



YouTube Live Streamer Sustainability: Presence, Interactivity, and Attractiveness on Viewer Flow Experience.

Dio Doni Harson^{1*}, Hujjatullah Fazlurrahman², Fresha Kharisma³,
Achmad Kautsar⁴ 

¹ Universitas Negeri Surabaya, Indonesia

² Universitas Negeri Surabaya, Indonesia

³ Universitas Negeri Surabaya, Indonesia

⁴ Universitas Negeri Surabaya, Indonesia

Email: dio.22155@mhs.unesa.ac.id¹, hujjatullahfazlurrahman@unesa.ac.id²,
freshakharisma@unesa.ac.id³, achmadkautsar@unesa.ac.id⁴

*Corresponding Author

Received: 5 April 2026

Accepted: 12 April 2026

Revised: 15 April 2026

Published: 16 April 2026

To cite this article: Harson, D. D., Fazlurrahman, H., Kharisma, F., & Kautsar, A. (2026). YouTube Live Streamer Sustainability: Presence, Interactivity, and Attractiveness on Viewer Flow Experience. *Wasilatuna : Jurnal Komunikasi dan Penyiaran Islam*, 9 Special Edition (1), 57–69.

ABSTRACT

This study analyzes the effects of social presence, interactivity, and attractiveness on the flow experience of YouTube Live viewers in Indonesia. Despite the rapid growth of digital broadcasting, sustaining optimal audience engagement remains a challenge, necessitating further investigation into its communicative determinants. Employing an explanatory quantitative design, data were collected from 100 active viewers via purposive sampling and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) within the Stimulus-Organism-Response (S-O-R) framework. The findings indicate that social presence, interactivity, and attractiveness exert a significant positive effect on viewers' flow experience, with streamer attractiveness emerging as the strongest predictor. Ultimately, this study highlights live streaming not merely as an entertainment tool but as a dynamic digital communication space. The results emphasize that fostering two-way communication and a supportive online environment is vital for content creators to sustain audience immersion in new media platforms.

Keywords: attractiveness, digital communication, flow experience, interactivity, live streaming, social presence, new media.

INTRODUCTION

Over the last decade, the global digital entertainment landscape has been fundamentally reshaped by the rapid expansion of live streaming. This shift is closely linked to the broader digitization process that now permeates social, economic, and cultural dimensions (Kautsar, 2022). Unlike traditional media, video-based platforms such as YouTube facilitate synchronous communication, allowing audiences to interact directly with

creators in a highly collaborative manner. Consequently, recent studies view live streaming not merely as a broadcasting channel, but as a dynamic digital social space that drives intense psychological engagement among its users (Zheng et al., 2023).

Within Indonesia, YouTube maintains a dominant position in the digital entertainment market, supported by a massive user base. The steady rise in internet penetration across the country has accelerated the consumption of digital content particularly video and live broadcasts as a primary source of daily entertainment (Kharisma & Kurniawati, 2021). At the same time, fierce competition among content creators necessitates the delivery of highly relevant and personalized viewing experiences to meet evolving audience expectations in digital environments (Rosmalia et al., 2025).

Particularly in the context of Indonesia, where the demographic of digital audiences is predominantly Muslim, this live streaming trend has evolved beyond mere entertainment. It has become a profound social reality within New Media that fundamentally alters how Indonesian Muslim communities interact, communicate, and form social relationships in the digital ecosystem.

In this new media landscape, digital communication platforms like YouTube serve not only as entertainment hubs but also as vital spaces for value-based broadcasting. For Muslim audiences, the effectiveness and acceptance of a digital broadcast are deeply tied to how well the content creator aligns with the socio-cultural ethics of communication (Nasution et al., 2026). Consequently, a streamer's communication etiquette, or *adab*, significantly determines audience engagement and trust, acting as a shield to maintain the quality of digital relationships (Solekhan, 2023). Recent studies in digital audience reception further confirm that exposure to content rooted in ini values has a positive and significant effect on audience attitudes and behavioral intentions (Hidayat & Nurfadilah, 2026).

Despite this massive viewership, achieving optimal audience retention remains a significant challenge. Empirical evidence suggests that a large portion of viewers abandon broadcasts during the initial stages, indicating a failure to trigger a flow experience during the session (Sunanto, 2024). This vulnerability is further highlighted by micro-analytical studies on YouTube audience retention, which reveal that viewer attention is extremely fragile; drop-off rates spike early in the broadcast if compelling elements are absent (Parvinen et al., 2022). Mitigating this fragility requires a profound understanding of the psychological drivers that sustain audience attention, conceptualized in academic literature as the flow experience. This psychological state occurs when individuals achieve deep concentration, total immersion, and intrinsic pleasure during an activity (Zhou et al., 2025). In the context of live streaming, experiencing flow is critical for prolonging viewing duration and fostering loyalty for future broadcasts. Previous research confirms that flow experience acts as a primary psychological bridge translating digital stimuli into sustained behavioral responses (Liu et al., 2022; Wang et al., 2021). Thus, uncovering the antecedents of flow is essential for managing audience engagement in a highly competitive digital market.

To induce this state, contemporary literature identifies social presence as a key determinant of an immersive viewing session. When viewers perceive a strong social presence, they feel a sense of interpersonal proximity to both the streamer and the wider

audience, which enhances their emotional connection and comfort (Jang & Choi, 2022). Studies have demonstrated the positive impact of social presence on flow experience in live streaming through real-time interactions (Egi & Aprillia, 2025). However, the majority of this evidence stems from commerce-oriented streaming contexts (Mubarokah et al., 2025; Putri et al., 2024).

Additionally, interactivity stands out as a core feature that differentiates live streams from static videos. Real-time tools such as live chat and instant reactions facilitate dynamic two-way communication (Wu et al., 2021). While several scholars argue that high interactivity fosters flow and boosts viewer participation (Zheng et al., 2023; Ramdani et al., 2025), competing findings warn that excessive interactive elements can induce cognitive overload, thereby degrading the viewing experience (Lutfia & Wulandari, 2025). This contradiction highlights the need for further contextual investigation.

Furthermore, streamer attractiveness is increasingly acknowledged as a critical affective stimulus. This construct (Figure 1) encompasses visual appeal, communication style, emotional delivery, and overall personality. Streamers with high perceived

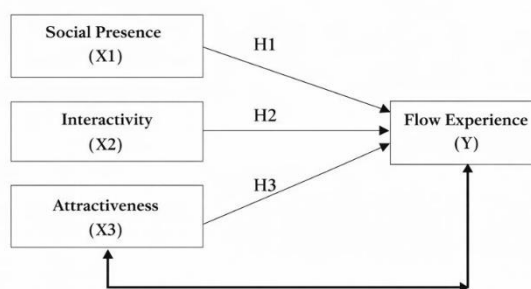


Figure 1 : Conceptual Framework

attractiveness are generally more successful at capturing attention and generating enjoyable sessions, which in turn facilitates the flow experience (Xin et al., 2024; Chiu et al., 2025). Nevertheless, empirical investigations into the role of attractiveness within non-commercial entertainment streams, specifically on YouTube Live in Indonesia, remain scarce.

Therefore, utilizing the Stimulus-Organism-Response (S-O-R) paradigm (Chung et al., 2025) and Flow Theory, this study investigates the impact of these three variables on the flow experience of Indonesian YouTube Live audiences, aiming to expand existing theoretical frameworks and offer actionable insights for sustainable content management. The conceptual framework illustrating these relationships is presented in Figure 1.

METHODS

This study employs a quantitative approach with an explanatory-correlational design to explore the causal relationships between social presence, interactivity, attractiveness, and flow experience among YouTube Live viewers. A quantitative design was chosen because this research seeks to empirically test hypotheses derived from the Stimulus-Organism-Response (S-O-R) framework and Flow Theory, focusing on how digital environmental cues influence viewers' internal psychological states. The research was conducted within the

context of the Indonesian digital entertainment landscape, specifically targeting audiences of the YouTube Live platform. This context provides a highly relevant setting for analyzing contemporary digital interaction patterns, given the massive growth of live streaming consumption and the tightening competition for audience retention in the country.

The primary participants of this study were 100 Indonesian YouTube users who actively engage with live streaming content. Although 100 respondents represent a modest sample size for a large population, this number is statistically robust for the model used. According to the updated PLS-SEM guidelines by Hair et al. (2019), for a model with three predictors directed at a specific construct, a sample size of 100 is sufficient to achieve a statistical power of 80% to detect a moderate effect size (R^2) at a 5% significance level, which perfectly aligns with standard Gpower calculation parameters.

To ensure the validity of the psychological state being measured and to minimize recall bias regarding flow experience, participants were selected through a rigorous purposive sampling technique. The inclusion criteria were sharpened to: individuals aged 18 years and older who have watched a YouTube Live broadcast (specifically focusing on non-commercial, educational, or da'wah content) within the last 1 month, with a minimum viewing duration of 30 minutes per session. This stringent approach ensures that respondents have recent and focused exposure to evaluate the streamer's interactivity accurately.

Understanding the audience context is essential in communication studies. Among the 100 respondents, the demographic profile illustrates the active consumers of New Media in Indonesia. The gender distribution consists of 68% males and 32% females. The respondents' ages range from 18 to 50 years old, with the vast majority falling within the 20–30 age group (74%), followed by the 18–19 age group (11%), and the 31–50 age group (15%). Regarding watching intensity, a significant portion of the audience spends an average of 3 to 5 hours per week actively engaging with YouTube Live broadcasts, confirming their adequate digital literacy. Data were collected through a single-phase online structured questionnaire. To avoid selection bias, the questionnaire was distributed via Google Forms across several digital community platforms, including WhatsApp groups and online digital forums focused on non-commercial content viewers in Indonesia. Because the instrument was adapted from previously validated foreign studies (comprising 20 items for social presence, interactivity, attractiveness, and flow experience), a rigorous translation process into Indonesian was conducted to ensure semantic equivalence. Furthermore, a pilot test was administered to 30 preliminary respondents before full-scale distribution to ensure the clarity of the translated items and to establish initial reliability. The detailed operationalization of these measurement items is presented in Table 1.

Table 1 : Operational Variables

Variabel	Item Kuesioner	Indikator	Sumber
	SP1: I feel the streamer is truly present during the live broadcast.	Perceived social presence	Zheng et al. (2023)

Variabel	Item Kuesioner	Indikator	Sumber
	SP2: I feel socially close to the streamer.	Interpersonal closeness	Zheng et al. (2023)
Social presence (X1)	SP3: The interaction in the live streaming feels real.	Social realism	Egi & Aprillia (2025)
	SP4: I feel part of the viewer community.	Sense of community	Egi & Aprillia (2025)
	SP5: I can sense the presence of other viewers	Social awareness	Zheng et al. (2023)
	IN1: The streamer responds to viewer comments promptly.	Responsiveness	Lutfia & Wulandari (2025)
	IN2: I can interact directly with the streamer.	Two-way communication	Zheng et al. (2023)
Interactivity (X2)	IN3: The live chat feature facilitates interaction.	Interaction facility	Zheng et al. (2023)
	IN4: The interaction during the broadcast feels active.	Interaction intensity	Lutfia & Wulandari (2025)
	IN5: I participate in conversations during the live streaming.	Audience participation	Lutfia & Wulandari (2025)
	AT1: The streamer has an engaging communication style.	Communication style	Xin (2024)
	AT2: The streamer's physical appearance interests me.	Visual attractiveness	Xin (2024)
Attractiveness (X3)	AT3: The streamer possesses a pleasant personality.	Personal attractiveness	Zheng et al. (2023)
	AT4: The streamer successfully creates an enjoyable atmosphere.	Charisma	Herman & Amelinda (2025)
	AT5: I am drawn to watch the broadcast due to the streamer's overall appeal.	Overall interest	Xin (2024)
	FE1: I am deeply focused when watching the live stream.	Concentration	Liu et al. (2022)

Variabel	Item Kuesioner	Indikator	Sumber
	FE2: I genuinely enjoy the time spent watching the live stream.	Intrinsic enjoyment	Liu et al. (2022)
Flow experience (Y)	FE3: I lose track of time while watching the broadcast.	Time distortion	Zheng et al. (2023)
	FE4: I feel fully engaged during the session.	Total engagement	Liu et al. (2022)
	FE5: Watching the live stream feels like an optimal and enjoyable experience.	Optimal experience	Liu et al. (2022)

Data analysis was performed using the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method via SmartPLS software. The analytical process comprised two main stages. First, the measurement model (outer model) was evaluated to ensure convergent validity, discriminant validity, and internal consistency reliability. Second, the structural model (inner model) was assessed using a bootstrapping procedure with 5,000 resamples to determine the significance of the path coefficients and test the proposed hypotheses.

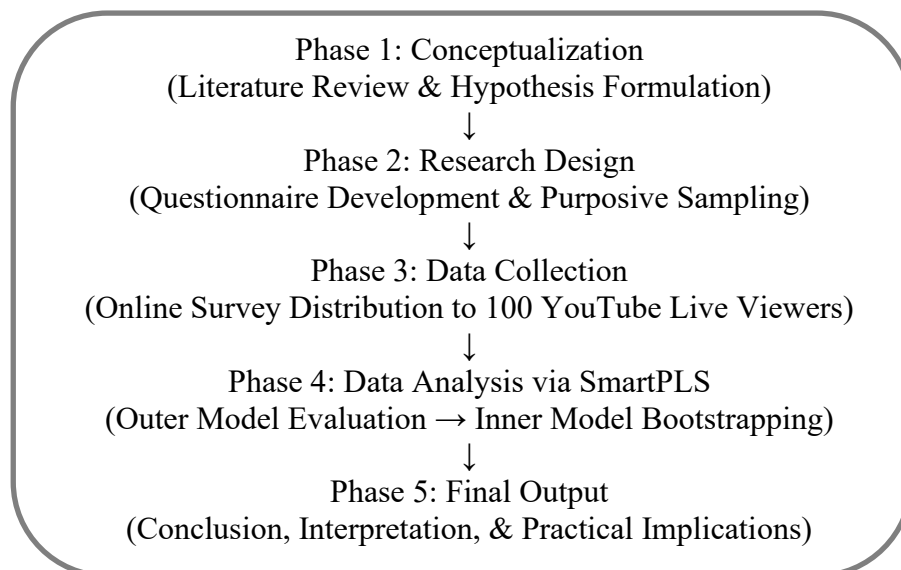


Figure 2 : Research Flow Diagram

RESULTS AND DISCUSSION

Measurement Model Evaluation (Outer Model)

Prior to testing the research hypotheses, the measurement model was evaluated to ensure the validity and reliability of the research instruments using SmartPLS. Convergent validity was assessed by examining the outer loadings and the Average Variance Extracted (AVE). The analysis demonstrated that all indicator items possessed outer loadings

exceeding the recommended threshold of 0.70. Furthermore, the AVE for all latent variables surpassed the 0.50 minimum requirement (ranging from 0.548 to 0.605), confirming strong convergent validity.

Internal consistency reliability was established by evaluating Cronbach's Alpha and Composite Reliability (CR). As shown in Table 2, all constructs exhibited Cronbach's Alpha values above 0.70 and CR values above 0.70. These results indicate that the measurement model is robust, reliable, and suitable for structural hypothesis testing.

Table 2 : Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Attractiveness (X3)	0.793	0.858	0.548
Flow Experience (Y)	0.812	0.869	0.571
Interactivity (X2)	0.818	0.873	0.580
Social Presence (X1)	0.835	0.884	0.605

Following the validation of the measurement model, the structural model was assessed using the bootstrapping procedure with 5,000 resamples to determine the significance of the path coefficients. The results of the structural model evaluation are summarized in Table 3.

Table 3 : Path Coefficients and Hypothesis Testing

Hypothesis	Relationship	Original Sample (O)	T-Statistics
H1	Social Presence -> Flow Experience	0.373	3.758
H2	Interactivity -> Flow Experience	0.180	2.270
H3	Attractiveness -> Flow Experience	0.428	4.231

To align with modern PLS-SEM reporting standards, discriminant validity was rigorously evaluated using the Heterotrait-Monotrait Ratio (HTMT). All HTMT values are below the recommended maximum threshold of 0.90. This result confirms that all constructs are empirically distinct, establishing robust discriminant validity.

Table 4 : Discriminant Validity

	AT	FE	IT	SP
AT				
FE	0.888			
IT	0.760	0.832		
SP	0.643	0.856	0.833	

Note: AT = Attractiveness; FE = Flow Experience; IT = Interactivity; SP = Social Presence.

Structural Model Assessment and Hypothesis Testing

The structural model was evaluated based on the coefficient of determination (R^2) and effect size (f^2). The analysis reveals that the model possesses substantial explanatory power, with an R^2 value of 0.707, meaning that 70.7% of the variance in Flow Experience is explained by Attractiveness, Interactivity, and Social Presence.

Furthermore, the specific impact of each predictor was assessed using the effect size (f^2). According to standard guidelines (Hair et al., 2019), values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. The results indicate that Attractiveness has a large effect on Flow Experience ($f^2 = 0.383$). Social Presence exhibits a medium effect ($f^2 = 0.242$), while Interactivity demonstrates a small effect ($f^2 = 0.049$).

Hypothesis Testing

The analysis reveals that the model possesses substantial explanatory power, with an R^2 value of 0.707, meaning that 70.7% of the variance in Flow Experience is explained by Attractiveness, Interactivity, and Social Presence. The significance of the structural paths was tested using a bootstrapping procedure, summarized in Table 5.

Table 5 : Hypothesis Testing Results

Hypothesis	Relationship	Effect Size (f^2)	P-Value	Decision
H1	Social Presence -> Flow Experience	0.242	0.000	Supported
H2	Interactivity -> Flow Experience	0.049	0.023	Supported
H3	Attractiveness -> Flow Experience	0.383	0.000	Supported

The hypothesis testing results confirm that all relationships are statistically significant. Social Presence ($p = 0.000 < 0.05$), Interactivity ($p = 0.023 < 0.05$), and Attractiveness ($p = 0.000 < 0.05$) all demonstrate a positive and significant effect on the viewers' Flow Experience.

Discussion

The empirical findings of this study offer significant insights into the psychological mechanisms driving audience immersion in YouTube Live broadcasts within the Indonesian digital entertainment context. The results confirm that all three proposed predictors, social presence, interactivity, and attractiveness, play a critical role in fostering a flow experience among viewers.

First, the analysis reveals that social presence significantly and positively affects the flow experience of viewers (H1 is supported; $O = 0.373$, $p = 0.000$). This indicates that the audience's awareness of being part of a larger community and feeling a sense of interpersonal closeness during the broadcast are crucial for creating an immersive environment. In the context of YouTube Live, the psychological perception of a shared social space, knowing that other individuals are watching and reacting simultaneously, enhances emotional attachment and concentration. This finding aligns with the S-O-R framework, proving that virtual social cues effectively trigger deep psychological engagement.

Second, the study demonstrates that interactivity significantly and positively influences the flow experience (H2 is supported; $O = 0.180$, $p = 0.023$). Real-time features,

such as live chat and immediate streamer responsiveness, transform the viewing process from passive consumption into active participation. When Indonesian audiences feel that they can communicate directly with the creator and that their presence is acknowledged, their cognitive involvement increases. This interactive dynamic prevents viewer boredom and heavily contributes to total immersion and time distortion.

Finally, the results show that streamer attractiveness has the most highly significant and strongest positive effect on flow experience (H3 is supported; $O = 0.428$, $p = 0.000$). This pattern emerges because, in a digital landscape where interactive tools are now a standard baseline, the personal appeal and communicative quality of the streamer serve as the primary differentiator for audience retention. In the Indonesian digital context, attractiveness is not merely a visual attribute but is deeply connected to the streamer's communication ethics and social persona.

While the empirical instruments measured visual and communicative appeal, these findings can be contextually interpreted through the lens of Indonesian Muslim values, which emphasize *adab* (etiquette) and *Qaulan Ma'rufa* (appropriate and kind speech). A streamer who demonstrates "Eastern etiquette" and respectful engagement is perceived as more attractive and trustworthy. This creates a sense of communal closeness and psychological comfort. Therefore, for the Indonesian audience, the "flow" is not just triggered by the content itself, but by the ethical and relational quality of the digital interaction. By clearly distinguishing between the empirical data and this contextual interpretation, the study highlights how value-based communication serves as a vital stimulus for audience immersion in a new media landscape.

CONCLUSION

This study concludes that social presence, interactivity, and attractiveness are vital catalysts for the Flow Experience in YouTube Live streaming. For digital business practitioners and content creators, these findings suggest that success in the Indonesian market depends on more than just technological features; it requires an understanding of the audience's socio-cultural identity. The research highlights that a polite, ethical, and communal-based communication style, often rooted in the local and religious values of Indonesian society, is the primary driver of engagement. When viewers feel that a streamer respects these social norms, they are more likely to experience "flow" and maintain long-term loyalty.

Practically, this research provides a strategic framework for digital communicators and business entities to adopt "value-based communication." To achieve sustainability in the New Media era, practitioners should prioritize building communal closeness and maintaining high ethical standards in their digital interactions. This approach ensures that digital platforms serve not only as transactional tools but also as meaningful social spaces. For future research, it is recommended to conduct a comparative analysis between different content genres, such as commercial live shopping and educational or socio-religious broadcasting, to further explore how specific communication motives influence audience immersion across various segments of the digital economy.

Declaration of AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used Google Gemini AI to assist with English language translation, grammar checking, and refining academic phrasing. After

using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the integrity, accuracy, and originality of the publication's final version.

CRedit Authorship Contribution Statement

1. **Dio Doni Harson:** Conceptualization, Methodology, Software, Data Curation, Formal Analysis, Investigation, Writing - Original Draft.
2. **Hujjatullah Fazlurrahman:** Supervision, Validation, Project Administration, and Writing - Review & Editing.
3. **Fresha Kharisma:** Validation, and Writing - Review & Editing.
4. **Achmad Kautsar:** Validation, and Writing - Review & Editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

The authors would like to thank Universitas Negeri Surabaya (UNESA) for the academic support and learning environment provided during this study. Sincere gratitude is explicitly extended to the advisor and examiners for their invaluable guidance, constructive feedback, and thorough evaluation that significantly improved the quality of this research. The authors also thank all the YouTube Live viewers who voluntarily participated as respondents.

Data Availability Statement

Data supporting the findings of this study are available upon reasonable request from the corresponding author. Data used in this research will be made available upon request to the corresponding author at dio.22155@mhs.unesa.ac.id.

Funding Statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. It was conducted as an independent academic study.

Ethical Approval Statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. It was conducted as an independent academic study.

REFERENCES

- Chiu, W., Kim, H. S., & Oh, Y. S. (2025). Exploring the impact of sports and fitness live streamer attributes on consumer well-being: Symmetric and asymmetric modeling approaches. *Sport Marketing Quarterly*, 34, 110–124. <https://doi.org/10.32731/SMQ.342.062025.02>

- Chung, X. L., Yasmin, F., Haider, S. A., Sinnappan, P., Poulova, P., Baskaran, S., Tehseen, S., & Idris, I. (2025). Impulsive buying behaviour in live-streaming commerce: An application of S-O-R theory. *Cogent Social Sciences*, 11(1), 2474861. <https://doi.org/10.1080/23311886.2025.2474861>
- Egi, M. E., & Aprillia, A. (2025). Social presence in live streaming, consumer trust, and flow experience: Catalyst of impulsive buying. *Economics and Business Quarterly Reviews*, 8(1), 26–35. <https://doi.org/10.2139/ssrn.5138855>
- Herman, F. J., & Amelinda, R. (2025). Peran daya tarik dan keahlian streamer terhadap niat pembelian melalui flow experience. *Jurnal Ekonomi*. <https://doi.org/10.24912/je.v30i1.2921>
- Hidayat, R., & Nurfadilah, D. (2026). Dynamics of Islamic preaching and audience reception in the era of digital media. *QIJIR*, 1(1), 35–42. <https://ejournal.grisetindonesia.com/qijir/article/view/119>
- Jang, M. H., & Choi, E. Y. (2022). How will video conference fatigue affect participants of MICE in the with-COVID-19 era? Focusing on video conference quality, social presence theory, and flow. *International Journal of Environmental Research and Public Health*, 19(8), 4601. <https://doi.org/10.3390/ijerph19084601>
- Kautsar, A. (2022). Digital marketing dan digital finance apakah menjadi faktor berkembangnya UMKM di Surabaya? *Jurnal Ekonomika* 45, 10(1), 308–313. <https://doi.org/10.30640/ekonomika45.v10i1.949>
- Kharisma, F., & Kurniawati, M. (2021). Pengaruh attitude homophily, social attractiveness, self-disclosure, endorser credibility, dan parasocial interaction terhadap purchase intention. *Jurnal Ilmu Manajemen*, 9(1), 10–18. <https://doi.org/10.26740/jim.v9n1.p10-18>
- Liu, X., Zhang, L., & Chen, Q. (2022). The effects of tourism e-commerce live streaming features on consumer purchase intention: The mediating roles of flow experience and trust. *Frontiers in Psychology*, 13, 995129. <https://doi.org/10.3389/fpsyg.2022.995129>
- Lutfia, N., & Wulandari, N. (2025). Analisis dampak dari social presence, interactivity, attractiveness dan expertise pada flow terhadap purchase intention dan continuous watching intention live streaming Tiktok Shop. *JAMIE: Journal of Applied Management, Innovation, and Economics*, 3(1), 377. <https://doi.org/10.35384/jamie.v3i1.772>
- Mubarokah, S. N., Pratama, F. B., Razan, A. N., Gading, R. A., Nur, N. A., Bafadal, I., & Fachmi, M. (2025). Flow experience as a primary driver of Gen-Z purchase intention on TikTok live shopping: A mediator with limited effect. *Proceedings of the International Conference on Digital Business Innovation and Technology Management (ICONBIT 2025)*. <https://proceeding.unesa.ac.id/index.php/iconbit/article/view/5648>
- Nasution, A. D. N., Wirahyuda, F., & Rubino, R. (2026). Internalization of Islamic communication ethics in forming wise attitudes in using social media. *Al-Risalah*, 17(1). <https://doi.org/10.34005/alrisalah.v17i1.5482>
-

- Parvinen, P., Tandefelt, M., Pöyry, E., Nordberg-Davies, S., & Palo, T. (2022). Analyzing commercial collaboration attractiveness in YouTube based on micro-analytical content labeling and audience retention. *Proceedings of the 55th Hawaii International Conference on System Sciences*, 4245–4254. <https://doi.org/10.24251/HICSS.2022.228>
- Putri, A. J., Syahputra, S., & Pradana, M. (2024). The influence of social presence on purchase intention in live video commerce (Empirical study in Bandung City). *Journal of Applied Business, Taxation and Economics Research*, 4(1), 121–130. <https://doi.org/10.54408/jabter.v4i1.380>
- Ramdani, L., Komaladewi, R., & Yudha, R. T. B. (2025). The effect of live streaming interaction on consumers' purchase intention in Bandung City: Social presence as a mediation factor. *Indonesian Interdisciplinary Journal of Sharia Economics (IJSE)*, 8(3), 8384–8399. <https://doi.org/10.31538/ijse.v8i1.7276>
- Rosmalia, T. R., Dhenabayu, R., Fazlurrahman, H., & Dewi, R. S. (2025). Evaluasi model faktor laten dalam kondisi kelangkaan data: Studi kasus rendahnya pembelian ulang pada e-commerce. *Indonesian Journal of Humanities and Social Sciences*, 6(4), 775–784. <https://doi.org/10.33367/ijhass.v6i4.8431>
- Solekhan, M. (2023). Communication ethics in social relationships using social media wisely in Islamic values. *Journal of Modern Islamic Studies and Civilization*, 1(1). <https://doi.org/10.59653/jmisc.v1i01.1>
- Sunanto. (2024). Pengaruh live streaming characteristics dan product type terhadap impulsive buying melalui trust dan flow experience dalam live streaming commerce pada platform Tiktok di Indonesia. *Jurnal Paradigma Ekonomika*, 19(4). <https://online-journal.unja.ac.id/paradigma/article/view/38717>
- Wang, H., Ding, J., Akram, U., Yue, X., & Chen, Y. (2021). An empirical study on the impact of e-commerce live features on consumers' purchase intention: From the perspective of flow experience and social presence. *Information*, 12(8), 324. <https://doi.org/10.3390/info12080324>
- Wu, S. F., Lu, Y. L., & Lien, C. J. (2021). Measuring effects of technological interactivity levels on flow with electroencephalogram. *IEEE Access*, 9, 85813–85822. <https://doi.org/10.1109/ACCESS.2021.3088716>
- Xin, M., Jian, L., Liu, W., & Bao, Y. (2024). Exploring the effect of live streaming atmospheric cues on consumer impulse buying: A flow experience perspective. *Journal of Theoretical and Applied Electronic Commerce Research*, 19(1), 364–389. <https://doi.org/10.3390/jtaer19010020>
- Zheng, S., Chen, J., Liao, J., & Hu, H. L. (2023). What motivates users' viewing and purchasing behavior motivations in live streaming: A stream-streamer-viewer perspective. *Journal of Retailing and Consumer Services*, 72, 103240. <https://doi.org/10.1016/j.jretconser.2023.103240>
- Zhou, L., Zhou, H., Cui, X., & Zhao, J. (2025). Antecedents and consequences of flow experience in virtual reality tourism: A path analysis of visit intention. *Information*, 16(6), 484. <https://doi.org/10.3390/info16060484>
-

AUTHOR BIOGRAPHIES

Dio Doni Harson is a student and researcher in the Digital Business Study Program at the Faculty of Economics and Business, Universitas Negeri Surabaya, Indonesia. His primary academic focus is on digital entertainment ecosystems, consumer behavior, and live streaming commerce. He actively participates in research exploring how digital stimuli influence user engagement and flow experience in contemporary online platforms. He serves as the corresponding author for this manuscript. Contact email: dio.22155@mhs.unesa.ac.id.

Hujjatullah Fazlurrahman is a Lecturer in the Digital Business Study Program at the Faculty of Economics and Business, Universitas Negeri Surabaya, Indonesia. His research interests predominantly revolve around digital business strategies, technology adoption, and e-commerce innovation. He is dedicated to contributing to academic studies that aim to bridge the gap between theoretical business frameworks and practical digital applications in the modern digital landscape. Contact email: hujjatullahfazlurrahman@unesa.ac.id.

Fresha Kharisma is a Lecturer in the Digital Business Study Program at the Faculty of Economics and Business, Universitas Negeri Surabaya, Indonesia. His academic expertise and research interests focus on consumer psychology, digital marketing communications, and social media dynamics. He explores how digital interactivity and virtual environments shape consumer perceptions and behaviors, consistently contributing valuable insights to the academic community through his research. Contact email: freshakharisma@unesa.ac.id.

Achmad Kautsar is a Lecturer in the Digital Business Study Program at the Faculty of Economics and Business, Universitas Negeri Surabaya, Indonesia. His core research interests include strategic management in digital platforms, the socio-economic impacts of emerging technologies, and consumer behavior. Throughout his academic career, he has guided numerous research initiatives focusing on optimizing digital platform sustainability and user engagement strategies in Indonesia. Contact email: achmadkautsar@unesa.ac.id.