

## How Live Stream Session is Developed to Guide Value Co-creation between Streamer and Audience: An Ethnographic Investigation based on Dramaturgical Theory

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### ABSTRACT

E-commerce live streaming has become one of the main retailing approach for online selling. It resembles a well-organized drama performance which encourages audience to make purchase. Such format of online selling proves to be more effective than conventional online selling by creating desired value for audience. However, the creation of value is a complex and interdependent process rooted in the dynamics between streamers and viewers. It is thus imperative for industrial professional and academic researchers to understand the complicated practice in E-commerce live streaming. Extant literature still lacks systematic discussions over the complicated process related to value creation in e-commerce live streaming. Therefore, drawing on Dramaturgical Theory and Consumption Value Theory, this study employs an ethnographic research design to explore how a live stream session is developed and managed to create desired value together with the audience. The systematic typology of live stream practices is proposed as the foundation for theoretical discussion.

**Keywords:** E-commerce live streaming, dramaturgical theory, consumption value theory, ethnography.

### INTRODUCTION

Currently, a significant proportion of consumers are opting for live streaming shopping as the key for shopping (Li et al.,2021). During the live streaming, merchants can recommend, display, and introduce products to target consumers in real-time, just like delivering a well-organized 'retailing' show to trigger out impulsive buying behavior. In other words, the online sales approach of e-commerce live streaming is considered to create more value than the traditional (Taobao, Amazon, etc.) e-business retailing way (Wongkitrungrueng et al,2020). However, the creation of value received by consumers are unlikely to be fully controlled by the streamer, which requires a live stream session to improvise effectively to create desired performance. Moreover, with the rise of the e-commerce live streaming industry, its challenge of the competitiveness is constantly increasing (Qi. et al,2023). Meanwhile, merchants have little understanding of consumers' behaviors in live streaming rooms and their purchasing intentions. Therefore, the focus of this paper is to explore the different consumer values in live-streaming rooms and how live-streaming satisfies these values through "performance."

Although there is a sizeable amount of research that has focus on live streaming e-commerce, the majority of this research has however been conducted in the impact of streamer characteristics and consumer behavior in live streaming sessions (Wongkitrungrueng and Assarut, 2020). However, in live streaming, the performance of the streamers and the behavior of the audience are not independent but rather a interdependent process. Meanwhile, the layout of the live streaming room not only affects the user's viewing experience but is also directly related to the user's overall perceived value of products and services(Gu,Y.et.al, 2023). Therefore, the exploration of live streaming performance should take both the streamer's and the audience's aspect into consideration.

Based on the above, this paper employs ethnographic research (online observation and offline interviews) to explore the complex inter-relationships between audience' perceived value and live streaming performance in live streaming. We need to use this method to summarize how streamers create different kinds of value for their audience through performance. Simultaneously, we introduce the Dramaturgical Theory and Consumption Value Theory to classify the streamers' performances and the different value demands of the audience. In summary, we need to summarize the practices of streamers and audiences in live-streaming rooms and develop a theoretical framework.

## THEORETICAL BACKGROUND

### Live Streaming Literature

The live streaming industry in China has experienced rapid growth in recent years, emerging as a crucial platform for e-commerce, entertainment, and social interaction. This paper provides an overview of the current research progress on live streaming, live shopping, live entertainment, and related influencing factors. It also discusses the development status and future trends of the live streaming industry in China based on existing literature. Live viewing has become a predominant form of entertainment with viewers motivated by social interaction, entertainment value, and information acquisition (Liu et al., 2023). Through live broadcasting, viewers can engage with anchors and other viewers in real-time interactions that enhance their sense of participation and community belonging (Wu et al., 2023). Zhu et al. (2023) demonstrated that the high interactivity and instant feedback mechanism offered by live streaming significantly improve audience satisfaction and engagement. Furthermore, TikTok introduced the "LIVE intro" feature in 2021 to provide viewers with short introductions upon entering a live broadcast room, thereby enhancing their viewing experience (Hutchinson, 2021). China's live streaming market is experiencing rapid development with a continuously growing user base. According to data released by the China Internet Network Information Center between 2016 to 2020, there was a significant increase from 344 million to 617 million livestreaming users—an impressive growth rate of 79% (Zhu et al., 2023). Live streaming platforms such as Douyin (TikTok's Chinese version), Kuaishou, and Taobao occupy prominent positions within this market—especially during the COVID-19 epidemic—where live streaming shopping has emerged as a major mode of retail therapy (Sun et al., 2019). Additionally, Wong et al. (2019) found that social interaction and entertainment provided through live streaming broadcasts significantly influence consumers' purchase intentions.

As a new e-commerce model, live shopping enhances consumers' shopping experience through real-time video display and interaction. The key to the success of live shopping is its high interactivity and real-time feedback mechanism, which enables consumers to get product information and use feedback instantly, thus reducing purchase uncertainty (Ma, Zou, & Lv, 2022). Research shows that Taobao Live sold \$14.93 billion worth of goods through live streaming in 2018, a figure that grew to \$174.25 billion in 2021 and is expected to reach \$310 billion in 2025 (Xinhua News, 2022). Wongkitrungrueng and Assarut (2020) studied the role of livestream in building consumer trust and engagement, and found that livestream shopping significantly improved consumers' trust and purchase intention. As one of the largest short video platforms in China, Douyin has made significant progress in the field of live streaming shopping in recent years. Tiktok has successfully integrated live shopping into its platform ecosystem through its large user base and highly interactive video content. The key to the success of Tiktok live shopping lies in its accurate user portrait and personalized recommendation algorithm, enabling consumers to receive product information that meets their interests and needs (Hutchinson, 2021). Douyin's live shopping also benefits from its strong social functions. Through real-time interaction and social sharing, Tiktok not only enhances the user's sense of engagement, but also expands the spread of goods through social network effects. Studies have shown that the high interaction and instant feedback mechanism of Tiktok live shopping effectively reduces the purchase uncertainty of consumers and improves the purchase intention and actual purchase behavior (Chen, Lin, & Chu, 2021). In addition, Tiktok has adopted a variety of innovative means in live shopping, such as the star effect of "live shopping" and the Internet celebrity economy. These methods not only attracted a large number of viewers to watch the live broadcast, but also significantly increased the sales of goods. Research shows that the participation of celebrities and Internet celebrities significantly enhances consumers' trust and purchase desire (Wu et al., 2023).

Live entertainment covers a wide range of content, including games, music, talk shows and more. Research shows that the success factors of entertainment live broadcasting include personality charm of anchors, content quality and audience interaction (Wu et al., 2023). When watching live entertainment, the audience can not only enjoy the fun brought by the content, but also interact with the anchor and other viewers through bullet screens, comments, etc., which increases the sense of participation and immersion in the viewing (Chen, Lin, & Chiu, 2021). In addition, Sun et al. (2019) pointed out that the progress of live broadcasting technology, such as the application of virtual reality and augmented reality technology, has further improved the interactive and immersive sense of entertainment live broadcasting.

Some influencing factors for live shopping and entertainment live streaming: Consumer engagement is one of the key factors for live streaming success. Liu, Chua and Lee (2023) found that the interaction between the audience and the anchor, the personality charm of the anchor and the quality of the content all significantly affected the audience's engagement. The audience's immediate feedback and sense of engagement enhances their viewing experience (Chen, Lin, & Chiu, 2021). In the process of live broadcasting, the ability of the anchor to improvise has an important impact on the audience's participation and trust. Wu et al. (2023) showed that anchors who can effectively deal with emergencies perform better in terms of audience retention and sales performance. The adaptability of the anchor not only enhances the trust of the audience, but also enhances their loyalty. Xinhua News (2022) discussed how live broadcasting can stimulate consumers' nationalist feelings. Research has shown that live streaming can tap into consumers' feelings of national pride and support for domestic products, thereby enhancing viewers' engagement and purchase intention. This is especially true in countries with strong nationalistic tendencies in the market. Zhang et al. (2020) studied the impact of livestreaming on consumers' purchase intention and found that livestreaming significantly improved consumers' purchase intention by providing immediate feedback and interaction.

Consumers can obtain more product information and use feedback in live broadcasting, thus enhancing the perceived value of products (Ma, Zou, & Lv, 2022). Wongkitrungrueng and Assarut (2020) point out that live streaming has unique advantages in building consumer trust. Through real-time interaction and the authenticity display of anchors, live broadcasting can effectively reduce consumers' perceived risks and increase their confidence in purchasing (Sun et al., 2019). In addition, Liu, Chua, and Lee (2023) also emphasize the importance of trust in the success of live streaming. The above studies are from the perspective of consumers or their macro analysis, but they do not stand in the perspective of businesses to think about the specific needs of users what businesses can do. Therefore, our research takes the perspective of businesses to explore how to more effectively create value for consumers, thereby stimulating their purchase intentions.

### **Dramaturgical Theory**

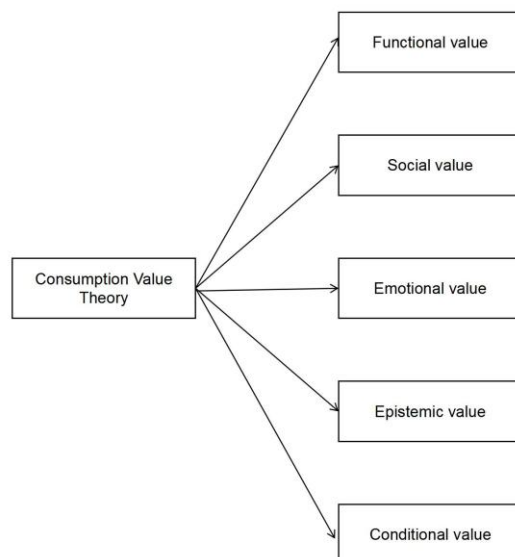
The dramaturgical theory was suggested by an American sociologist Erving Goffman in *The Presentation of Self in Everyday Life* (Goffman, E, 1959). Goffman compared a dramatic performance to a social interaction. He consider that everyone in the society can be regard as an actor, they are also willing to shape the specific image in front of others by specific society performances. Meanwhile, Goffman divided the social situations into “front stage” and “backstage”. Frontstage refers to the space exposed to others, in which actors need to interact and communicate with others so that establish their personal images. While the backstage serves as a private space for individuals to be in solitude, where people can express their genuine situation. In social activities, individuals (as actors) engage in performances before others by leveraging setting (such as decorations, props), adjusting their behaviors, which presenting an image they wish to be perceived by others. In other words, they need to change others' impression of themselves through acting. Here, “performance” refers to the techniques employed by actors on the frontstage to persuade the audience into believing that the roles they portray are authentic, thereby convincing them that the actor standing before them truly embodies the character. During the process of performance, individuals can change others impression by adjusting their personal outward appearance (such as appearance, personality, professionalism, affinity), setting the scene (such as decoration, background) and formulating performance behaviors (such as sharing personal experiences, expressing emotional fluctuations). In other words, audiences are influenced by these factors and change their images.

The Dramaturgy theory can help better understand the interaction between merchants (actors) and consumers (audience) in e-commerce. In the e-commerce scenario, an effective sale behavior (performance) is not fanciable but should be designed by merchants (actors). Specifically, they influence consumers' (audience) purchase intentions by adjusting identity characteristics (actors), changing scenarios (setting), and modifying performance content (performance) in the frontstage and backstage. Therefore to better understand how sellers influence consumers in e-commerce, we must unfold how they perform. To our study, the Dramaturgical Theory provides a perspective to explain how merchants stimulate consumer purchase intention in e-commerce live streaming. Here, we regard the live streaming content as the “frontstage”, while the scenes and preparations behind the live streaming are referred to as the “backstage”. We analysis how live streamers interact with audience through their performances to stimulate purchase behavior.

### **Perceived Value**

The concept of “perceived value” emerged as the defining business issue of the 1990s, and has persisted as a subject of considerable research interest in the current century. It has often not been clearly defined in studies of the subject in current research. Zeithaml (1988: 14) defined “perceived value” as “The consumer's evaluation of a product's overall usefulness takes into account their perceptions of both what they receive from it and what they give in return.” This perspective conceptualizes “perceived value” as a uni-dimensional construct whose measurement can be facilitated by merely inquiring respondents to evaluate the worth they perceive in their purchases (Holbrook, 1999). However, some scholars have challenged the limitation of conceptualizing “perceived value” as uni-dimensional. They contend that “perceived value” encompasses a multitude of dimensions, such as function, social, emotional (Mathwick et al., 2001, 2002; Sinha and DeSarbo, 1998; JN Sheth et al, 1991). And Sheth (1991) proposes the Consumption Value Theory, which divides perceived value into five dimensions from the customer's perspective, which include function value, social value, emotional value, conditional value and epistemic value. Consumption value theory provides a comprehensive explanation and classification of consumers' perceived value.

The CVT argues that functional value refers to the convenience and usefulness that products or services provide to consumers in the physical dimension (Ching-I Teng, 2018). Social value primarily refers to the assistance that products offer to consumers in social aspects (Huang, Z., & Benyoucef, M., 2013). Emotional value manifests as the impact of products or services on consumers' emotional fluctuations (Lin, Y. et al, 2021). Epistemic value refers to the value which derived by consumers in the process of acquiring, processing, and applying knowledge, information, or experience related to products or services manifests in enhanced consumer knowledge, improved decision-making capabilities, and deeper understanding of the offerings. (Thome' K.M. et al, 2020, Tanrikulu C, 2021, Qian T. Y. et al, 2022). Conditional value is perceived when a product or service meets consumers' demands in specific contextual settings (Majeed A., et al, 2022).



Source: Thome' K.M.et.al(2020)

Figure 1: Consumption Value theory

Consumption Value Theory has always been a cornerstone in understanding consumer behavioral patterns, consistently occupying a pivotal position in customer behavioral studies. (Qi Zhang et al,2023) This theory mainly explicate a basic question in the marketing area of how customers choose among different products or services. In e-commerce situation, costumers can obtain different perceived values through a variety of behaviors in the social media. In other words, we can classify and explain consumer behaviors by using this theory.

In live streaming commerce, costumers' autonomous interactive and immersion are enhanced(Jung, Y,2011). In other words, they can obtain more perceived value through different network behavior. Therefore, it is essential to explore how costumers obtain different kinds of value in the live streaming commerce context.

Based on previous research, our study primarily employs the consumption value theory to explain and explore consumers' behavior in live streaming rooms, as well as the motivations behind these behavior.

## METHODOLOGY

We used interpretive in ethnography research to study the process of value co-creation between streamers and audience in live streaming sessions. To be more specific, our study primarily delves the behaviors of audience in different live streaming rooms and how the layout of these streamers create value for them. Based on this research question, qualitative research is necessary to elucidate the intricate and complex phenomena surrounding cultures and values within live streaming sessions. Simultaneously, existing literature has qualitatively explored the value issues arising from consumer behavior and dramaturgical performance by live streamers (Carrington, M. J.et.al,2014;Garner, B.,2022). For example, Kim,J,Lee and Park.Y(2016) use ethnographic research method to explore users' behaviors in mobile applications (Kim,J,Lee.S.&Park.Y,2016). Whittle, Andrea, and their colleagues (2020) also explored the role of dramaturgical theory in organizations through ethnographic research(Whittle, A.et.al,2020). On the other hand, our study involves value production and value transmission, which requires us to analyze from the perspectives of both audience and streamers. Therefore, the ethnographic research method aligns well with our research questions.

### Method Design

Our research comprises two types of ethnographic studies: online and offline (Leander, K.M., & McKim, K.K., 2003; Sade-Beck, L., 2004). For the online ethnography, we primarily derived conclusions by observing the layout of live streaming rooms across various sessions. Regarding the offline ethnography, we interviewed live streaming practitioners and personally visited some of the live streaming rooms.

In the online study, we observed different types of e-commerce live streaming rooms to understand the layout variations among them and to explore audience behaviors during the live streams (Caliandro, A., 2018). Initially, we selected Douyin as the platform for observing e-commerce live streaming due to its relatively mature live streaming industry and the diversified types of live streaming merchants (Wang, X., & Cao, S., 2024; Chen, Y., 2022). Specifically, we categorized different e-commerce live streaming content on the Douyin platform and chose representative live streaming sessions based on streamers (actors), live streaming background (setting), and live streaming content (performance) for participatory observation. Through this process, we explored the "front stage" aspect of the live streaming layout from the audience's perspective. Our aim was to

investigate the interactive behaviors between streamers and audience in the live streaming rooms, as well as the audience's reactions to the streamers' performances.

For the offline study, we interviewed relevant live streaming personnel, including streamers, marketing managers, and MCN operators, to gain a deeper understanding of live streaming activities (Min, Y., & Tan, C.C., 2022). The interview method helped us comprehend the "backstage" aspects of e-commerce live streaming and enriched our knowledge and understanding of the field. Hence, we selected interviewees aligned with the research content and developed an interview outline tailored to the job responsibilities and professional experiences of different interviewees. In the interview outline, we segmented live streaming into live streaming preparation, warm-up before streaming, live streaming management, and post-streaming review, with questions designed for each segment to comprehensively grasp the entire process (Wongkitrungrueng, A., et.al, 2020). Following the interview, we visited the interviewees' workplace, specifically their e-commerce live streaming room, to observe and comprehend the "backstage" setup during live streaming performances more extensively. In our offline study, we examined how live streaming performances create consumer value for audience from the merchants' perspective.

After conducting interviews and participatory observations, we initially categorized the perceived value generated by viewers watching live streams and the various factors influencing the anchor's performance, based on the Consumption Value Theory and the Dramaturgy Theory, respectively (refer to Table 1). Subsequently, we summarized and generalized the field notes and interview records to derive specific behaviors of streamers' live performances and audience participation in live streaming activities. Ultimately, we categorized the behaviors of both streamers and audience in the live streaming room according to Table 1 and populated the table accordingly. The aim of our research is to summarize, through Table 1, how live streamers create value for audience by adjusting the layout of their live streaming sessions, thereby stimulating purchase intentions.

### Data Collection

Our data collection involved online participant observations and semi-structured interviews over a 12-month period. Tables 1 and 2 present the basic demographics of participants in the ethnographic research.

In the online study, as observers, we conducted participatory observation in 20 different types of e-commerce live streaming rooms on Douyin. Specifically, we participated as audience in twenty live streams, each with a duration of approximately one hour. During the live streaming observation, we took field notes on the live streaming process and the interaction details between the streamers and the audience. Additionally, we browsed through the comments in the e-commerce live streaming comment section to understand the audience's needs and demands during the live streaming sessions. After each live stream viewing, we summarized the content of our field notes and conducted an inductive analysis of the live streaming behaviors and interaction patterns of the e-commerce streamers. This enabled us to gain a deeper understanding of live streaming strategies, interactions, and the overall dynamics of the live streaming sessions.

Table 1: Basic Information of Observed Streamers

Serial Number	Gender of Streamer	Duration of Single Live Stream	Type of Live Stream Product
1	Female	6h	Weight Loss Products
2	Male	3h	Digital Products
3	Male	4h	Apparel (Dress)
4	Male	6h	Apparel (Underwear)
5	Male	7h	Sports and Outdoors
6	Female	4h	Digital Products
7	Female	3.5h	Apparel (Women's)
8	Female	3h	Apparel (Mask)
9	Male	4h	Apparel (Watch)
10	Female	4h	Household Items (Trash Can)
11	Female	6h	Food (Yogurt)
12	Female	7.5h	Household Items (Shower Gel)
13	Female	6h	Household Items (Frozen Grilled Fish)
14	Male	5h	Household Items (Mosquito Killer)
15	Female	6h	Household Items (Outdoor Lighting)
16	Female	7h	Fresh Food (Fish)
17	Male	4h	Apparel (Nightgown)

18	Male	3.5h	Digital Products (Drone)
19	Male	6.5h	Apparel (T-shirt)
20	Male	3h	Household Items (Phone Case)

Source: This study.

In our offline research, we conducted face-to-face semi-structured interviews with 14 practitioners in the live e-commerce industry. During these interviews, we explored in-depth the preparatory work preceding e-commerce live streams and the backstage operations during these live streams. Throughout the process, we recorded the interviews and transcribed them into textual format (Evers, J. C, 2011). We tailored questions for live streaming professionals in different positions, such as Marketers, MCN Operators, Streamers, etc. The interview content primarily consisted of inquiries such as: What preparations are necessary before conducting e-commerce live streaming? How to set the duration and frequency of live streaming sessions? After the interviews, we extracted and summarized the content related to the streamers' performance behaviors and the layout and process of the live streaming room from the interview records. As a complement to our interviews, we submitted an application to the interviewees to visit an e-commerce live streaming company in person. Consequently, we conducted an in-person visit to an e-commerce live streaming company located in Suzhou. Finally, after completing the offline research, we summarized and analyzed the interview notes and offline observation notes, focusing on summarizing the streamers' performance activities and the layout of the live streaming sessions.

Table 2: Personal Information of Respondents

Serial Number	Interview Date	Occupation/Position	Company	Duration of Live Stream (min)
1	2022/08/17	MCN Operator	UniFuture	120
2	2022/12/09	Marketer	None	60
3	2023/10/14	Internet Celebrity	None	90
4	2023/10/14	MCN Operator	None	110
5	2023/10/17	Marketing Manager	Shui Jing Fang	110
6	2023/10/28	Marketer	L'Oréal JD	80
7	2023/10/31	Marketing Intern	ByteDance	120
8	2023/11/12	MCN Operator	Suzhou Cat Shadow (mainly game live)	100
9	2023/11/12	MCN Operator	Yangyi Culture (Entertainment Broadcast)	92
10	2023/11/12	Streamer	Yangyi Culture - 2 Hosts	56
11	2023/11/14	Streamer	Bank Entertainment Broadcast	52
12	2023/11/10	Streamer + MCN Operator + Streamer Trainer	Workshop	70
13	2023/12/05	Streamer Trainer	Workshop	113
14	2024/04/13	MCN + Trainer	New Energy Vehicle Account Operation + Training	75

Source: This study.

After data collection, ethnographic research yielded information regarding the streamer's performance behaviors, both in the "front stage" and "backstage" of the live streaming room, as well as insights into the layout arrangement of the live streaming sessions. Following this, we categorized these behaviors according to Consumption Value Theory and Dramaturgy Theory, organizing them into Table 1.

## Data Analysis

In performance our data analysis, we followed Mayring (2000) guidelines for qualitative content analysis. We conducted separate analyses of the available textual material, guided by the consumption value theory and Dramaturgical theory(Kaur, P.et.al, 2018, Lee, J.et.al, 2013). Specifically, we categorize the "performing" behavior of live streamers in the live streaming rooms into three perspectives: "actor, setting, and performance." Moreover, we categorize the backgrounds of their performances into two distinct areas: "frontstage" and "backstage". Simultaneously, we categorize the behaviors and perceived value(i.e., functional value, social value, emotional value, epistemic value, and conditional value) needs of audience in the live streaming room. Subsequently, utilizing textual analysis, we correlate the performances of live streamers in the live streaming with the perceived value demands of the audience. Finally, after independently conducting our analysis of the text material, we compared and discussed our findings to eliminate subjectivity and arbitrariness.

## FINDING

Our findings are fivefold classification, comprising the streamers' performance and audience behaviour in functional to create (1) functional value, (2) social value, (3) emotional value, (4) epistemic value and (5) conditional value. In our result, we have summarized these practical behaviors, and link them to the theoretical framework(see Table 3).

Table 3: Research Result

Live Streaming Design	Consumption Value		
	Functional value	Social value	Emotional value
Actor	<b>Frontstage:</b> Demonstration of professionalism in digital environment	<b>Frontstage:</b> Demonstration of approachability	<b>Frontstage:</b> Streamers charisma/sensitivity to emotional response
	<b>Backstage:</b> Familiarity of understanding the utility of offering	<b>Backstage:</b> Identify sociable viewers	<b>Backstage:</b> Character model building
Setting	<b>Frontstage:</b> Facilities professional display	<b>Frontstage:</b> N/A	<b>Frontstage:</b> Configuration visual and audio effect for emotional eliciting
	<b>Backstage:</b> design for display	<b>Backstage:</b> Disguised viewer groups	<b>Backstage:</b> Design of emotional eliciting layout/real time adjustment for emotional eliciting
Performance	<b>Frontstage:</b> Vivid and vitalized introduction of offering/systematic experiment on the offering/professional comparison	<b>Frontstage:</b> Resonate with viewers/streaming assistance in social interaction	<b>Frontstage:</b> Initiate entertaining activities /react to group emotional changes
	<b>Backstage:</b> Information collection from viewers audience and products	<b>Backstage:</b> Disguised viewers shaping social interaction	<b>Backstage:</b> Real time supervision on sentiment fluctuations/preparation activity repository for emotional management
Audience	Inquiry on offering specification/challenge on streamer introduction	Active engage in social group conversation	Emotional expression/evoke emotional response
Live Streaming Design	Epistemic value		Conditional value
Actor	<b>Frontstage:</b> Demonstration of novelty and trendiness		<b>Frontstage:</b> Conditional personal accessibility
	<b>Backstage:</b> Familiarity of understanding the hot spot		<b>Backstage:</b> Exclusive treatment
Setting	<b>Frontstage:</b> Uncommon streaming place		<b>Frontstage:</b> Visual highlight for filtering criteria
	<b>Backstage:</b> Establishment special place for creating the urge of exploration		<b>Backstage:</b> Development of filtering criteria
Performance	<b>Frontstage:</b> Selective disclose of information		<b>Frontstage:</b> Pressure selling
	<b>Backstage:</b> Arrangement for suspense cultivation		<b>Backstage:</b> Seek and seize hard sell opportunity based on real-time situation
Audience	Demonstration of curiosity and explorative behavior		Demonstration of preference on special treatment

Source: This study.



### Functional Value

In terms of functional value, audience comment more frequently in the live streaming rooms and interact more with the streamers(Wang,M.,&Li,D,2020). so the audience satisfy their own functional value by inquiry for more specific questions in comment section while watching the live streaming. Simultaneously, they may challenge on the streamers introduction because of the freedom of comment.

Regarding “actors”, based on audiences' functional value demands, e-commerce live streamers are required to demonstrate stronger professionalism in the digital environment in the live streaming “front stage”. This “professionalism” is reflected not only in the streamer's familiarity with the characteristics of the product being sold, but also in whether he or she can control the pace of the live streaming(Zhao,K.et.al, 2019). In the “back stage”, The streamers need to prepare the live streaming content ahead of time and familiarize offering with the product features before the streaming.This helps them provide functional value to consumers more proficiently during the live streaming(Yu, X.et.al, 2022).

In terms of “setting”, merchants utilize more professional and efficient methods to showcase their products to viewers. For instance, streamers selling luxury goods often display products in rotating showcases, allowing audiences to view them from various angles. This can provide consumers with a high-quality live streaming experience, thereby stimulating their intention to purchase(Cai, J.,&Wohn,D.Y). In the “back stage”, the staff of e-commerce live streaming design the live streaming scene ahead of time according to the products category before the live streaming, including setting a virtual green screen background, adding commodity showcases, etc. These preparatory activities can increase the audience's dwell time during the live streaming.

In terms of live “performance”, the streamer introduce products to the audience in a vivid and vitalized manner. For example, they can introduce products through systematic experiments on the offering and professional comparisons to enhance the live streamers' persuasiveness. In the “back stage” , merchants need to understand the primary audiences' user profile in the live streaming room beforehand. This help the streamers to introduce products based on the needs of most viewers in the live streaming room personality.

### Social Value

In creating social value, viewers actively engage in the live streaming and interact with the streamer and other audiences. Users' social needs should be satisfied in online communication.

To meet the needs of audiences, “actors” need to be more approachable to the audience during the live streaming. In other words, the streamer needs to behave more friendly and respond to audiences' comments more frequently. This is beneficial to improving the enthusiasm of audience interaction. Simultaneously, in the “back stage” , live streaming staff need to identify the more active audience members during the live streaming so that streamers can make the atmosphere in the live streaming room more vibrant by interact with them.

In terms of “setting” , some live streaming staffs disguised viewer groups in the “back stage” and actively interact with the streamers. This can help create a more vibrant and lively atmosphere in the live broadcasting room, stimulating other audience members to participate in and social with streamers frequently.

In terms of “performance” , the streamer needs to be more talkative and resonate with the audience. Specifically, they needs to generate a sense of satisfaction for the audience through interaction. Therefore, streamer can enhance the live streaming atmosphere by interacting with streaming assistants, thereby boosting user engagement and participation. In the “back stage” , e-commerce live streaming staff enter the live streaming room as audiences and guide the content of audiences interactions, with the goal of continuously stimulating audience interaction with the anchor and generating social value.

### Emotional Value

In creating emotional value, users tend to place greater emphasis on expressing their personal emotions in live streaming, and they are also highly susceptible to the influence of these emotions, which often leads to their purchase intention. For instance, audience always express their personal views of the live streamer and products through the comment section. Therefore, for live streamers, stimulating emotional fluctuations among consumers in live streaming room is crucial.

From the perspective of “actors” , live streamers need to exhibit personal charisma to attract viewers. For example, live streamers need to possess special talents or physical attractiveness. Currently, live streamers need to behave greater sensitivity to emotional responses in their live streaming sessions. During e-commerce live streaming, live streamers need to respond in real-time based on the content of the comment section. Only with proper guidance can audiences experience emotional fluctuations. In the “back stage” , the live streamer reshape their character model based on the audience's preferences, in order to evoke emotional reactions from the viewers.

In terms of “setting” , merchants utilize the configuration of visual and audio(such as live streaming lighting, music, and special effects in the broadcast room) effects for emotional elicitation. To be specific, music and lighting enhance the



atmosphere of the live streaming room, thus stimulating emotional fluctuations among viewers. In the “back stage”, live streaming staffs always adjust the live streaming layout based on the offering and the streamer's script to evoke audiences' emotion. Additionally, they also make real-time adjustments to the live streaming background.

In terms of “performance”, live streamers initiate entertainment activities, such as lotteries, prize-winning quizzes, and gift-giving in the live streaming room, to stimulate audience participation and evoke emotional responses. In the “back stage”, live streaming backstage staffs analyze the audience's emotional changes in real time based on the frequency and content of their comments, so as to formulate accurate live streaming activities.

### **Epistemic Value**

In creating epistemic value, live streaming has broadened the audience's horizons and also stimulated their curiosity and desire to explore the content of the live streaming. For instance, they may develop an interest in novel live streaming content and products.

In terms of “actors”, In live streaming, the streamer needs to exhibit novelty and trendiness, such as exploring the unknown and concealing their appearance. This behavior stimulates audiences' desire for knowledge in live streaming. In the “back stage”, streamer needs to have prior knowledge of trending topics (such as social hot spots etc) and provide answers to viewers during the live streaming, thereby creating epistemic value.

In terms of “setting”, live streamer choose special places for e-commerce live streaming, such as the product manufacturing plant or the place of origin of the product. This approach can enhance consumers' cognition of the product, thereby increasing viewers' trust in the live streaming offering. In the “back stage”, live streaming stuff needs to establish special place for creating the urge of exploration for audience. This can help draw viewers' attention and enhance their engagement with the live streaming.

In terms of “performance”, streamer selectively disclose information to ensure that the audience maintains their curiosity about the live streaming content. This is conducive to stimulating the audience's cognition of the live streaming content, thereby generating epistemic value. In the “back stage”, live streaming backstage staff arrange suspense in the setting of live segments to stimulate the audience's desire for exploration. For example, when introducing popular products, they first present the product performance(outlook, function and material etc) while withholding the product price to create suspense, thus stimulating the audience's curiosity.

### **Conditional Value**

In terms of creating conditional value, live streaming audience places greater emphasis on the pursuit of special treatment. For instance, they are attracted to limited-edition products sold exclusively through live streaming, as well as exclusive discounts offered in the live streaming room. In other words, the audience in the live streaming room tends to pursue "product thresholds" and enjoy special privileges.

In terms of “actors”, the e-commerce live streaming streamers provide special treatment to audience who purchase products in live streaming room, granting them conditional personal access privileges. For instance, streamers invite loyal audience members from the live streaming room to join a social media fan group. Within this group, the streamer introduce discounted products and provide previews of upcoming live streams to the audience. In the “back stage”, the staffs provide special services to loyal audience through the live streaming backstage, such as offering them welfare products.

In terms of “setting”, when e-commerce streamers are introducing products, the staff remind audiences of the filtering criteria. Merchant hope to create conditional value for audiences by setting thresholds for products. In the “back stage”, the staffs set the filtering criteria based on the situation in the live streaming room.

In terms of “performance”, during the live streaming, the streamers create selling pressure for the audience, such as by indicating limited stock availability and a restricted promotional time frame. In the “back stage”, live streaming staffs evaluate the level of audience activity and seek and seize hard sell opportunities. This is beneficial for providing conditional value to the audience and stimulating their willingness to purchase.

## **DISCUSSION**

With the development of online information technology, live streaming commerce has become the mainstream of e-commerce in recent years (Zhang et al., 2022). This suggests that businesses must fully consider the behaviors of audience in the live streaming room when designing it (Wongkitrungrueng, A., & Assarut, N., 2020).

The present study primarily examines how live streaming builds consumer trust and influences their purchase intention (Lu, B., & Chen, Z., 2021; Chandruangphen, E., Assarut, N., & Sinthupinyo, S., 2022).

Based on the aforementioned research, our study demonstrates how streamers modify the layout of the live streaming room through actors, settings, and performances to stimulate audience' purchase intention. More specifically, we categorize the perceived value generated by audience according to the consumption value theory, which includes functional value, social value, emotional value, epistemic value, and conditional value (Singh et al., 2021). Following our market-oriented ethnographic investigation, we conducted an in-depth exploration of how merchants adjust their live streaming strategies based on the audience's perceived value (Table). The research results indicate that streamers address various perceived values of audience through diverse live streaming behaviors.

## IMPLICATIONS AND CONCLUSION

### Theoretical Implications

The study makes a significant contribution to the existing literature by summarizing the performance of streamers in live streaming rooms, the diverse value demands of audiences, and the interactive relationship between live streaming and its viewers. Furthermore, by correlating the layout of live streaming rooms with the value demands of audiences, this research offers a novel perspective for exploring the intricate inter-relationship between streamers and audiences within the context of live-streaming rooms.

### Practical Implications

By applying Dramaturgical Theory alongside our framework, companies can more effectively understand and leverage performance elements in live streaming to meet consumer value needs. Live streaming allows companies to showcase their professionalism and in-depth product knowledge in real time. This front-stage performance, where hosts directly interact with the audience, enhances brand credibility and reliability. According to our framework, professional presentations and clear product explanations can significantly influence consumers' purchasing decisions. The front-stage performance includes displaying professional equipment and facilities to ensure accurate and effective information delivery.

The interactive nature of live streaming fosters a sense of community among viewers. Real-time Q&A sessions, responding to comments, and creating a social environment help build a loyal customer base. From a dramaturgical perspective, backstage preparation is crucial for a seamless front-stage performance, including the host's familiarity with the product and setting up an engaging live environment. Our framework emphasizes that understanding and adapting to viewers' social behavior can further enhance the social value of live streaming.

The dynamic and vivid presentation of products during live broadcasts captures the audience's attention, making the shopping experience more engaging. Impression management is a key element, where hosts create a positive impression by strategically presenting themselves and their products. Collecting and responding to audience feedback in real-time allows businesses to tailor their products and marketing messages to meet consumer needs and preferences, thereby increasing customer satisfaction. Our framework provides guidance on effective impression management to ensure performance content aligns with audience expectations.

The setup and performance elements of live streaming, such as professional presentations and interactive content, significantly impact audience engagement. According to dramaturgical theory, the setting is like the stage where the performance takes place. By designing visually appealing backgrounds and using professional equipment, businesses can create a more immersive experience for their audience. Our framework highlights that targeted scene design and audience engagement strategies can maximize the impact and conversion rates of live broadcasts.

### Limitation and Future Research

As a marketing tool, live streaming significantly enhances functional, social, and performance value through well-managed front and back-stage elements. Our framework provides theoretical guidance for merchants to meet consumer value needs through targeted performance. Companies that effectively utilize these aspects and are guided by dramaturgical theory can expect improved consumer engagement, stronger brand loyalty, and ultimately, increased sales and market presence. Lastly, this paper necessitates further research to augment practical support for developing the four dimensions of live streaming design.

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