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Impulse Buying Behaviors in Live Streaming Shopping Using the Stimulus-Organism-Response Framework

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ABSTRACT

Live streaming shopping, characterized by its attributes of authenticity, visualization, and interactivity, plays a pivotal role in the realm of e-commerce (Hu & Chaudhry, 2020). This emerging retail phenomenon empowers consumers with direct access to information and fosters heightened engagement with the promoted products, as underscored by Todd and Melancon (2018). This study investigates the impact of various stimuli, encompassing internal factors (individual characteristics, situational stimuli, social media influences) and external factors (marketing stimuli) as independent variables. It further explores the mediating role of hedonic motivation and its influence on impulsive buying, serving as the dependent variable. Employing a quantitative research approach, this study targets TikTok users within the Indonesian population. Sample selection employs purposive sampling, while data analysis utilizes Structural Equation Modeling-Partial Least Squares (SEM-PLS) and SMART PLS software. The findings reveal a positive correlation between individual characteristics, situational stimuli, social media stimuli, and marketing stimuli with hedonic motivation. Moreover, hedonic motivation is positively associated with impulsive buying behavior.

ARTICLE INFO

1. INTRODUCTION

"Live Streaming Shopping" has emerged as a prominent feature within the realm of multimedia, particularly in the context of social media (Cai et al., 2018). This innovative concept has gained recognition and adoption relatively recently within Indonesian digital platforms. Distinguished by its real-time and authentic nature, live streaming shopping amalgamates diverse facets of social commerce and media attributes. In the realm of live streaming shopping, there is a distinct cultivation of familiarity and a profound sense of connection between consumers and the vendors or products on offer (Hu et al., 2017).

Live streaming shopping facilitates direct vendor-to-customer interactions, employing video formats complemented by chat interfaces. This dynamic medium has found utility among small businesses and individuals worldwide for marketing an array of products, ranging from apparel and electronics to furniture and jewelry (Chen et al., 2017). Research indicates that consumers are drawn to live streaming shopping for hedonic reasons, seeking enjoyment, and social motivations, often driven by a desire to be part of a community (Wongkitrungrueng & Assarut, 2018; Wang & Wu, 2019).

Live streaming shopping's value proposition lies in its ability to deliver authenticity, immersive visualization, and heightened interactivity, all of which significantly contribute to the user experience (Hu & Chaudhry, 2020). Moreover, it is distinguished by its credibility, allowing consumers to engage directly with sellers and negotiate information, thereby enhancing their attentiveness to the promoted products (Todd & Melancon, 2018). The online seller's social presence, facilitated through live streaming, bridges the gap between customer interaction and the traditional offline sales approach, bringing this interaction into the digital realm. This infusion of social media presence and interaction not only enriches the shopping experience but also serves to dispel customer doubts, thereby bolstering trust in the sellers (Hajli, 2015).

The landscape of payment systems in the context of live-streaming shopping exhibits marked differences between social media and social commerce platforms. Social media platforms, exemplified by Instagram, primarily function as promotional mediums and do not provide integrated payment methods. In contrast, platforms dedicated to social commerce, such as TikTok Live, Shopee, and Tokopedia in Indonesia, offer a range of payment tools that users can select based on their preferred payment method. An article titled "TikTok Shares Insights into the Potential of Live-Streaming for Brands" highlights that approximately half of TikTok users have made purchases following a live-streaming session (Hutchinson, 2022). This underscores the growing trust and confidence users place in TikTok Live for their shopping needs. In fact, TikTok users have identified the platform as the most trustworthy option for their shopping endeavors (Hutchinson, 2022).

Despite the novelty of live-streaming shopping, researchers acknowledge its intrinsic value. One of the challenges of online shopping is the inability for customers to physically touch and feel the products before making a purchase, leading to potential confusion (Rathee & Rajain, 2019). Live streaming shopping addresses this concern by allowing shoppers to observe salespeople (i.e., streamers) as they showcase and discuss products. Furthermore, in

the live-streaming shopping environment, the audience gains access to comprehensive product information and the opportunity to pose questions to the streamer. This study seeks to explore how real-time social interactions can be seamlessly integrated into e-commerce and social media platforms, particularly within the context of live-streaming purchases.

In typical live streaming shopping scenarios, streamers often function as influential opinion leaders with distinct characteristics, areas of expertise, or appeals (Zhao et al., 2018). These streamers typically have established followings even before they begin showcasing products to their audience. They engage in product trials, make purchases, provide reviews, and offer advice on product usage, all of which contribute to furnishing viewers with comprehensive insights into the featured products (Chen & Lin, 2018).

Studies by Liu et al. (2021) emphasize that live streaming shopping enhances customer intimacy and engagement through attributes like authenticity, agreeableness, and responsiveness. Moreover, Yin (2020) suggests that factors such as perceived ease of use, environmental context, and behavioral imitation exert significant influence on purchase intentions, confirming the influence of celebrities in live-streaming shopping purchases.

This research endeavors to delve into the realm of hedonic shopping motivation, acknowledging the multisensory and affective experiences inherent in this context (Cai et al., 2018). Hedonic values, often driven by emotions such as cheerfulness and enjoyment, contribute to a delightful shopping experience, regardless of whether a purchase is made (Cai et al., 2018). Such experiences are intertwined with pleasure, entertainment, and sensory stimulation. Frequent viewers of live streaming on TikTok are more likely to make purchases, whether driven by necessity or momentary desire. The habitual consumption of live-streaming videos on TikTok cultivates an ongoing desire to shop for products featured in these streams.

The emergence of live-streaming shopping represents a new frontier in social commerce, prompting research inquiries into this evolving phenomenon. Studies indicate that the charisma of live broadcasters exerts the most profound influence on live-streaming shopping behavior (Lee & Chen, 2021). Prior to individuals expressing interest in purchasing products through platforms like TikTok, they are subjected to a dual influx of stimuli, stemming from both internal and external sources. Notably, influencers and public figures often transition into the role of streamers for live streaming sales events, leveraging their influence to persuade viewers to make purchase decisions. A streamer's attributes and characteristics can significantly alter viewers' mindsets, motivating them to acquire products that may not align with their genuine needs. These characteristics may include personal preferences related to color, packaging, item functionality, or simply a curiosity to explore new items. Individuals exhibiting these traits tend to engage in impulsive buying behaviors. Moreover, individuals susceptible to the influence of well-known influencers may develop an ongoing desire to acquire such products, often bypassing the prioritization of genuine necessities.

In addition to personal characteristics, situational stimuli also play a pivotal role in motivating individuals to make discretionary purchases. The act of shopping while concurrently engaging in live streaming on social media infuses an element of excitement and

entertainment, especially when hosted by one's favorite influencers. This dynamic environment often fosters a heightened desire to acquire the products featured.

Hedonic motivation, a key driver of impulsive buying, can be further amplified by external stimuli, particularly emanating from social media and marketing campaigns. The proliferation of product promotions across various social media platforms intensifies an individual's motivation to make a purchase, even when the items offered may not align with their immediate needs. Integrated marketing efforts across diverse social media channels wield a substantial influence over individuals, incentivizing impulsive buying behavior.

This confluence of factors underscores the significance of studying consumer behavior within the context of live-streaming shopping. Impulse buying during live-streaming shopping events is primarily driven by the perceived utility of the featured items or the charisma of the streamer. Nevertheless, there exists a dearth of comprehensive research on the intricacies of consumer behavior in live streaming shopping, prompting the adoption of the Stimulus-Organism-Response (SOR) framework to investigate the behavior of live-streaming subscribers.

Given the relative novelty of live-streaming shopping, there is a pressing need for additional research to elucidate the underlying motivations of customers who partake in this burgeoning trend. While studies abound in the Chinese market, where live-streaming shopping has gained immense popularity (Cai et al., 2018), research within the Indonesian context remains limited. This study, therefore, endeavors to explore the influence of hedonic motivation on impulsive buying behavior during Live Streaming Shopping sessions in Indonesia, with a focus on fashion, food, and accessories products. Specifically, this research seeks to address the following inquiries:

What factors exert an influence on hedonic motivation in the context of Live Streaming Shopping?

Within the realm of live-streaming shopping, how does impulse buying impact brands that employ the SOR approach?

With these objectives in mind, this study aims to enhance our understanding of the motivations underlying participation in live-streaming shopping and shed light on the intricate interplay between stimulus, organism, and response in the context of live streaming shopping, thereby contributing to both theoretical and practical knowledge.

2. METHODS

In this chapter, the researcher outlines the methodology employed to address the research questions. It covers aspects such as the research design, the target population, sampling techniques, data collection methods, and the subsequent data analysis.

The researcher has chosen to employ a quantitative research design for this study. Quantitative research methods utilize numerical data and specialized statistical techniques to address questions related to who, how much, what, where, when, and how. Numerical data, expressed in numerical form rather than natural language, is the primary data type in quantitative research.

The study's population comprises TikTok users in Indonesia and is utilized to gather research data related to the expected variables. The researcher will employ purposive sampling methods to select the study's sample based on specific criteria: TikTok Users in Indonesia who have engaged in shopping on TikTok Live more than three times in the past month. The research instrument chosen by the researcher is a questionnaire (Buchanan, 2016). A questionnaire was deemed suitable for eliciting responses regarding the factors influencing impulsive purchases in live streaming shopping.

The questionnaire consists of 45 questions addressing the SOR (Stimulus-Organism-Response) factors in live streaming shopping. Additionally, researchers utilize Likert scales ranging from 1 to 6 (Kavita et al., 2020; Joshi et al., 2015; Kimiagari & Malefa, 2021) to gauge respondents' perceptions and attitudes.

Data analysis for this research will be conducted using SEM-PLS (Structural Equation Modeling-Partial Least Squares) and SMART PLS software. SEM-PLS is chosen due to its predictive capabilities and capacity to elucidate latent variables, making it suitable for studies with limited sample sizes. The analysis will encompass validity, reliability assessments, and hypothesis testing via SEM-PLS for the four variables examined in this study. As seen in fig 1 and table 1, these variables are reflective in nature, meaning they are influenced by their respective indicators.
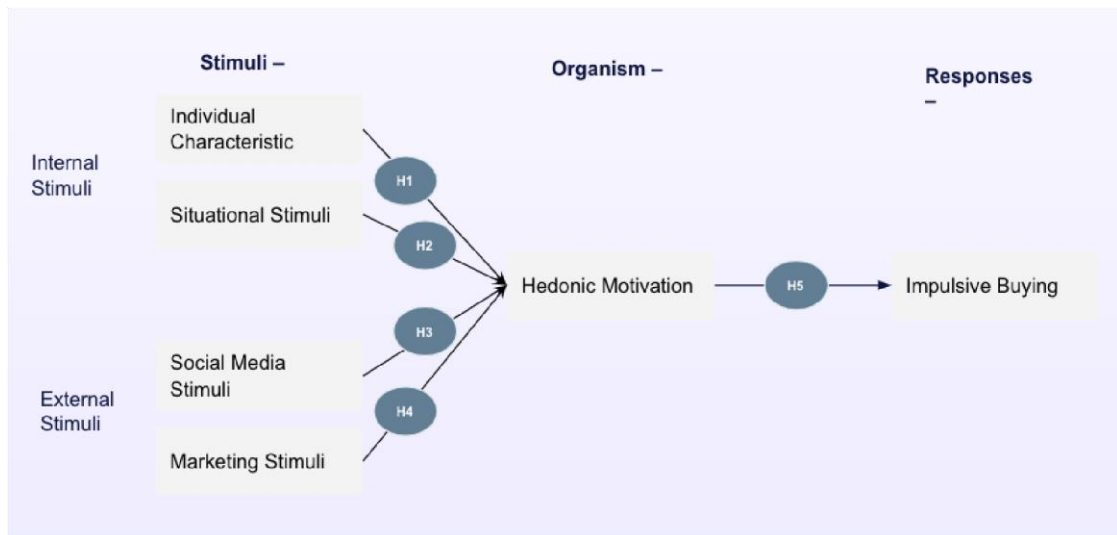

Figure 1. The framework of This Study

3. RESULTS AND DISCUSSION

In this section, the study's findings and their implications will be presented and discussed. The research employed the Partial Least Square analysis technique (PLS-SEM) for testing, which comprises both the outer model and the inner model.
The outer model assessment encompassed several aspects including outer loading, Average Variance Extracted (AVE), and Composite Reliability (CR). The results of this study reveal that all question items demonstrate an outer loading value exceeding 0.7 (Ghozali, 2015). This suggests that the indicators measuring each variable do not need to be removed from the analysis.

Furthermore, as seen in table 2, the research has achieved an AVE greater than 0.5 and CR exceeding 0.7. These results indicate that the study has successfully met the criteria for the outer model assessment, signifying that the research is robust and reliable in terms of its measurement model.

The subsequent sections will delve into the inner model assessment, the discussion of findings, and their implications for the study's objectives and research questions.

Table 2. Model Fit

Construct	Indicator Code	Outer Loading	Cronbach Alpha	Composite Reliability	AVE
Situational Stimuli	SS1	0,916	0,959	0,965	0,777
	SS2	0,884			
	SS3	0,883			
	SS4	0,901			
	SS5	0,878			
	SS6	0,877			
	SS7	0,883			
	SS8	0,829			
Social Media Stimuli	SMS1	0,851			
	SMS2	0,873			
	SMS3	0,889			
	SMS4	0,920			
	SMS5	0,839			
	SMS6	0,851			
Marketing Stimuli	SMS7	0,898	0,959	0,965	0,755
	SMS8	0,888			
	MS1	0,755			
	MS2	0,925			
	MS3	0,900			
	MS4	0,928			
	MS5	0,897			
	MS6	0,850			
	MS7	0,863			
	MS8	0,833			
	MS9	0,818			
Individual Characteristic	IC1	0,795	0,951	0,959	0,770
	IC2	0,851			
	IC3	0,853			
	IC4	0,824			
	IC5	0,903			
	IC6	0,907			
	IC7	0,884			

Hedonic Motivation	HM1	0,908	0,929	0,947	0,781
	HM2	0,892			
	HM3	0,935			
	HM4	0,877			
	HM5	0,874			
Impulsive Buying	IB1	0,912	0,951	0,959	0,744
	IB2	0,817			
	IB3	0,812			
	IB4	0,891			
	IB5	0,884			
	IB6	0,799			
	IB7	0,869			
	IB8	0,839			

In this study, the hypothesis was tested using the inner model, specifically through path analysis, which involved examining the original sample values and the significance of the inner model. The outcomes of the inner model testing are as shown in table 3:

Table3. Path Results

Path	Original Sample (O)	t-stat	p-value	Accepted
Individual Characteristic -> Hedonic Motivation	0,099	2,511	0,013	Accepted
Situational Stimuli -> Hedonic Motivation	0,132	2,587	0,01	Accepted
Social Media Stimuli -> Hedonic Motivation	0,164	5,189	0	Accepted
Marketing Stimuli -> Hedonic Motivation	0,614	10,358	0	Accepted
Hedonic Motivation -> Impulsive Buying	0,899	53,097	0	Accepted

Individual characteristics exert a positive and statistically significant influence on hedonic motivation, amplifying its impact. The unique attributes of individual streamers can play a pivotal role in determining audience retention during live streaming sessions. Streamers, who double as product presenters and influencers in the context of live streaming shopping, possess distinct qualities such as trust propensity and self-confidence, as elucidated by Chan et al. (2017). These attributes wield influence over the products they endorse, enhancing consumer interest and, consequently, elevating hedonic motivation. As a result, hypothesis one is confirmed.

Situational stimuli are identified as a constructive and significant factor in enhancing hedonic motivation. An abundance of situational stimuli correlates with increased hedonic motivation. In the realm of live streaming shopping, situational stimuli encompass the availability of diverse options for the audience, as defined by Piligrimiene et al. (2020). This confirmation reinforces the validity of hypothesis two.

Moreover, social media stimuli have demonstrated a positive and significant effect on hedonic motivation. Enhanced social media stimuli correspond to a proportional increase in hedonic motivation. The encouragement emanating from social media platforms exerts a psychological influence on an individual's product interest, inducing a behavior akin to addiction that subsequently fuels hedonic motivation. Therefore, hypothesis three is substantiated.

Marketing stimuli have also been revealed to have a constructive and significant impact on hedonic motivation. The attributes of the marketed product, as well as its perceived value presented by streamers during live streaming, significantly influence hedonic motivation. The higher the perceived value of the product offered to the audience, the more pronounced the impact. Special pricing, promotions, discounts, and bundling strategies employed by streamers enhance the audience's hedonic motivation. Hence, hypothesis four is validated.

Lastly, hedonic motivation itself has been found to have a positive and statistically significant effect on impulsive buying behavior. The level of hedonic motivation, induced by the stimuli described earlier in this live streaming shopping research, directly correlates with the extent of impulsive buying among the audience. Consequently, hypothesis five is affirmed.

In summary, this study underscores the pivotal roles played by individual characteristics, situational stimuli, social media stimuli, marketing stimuli, and hedonic motivation in shaping consumer behavior within the live streaming shopping context. The validated hypotheses shed light on the nuanced dynamics at play, providing valuable insights for both industry practitioners and researchers in this field.

4. CONCLUSION

In the course of this research and subsequent data analysis, the present study applied the Stimulus-Organism-Response (SOR) theory to construct and validate the model under investigation. The four distinct stimuli examined herein encompass individual characteristics, situational stimuli, social media stimuli, and marketing stimuli, with hedonic motivation serving as the organism, and impulsive buying behavior representing the response.

The individual characteristic, in this context, pertains to the streamer themselves. The streamer's demeanor and their efficacy in conveying product information in an engaging manner contribute significantly to arousing hedonic motivation within the audience, consequently heightening their propensity for impulsive buying.

Situational stimuli, likewise, exert a notable and positive influence on both hedonic motivation and impulsive buying behavior. The profusion of choices and variations proffered by streamers during live streaming shopping experiences profoundly impacts audience hedonic motivation, thereby fostering an inclination toward impulsive buying.

Furthermore, marketing stimuli have been proven to wield a constructive and significant influence on hedonic motivation and impulsive buying behavior. The availability of high-quality products coupled with enticing offers plays a pivotal role in augmenting the hedonic motivation of the audience, consequently amplifying their inclination for impulsive buying.

The empirical findings of this study have solidified the assertion that individual characteristics, situational stimuli, social media stimuli, and marketing stimuli all engender a positive impact on hedonic motivation. Furthermore, it has been established that hedonic motivation serves as a critical precursor to impulsive buying behavior. These insights collectively shed light on the intricate interplay of factors within the realm of live streaming shopping, offering valuable implications for both industry practitioners and researchers alike

6. REFERENCES

Belk, R. (1975). Situational Variables and Consumer Behavior. *Journal of Consumer Research*, 2, 157-164.

Cai, J., Wohn, D. Y., Mittal, A., & Sureshbabu, D. (2018). Utilitarian and hedonic motivations for live streaming shopping. In *TVX 2018 - Proceedings of the 2018 ACM International

Conference on Interactive Experiences for TV and Online Video*. https://doi.org/10.1145/3210825.3210837

Chan, T. K., Cheung, C. M., & Lee, Z. W. (2017). The state of online impulse-buying research: A literature analysis. *Information & Management, 54*(2), 204-217.

Chen, A., Lu, Y., & Wang, B. (2017). Customers' purchase decision-making process in social commerce: A social learning perspective. *International Journal of Information Management, 37*, 627–638.

Hu, Mingyao, & Sohail S. Chaudry. (2020). Enhancing consumer engagement in e-commerce live streaming via relational bonds. *Internet Research* ahead of print. DOI:10.1108/INTR-03-2019-0082

Hu, Mu, Zhang, M., & Wang, Y. (2017). Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework. *Computers in Human Behavior, 75*. https://doi.org/10.1016/j.chb.2017.06.006

Hutchinson, J. (2020), SSSHARC - Jonathon Hutchinson: The digital first personality. Podcast.

Kotler, P., & Gary Armstrong. (2016). *Fundamentals of Marketing*, Volume 1, Ninth Edition. Jakarta: Erlangga. p125.

Lee, C. H., & Chen, C. W. (2021). Impulse Buying Behaviors in Live Streaming Shopping Based on the Hajli, N. (2015). Social commerce constructs and consumer's intention to buy. *International Journal of Information Management, 35*(2), 183-191. doi:10.1016/j.ijinfomgt.2014.12.005.

Liu, G.H., Sun, M., & Lee, N.C.A. How can live streamers enhance viewer engagement in eCommerce streaming? In Proceedings of the 54th Hawaii International Conference on System Sciences, Grand Wailea, Maui, HI, USA, 5–8 January 2021; p. 3079.

Lu, B., & Chen, Z. (2021). Live Streaming Shopping and consumers' purchase intention: An uncertainty reduction perspective. *Information & Management, 58*(7), 103509.

Rajain, Pallavi, & Rupa Rathee. (2017). Sensory Marketing-Investigating the Use of Five Senses.

Sun, Y., Shao, X., Li, X., Guo, Y., & Nie, K. (2019). How live streaming influences purchase intentions in social commerce: An IT affordance perspective. *Electronic Commerce Research and Applications, 37*, 100886.

Todd, Patricia R., & Joanna Phillips Melancon. (2017). Gender and Live Streaming: Source Credibility and Motivation. *Journal of Research in Interactive Marketing, 12*(3). DOI:10.1108/JRIM-05-2017-0035

Wongkitrungrueng, Apiradee, & Nuttapol Assarut. (2018). The Role of Live Streaming in Building Consumer Trust and Engagement with Social Commerce Sellers. *Journal of Business Research, 117*(2). DOI:10.1016/j.jbusres.2018.08.032

Wu, C.C., Chen, C.J., & Chiang, T.W. Forming the Strategy for Live Streaming e-Commerce: An Action Research. Proceedings of the 54th Hawaii International Conference on System Sciences, Grand Wailea, Maui, HI, USA, 5–8 January 2021; p. 2770. Available online: https://10.24251/HICSS.2021.338 (accessed on 5 January 2021).