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# Understanding the Effects of Live Streaming Commerce Features on Chinese Consumers' Repurchase Intention: A Conceptual Analysis

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#### **Abstract**

China is currently witnessing a significant surge in the field of live streaming commerce, as it integrates the functionalities of e-commerce and live streaming. The challenge that live streaming commerce retailers often face is how to effectively retain customers, given that consumers have easy access to other e-commerce platforms and can easily switch between them. Owing to the paucity of literature on live streaming commerce consumers' repurchase intention, the research proposes a conceptual framework to examine the factors impacting repurchase intention among Chinese live streaming commerce consumers. This study investigates how live streaming shopping features such as social presence, telepresence, and ubiquity influence consumers' repurchase intention through perceived enjoyment and perceived usefulness utilizing the S-O-R model. The research will help live streaming practitioners to retain consumers and build lasting relationships with them. Moreover, live streaming marketers will benefit from the study to establish efficient marketing strategies to improve their business performance.

Keywords: Live Streaming, Repurchase Intention, Social Presence, Telepresence, Ubiquity.

#### Introduction

The recent proliferation of the Internet and technology offers multiple avenues for business expansions and new influx of customers especially live streaming commerce as the mainstream channels. Live streaming commerce refers to a subclass of e-commerce that offers a synchronized environment that facilitates interactions between live streamers and consumers (Luo et al., 2021). It has distinctive features which differs from traditional e-commerce such as high entertainment, interactivity, professionalization, and visualization, primarily enabled by live streaming technology (Peng et al., 2021). According to CNNIC (2023), live streaming commerce users in China totaled up to 515 million, which accounts for 48.2% of Chinese netizens. Traditional e-commerce (e.g., JD and Taobao) and short video applications (e.g., TikTok) rely heavily on live streaming commerce for revenue. Nonetheless,

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the competition among live streaming practitioners is becoming more intense. Chen et al. (2020) opined that in order to effectively navigate the intense competition and foster long-term growth, it is advisable for live streaming commerce practitioners to prioritize customer retention. Additionally, Ho (2020) has highlighted that a small but significant portion of customers, constituting approximately 8% of the overall visitor base, contribute to a substantial 40% of a company's revenue. On average, a returning customer spends five times as much as a new customer (Ho, 2020). Undoubtedly, it is challenging but invaluable to stimulate consumers' repurchase intention.

Repurchase intention has been widely examined in consumer behavior studies, which is critical for businesses as it is less expensive to keep existing consumers than to find new ones. On the other hand, if a business could retain existing customers, it could foster positive word-of-mouth, an effective marketing tool that lowers the cost of obtaining new customers (Kitjaroenchai & Chaipoopiratana, 2022). Analyzing the various antecedents that can potentially impact a consumer's repurchase intention is crucial for ensuring the sustainable growth of live streaming commerce. Moreover, owning to the pervasiveness of live streaming shopping in China, numerous researchers examined live streaming commerce consumers' behavior from multiple perspectives, such as purchase intention (Apasrawirote & Yawised, 2022; Ma et al., 2022) and impulsive buying (Zhu & Vijayan, 2023). However, a paucity of studies focusing on consumers' repurchase intention in live streaming commerce. To bridge this gap, the paper seeks to identify the antecedents of the repurchase intention in a live streaming commerce context.

Live streaming commerce offers users a wide range of products with visualized details, creating a high level of immersion and interactivity and enhancing the telepresence they perceive (Zhu & Vijayan, 2023). Telepresence has been deemed a critical construct influencing live streaming commerce consumers' purchase behavior (Dong et al., 2022). Nevertheless, studies evaluating the effect of telepresence on repurchase intention in live streaming commerce are scarce. Hsu (2023) solely examined consumer repurchase intention from social interaction and psychological contract perspectives and recommended including the potential variable "telepresence" in the framework when investigating consumer repurchase intention in live streaming commerce. As such, telepresence is considered in this study when examining consumer repurchase intention.

Moreover, the repurchase intention is a complex process that cannot be influenced by single factors alone. Similarly, the effect of social presence and ubiquity in affecting consumers' repurchase intention has not been investigated in live streaming commerce. To identify the underlying mechanism of repurchase intention, examining it together with telepresence, social presence, and ubiquity is necessary. In addition, as e-commerce practitioners are facing fierce competition to retain consumers, it is vital to explore the psychological cues in human behavior that trigger repurchase intention (Mitchev et al., 2022). Therefore, both perceived enjoyment and perceived usefulness are considered as the predictor to repurchase intention.

As aforementioned, this study seeks to propose a conceptual framework to explain repurchase intention encompassing social presence, telepresence, ubiquity, perceived enjoyment and perceived usefulness. It offers a novel lens to comprehend the mechanism of why live streaming commerce customers have the repurchase intention.

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#### **Literature Review**

#### **Live Streaming Commerce**

Live streaming commerce refers to a type of e-commerce where live streaming technology is incorporated into e-commerce platforms or business activities on live streaming platforms (Zhu & Vijayan, 2023). Live streaming commerce, which has recently become mainstream, shows enormous potential to promote simultaneous interaction between sellers and users, offering in-depth information and incorporating hedonic components to entice customers into live streaming shopping (Xu et al., 2020).

Prior research on live streaming commerce primarily focused on purchase intention (Chao et al., 2022; Zheng et al., 2022) and impulsive buying (Huo et al., 2023; Li et al., 2022). However, studies on consumers' repurchase intentions in live streaming commerce are still inadequate. Only a few research have examined consumers' intention to repurchase in live streaming commerce. Chen et al (2020) focused on positive impact of live streaming commerce from product, streamers, and live streaming platform perspectives and satisfaction on consumers' repurchase intention. Qian (2021) confirmed that satisfaction, trust, and perceived enjoyment positively influence consumer repurchase intention. Although Meng and Lin (2023) revealed that the live streamers' characteristics and consumers' perceived value could be a powerful determinant through trust for consumers' repurchase intention, there are still gaps that need to be filled out by further studies.

## Stimulus-Organism-Response (S-O-R) Model

The S-O-R model established by Mehrabian and Russell (1974) postulates that the multiple factors of the environment serve as stimuli (S) that impact a user's internal states (O), which subsequently lead to his or her behavioral responses (R). The stimuli in online shopping context are the signals or cues from online stores' elements, while the internal states refer to users' emotional as well as cognitive states, and the responses point to consumer behavior (Lin et al., 2017). It has been frequently utilized to delineate the impact of the environmental cues on online customer behavior (Lockwood & Pyun, 2019), such as purchase intention (Hewei & Youngsook, 2022), repurchase intention (Perumal et al., 2021), and impulsive purchase (Karim et al., 2021). For example, Lin et al (2017) applied the S-O-R framework to investigate the influences of technological stimuli (recommendation, interactivity, and feedback) on social commerce consumers' swift guanxi and trust and subsequent repurchase intention. In addition, Prodanova et al. (2020) revealed the impacts of online travel website characteristics (entertainment, service quality, and security and privacy issues) on consumers' online travel repurchase intentions. Their findings proved the S-O-R model's applicability in describing users' behavioral responses to various environmental stimuli through internal states. In particular, the S-O-R model was proven to be a robust framework in understanding consumer behaviors in live streaming commerce context (Guo et al., 2021; Lin et al., 2022). Therefore, the S-O-R model is chosen as the underpinning theory in this paper.

# Repurchase Intention

Repurchase behavior occurs when consumers buy products from the same business a second time or more (El Shiffa et al., 2022). The topic of repurchase intention has been extensively investigated in the context of online shopping (Chiu & Cho, 2019; Ginting et al., 2023; Wilson et al., 2019), mobile commerce (Duy Phuong & Dai Trang, 2018; Ho & Chung, 2020), or social commerce (Cheng et al., 2019; Lim et al., 2020; Shang & Bao, 2022). Due to the higher

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immersive feature of live streaming commerce than e-commerce or social commerce, it is crucial to examine consumer repurchase intention from live streaming shopping feature perspective. Nevertheless, there is a paucity of clarity regarding the impact of social presence, telepresence, and ubiquity in live streaming commerce on consumer repurchase intention. Therefore, it is imperative to conduct a thorough investigation to address this gap in knowledge.

#### **Social Presence**

Social presence pertains to the perception of human warmth and sociability that individuals experience when engaging with a particular medium (Hassanein & Head, 2007). Social presence fosters a sense of user-friendliness, warmth, and human contact, increasing user's involvement and reducing cognitive burden (Ye et al., 2019), as such, live streaming shopping could be considered more enjoyable and useful. The degree to which the media engenders a perception of social presence is contingent upon the degree to which the media replicates the cues of a preexisting environment, thereby facilitating an authentic experiential encounter (Zhu et al., 2020). Live streaming technology can create a social presence, which could be a significant stimulus for live streaming commerce consumers.

Consumers tend to feel more enjoyable when they perceive a higher social presence in a mobile game usage context (Wang & Lee, 2020). Studies have shown the correlation between social presence and perceived enjoyment in numerous contexts. In an investigation conducted by Shin et al (2019), it was observed that users tend to derive greater enjoyment from live concert videos as their perception of social presence increases. Another research on social TV platforms reveals that social presence positively influences perceived enjoyment (Kim et al., 2019). Thus, it is anticipated that the social presence would make consumers perceive more enjoyment when they shop through live streaming commerce.

Additionally, Chao et al (2022) argued that media richness, including immediate reactions, real-time interaction, and multiple cues, could promote users' perceptions of social presence. Given these characteristics, consumers would feel that the live streaming commerce platform helps achieve shopping goals while being involved in a highly immersive shopping environment where interaction can facilitate shopping. Findings from Cyr et al. (2007) uncovered that social presence is a crucial trigger for users' perceived usefulness and enjoyment in e-service environments. Thereby, two propositions are established

Proposition 1a: Social presence positively influences consumer's perceived enjoyment. Proposition 1b: Social presence positively influences consumer's perceived usefulness.

#### Telepresence

Telepresence refers to the cognitive experience of perceiving oneself as physically present within a virtual retail environment or being transported to any virtual space through the utilization of a communication medium (Gao & Li, 2018). Several studies have been published examining the impact of telepresence in different contexts with the advancement of Internet technology. For instance, Ying et al (2021) integrated social presence and telepresence into the research model. They clarified how these two factors may interact to jointly influence tourists' cognitive and affective reactions and revisit intentions in the tourism context. Additionally, Jang et al (2019) explored the influence of telepresence in virtual reality stores and revealed that telepresence mediated the relationship between virtual reality store characteristics and approach intention. Furthermore, Lee et al (2019) uncovered that

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telepresence contributes to consumer satisfaction in e-commerce. Compared to general e-commerce, the live streaming commerce enables customers to perceive higher levels of telepresence as it offers more detailed information and a more immersive atmosphere (Zhu & Vijayan, 2023).

According to Baker et al (2019), telepresence is essential to consumers' perceived enjoyment. Findings from Zhu et al (2022) also revealed that telepresence is an essential factor of perceived enjoyment. Similarly, Israel et al (2019) opined that telepresence positively influences perceived usefulness. Likewise, Kim et al. (2021) discovered that the higher degree of telepresence consumers has, the higher their perceived usefulness. Thereby, two propositions are established

Proposition 2a: Telepresence positively influences consumer's perceived enjoyment. Proposition 2b: Telepresence positively influences consumer's perceived usefulness.

# Ubiquity

Ubiquity is defined as consumers' accessibility to make purchases without temporal or physical restrictions. The concept is commonly examined in the context of mobile device usage. The ubiquitous nature of live streaming commerce enables customers to acquire information and make purchases anywhere and anytime. It is essential to investigate ubiquity as a critical element in influencing live streaming commerce consumers' repurchase intention.

Previous research has demonstrated that a high degree of ubiquity increases customers' perceptions of enjoyment (Jung et al., 2018). Moreover, Choi (2016) opined that ubiquitous connectivity is vital for enabling users to experience enjoyment. Similarly, ubiquity was found to positively influence consumers' perceived usefulness (Khayer & Bao, 2019; Nikou & Economides, 2017; Zhou, 2011). In line with that, Tsai et al (2020) uncovered that the perceived ubiquity constructs enhanced users' perceived usefulness of smart clothing systems. However, studies have not investigated the correlation between ubiquity and perceived usefulness in live streaming commerce. Thus, two propositions are established:

Proposition 3a: Ubiquity positively influences consumer's perceived enjoyment. Proposition 3b: Ubiquity positively influences consumer's perceived usefulness.

## Impact of Perceived Enjoyment on Repurchase Intention

Perceived enjoyment is defined as the extent to which the act of live streaming shopping is perceived as pleasurable. This study examines how consumers' perceived enjoyment affects their repurchase intention under the S-O-R framework. Ashfaq et al (2019) hypothesized that perceived enjoyment influences the repurchase intention of second-hand products. Prior online shopping research also proved the favorable effect of perceived enjoyment on repurchase intention (Julia & Made, 2021; Mitchev et al., 2022; Wen et al., 2011). Likewise, So et al (2021) revealed that the more enjoyment consumers perceive regarding live streaming shopping, the higher their intention to repurchase. Albeit these studies have investigated the effect of perceived enjoyment on repurchase intention, further research is warranted in live streaming commerce. Therefore, the following proposition is established

Proposition 4: Perceived enjoyment positively influences consumer's repurchase intention.

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#### Impact of Perceived Usefulness on Repurchase Intention

Previous literature elucidated the essential roles of technology adoption-related factors (e.g., live streaming characteristics, perceived usefulness) in a live streaming commerce environment, such as research conducted by (Lee and Chen, 2021; Cao et al., 2022). As per Sullivan and Kim (2018), the perceived usefulness of the Technology Adoption Model is more significant than the perceived ease of use at the post-purchase stage, which can be examined separately in the study. Following Sullivan and Kim (2018), only perceived usefulness is investigated in this study. In the live streaming commerce context, perceived usefulness describes how much customers perceive live streaming commerce would enhance their purchase performance. Lukito and Ikhsan (2020) assert that consumers are inclined to repurchase if they believe that the products are useful. Findings from Larasetiati and Ali (2019); Wilson (2019) also demonstrate that perceived usefulness is a crucial determinant of repurchase intention. Thus, the following proposition is established

Proposition 5: Perceived usefulness positively influences consumer's repurchase intention.

## **Mediating Effect of Perceived Enjoyment and Perceived Usefulness**

Mediation analysis has become commonplace and crucial to advancing theory and social science knowledge (Rasoolimanesh et al., 2021). The mediator seeks to elucidate the process by which the dependent construct is influenced by the independent constructs (Hair et al., 2022). This research examines the effect of perceived enjoyment and perceived usefulness as mediators in the relationships between social presence, telepresence, ubiquity, and repurchase intention. The S-O-R model suggests that the construct that depicts the organism might serve as a mediator (Ngah et al., 2022). Theoretically, perceived enjoyment and perceived usefulness could mediate the correlations between social presence, telepresence, ubiquity, and repurchase intention in live streaming commerce. Empirically, the study revealed consistent correlations between social presence, telepresence, ubiquity, and perceived enjoyment, and consistent correlation between consumers' perceived enjoyment and repurchase intention. Likewise, the study uncovered consistent correlations between social presence, telepresence, ubiquity, and perceived usefulness, and consistent correlation and between consumers' perceived usefulness and repurchase intention. Moreover, literature indicated the perceived enjoyment and perceived usefulness as two effective mediators (Matute et al., 2016; So et al., 2021). Therefore, perceived enjoyment and perceived usefulness were proposed to mediate the correlations between social presence, telepresence, ubiquity, and repurchase intention. Propositions 6a-c to Propositions7a-c are established

Propositions 6a: Perceived enjoyment mediates the relationship between social presence and repurchase intention.

Propositions 6b: Perceived enjoyment mediates the relationship between telepresence and repurchase intention.

Propositions 6c: Perceived enjoyment mediates the relationship between ubiquity and repurchase intention.

Propositions 7a: Perceived usefulness mediates the relationship between social presence and repurchase intention.

Propositions 7b: Perceived usefulness mediates the relationship between telepresence and repurchase intention.

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Propositions 7c: Perceived usefulness mediates the relationship between ubiquity and repurchase intention.

# **Proposed Research Framework**

A review of the discussion above demonstrates that social presence, telepresence, and ubiquity favorably impact consumers' perceived enjoyment and perceived usefulness, respectively. Moreover, it has been demonstrated that perceived enjoyment and perceived usefulness contribute to consumers' repurchase intention. Under the S-O-R framework, this paper proposes a conceptual framework to examine the connection between social presence, telepresence ubiquity, perceived enjoyment, perceived usefulness, and consumer repurchase intention (Figure 1).

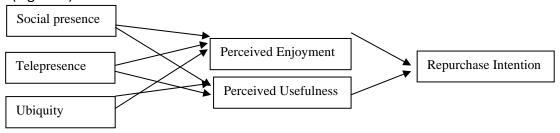


Figure 1: Proposed Conceptual Framework

### **Conclusion and Significance of Study**

In light of the discussion above, this study found that social presence, telepresence, and ubiquity may positively influence consumer repurchase intention through perceived enjoyment. Likewise, these three determinants may positively influence consumer repurchase intention through perceived usefulness. Thereby, 14 propositions are put out to examine live streaming commerce consumers' repurchase intention in China, as summarized in Table I. Consequently, the 14 propositions need to be empirically tested.

The findings of this conceptual study will provide insight into the determinants that impact consumers' engagement in live streaming commerce. From the theoretical perspective, this paper offered a conceptual framework for understanding Chinese live streaming commerce consumers' intention to repurchase. In particular, the study's outcomes will contribute to the literature by examining the understudied impacts of social presence, telepresence, and ubiquity as antecedents of repurchase intention. Besides that, this paper emphasized the necessity for future empirical research to investigate the variables affecting influencing consumers' repurchase intention in live streaming commerce. Thus, further empirical research is recommended to investigate consumers' repurchase intention using a quantitative method in live streaming commerce in China.

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Table I Propositions to be empirically tested.

•	'
Proposition1a	Social presence positively influences consumer's perceived enjoyment.
Proposition1b	Social presence positively influences consumer's usefulness.
Proposition2a	Telepresence positively influences consumer's perceived enjoyment.
Proposition2b	Telepresence positively influences consumer's usefulness.
Proposition3a	Ubiquity positively influences consumer's perceived enjoyment.
Proposition3b	Ubiquity positively influences consumer's perceived usefulness.
Proposition4	Perceived enjoyment positively influences consumer's repurchase intention.
Proposition5	Perceived usefulness positively influences consumer's repurchase intention.
Proposition6a	Perceived enjoyment mediates the relationship between social presence and repurchase
	intention.
Proposition6b	Perceived enjoyment mediates the relationship between telepresence and repurchase
	intention.
Proposition6c	Perceived enjoyment mediates the relationship between ubiquity and repurchase
	intention.
Proposition7a	Perceived usefulness mediates the relationship between social presence and repurchase
	intention.
Proposition7b	Perceived usefulness mediates the relationship between telepresence and repurchase
	intention.
Proposition7c	Perceived usefulness mediates the relationship between ubiquity and repurchase intention.

From the practical perspective, live streaming commerce practitioners such as live streaming retailers, live streamers, and marketers can better understand consumers' repurchase intention and establish effective strategies to retain consumers. In the future, the prosperity of e-commerce systems and the shift of consumers' shopping interests will continue to boost the growth of live streaming commerce. Additionally, brick-and-mortar retailers and other types of e-commerce sellers can also gain from further empirical study.

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