

## **EXPLORING IT AFFORDANCES IN LIVE-STREAM SHOPPING: A STUDY ON CONSUMER PURCHASE INTENTIONS ON TIKTOK LIVESHOP**

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### **ABSTRACT**

This study examines the impact of IT affordances on consumer purchase intentions in TikTok Live Shop in Indonesia using the Stimulus-Organism-Response (S-O-R) paradigm. We explore how affordances—Guidance Shopping, Meta Voicing, Trading, and Visibility—influence Flow, Trust, and Interactivity, affecting purchase intentions. A survey of 586 respondents revealed that all affordances significantly impact purchase intentions both directly and indirectly. Guidance Shopping enhances engagement and trust, Meta Voicing fosters participation and trust, Trading ensures smooth transactions and increases interactivity, and Visibility improves product understanding and trust. These findings highlight the importance of IT affordances in enhancing the shopping experience, offering valuable insights for optimizing live-stream shopping platforms. The research extends IT affordance theory to live-stream shopping and validates the S-O-R paradigm, providing theoretical and practical implications. Limitations and future research directions are also discussed.

**Keywords: IT Affordances, Live-Stream Shopping, Purchase Intentions, Stimulus-Organism-Response (S-O-R) Paradigm, TikTok Live Shop**

### **INTRODUCTION**

The emergence of live-stream shopping has transformed the online retail sector, offering a dynamic platform for real-time consumer-seller interactions. This engaging shopping format has gained widespread popularity worldwide, with platforms such as Taobao, Amazon Live, and Shopee Live leading the trend (Zhang et al., 2023). In Indonesia, live-stream shopping is becoming a significant trend, fueled by rising internet penetration, increased smartphone use, and the growing appeal of e-commerce (Sun et al., 2019). This study aims to investigate the factors that influence consumer purchase intentions in the context of live-stream shopping on TikTok Live Shop in Indonesia, using the Stimulus-

Organism-Response (S-O-R) framework. TikTok has evolved from a social media platform into a live commerce platform known as TikTok Live Shop. This platform combines social media and e-commerce features, offering live streaming for businesses to sell and market their products and services (Wang et al., 2022). From a marketing strategy perspective, TikTok Live Shop's live streaming feature allows for broad consumer reach and interaction, highlighting a shift in consumer behavior towards online shopping through live streaming (Maharani et al., 2023). Consequently, TikTok Shop has become a new trend in social commerce tools (Moslehpour et al., 2022). Streamers or sellers on TikTok Live Shop leverage this feature to promote unique products and offer special deals during live broadcasts, encouraging consumer interaction through comments (Keel & Natarajan, 2012). The S-O-R paradigm, rooted in environmental psychology, provides a robust framework for understanding consumer behavior. It posits that external stimuli (S) affect the internal states of an organism (O), which in turn influence their responses (R). In the context of this study, the stimuli are various IT affordances offered by live-stream shopping platforms. The organism refers to the internal states of consumers, such as their level of trust and perceived interactivity, which mediate the relationship between the stimuli and their purchase intentions, the response (Chen & Yao, 2018).

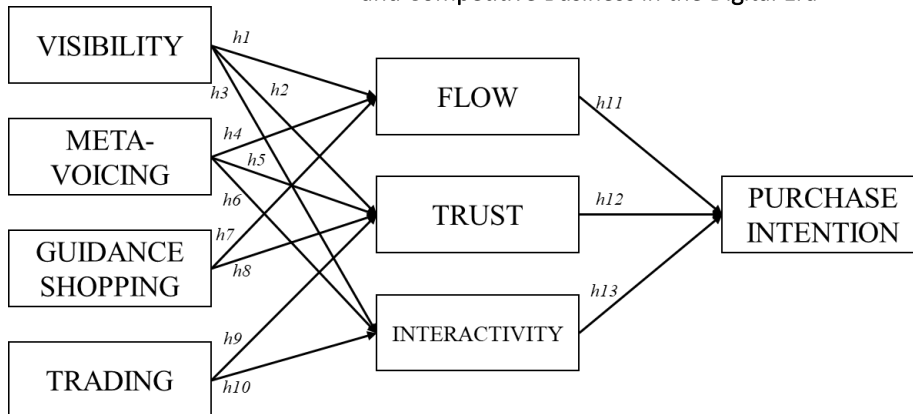
IT affordances refer to the possibilities for action that technology provides to users. In live-stream shopping, key IT affordances include:

1. **Visibility (VI):** The extent to which products and their features are visible and prominently displayed during the live stream (Zhang et al., 2023).
2. **Meta Voicing (MV):** Opportunities for consumers to voice their opinions and engage in conversations during the live stream (Sun et al., 2019).
3. **Guidance Shopping (GS):** Features that guide consumers through the shopping process, such as real-time recommendations and product demonstrations (Sun et al., 2019).
4. **Trading (TR):** The facilitation of real-time transactions during the live stream (Zhang et al., 2023).

These affordances serve as stimuli that can influence the internal states of consumers. Internal States: Flow, Trust and Interactivity.

1. **Flow (FL):** A psychological state characterized by complete absorption and enjoyment in an activity. In live-stream shopping, flow can enhance the shopping experience, making it more enjoyable and engaging (Zhang et al., 2023).
2. **Trust (TU):** Trust in the seller and the products being offered is crucial in live-stream shopping. High levels of trust can significantly boost consumers' purchase intentions (Sun et al., 2019).
3. **Interactivity (IN):** Interactivity denotes the level of engagement users can have with the content, sellers, and other users during live-stream shopping (Ma et al., 2022).

The ultimate response in this model is the consumers' purchase intention (PUI). This is the likelihood that consumers will make a purchase as a result of their engagement in the live-stream shopping experience (Zhang et al., 2023).



**Figure 1.** Model analysis and hypothesis

Based on Figure 1 and explanation above, the research model is derived from previous studies and adapted to current conditions. This research focuses on the response variable, purchase intention, which is influenced by the IT affordance variables: visibility, metavoicing, guidance shopping, and trading, mediated by flow, trust, and interactivity. From the above exposition, the following hypotheses are generated:

- H1. Visibility affects Flow
- H2. Visibility affects Trust
- H3. Visibility affects Interactivity
- H4. MetaVoicing affects Flow
- H5. MetaVoicing affects Trust
- H6. MetaVoicing affects Interactivity
- H7. Guidance Shopping affects Flow
- H8. Guidance Shopping affects Trust
- H9. Trading affects Trust
- H10. Trading affects Interactivity
- H11. Flow affects Purchase Intention
- H12. Trust affects Purchase Intention
- H13. Interactivity affects Purchase Intention

This study aims to investigate the impact of IT affordances (visibility, meta voicing, guidance shopping, and trading) on consumers' internal states (flow and trust) and how these internal states influence their purchase intentions in the context of live-stream shopping on TikTok Live Shop in Indonesia. By applying the S-O-R paradigm, this research seeks to provide a comprehensive understanding of the factors driving consumer behavior in live-stream shopping, offering valuable insights for e-commerce platforms and marketers. Given the rapid growth of e-commerce in Indonesia, understanding the dynamics of live-stream shopping can provide significant benefits. For businesses, this research can inform the development of more effective live-stream shopping strategies, enhancing customer engagement and driving sales. For academics, it contributes to the literature on consumer behavior and IT affordances in the digital age.

**METHOD**

A survey method was adopted in the current study to explore the impact of IT affordances on consumer trust and flow experience, and how these psychological states influence purchase intentions in the context of live-stream shopping on TikTok Live Shop. The target population for this study includes active users of TikTok Live Shop in Indonesia who have participated in live-stream shopping. A pre-screening question was used to ensure that only respondents who had experienced live streaming at least once were included in the study. According to Churchill and Iacobucci (2005), a sample size between 200 and 500 is appropriate for behavioral studies, making our sample size suitable for analysis. Data were collected using an online questionnaire distributed via social media platforms and direct messages. The questionnaire was divided into two sections: demographic information and items measuring eight variables. A 5-point Likert scale was used to measure each item (1 = strongly disagree to 5 = strongly agree). According to Hair et al. (2021), PLS (Partial Least Squares) is an alternative approach that shifts from a covariance-based Structural Equation Modeling (SEM) to a variance-based approach. The collected data were analyzed using Structural Equation Modeling (SEM) to test the hypothesized relationships between IT affordances, trust, flow, and purchase intention.

**RESULTS**

The respondent statistical data provides details about respondent identities such as gender, age, residence, and purchase frequency. The following is a descriptive explanation of the respondent characteristics:

**Table 1. Respondent Gender**

|       | Frequency | Percent |
|-------|-----------|---------|
| Man   | 271       | 46.2    |
| Woman | 315       | 53.8    |
| Total | 586       | 100.0   |

Based on Table 1, the respondent characteristics by gender reveal that there are 271 male respondents, accounting for 46.2%, and 315 female respondents, making up 53.8%. This indicates that female respondents are more dominant in using the live-stream shopping feature on the TikTok application for online shopping.

**Table 2. Respondent Age**

|                  | F   | %     |
|------------------|-----|-------|
| 17-23 years old  | 207 | 35.3  |
| >23-30 years old | 121 | 20.6  |
| >30-35 years old | 139 | 23.7  |
| >35-40 years old | 116 | 19.8  |
| >40 years old    | 3   | .5    |
| Total            | 586 | 100.0 |

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Based on Table 2, respondent characteristics by age reveal that there are 207 respondents aged 17-23 years (35.3%), 121 respondents aged >23-30 years (20.6%), 139 respondents aged >30-35 years (23.7%), 116 respondents aged >35-40 years (19.8%), and 3 respondents aged over 40 years (5%). This indicates that respondents aged 17-23 years are the most dominant group using the live-stream shopping feature on the TikTok application for online shopping. The analysis was performed using PLS-SEM software. After conducting the outer loading test, reliability, and model fit assessments, the model and analysis proceeded to hypothesis testing.

**Table 3.** Hypothesis Testing

|  | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values     |
|--|---------------------|-----------------|----------------------------|--------------------------|--------------|
| Visibility (VI) -> Flow (FL)                   | 0.114               | 0.110           | 0.045                      | 2.543                    | <b>0.011</b> |
| Visibility (VI) -> Trust (TU)                  | 0.167               | 0.168           | 0.059                      | 2.816                    | <b>0.005</b> |
| Visibility (VI) -> Interactivity (IN)          | 0.215               | 0.218           | 0.046                      | 4.702                    | <b>0.000</b> |
| MetaVoicing (MV) -> Flow (FL)                  | 0.382               | 0.380           | 0.055                      | 6.908                    | <b>0.000</b> |
| MetaVoicing (MV) -> Trust (TU)                 | 0.161               | 0.160           | 0.066                      | 2.450                    | <b>0.015</b> |
| MetaVoicing (MV) -> Interactivity (IN)         | 0.227               | 0.224           | 0.052                      | 4.331                    | <b>0.000</b> |
| Guidance Shopping (GS) -> Flow (FL)            | 0.186               | 0.187           | 0.056                      | 3.297                    | <b>0.001</b> |
| Guidance Shopping (GS) -> Trust (TU)           | 0.211               | 0.215           | 0.058                      | 3.613                    | <b>0.000</b> |
| Trading (TR) -> Trust (TU)                     | 0.166               | 0.166           | 0.056                      | 2.981                    | <b>0.003</b> |
| Trading (TR) -> Interactivity (IN)             | 0.210               | 0.211           | 0.045                      | 4.657                    | <b>0.000</b> |
| Flow (FL) -> Purchase Intention (PUI)          | 0.312               | 0.312           | 0.047                      | 6.650                    | <b>0.000</b> |
| Trust (TU) -> Purchase Intention (PUI)         | 0.234               | 0.234           | 0.045                      | 5.179                    | <b>0.000</b> |
| Interactivity (IN) -> Purchase Intention (PUI) | 0.207               | 0.209           | 0.048                      | 4.292                    | <b>0.000</b> |

From Table 3, it is shown that all t-statistic values are greater than 1.96 and all P-values are less than 0.05. Therefore, all hypotheses, from H1 to H13, are accepted.

## DISCUSSION

### Discussion

The analysis reveals significant insights into how IT affordances impact consumer behavior in live-stream shopping on TikTok Live Shop. The constructs of Guidance Shopping, MetaVoicing, Trading, and Visibility significantly influence Purchase Intention through intermediary constructs like Flow, Trust, and Interactivity. Guidance Shopping: Enhances flow, builds trust, and increases interactivity, leading to higher purchase intentions. Providing effective guidance during live streams supports and builds consumer confidence, fostering a positive shopping experience. MetaVoicing: Significantly impacts Purchase Intention by enabling consumers to voice their opinions and actively participate in the live stream. This participation enhances engagement (flow), interactivity, and trust, making consumers more likely to purchase. Trading: Positively influences Purchase Intention by ensuring smooth and reliable transaction processes. Effective trading processes build trust and increase interactivity, resulting in stronger purchase intentions. Visibility: Plays a crucial role in enhancing consumer engagement and trust during live streams. Clear and detailed visibility helps consumers feel informed and confident about their purchasing decisions.

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Overall, the model shows that enhancing these IT affordances can effectively increase consumer engagement, trust, and purchase intentions, highlighting their importance in creating a positive shopping experience.

### **Theoretical Implication**

**Validation of the S-O-R Paradigm:** The study supports the Stimulus-Organism-Response (S-O-R) paradigm by showing how various IT affordances (stimuli) influence consumers' internal states (organisms) like flow, trust, and interactivity, which subsequently affect their behavioral responses (purchase intentions). **Extension of IT Affordance Theory:** This research extends IT affordance theory to the context of live-stream shopping, highlighting the critical role of IT affordances in shaping consumer behavior and engagement in digital shopping environments. **Intermediary Role of Flow, Trust, and Interactivity:** The study emphasizes the intermediary role of flow, trust, and interactivity in the relationship between IT affordances and purchase intentions, providing a deeper understanding of how these affordances impact consumer behavior.

### **Managerial Implications**

**Enhance Guidance Shopping:** Managers should invest in tools and strategies that provide effective guidance during live streams. This could include real-time customer support, detailed product information, and interactive tutorials to help consumers navigate the shopping process. **Promote MetaVoicing:** Encouraging consumer participation and feedback during live streams can enhance engagement and trust. Implementing features that allow consumers to voice their opinions and interact with sellers in real-time can lead to higher purchase intentions. **Improve Trading Processes:** Ensuring smooth and secure transaction processes is crucial for building trust and encouraging repeat purchases. Managers should focus on optimizing payment systems, providing multiple payment options, and ensuring transaction security. **Maximize Product Visibility:** Clear and detailed visibility of products during live streams is essential. Managers should invest in high-quality video streaming, detailed product descriptions, and close-up views of products to help consumers make informed purchasing decisions.

### **CONCLUSION**

The findings from this study underscore the importance of IT affordances in shaping consumer behavior and enhancing the shopping experience in live-stream commerce. By improving visibility, promoting interactive features, providing guidance, and ensuring smooth transactions, live-stream shopping platforms like TikTok Live Shop can effectively engage consumers, build trust, and drive purchase intentions. These insights provide a valuable framework for both theoretical understanding and practical application in the rapidly evolving landscape of live-stream shopping. The study focuses on TikTok Live Shop in Indonesia, which may limit the generalizability of the findings to other platforms and regions. Future research should consider diverse samples from different geographical locations and platforms. Future research could compare the impact of IT affordances on consumer behavior across different live-stream shopping platforms to identify platform-specific factors that influence purchase intentions. Future studies could explore additional

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variables such as consumer satisfaction, loyalty, and perceived risk to provide a more comprehensive understanding of consumer behavior in live-stream shopping.

### REFERENCES

- Bygstad, B., Munkvold, B. E., & Volkoff, O. (2016). Identifying generative mechanisms through affordances: A framework for critical realist data analysis. *Journal of Information Technology*, 31(1); 83-96.
- Cabiddu, F., Carlo, M. De, & Piccoli, G. (2014). Social media affordances: Enabling customer engagement. *Annals of Tourism Research*, 48, 175-192.
- Chen, C. C., & Yao, J. Y. (2018). What drives impulse buying behaviors in a mobile auction? The perspective of the Stimulus-Organism-Response model. *Telematics and Informatics*, 35(5), 1249–1262.
- Churchill, Jr., Iacobucci, D. (2005). *Marketing Research: Methodological Foundations* 9th Edition, Thomson South-Western, Ohio.
- Dong, X., & Wang, T. (2018). Social tie formation in Chinese online social commerce: The role of IT affordances. *International Journal of Information Management*, 42, 49-64.
- Dong, X., Wang, T., & Benbasat, I. (2016). Measuring IT affordance in OSC IT Affordances in Online Social Commerce: Conceptualization Validation and Scale Development Full papers. *Americas Conference on Information Systems*.
- Gunawan, H., & Ayuningtiyas, K. (2018). Pengaruh Kepercayaan, Kemudahan Dan Kualitas Informasi Terhadap Keputusan Pembelian Daring Di Aplikasi Bukalapak Pada Mahasiswa Politeknik Negeri Batam. *Journal of Applied Business Administration*, 2(1), 152-165.
- Guo, L., Hu, X., Lu, J., & Ma, L. (2021). Effects of customer trust on engagement in live streaming commerce: mediating role of swift guanxi. *Internet Research*, 31(5), 1718-1744.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modelling (PLS-SEM) using R: A workbook*. Springer Nature.
- Keel, A., & Natarajan, R. (2012). Celebrity Endorsements and Beyond: New Avenues for Celebrity Branding. *Psychology and Marketing*, 29(9), 690–703.
- Lu, B., & Chen, Z. (2021). Live streaming commerce and consumers' purchase intention: An uncertainty reduction perspective. *Information & Management*, 58(7), 103509.
- Maharani, S., Made Bayu Dirgantara, I., & Diponegoro, U. (2023). Faktor-Faktor Yang Mempengaruhi Immersion Saat Live Streaming Syaria Shopping Serta Pengaruhnya Kepada Minat Pembelian (Studi Pada Social Commerce Tik Tok Indonesia). *Journal Ilmiah Ekonomi Islam*, 9(2), 2942-2955.
- Moslehpour, M., Odgerel, E., Lin, P. K., & Dadvari, A. (2022). The Role of Internet Celebrities in Purchase Intention and Impulse Buying. *International Journal of Internet Marketing and Advertising*, 1(1):1.
- Solangius Mbete, G., & Tanamal, R. (n.d.). Effect of Easiness, Service Quality, Price, Trust of Quality of Information, and Brand Image of Consumer Purchase Decision on Shopee Online Purchase. *Journal Informatika*, 5(2), 2622-4615.

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Volume 2, Issue 1, 2024

“Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era”

- 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.
- Tuncer, I. (2021). The relationship between IT affordance, flow experience, trust, and social commerce intention: An exploration using the S-O-R paradigm. *Technology in Society*, 65.
- Wang, S., Paulo Esperança, J., & Wu, Q. (2022). Effects of Live Streaming Proneness, Engagement and Intelligent Recommendation on Users' Purchase Intention in Short Video Community: Take TikTok (DouYin) Online Courses as an Example. *International Journal of Human-Computer Interaction*, 39(15), 3071–3083.
- Wang, Y., Lu, Z., Cao, P., Chu, J., Wang, H., & Wattenhofer, R. (2022). How Live Streaming Changes Shopping Decisions in E-commerce: A Study of Live Streaming Commerce. *Computer Supported Cooperative Work: CSCW: An International Journal*, 31(4), 701–729
- Yan, Y., Chen, H., Shao, B., & Lei, Y. (2023). How IT affordances influence customer engagement in live streaming commerce? A dual-stage analysis of PLS-SEM and fsQCA. *Journal of Retailing and Consumer Services*, 74, 103390.
- Zhang L, Chen M and Zamil AMA (2023) Livestream marketing and consumers' purchase intention: An IT affordance perspective using the S-O-R paradigm. *Front. Psychol* vol 14.
- Zhou, L., Jin, F., Wu, B., Wang, X., Lynette Wang, V., & Chen, Z. (2022). Understanding the role of influencers on live streaming platforms: when tipping makes the difference. *European Journal of Marketing*, 56(10), 2677-2697.
- Zhou, W., Dong, J., & Zhang, W. (2023). The impact of interpersonal interaction factors on consumers' purchase intention in social commerce: a relationship quality perspective. *Industrial Management and Data Systems*, 123(3), 697-721.