4%
	Electronic products	26	10%
	Others	19	8%
Number of products purchased on live streaming shopping in one week	1-5 products	199	80%
	6-10 products	38	15%
	> 10 products	13	5%

Sources: Primary Data (2023)

Table 2 presents the demographic information of this research's respondents. The majority of this respondents 58% are female (n=146) and 42% are male (n=104). The respondents of this research majority are aged 18-25 (n=145, 58%). The majority educational level of respondent's bachelor's degree (n=131, 66%). The majority monthly income of the respondents is Rp 3,000,0001 - Rp 5,000,000 (n=57, 23%). The majority of respondents location are in Western Indonesia (n=192, 77%). In terms of user experience, most respondents watch live streaming shopping 1-5 times a week (n=181, 72%) with the most purchased product being fashion (n=107, 43%) and purchase 1-5 products in one week through live streaming shopping (n=199, 80%)

Measurement Items

Researchers will use 22 items derived from research by Sun, et al (2019) and 6 items from Bilal et al. (2022) to investigate the influence of information technology affordability in live streaming shopping on impulsive buying.

Table 2. Measurement Items

Items	Mean	Median	Std. Dev	References
Visibility Affordance (VA)				
Live streaming shopping provides detailed images of the product.	21.02	21.00	3.45	Sun et al., (2019)
Live streaming shopping provides detailed videos about products.				
Live streaming shopping allows me to see product attributes.				
Live streaming shopping shows me information on how to use the items.				
Live streaming shopping helps me visualize the product in real time.				
Metavoicing Affordance (MA)				
Live streaming shopping allows me to comment on products.	19.83	20.0	2.63	Sun et al., (2019)
Live streaming shopping allows me to give feedback to sellers about products.				
Live streaming shopping allows me to share my opinions about the product with the seller.				
Live streaming shopping allows me to follow the discussion on the product with the seller.				
Live streaming shopping allows me to share my shopping experience with the seller.				
Guidance Shopping (GS)				
The seller on live streaming shopping can give me information about all the alternative products I want to buy	15.66	16.00	3.13	Sun et al., (2019)
Streamers on live streaming shopping can help me determine product needs without any restrictions				
Sellers on live streaming shopping can help me identify product attributes that best suit my needs.				
Sellers on live streaming can provide product customization services based on my needs.				
Immersion (I)				

Items	Mean	Median	Std. Dev	References
The feelings involved when viewing live streaming shopping are very pleasant	11.34	12.00	2.49	Sun et al., (2019)
My emotions were absorbed when I saw the live streaming shopping				
My attention is focused when viewing live streaming shopping				
Presence (P)				
There is human contact when viewing live streaming shopping	18.24	19.00	4.18	Sun et al., (2019)
There is human warmth when interacting with live streaming shopping				
While watching live streaming shopping, my body is in the room, but I feel that my mind is in the live streaming shopping.				
I can feel what is happening in the live stream (human sensitivity)				
I can understand what is happening during live streaming shopping				
Impulsive Buying (IB)				
It's a struggle to walk away from interesting products I see online	19.61	20.00	5.86	Bilal et al., (2022)
I sometimes can't resist the urge to buy something online.				
I sometimes feel guilty after buying something online				
I find it hard to pass up a bargain online				
If I see something new on the internet, I want to buy it.				
I sometimes buy things online because I like buying products not because I need them.				

III. Result

Validity and Reliability

The latent variables of this research are visibility affordance, metavoicing affordance, guidance shopping, immersion, presence, and impulsive buying. The result is shown in table 3, the indicators valid when the standard loading factors (SLF) is ≥ 0.50 . The indicators are reliable when the value of construct reliability (CR) value ≥ 0.70 and the average variance extracted (AVE) ≥ 0.50 . As shown in table 3, all the indicators are valid and reliable.

Table 3. Validity and Reliability Test Result (n=250)

Latent Variable	Indicators	SLF	CR	AVE	Information
Visibility Affordance	VA1	0.67	0.86	0.56	Valid & Reliable
	VA2	0.75			
	VA3	0.74			
	VA4	0.80			
	VA5	0.77			
Metavoicing Affordance	MA1	0.74	0.83	0.50	Valid & Reliable
	MA2	0.79			
	MA3	0.74			
	MA4	0.72			
	MA5	0.52			
Guidance Shopping	GS1	0.75	0.84	0.58	Valid & Reliable
	GS2	0.79			
	GS3	0.79			
	GS4	0.71			
Immersion	I1	0.76	0.82	0.61	Valid & Reliable
	I2	0.86			
	I3	0.79			
Presence	P1	0.66	0.88	0.60	Valid & Reliable
	P2	0.79			
	P3	0.85			
	P4	0.84			
	P5	0.79			
Impulsive Buying	IB1	0.84	0.89	0.59	Valid & Reliable
	IB2	0.82			
	IB3	0.67			
	IB4	0.71			
	IB5	0.75			
	IB6	0.82			

Sources: Processed data by SEM-LISREL v8.8 (2023)

Overall Model Fit

Table 4 shows the result of goodness-fit-measurement. This research measures the value of RMR, RMSEA, GFI, NFI, NNFI, CFI, IFI, RFI, and AGFI. The result shows that RMR meets the criteria (0.048) or good fit with the criteria good fit value ≤ 0.05 or ≤ 0.01 and the RMSEA also reaches the good fit (0.038) with the criteria good fit value < 0.08 . Meanwhile the other indexes of goodness-fit-measurement meet the criteria (NFI, NNFI, CFI, IFI, RFI, GFI, AGFI). From the result, the model of this research represented the relationship between latent variables

Table 4. Overall Model Fit Test Result

Goodness of Fit	Value	Results	Information
Root Mean Square Residual (RMR)	≤ 0.05 or ≤ 0.01	0.048	Good Fit
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.038	Good Fit
Goodness of Fit Index (GFI)	≥ 0.90	0.90	Good Fit
Normed Fit Index (NFI)	≥ 0.90	0.97	Good Fit
Non-Normed Fit Index (NNFI)	≥ 0.90	0.99	Good Fit
Comparative Fit Index (CFI)	≥ 0.90	0.99	Good Fit
Incremental Fit Index (IFI)	≥ 0.90	0.99	Good Fit
Relative Fit Index (RFI)	≥ 0.90	0.96	Good Fit
Adjusted Goodness of Fit Index (AGFI)	≥ 0.90	0.90	Good Fit

Sources: Processed data by SEM-LISREL v8.8 (2023)

Structural Model

This research used SEM-LISREL v8.80 to calculate T-values and path coefficients to get the result. Fig 1 shows the structural model result of this study. We test the impact of IT affordance on live streaming shopping engagement and how they can impact the customers to do impulsive buying through live streaming shopping. This study uses 0.05 significance level at 95% confidence level. The items at 0.05 significance level must have t value > 1.96 .

The result shows that visibility affordance does not significantly affect immersion (-0.92) but visibility affect presence (-2.18), metavoicing affordance significantly affects immersion (2.79) and presence (2.21); guidance shopping also significantly affects immersion (2.88) and presence (5.25). These results show that H1 is rejected and H2-H6 is supported. This considered that IT only metavoicing affordance and guidance shopping that have significant impact on live streaming engagement. Furthermore, immersion is significantly impacts on impulsive buying (-2.56), meanwhile presence has impact on the impulsive buying (2.93). This structural model represents the result of the relationship between variables.

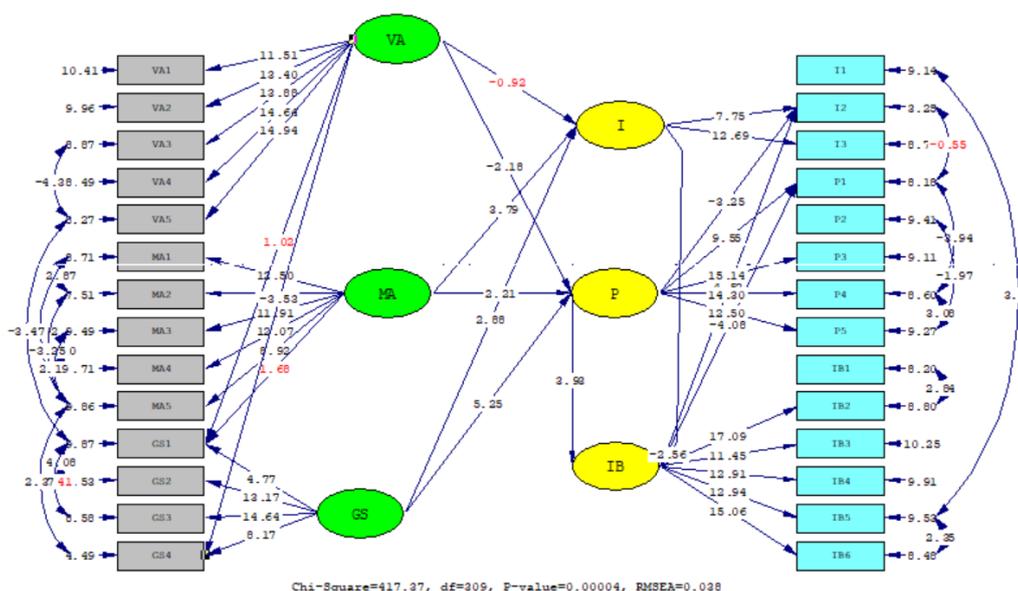


Figure 2. Structural Model

Sources: Processed data by SEM-LISREL v8.8 (2023)

IV. Discussion

This research uses the SEM LISREL v8.8 analysis tool. After carrying out descriptive analysis, analysis is carried out to determine the relationship between variables. This research consists of eight hypotheses consisting of visibility affordance, metavoicing affordance, shopping guidance, immersion, presence, and impulsive buying. The research results show that there are three hypotheses that are rejected. The following are the results of the research hypothesis analysis:

Table 5. Result Summary

Hypothesis	Relationship	Coefficient	T value	Result
H1	Visibility Affordance => Immersion	-0.51	-0.92	Not accepted
H2	Visibility Affordance => Presence	-0.47	-2.18	Accepted
H3	Metavoicing Affordance => Immersion	0.72	2.79	Accepted
H4	Metavoicing Affordance => Presence	0.50	2.21	Accepted
H5	Guidance Shopping => Immersion	0.50	2.88	Accepted
H6	Guidance Shopping => Presence	0.63	5.25	Accepted
H7	Immersion => Impulsive Buying	0.20	-2.56	Accepted
H8	Presence => Impulsive Buying	0.60	2.93	Accepted

Sources: Processed data by SEM-LISREL v8.8 (2023)

This research aims to determine how impulsive buying is formed during live streaming shopping. According to the statistical result of t value using SEM-LISREL v8.8 shows that there is a hypothesis that are not accepted. The result indicates that the components of IT affordance (visibility affordance, metavoicing affordance, and guidance shopping affordance) not all can significantly affect live streaming shopping engagement (immersion). The findings reveal that visibility affordance does not significantly affect immersion (-0.92). The several findings of this study are not consistent with previous research, which indicate that visibility affordance significantly affects immersion and presence, and immersion affects impulsive [42][2][17][36][14]. This hypothesis results consistent with the study that there may be a number of reasons why viewers choose not to make rash purchases when live broadcasting^[13].

Customers may not have found the goods or services being provided during the live streaming to be interesting or pertinent to their requirements, which could be one explanation. Another explanation would be that throughout the live streaming, the customers were not excited or in a rush to buy anything. Furthermore, it's possible that interruptions or diversions occurred during the live streaming, deterring the customers from making an impulsive purchase. It is crucial to remember that impulse buying is a complicated behavior that is affected by a number of variables and that it doesn't always happen when watching live streaming or engaging in other online activities^[13].

The result may not consistent with another study because live streaming shopping are influenced by culture. None of the previously stated studies were carried out in Indonesia. Thus, it's plausible that cultural disparities contributed to consumers' decision to forego live streaming. However, according to this research result metavoicing affordance can significantly affect immersion and presence, shopping guidance significantly affects immersion and presence, immersion and presence significantly affects impulsive buying which states that IT affordance on live streaming shopping has a significant impact on impulsive buying. This hypothesis result is consistent with some previous study^{[42][2][17]}.

Through live streaming shopping interaction, IT affordances including metavoicing affordance, visibility affordance, and guiding shopping affordance can affect customer buy intention. Customers may interact with streamers and request pertinent product information thanks to metavoicing affordance, which may increase their likelihood of making a purchase. Furthermore, when it comes to live streaming purchasing, customers' buy intentions can be positively influenced by immersion. Nevertheless, the text makes no mention of how immersion can affect impulsive purchases^[42]. To this end our study empirically examined that the components of IT affordance (visibility affordance, metavoicing affordance, shopping guidance) have significant impacts on live streaming shopping engagement (immersion and presence) which influence the customers impulsive buying on live streaming shopping.

V. Conclusion

Eight hypotheses about visibility affordance, metavoicing affordance, presence, immersion, and impulsive buying were developed by the study. Three hypotheses were found to be rejected by the data, suggesting that not all aspects of IT affordance had a substantial impact on live streaming retail involvement (immersion). In particular, it was discovered that sight affordance had no discernible impact on immersion. These results are in contrast to earlier research that discovered a robust relationship between immersion and impulsive purchasing,

as well as visibility and immersion. The variations may result from things like clients not finding the products intriguing, a lack of enthusiasm during the live broadcast, or procedural hiccups. It's crucial to keep in mind that impulsive purchasing is influenced by a variety of circumstances and isn't usually the result of online or live streaming activities.

The cultural background of live streaming retail in Indonesia may also contribute to the disparate results. The study did, however, find that metavoicing and purchasing advice significantly affected presence and immersion. Furthermore, presence and immersion had an impact on impulsive purchases. This implies that the characteristics of live streaming shopping can influence the likelihood of impulsive purchases made by users. The findings of this study indicate that certain elements, such as shopping assistance and metavoicing, can affect the level of client engagement during live streaming purchasing. Their impulsive purchasing habits are subsequently impacted by this engagement. To fully comprehend the connection between immersion and impulsive buying,

Suggestion

According to the findings, live streaming shopping suppliers and e-commerce platforms should concentrate on enhancing visibility affordance, making sure that products are engaging and pertinent for viewers, and establishing an atmosphere that encourages urgency and enthusiasm. Furthermore, it's important to try to keep viewers' attention and prevent impulsive purchases during live streaming sessions by minimizing disruptions or distractions.

Future research ought to compare live streaming purchasing across cultural contexts, given the possible impact of cultural influences on the practice. This would facilitate the identification of the ways in which cultural variations impact the connections among IT affordances, immersion, and impulsive purchasing. Such research could yield important information about how to customize live streaming shopping experiences to meet the expectations and tastes of particular cultural groups.

The importance of metavoicing affordance and its effects on presence and immersion were emphasized in the study. Subsequent investigations may explore the intricacies of the relationship between streamers and viewers, scrutinizing the ways in which streamers' communication approaches, promptness in answering viewer inquiries, and capacity to provide pertinent product details impact viewers' involvement and impulsive purchasing tendencies. This research could provide guidance to streamers on how to best use interaction tactics to improve the shopping experience and encourage impulsive purchases.

Limitation of Research

The research on the impact of information technology affordances on impulsive purchases during live streaming has several limitations. To begin with, the study exclusively examines Shopee customers in Indonesia, which may not be a representative sample of all live streaming consumers in the country. Second, because the study only examines six factors visibility affordance, metavoicing affordance, shopping advice, immersion, presence, and impulsive buying it may not fully take into account all the factors that influence impulsive purchase when live streaming shopping. Thirdly, the study relies on self-reported data from respondents, which may be biased and erroneous. Finally, social and cultural factors which may vary throughout communities and locations have an impact on impulsive purchases made during live streaming.

References

- [1] B. J. Babin And R. E. Anderson, *On Multivariate Data Analysis* Joseph F. Hair Jr. William C. Black Seventh Edition. .
- [2] M. Bilal, M. Sufyan, M. Mustak, And J. Salminen, "Journal Of Retailing And Consumer Services Understanding The Impact Of Online Customers ' Shopping Experience On Online Impulsive Buying : A Study On Two Leading E-Commerce Platforms," *J. Retail. Consum. Serv.*, Vol. 68, No. December 2021, P. 103000, 2022, Doi: 10.1016/J.Jretconser.2022.103000.
- [3] Shopee, "Seller Education Hub," 2023. <https://Seller.Shopee.Co.Id/Edu/Home>.
- [4] Ginee, "Shopping Live Potensi Cuan Besar, Inilah Sejumlah Faktanya," *Shopping Live*, 2022. <https://Ginee.Com/Id/Insights/Shopping-Live/>.
- [5] "Multivariate Data Analysis.Pdf" .
- [6] K. G. Jöreskog And F. Y. Wallentin, *Springer Series In Statistics Multivariate Analysis With Lisrel* .
- [7] A. N. App And L. Orie, *An App* .
- [8] J. F. H. Jr, W. C. Black, B. J. Babin, R. E. Anderson, W. C. Black, And R. E. Anderson, *Multivariate Data Analysis Multivariate Data Analysis* .
- [9] K. Stanney Et Al., "Aftereffects And Sense Of Presence In Virtual Environments : Formulation Of A Research And Development Agenda Aftereffects And Sense Of Presence In Virtual Environments : Formulaton Of A Research And Development Agenda," *Vol. 7318, No. November, 2015*, Doi: 10.1207/S15327590ijhc1002.
- [10] T. K. H. Chan, C. M. K. Cheung, And Z. W. Y. Lee, "Information & Management The State Of Online Impulse-Buying Research : A Literature Analysis," *Inf. Manag.*, Vol. 54, No. 2, Pp. 204–217, 2017, Doi: 10.1016/J.Im.2016.06.001.
- [11] M. Hu, M. Zhang, And Y. Wang, "Computers In Human Behavior Why Do Audiences Choose To Keep Watching On Live Video Streaming Platforms ? An Explanation Of Dual Identifi Cation Framework," *Vol. 75, Pp. 594–606*, 2017, Doi: 10.1016/J.Chb.2017.06.006.
- [12] C. Chen And Y. Lin, "Telematics And Informatics What Drives Live-Stream Usage Intention ? The Perspectives Of Flow , Entertainment , Social Interaction , And Endorsement," *Telemat. Informatics*, No. November, Pp. 0–1, 2017,

- Doi: 10.1016/J.Tele.2017.12.003.
- [13] S. Abdelsalam, N. Salim, And R. A. Alias, "Understanding Online Impulse Buying Behavior In Social Commerce : A Systematic Literature Review," Pp. 1–19, 2020, Doi: 10.1109/Access.2020.2993671.
- [14] A. Wongkitrungrueng And N. Assarut, "The Role Of Live Streaming In Building Consumer Trust And Engagement With Social Commerce Sellers," J. Bus. Res., No. November 2017, Pp. 0–1, 2018, Doi: 10.1016/J.Jbusres.2018.08.032.
- [15] K. Hassanein And M. Head, "The Impact Of Infusing Social Presence In The Web Interface : An Investigation Across Product Types," Vol. 10, No. 2, Pp. 31–55, 2006.
- [16] G. Parchoma, "Computers In Human Behavior The Contested Ontology Of Affordances : Implications For Researching Technological Affordances For Collaborative Knowledge Production," Comput. Human Behav., 2014, Doi: 10.1016/J.Chb.2012.05.028.
- [17] X. Dong And N. Wang, "International Journal Of Information Management Social Tie Formation In Chinese Online Social Commerce : The Role Of It A Ff Ordances," Vol. 42, No. April 2017, Pp. 49–64, 2018, Doi: 10.1016/J.Ijinfomgt.2018.06.002.
- [18] B. Xiao, I. Benbasat, And B. Xiao, "Product-Related Deception In E-Commerce : A Theoretical Perspective1," Vol. 35, No. 1, Pp. 169–195, 2017.
- [19] K. M. Lee, "Presence , Explicated," Pp. 27–50, 2004.
- [20] L. Caroux, K. Isbister, L. Le, And N. Vibert, "Computers In Human Behavior Player – Video Game Interaction : A Systematic Review Of Current Concepts," Comput. Human Behav., Vol. 48, Pp. 366–381, 2015, Doi: 10.1016/J.Chb.2015.01.066.
- [21] L. Zhou, W. Wang, J. D. Xu, T. Liu, And J. Gu, "Sc," Inf. Manag., 2018, Doi: 10.1016/J.Im.2018.04.005.
- [22] M. Y. Yim, S. Chu, And P. L. Sauer, "Sciencedirect Is Augmented Reality Technology An Effective Tool For E-Commerce ? An Interactivity And Vividness Perspective," J. Interact. Mark., Vol. 39, Pp. 89–103, 2017, Doi: 10.1016/J.Intmar.2017.04.001.
- [23] B. Bygstad, B. E. Munkvold, And O. Volkoff, "Affordances : A Framework For Critical Realist Data Analysis," Pp. 83–96, 2016, Doi: 10.1057/Jit.2015.13.
- [24] J. Chen, J. Chen, W. Shen, And C. Ning, "Association For Information Systems Ais Electronic Library (Aisel) I Watch But I Intend Not To Buy : Viewers ' Persuasion Knowledge About Live-Streaming Shopping I Watch But I Intend Not To Buy : Viewers ' Persuasion Knowledge About Live -Streaming Shopping," 2020.
- [25] C. Li, "Technological Forecasting & Social Change How Social Commerce Constructs In Fl Uence Customers ' Social Shopping Intention ? An Empirical Study Of A Social Commerce Website," Technol. Forecast. Soc. Chang., No. 129, Pp. 0–1, 2017, Doi: 10.1016/J.Techfore.2017.11.026.
- [26] Z. Lv, Y. Jin, And J. Huang, "Electronic Commerce Research And Applications How Do Sellers Use Live Chat To Influence Consumer Purchase Decision In China ?," Electron. Commer. Res. Appl., Vol. 28, Pp. 102–113, 2018, Doi: 10.1016/J.Elerap.2018.01.003.
- [27] A. Vohra And N. Bhardwaj, "From Active Participation To Engagement In Online Communities : Analysing The Mediating Role Of Trust And Commitment," J. Mark. Commun., Vol. 7266, No. November, Pp. 1–26, 2017, Doi: 10.1080/13527266.2017.1393768.
- [28] Y. Sun, K. Kee, C. Fan, Y. Lu, And S. Gupta, "Electronic Commerce Research And Applications Does Social Climate Matter ? On Friendship Groups In Social Commerce," Electron. Commer. Res. Appl., Vol. 18, Pp. 37–47, 2016, Doi: 10.1016/J.Elerap.2016.06.002.
- [29] A. Chen, Y. Lu, And B. Wang, "International Journal Of Information Management Customers ' Purchase Decision-Making Process In Social Commerce : A Social Learning Perspective," Int. J. Inf. Manage., Vol. 37, No. 6, Pp. 627–638, 2017, Doi: 10.1016/J.Ijinfomgt.2017.05.001.
- [30] S. D. Vivek, S. E. Beatty, And R. M. Morgan, "Customer Engagement : Exploring Customer Relationships Beyond Purchase," Vol. 20, No. 2, Pp. 127–145, 2012, Doi: 10.2753/Mtp1069-6679200201.
- [31] J. Fang, L. Chen, C. Wen, And V. R. Prybutok, "Co-Viewing Experience In Video Websites : The Effect Of Social Presence On E-Loyalty Co-Viewing Experience In Video Websites : The Effect Of Social Presence On E-Loyalty," Int. J. Electron. Commer., Vol. 22, No. 3, Pp. 446–476, 2018, Doi: 10.1080/10864415.2018.1462929.
- [32] M. Á. Moliner, D. Monferrer, M. Estrada, M. Á. Moliner, D. Monferrer, And M. Estrada, "Consequences Of Customer Engagement And Customer Self-Brand Connection," 2018, Doi: 10.1108/Jsm-08-2016-0320.
- [33] Consumer Behavior & Marketing. .
- [34] E. Customers And N. Sobari, "Icfbe 2022," 2022.
- [35] R. Zheng, Z. Li, And S. Na, "Journal Of Retailing And Consumer Services How Customer Engagement In The Live-Streaming Affects Purchase Intention And Customer Acquisition , E-Tailer ' S Perspective," J. Retail. Consum. Serv., Vol. 68, No. May, P. 103015, 2022, Doi: 10.1016/J.Jretconser.2022.103015.
- [36] P. Lo, Y. K. Dwivedi, G. W. Tan, K. Ooi, E. C. Aw, And B. Metri, "Why Do Consumers Buy Impulsively During Live Streaming ? A Deep Learning-Based Dual-Stage Sem-Ann Analysis," J. Bus. Res., Vol. 147, No. March, Pp. 325–337, 2022, Doi: 10.1016/J.Jbusres.2022.04.013.
- [37] Y. Ma, "Telematics And Informatics To Shop Or Not : Understanding Chinese Consumers ' Live-Stream Shopping Intentions From The Perspectives Of Uses And Gratifications , Perceived Network Size , Perceptions Of Digital Celebrities , And Shopping Orientations," Telemat. Informatics, Vol. 59, No. June 2020, P. 101562, 2021, Doi: 10.1016/J.Tele.2021.101562.
- [38] K. Merritt And S. Zhao, "The Power Of Live Stream Commerce : A Case Study Of How Live Stream Commerce Can Be Utilised In The Traditional British Retailing Sector," J. Open Innov. Technol. Mark. Complex., Vol. 8, No. 2, P. 71, 2022, Doi: 10.3390/Joitmc8020071.
- [39] Y. Lu, Y. He, And Y. Ke, "Jo Ur Na L P R F," Data Sci. Manag., 2022, Doi: 10.1016/J.Dsm.2022.10.002.
- [40] D. B. V. Kaye, "The Co-Evolution Of Two Chinese Mobile Short Video Apps : Parallel Platformization Of Douyin And Tiktok," 2020, Doi: 10.1177/2050157920952120.
- [41] C. Chen, Q. Zhao, And J. Wang, "How Livestreaming Increases Product Sales : Role Of Trust Transfer And Elaboration Likelihood Model," Behav. Inf. Technol., Vol. 0, No. 0, Pp. 1–16, 2020, Doi: 10.1080/0144929x.2020.1827457.
- [42] Y. Sun, X. Shao, X. Li, Y. Guo, And K. Nie, "Electronic Commerce Research And Applications How Live Streaming Influences Purchase Intentions In Social Commerce : An It Affordance Perspective," Electron. Commer. Res. Appl., Vol. 37, No. August, P. 100886, 2019, Doi: 10.1016/J.Elerap.2019.100886.
- [43] Y. Zhang, "How Does Mobility Affect Social Media Advertising Effectiveness ? A Study In Wechat Effectiveness," 2020, Doi: 10.1108/Imds-05-2020-0268.
- [44] Z. Sun, S. Fu, And T. Jiang, "Gain-Framed Product Descriptions Are More Appealing To Elderly Consumers In Live Streaming E-Commerce : Implications From A Controlled Experiment," Data Inf. Manag., Vol. 6, No. 4, P. 100022, 2022, Doi: 10.1016/J.Dim.2022.100022.

- [45] F. Ahmadi, "Factors Influencing Product Purchase," Pp. 571–586, 2022, Doi: 10.55573/Ijafb.074342.
- [46] Q. Lin, "Exploring The Role Of Influencers And Customer Engagement On Purchase Intention In Tiktok Live Streaming Shopping," No. 2022.
- [47] Y. Ma, "Heliyon Effects Of Interactivity Affordance On User Stickiness In Livestream Shopping : Identification And Gratification As Mediators," Heliyon, Vol. 9, No. 1, P. E12917, 2023, Doi: 10.1016/J.Heliyon.2023.E12917.
- [48] P. Paraman Et Al., "Dynamic Effect Of Flow On Impulsive Consumption : Evidence From Southeast Asian Live Streaming Platforms," J. Open Innov. Technol. Mark. Complex., Vol. 8, No. 4, P. 212, 2022, Doi: 10.3390/Joitmc8040212.
- [49] L. Saffanah, P. Wuri, And F. Prinastiti, "Asia Paci Fi C Management Review Actual Purchases On Instagram Live Shopping : The In Fl Uence Of Live Shopping Engagement And Information Technology Affordance," Asia Pacific Manag. Rev., No. Xxxx, 2022, Doi: 10.1016/J.Apmrv.2022.09.002.
- [50] M. Ross, S. Thaichon, And J. Surachartkumtonkun, "A Meta-Analysis Of Customer Engagement Behaviour," No. May, Pp. 1–21, 2020, Doi: 10.1111/Ijcs.12609.