
THE DUAL-PROCESS MODEL APPROACH IN PROCESSING PRODUCT INFORMATION AND HABITUAL BEHAVIOR: ITS IMPACT ON CONSUMER PURCHASE INTENTION AND THE SIGNIFICANCE OF TIKTOK LIVE STREAMING FEATURES IN INDONESIA?



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Abstract

This study investigates the application of the dual-process model in processing product information and habitual behavior, as well as its impact on consumer purchase intention within the context of TikTok Live Streaming commerce in Indonesia. The research explores the significance of live streaming features such as real-time communication, perceived enjoyment, and broadcast competence in shaping consumer behavior. Using a quantitative approach, data were collected from respondents who engage with TikTok Live Streaming for beauty and personal care products. The findings reveal that perceived enjoyment positively influences habit formation, while broadcast competence reduces product uncertainty and enhances purchase intention. These results contribute to the understanding of consumer behavior in digital commerce and provide managerial implications for businesses leveraging live streaming platforms.

Keywords: Live Streaming Commerce, Purchase Intention, Dual-Process Theory, Source Credibility, Habit, Product Uncertainty

INTRODUCTION

In The rapid advancement of digital technology has significantly transformed the way consumers interact with products and services. One of the most notable phenomena in recent years is the rise of live streaming commerce, a hybrid model that combines traditional e-commerce with real-time interaction. This innovative approach allows sellers to present products dynamically through audiovisual media while addressing consumer queries instantly (Chen & Lin, 2018). Among the various platforms facilitating this trend, TikTok Live Streaming has gained immense popularity in Indonesia due to its interactive features and ability to engage users in real-time shopping experiences. Live streaming commerce offers a unique shopping experience by enabling two-way communication between sellers and consumers. Through this platform, consumers can ask questions, receive immediate responses, and observe product demonstrations in real-time. Such interactions not only enhance consumer trust but also reduce uncertainties related to product quality, authenticity, and fit (Chen et al., 2022). Despite its growing adoption, limited research has explored the underlying mechanisms that drive consumer purchase intention in the context of live streaming commerce, particularly in emerging markets like Indonesia. This study focuses on TikTok Live Streaming, which has become a dominant player in the Indonesian e-commerce landscape. The platform's integration of entertainment and shopping has made it an attractive option for both sellers and consumers, especially in the beauty and personal care product category. However, while live streaming commerce offers numerous advantages, challenges such as product uncertainty and the need for effective communication remain critical barriers to consumer adoption (Limayem et al., 2007). To address these gaps, this research applies the dual-process model to examine how consumers process product information and form habitual behaviors in the context of live streaming commerce. Specifically, the study investigates the roles of perceived enjoyment, broadcast competence, and product uncertainty in shaping consumer purchase intentions. By integrating dual-process theory with empirical evidence, this study aims to provide a comprehensive understanding of consumer behavior in digital commerce and offer practical insights for businesses leveraging live streaming platforms.

REVIEW OF LITERATURE

Live Streaming Commerce

Live streaming commerce is an innovative shopping model that combines real-time interaction with e-commerce functionalities. This approach allows sellers to showcase products dynamically while engaging consumers through live audiovisual communication (Chen & Lin, 2018). Unlike traditional e-commerce, live streaming creates a sense of urgency and immediacy, encouraging impulse purchases and enhancing consumer trust. TikTok Live Streaming, in particular, has gained significant traction in Indonesia due to its interactive features and ability to provide instant responses to consumer queries (Atmoko, 2021). The integration of entertainment and shopping in live streaming commerce has proven effective in increasing consumer engagement. For example, platforms like TikTok Shop have reported substantial growth in gross merchandise value (GMV) for beauty and personal care products, as highlighted in recent market reports (Pahlevi, 2022). However, despite its potential, challenges such as product uncertainty and the need for effective communication remain critical barriers to consumer adoption (Limayem et al., 2007).

Live Streaming Functional Features

Several functional features of live streaming play a crucial role in shaping consumer behavior. These include real-time communication, perceived enjoyment, broadcaster competence, and convenience of product search.

Real-Time Communication

Real-time communication enables bidirectional interaction between consumers and streamers, fostering trust and reducing uncertainty about product quality and fit. Studies have shown that real-time communication significantly enhances consumer satisfaction and purchase intentions (Lu et al., 2016). For instance, consumers who can ask questions and receive immediate feedback during live streams are more likely to feel confident in their purchasing decisions.

Perceived Enjoyment

Perceived enjoyment refers to the pleasure derived from engaging with live streaming content. It has been identified as a key driver of habitual usage and consumer loyalty (Yang et al., 2007). When consumers find live streaming entertaining and enjoyable, they are more likely to return to the platform repeatedly, forming habits that influence their purchase decisions.

Broadcaster Competence

Broadcaster competence reflects the perceived skill and reliability of live stream hosts. Consumers tend to trust broadcasters who demonstrate expertise and professionalism, which in turn reduces product-related uncertainties (Benbasat & Wang, 2005). For example, a competent broadcaster can effectively highlight product features, address consumer concerns, and create a sense of authenticity.

Convenience of Product Search

The ease of finding desired products through live streaming is another critical factor influencing consumer behavior. Streamlined navigation and intuitive interfaces enhance the shopping experience, making it easier for consumers to locate and evaluate products (Hong & Pavlou, 2014). This convenience not only saves time but also reduces cognitive effort, leading to higher purchase intentions.

Product Uncertainty

Product uncertainty arises when consumers lack sufficient information about a product's quality, authenticity, or fit. In live streaming commerce, this uncertainty can be mitigated through effective communication and interactive demonstrations (Chen et al., 2022). For instance, live demonstrations allow consumers to observe product functionality in real-time, reducing doubts about performance. Additionally, transparent descriptions and authentic reviews from broadcasters can further alleviate concerns about product authenticity.

Dual-Process Theory

Dual-process theory posits that decision-making involves two systems: System 1 (automatic, habitual) and System 2 (deliberate, rational) (Kahneman, 2003). In the context of live streaming commerce, System 1 is activated through enjoyable experiences, leading to habitual usage, while System 2 is engaged when consumers critically evaluate product information. This interplay between automatic and deliberate processes highlights the importance of both emotional engagement and rational evaluation in shaping purchase intentions.

Source Credibility Theory

Source credibility theory emphasizes the role of trustworthiness and expertise in influencing consumer perceptions. In live streaming commerce, the credibility of broadcasters plays a pivotal role in building consumer confidence (Jarvenpaa et al., 2000). A credible source can effectively reduce product uncertainty and enhance purchase intentions by providing reliable information and demonstrating authenticity.

Habit Formation

Habit formation refers to the automatic behaviors that consumers develop through repeated interactions with a platform. In live streaming commerce, factors such as perceived enjoyment and convenience contribute to habit formation, which in turn influences purchase intentions (Limayem et al., 2007). Once a habit is formed, consumers are more likely to engage in repeat purchases without extensive deliberation.

Purchase Intention

Purchase intention is a key indicator of consumer behavior and reflects the likelihood of a consumer making a purchase. In live streaming commerce, purchase intentions are influenced by various factors, including perceived enjoyment, broadcaster competence, and reduced product uncertainty (Jiang & Benbasat, 2007). Understanding these factors is essential for businesses seeking to optimize their live streaming strategies and drive sales.

Prior Research

Previous studies have explored various aspects of live streaming commerce, such as consumer trust (Benbasat & Wang, 2005), product uncertainty (Hong & Pavlou, 2014), and the role of interactive features (Lu et al., 2016). However, limited research has examined the dual-process model's applicability in this context or the specific impact of TikTok Live Streaming features on consumer behavior. This study aims to address these gaps by integrating dual-process theory with empirical evidence from Indonesian consumers.

Research Hypotheses

Role of Live Streaming Features

Live streaming commerce leverages synchronous interaction technology to deliver innovative functional features that enhance consumer product information and reduce product uncertainty. These features facilitate online transactions by providing signals that help consumers identify products best suited to their needs (Öğüt & Onur Taş, 2012). Signals convey both external and internal attributes of products, enabling consumers to evaluate quality and form perceptions about product superiority or shortcomings (Richardson et al., 1994; Wells et al., 2011). Additionally, signals communicate experiential attributes, aiding consumers in determining product fit with their preferences (Hong & Pavlou, 2014). Zhang et al. (2020) empirically demonstrated that live streaming reduces consumer uncertainty. Based on this, the following hypotheses are proposed:

H1a: Real-time communication negatively affects product quality uncertainty.

H1b: Real-time communication negatively affects product fit uncertainty.

H2a: Product interactivity negatively affects product quality uncertainty.

H2b: Product interactivity negatively affects product fit uncertainty.

H3a: Perceived authenticity negatively affects product quality uncertainty.

H3b: Perceived authenticity negatively affects product fit uncertainty.

Live streaming also fosters consumer habits through enjoyable experiences. Positive emotional stimulation enhances satisfaction and enjoyment, reinforcing memory retention

and encouraging repeat behaviors (Turel & Serenko, 2012; Yang et al., 2016). Ease of use further strengthens habit formation (Chen et al., 2019). Thus:

H4: Perceived enjoyment positively affects habit formation.

H5: Convenience of product search positively affects habit formation.

Source Competence

Perceived competence increases trust and reduces perceived risk in decision-making (Mannan et al., 2019; Nguyen, 2010). When consumers perceive broadcasters as competent, they are more likely to trust recommendations, offers, and claims, reducing product uncertainty (Wang et al., 2017). Therefore:

H6a: Broadcast competence negatively affects product quality uncertainty.

H6b: Broadcast competence negatively affects product fit uncertainty.

Impact of Two Mechanisms

The information signaling mechanism explains how rational processing in live streaming environments drives purchase decisions by reducing information asymmetry (Hwang et al., 2013). Lower uncertainty enhances consumer confidence in evaluating product quality and fit (Hong & Pavlou, 2014). Product uncertainty significantly impacts purchase intentions (Kim & Krishnan, 2015). Hence:

H7: Product quality uncertainty negatively affects purchase intention.

H8: Product fit uncertainty negatively affects purchase intention.

Habit is a critical predictor of consumer behavior in information systems research (Hsu & Lin, 2015). Once habits are formed, consumers rely less on detailed information, simplifying decision-making (Guo & Barnes, 2011). Thus:

H9: Habit positively affects purchase intention.

Moderating Role of Habit

In dual-process theory, automatic habits moderate rational evaluations. Habits reduce the need for in-depth quality and fit assessments, enabling consumers to make purchases without extensive deliberation (Locander et al., 2014). Enjoyable and convenient live streaming experiences encourage habitual usage, mitigating the impact of uncertainty on purchase decisions (Jeyaraj, 2022; Farivar et al., 2017). Therefore:

H9a: Habit strengthens the effect of perceived quality uncertainty on purchase intention.

H9b: Habit strengthens the effect of perceived fit uncertainty on purchase intention.

RESEARCH METHOD

Measurement Model

The measurement model was evaluated to ensure the reliability and validity of the constructs. All indicators were assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results demonstrated that all constructs achieved satisfactory levels of reliability and validity. Reliability: Cronbach's alpha and composite reliability (CR) values exceeded the recommended threshold of 0.7, indicating strong internal consistency (Hair et al., 2014). Convergent Validity: Average Variance Extracted (AVE) values for all constructs were above 0.5, confirming convergent validity (Fornell & Larcker, 1981). Discriminant Validity: Discriminant validity was confirmed using the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio, ensuring that each construct was distinct from others (Henseler et al., 2015).

Table 1
Composite Reliability (CR) dan Cronbach's Alpha

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
BOC	0.854	0.854	0.911	0.774
CPS	0.895	0.898	0.927	0.760
HA	0.874	0.876	0.922	0.799
Moderating Effect 1	1.000	1.000	1.000	1.000
Moderating Effect 2	1.000	1.000	1.000	1.000
PEA	0.908	0.908	0.931	0.730
PEE	0.938	0.939	0.953	0.802
PFU	0.889	0.889	0.918	0.692
PI	0.840	0.844	0.904	0.758
PIT	0.918	0.930	0.942	0.801
PQU	0.868	0.869	0.910	0.716
RTC	0.941	0.941	0.955	0.808

Table 2
Fornell-Larcker Criterion

	BOC	CPS	HA	Moderating Effect 1	Moderating Effect 2	PEA	PEE	PFU	PI	PIT	PQU	RTC
BOC	0.880											
CPS	-0.135	0.872										
HA	-0.097	0.606	0.894									
Moderating Effect 1	-0.001	0.125	0.074	1.000								
Moderating Effect 2	-0.105	0.061	0.042	0.670	1.000							
PEA	0.332	-0.123	-0.093	-0.035	-0.041	0.855						
PEE	-0.011	0.073	0.572	-0.010	0.040	-0.014	0.895					
PFU	0.720	-0.172	-0.071	-0.081	-0.165	0.422	0.015	0.832				
PI	0.258	0.051	0.196	0.465	0.510	0.140	0.205	0.313	0.871			
PIT	0.478	-0.116	-0.005	-0.084	-0.095	-0.050	0.061	0.506	0.120	0.895		
PQU	0.696	-0.247	-0.134	-0.043	-0.078	0.401	0.087	0.710	0.352	0.405	0.846	
RTC	0.432	-0.158	-0.125	0.010	-0.080	0.025	-0.021	0.577	0.295	0.015	0.604	0.899

Table 3
Hypothesis Testing Result

Code	Hipotesys	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Value	Conclusion
H1a	Real-time communication is negatively related to product quality uncertainty.	0.492	0.490	0.042	11.657	0.000	Supported
H1b	Real-time communication is negatively related to product fit uncertainty.	0.482	0.479	0.033	14.813	0.000	Supported
H2a	Product interactivity is negatively related to product quality uncertainty.	0.305	0.307	0.041	7.511	0.000	Supported
H2b	Product interactivity is negatively related to product fit uncertainty.	0.429	0.430	0.036	11.913	0.000	Supported
H3a	Perceived authenticity is negatively related to product quality uncertainty.	0.328	0.325	0.036	9.055	0.000	Supported
H3b	Perceived authenticity is negatively related to product fit uncertainty.	0.370	0.371	0.032	11.419	0.000	Supported
H4	Perceived enjoyment is positively related to habit formation.	0.531	0.532	0.036	14.762	0.000	Supported

H5	Convenience of product search is positively related to habit formation.	0.567	0.565	0.032	17.455	0.000	Supported
H6a	Broadcast competence is negatively related to product quality uncertainty.	0.229	0.228	0.049	4.619	0.000	Supported
H6b	Broadcast competence is negatively related to product fit uncertainty.	0.183	0.186	0.036	5.103	0.000	Supported
H7	Product quality uncertainty is negatively related to purchase intention.	0.258	0.259	0.058	4.460	0.000	Supported
H8	Product fit uncertainty is negatively related to purchase intention.	0.232	0.227	0.067	3.485	0.001	Supported
H9	Habit is positively related to purchase intention.	0.215	0.221	0.053	4.071	0.000	Supported

H9a	Habit moderates the effect of perceived quality uncertainty on purchase intention.	0.196	0.190	0.056	3.482	0.001	Supported
H9b	Habit moderates the effect of perceived fit uncertainty on purchase intention.	0.432	0.432	0.056	7.739	0.000	Supported

The research investigates various factors that influence consumer behavior in live streaming e-commerce, specifically for beauty and personal care products on TikTok Shop. Real-time communication plays a crucial role, significantly reducing both product quality uncertainty (T-statistic = 11.657) and product fit uncertainty (T-statistic = 14.813). This aligns with findings by Chen et al. (2022) and Hussain et al. (2021), who highlight that real-time interaction helps bridge information gaps between sellers and consumers, enhancing trust and purchase intentions. Product interactivity also shows strong negative relationships with both product quality uncertainty (T-statistic = 7.511) and product fit uncertainty (T-statistic = 11.913). Jiang and Benbasat (2007) support this, suggesting that interactive elements help consumers evaluate products more comprehensively, thus reducing uncertainties. Perceived authenticity is vital in lowering both types of uncertainties, with T-statistics of 9.055 and 11.419, respectively. When consumers perceive streamers as genuine, their doubts about product quality and suitability decrease significantly, as noted by Chen et al. (2022) and Liu & Sun (2024). Perceived enjoyment strongly influences habit formation (T-statistic = 14.762), while convenience in product search positively affects purchase intention (T-statistic = 17.455). Broadcast competence emerges as another key factor, significantly reducing both product quality uncertainty (T-statistic = 4.619) and product fit uncertainty (T-statistic = 5.103), as highlighted by Chen and Zhang (2023) and Mannan et al. (2019). Both product quality uncertainty and product fit uncertainty show significant negative impacts on purchase intention (T-statistics = 4.460 and 3.845 respectively). However, habit formation demonstrates a positive moderating effect on these relationships, with T-statistics of 3.482 and 7.739 respectively. This suggests that frequent users of live streaming shopping become more tolerant of product uncertainties over time, as supported by Limayem et al. (2007). These findings collectively emphasize the importance of interactive, authentic, and competent live streaming presentations in building consumer trust and reducing purchase hesitations in digital commerce environments. The research highlights how various platform features and broadcaster qualities can significantly influence consumer decision-making processes in live streaming e-commerce.

CONCLUSION

In conclusion, this study demonstrates the significant potential of live streaming commerce in reducing product uncertainty and enhancing consumer purchase intention. By leveraging functional features such as real-time communication, product interactivity, and broadcast competence, businesses can build trust, foster habitual behaviors, and drive sales. The dual-process model provides a robust framework for understanding how both rational evaluations and automatic habits influence consumer decisions in digital environments. As live streaming commerce continues to evolve, businesses must remain agile and innovative to meet the dynamic needs of consumers. By implementing the recommendations outlined in this study, companies can optimize their live streaming strategies and capitalize on the growing popularity of this transformative shopping method. Future research should build on these findings to further explore the complexities of consumer behavior in live streaming commerce and provide actionable insights for practitioners.

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