

# Determinants of Consumer Impulse Purchase in Live Streaming Commerce in China: A Conceptual Analysis

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## Abstract

Live streaming commerce, which combines the features of live streaming and e-commerce, is booming in China. The omnipresence of impulse purchases among live streaming commerce consumers is evident. Due to the adequacy of the literature that has not been extended to consumers' impulse purchases in live streaming commerce; this study develops a conceptual model to investigate the determinants of consumers' impulse purchases in China. Drawing on the Social Impact Theory model, this study examines how para-social interaction, social presence from the perspective of platform, live streamers and other viewers, and telepresence influence consumers' impulse purchases in live streaming commerce platforms in China. This study will aid live streamers and online merchants in their understanding of how to enhance consumer purchasing. Additionally, it serves as a guide for developing a live streaming business in other countries.

**Keywords:** Live Streaming, Impulsive Buying, Para-Social Interaction, Social Presence, Telepresence.

## Introduction

Live streaming has become a common marketing tactic and sales channel in e-commerce, identified as live streaming commerce. Live streaming commerce combines entertainment with instant purchasing via a chat function or reaction buttons, is transforming the retail industry and providing a new and innovative channel for digital platforms, brands, and retailers to create value, such as a higher conversion rate and increased differentiation and brand appeal (Arora et al., 2021). Live streaming commerce changes the conventional static display of products with only pictures, and text words making shopping more realistic. Realizing the uniqueness and pervasiveness of live streaming commerce, numerous customers worldwide are shopping through it.

The development of live streaming commerce is flourishing in China. According to iResearch (2021), the market for live streaming in China was worth more than 1.2 trillion yuan. As Chinese users better understand live streaming and the satisfactory purchasing experience that live streaming commerce provides, users will appreciate the pattern of live streaming commerce shopping. China's live streaming users totalled 617 million, accounting for 62.4 per cent of all Internet users. Among them, the number of live streaming commerce users has surpassed 388 million, making up around 40 per cent of all Internet users (iResearch, 2021).

One of the critical aims of the live streaming commerce platform and business is to enhance users' "shopping" experience while "watching". Increasingly businesses in China take advantage of live streaming commerce to create their competitive advantage, which will help them to expand their customer base and improve sales performance.

Furthermore, the COVID-19 pandemic has greatly influenced consumer consumption patterns and purchasing habits, boosting considerably live streaming commerce. The boom in live streaming commerce also indicates fierce competition. Issue such as homogenization is emerging in live streaming commerce. To help businesses to attract customers better and enhance competitiveness as well as profitability, live streaming commerce stakeholders must understand the factors driving consumers' impulse buying behaviour, especially when the live streaming commerce consumers are exposed to various marketing stimuli.

Impulsive buying is a compelling, impulsive, and hedonically complex purchasing behaviour that occurs when customers do not plan to purchase in advance (Shen & Khalifa, 2012; Stern, 1962). Live streaming commerce offers considerable potential to trigger consumers' impulse purchases due to its high engagement as well as visibility. According to iiMedia Research (2020), nearly half of the consumers have made impulse purchases due to the factors such as the recommendation of the live streamers, the atmosphere of the live streaming, and the number of orders placed by others. During the COVID-19 pandemic, the proportion of impulse purchases can be increased due to fears of sell-outs and price rising among consumers. Given the prevalence of impulsive buying among Chinese customers, it is critical to identify the determinants of impulsive buying.

Despite the flourishing of live streaming commerce in China, little is known about the determinants that trigger live streaming consumers to purchase impulsively. Though there has been increasing investigation into live streaming commerce, insufficient evidence is available on impulse purchases. Using the Social Impact Theory as the underpinning theory, this conceptual paper provides an overview of the determinants influencing impulsive purchases among Chinese live streaming commerce consumers. Factors including para-social interaction, telepresence, and social presence with three dimensions are identified and will be further investigated to explain impulsive purchases. Finally, the paper concludes that an empirical study is required to examine how these variables explain impulsive purchases in live streaming commerce.

## **Literature Review**

### **Live Streaming Commerce**

Live streaming commerce refers to live streaming technologies that are integrated into e-commerce websites or applications (e.g., Taobao Live, Amazon Live and Shopee Live) or commercial activities on social media or live streaming platforms (e.g., Facebook Live, TikTok and Kuaishou). Live streaming commerce shares certain features with social commerce and television shopping as a novel shopping channel, but it has its characteristics (Liu, 2021). Compared to social commerce, live streaming commerce highlights the importance of live streamers in attracting and influencing consumers and establishing a more interactive atmosphere. Unlike teleshopping, live streaming commerce has a robust social nature and product diversity. The most represented product categories in live streaming commerce are apparel and fashion, accounting for 36 per cent, followed by beauty products and groceries, accounting for around 7 per cent, respectively (Arora et al., 2021).

Previous research on live streaming commerce has concentrated chiefly on consumer engagement (Kang et al., 2020; Liu et al., 2021; Wongkitrungrueng & Assarut, 2018),

consumer motivation (Cai et al., 2018; Friedländer, 2017; Lin, 2021), consumers' purchase or repurchase intention (Chen et al., 2020; Hou et al., 2020; Ko & Chen, 2020; Ma, 2021; Su, 2019; Sun et al., 2019; Wu, 2021; Yin, 2020). However, studies on impulsive purchases in live streaming commerce scenarios remain insufficient, warrant conducting this study.

### **The Social Impact Theory**

The research adopts the Social Impact Theory to fulfil research objectives. The Social Impact Theory was initially proposed by Latané (1981) to depict the impact of other people on an individual. According to Latané (1981), the level to which other people affect a user is a multiplicative function of the number of others, immediacy, and strength. Kwahk and Ge (2012) defined immediacy as the temporal or spatial closeness between the source of influence and the individual, number as the set of sources of influence, and strength as the source's social position or importance.

Most studies on impulse buying behaviour adopted the Stimuli-Organism-Response (S-O-R) framework, such as in the works of (Chang, 2017; Karim et al., 2021; Chen and Yao, 2018). Nevertheless, Social Impact Theory received little attention as a valuable underpinning basis. According to Perez-Vega et al (2016), Social Impact Theory is pretty suitable for explaining how media interaction and social cues affect consumer behaviour. Furthermore, Ang et al. (2018) adopted Social Impact Theory to investigate the impact of social viewing tactics (pre-recorded and live streaming) on users' viewing experiences and behavioural intents (subscribe intent, search intent, and purchase intent). As the interaction in live streaming commerce is a unique media interaction, it is conceptually valuable to examine how Social Impact Theory explains the impact of social sources (live streamers, other viewers, and live streaming commerce platforms) on consumers' impulsive buying. Hence, the applicability and relevance of Social Impact Theory in live streaming commerce have been established. The Social Impact Theory is employed in the study to investigate different social clues (para-social interaction, social presence as well as telepresence) in live streaming commerce and how these social clues affect users' impulsive purchases, as well as to offer potential guidance for the variables' structural relationship.

### **Impulsive Buying**

Stern (1962) conceptualized impulsive buying as "any purchase which a shopper makes but has not planned in advance". While Rook (1987) depicted impulsive buying as a case when "a consumer experiences a sudden, often powerful and persistent urge to buy something immediately". It is recognized that impulsive buying occurs in both physical store shopping and online shopping. In an online purchasing environment, the accessibility of purchases, the various types of marketing stimuli, as well as the absence of social pressures may lead to more impulsive buying (Bao & Yang, 2022). Verhagen and van Dolen (2011) elucidated online impulsive buying as "a sudden and immediate online purchase with no pre-shopping intentions; it is unplanned, spontaneous, and decided on the spot". Online impulsive buying was widely investigated in general online shopping (Cavazos-Arroyo et al., 2022; Floh & Madlberger, 2013; Liao et al., 2016; Turkyilmaz et al., 2015), in social commerce (Akram et al., 2018; Alizadeh, 2019; Chen et al., 2018; Ju & Ahn, 2016; Xiang et al., 2016; Zafar et al., 2019), more specifically, in Facebook commerce (Zafar et al., 2020), or mobile commerce (Huang, 2017).

Impulse buying usually involves two processes which are the 'urge' and 'actual behaviour'. According to Rook (1987), customers buy impulsively after they experience an

urge to buy. Due to the problem and difficulty in capturing the actual impulsive buying behaviour (Chen et al., 2016; Wells et al., 2011), many scholars adopted the 'urge to buy impulsively' as a surrogate construct and confirmed its reliability and robustness (Chen et al., 2021; Liu et al., 2013; Parboteeah et al., 2009; Setyani et al., 2019; Zhang et al., 2022; Zuo & Xiao, 2021). Thus, this research chooses the 'urge to buy impulsively' as a surrogate construct for impulsive buying.

### **Para-social Interactions**

Horton and Wohl (1956) first proposed the term 'para-social interaction' to describe an audience's illusion of interacting face-to-face with the media persona. On the other hand, para-social interaction refers to a feeling of affective and interpersonal engagement with media celebrities (Rubin & Perse, 1987). Xiang et al (2016) defined para-social interaction as a one-way relationship that a consumer establishes with others (such as experts and celebrities) that comes from the consumer's imagined intimacy or illusion. Thereby, this variable will examine consumers' sense of the one-sided and imagined intimacy with live streamers.

Para-social interaction is an essential determinant in persuading customers to buy as it positively influences consumers' purchase intention in live streaming shopping (Ko & Chen, 2020). Moreover, para-social interaction positively influences users' urge to purchase impulsively in Vlogs (Arviansyah et al., 2018). Similarly, Hsu (2020) confirmed that consumers' urge to buy as well as their flow experience is influenced by para-social interaction from vloggers. It can be argued that customers' impulse buying behaviours are highly influenced by para-social interaction, and para-social interactions from live streamers are perceived as more salient.

As live streaming shopping has become a new trend in recent years, consumers are attaching importance to the para-social interaction with live streamers. On the other hand, an excellent live streamer is critical to the prosperity of live streaming commerce, which determines the selling style and influences the sales transformation. Live streamer attributes such as expertise, attitude homophily, familiarity, social attractiveness, and physical attractiveness play an essential role in consumers' purchase behaviour. Similarly, Xue et al. (2020) validated that factor influencing the interaction between live streaming viewers and live streamers, such as live streamers' personalization, responsiveness, and entertainment, enhances consumer engagement in social commerce. According to iiMedia Research (2020), 24.2 per cent of Chinese consumers believe that a fondness for live streamers is the main factor influencing their purchasing behaviour. Liu et al. (2019) also claimed that customers will be more likely to perceive brand quality, brand preference, or brand effect when developing high para-social interaction with vloggers. Hence, how consumer impulsive buying behaviour can be affected by para-social interaction from live streamers is examined in this research.

### **Social Presence**

There was no consensus on how to define social presence among researchers. According to Short et al (1976), social presence depicts the level of the salience of others during the interaction as well as the resulting salience of interpersonal relationships. While Lim (2015) defined social presence as a user's perception of others' presence through a mediated interface. There is a strong social feature in live streaming commerce, as consumers

and live streamers can communicate promptly, but consumers among them can also discuss in the chatbox, in a more diversified form and with timely feedback.

Previous literature viewed the term 'social presence' as either a unidimensional or multidimensional concept. The unidimensional social presence is generally conceptualized in terms of the medium's feature to transmit a sense of human warmth, sociability as well as psychological closeness, as in the works of (Li, 2019; Cyr et al., 2007; Su et al., 2020; Zuo and Xiao, 2021). In contrast, the multidimensional social presence is conceptualized into three dimensions from various perspectives. For instance, Lu et al (2016) as well as Ye et al (2020) conceptualized 'social presence' as three dimensions, namely from the web, sellers, and others, respectively. Jiang et al (2019) conceptualized social presence from the perspective of consumers, sellers, and products, respectively.

In contrast, Shen and Khalifa (2009) divided social presence into affective, cognitive and awareness perspectives. In the live streaming commerce context, Zhang et al (2022) conceptualized social presence as from live streamers, viewers, and products, respectively. While Ming et al (2021) conceptualized social presence from streamers, viewers, and live streaming platforms. Based on prior studies and the features of live streaming commerce, this current study adopts the three dimensions proposed by Ming et al (2021): platform social presence, other viewers' social presence, and live streamers' social presence.

The platform's social presence refers to the live streaming commerce platform's ability to create a feeling of sociability and human warmth. The live streaming commerce platform contains text, videos, and voice functions, enabling users to sense human contact. In comparison, the other viewer's social presence refers to the level of a user's perception of the existence of other viewers. In live streaming commerce, some social functions, such as the chatbox embedded in the live streaming room, enhance users' perceived existence of other viewers who can be interested in the same product. Similarly, the live streamers' social presence describes the level of a user's perception of the existence of live streamers. In general, in e-commerce, the interaction between vendors and consumers is limited, but live streaming technology optimizes their interactions.

Over the years, social presence has become a valuable factor influencing consumers' purchasing behaviour as it gives customers the impression that the shopping environment is safe and transparent (Mo & Wang, 2021). Although it is a psychological and subjective perception among consumers, it also reduces psychological distance and uncertainty between consumers and sellers, products, and shopping channels while allowing consumers to shop comfortably. As per Sun et al (2019), social presence is essential for purchase intention. Similarly, Ang et al (2018) proposed that social presence significantly influences consumers' viewing experience and behaviour intention.

### **Telepresence**

Besides social presence, telepresence is another critical factor influencing consumers' behaviour when shopping online. Ou et al (2014) defined telepresence as the user's sense of being present at a merchant's virtual place in an online shopping environment. Ye et al (2020) defined telepresence as the level to which customers feel involved in the virtual purchasing environment as if they could physically engage with the commodities in offline stores. Telepresence rises if an individual is involved in a highly interactive and vivid medium (Kang, 2020). Different e-commerce platforms enable consumers to perceive telepresence. Nonetheless, live streaming commerce provides consumers with transparent and rich details



and diversified product selection, a strong sense of immersion, and a high level of interactivity, leading consumers to experience more telepresence.

Previous research has proven the vital role of telepresence on consumer behaviour in a different context. Algharabat (2018) performed research in the online retail context and uncovered that telepresence positively influences consumer engagement, consequently influencing their purchase intention and the value of co-creation. In addition, Ongsakul et al (2020) investigated the effect of telepresence in the context of the hotel website. The findings elucidated that telepresence significantly influences consumers' hedonic performance, utilitarian performance, and behavioural intention. Furthermore, Ying et al (2021) investigated telepresence in the tourism context and confirmed that telepresence embedded in VR commercials evokes the user's intention to visit. However, scarce studies investigated the direct impact of telepresence on consumers' impulse purchases, especially in the live streaming commerce realm. Given the valuable role of telepresence on consumer behaviour, it is imperative to evaluate the role of telepresence on consumers' impulse purchases, necessitating the conduct of this study.

### Proposed Framework

Para-social interaction has been an indicator of impulsive purchase behaviour, and it has influenced impulsive purchase behaviour positively (Vazquez et al., 2020). Para-social interaction may create better seller credibility with consumers during the buying process (Zafar et al., 2020). Notably, live streaming commerce consumers largely depend on live streamers' product presentations and recommendations to help them make purchasing decisions. Similarly, social presence is also an essential factor in impulsive purchase behaviour. According to Zulfa (2020), social presence is one of the factors influencing impulsive purchase behaviour. Besides, telepresence is among the critical indicators for predicting online impulse buying (Jeon & Kim, 2015). It was also discovered that telepresence plays an essential role in generating impulsive purchases by minimizing physical distance (Khalifa & Shen, 2007).

Based on the preceding discussion, literature shows that para-social interaction, social presence, and telepresence positively influence the user's impulse purchase behaviour. With Social Impact Theory as an underpinning framework, this paper proposes a conceptual framework to investigate the link between para-social interaction, three-dimensional social presence, telepresence, and consumers' urge to buy impulsively (see Figure 1).

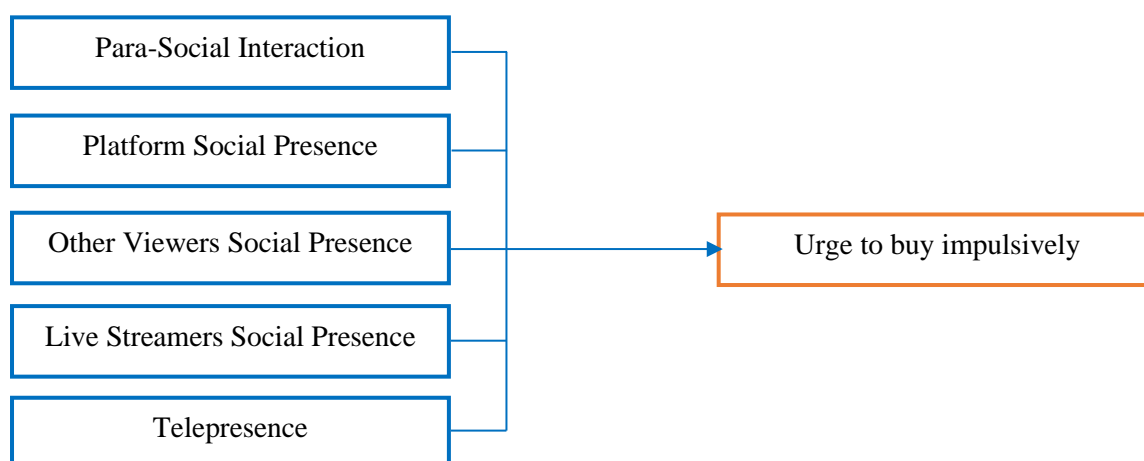


Figure 1: Proposed Conceptual Framework

### Conclusion and Implication of Study

Based on the literature review above, the following propositions are proposed to look into consumers' impulse purchases in live streaming ecommerce in China through the lens of Social Impact Theory. Thereby, the following propositions are to be tested, as illustrated in Table 1. This conceptual analysis of the determinants of impulsive purchases among Chinese consumers in live streaming commerce has revealed valuable outcomes. From the theoretical perspective, the findings will shed some light into the factors determining Chinese consumers' impulsive purchases in live streaming ecommerce. In particular, the empirical evidence will contribute to the body of knowledge by employing the Social Impact Theory to examine the understudied drivers of impulsive purchase, such as the effect of para-social interaction and telepresence. Besides that, this paper emphasised the importance of conducting a future empirical study to investigate the factors that influence Chinese consumers' impulsive purchases in live streaming commerce. As a result, it is suggested that a further empirical study using a quantitative approach be conducted to investigate impulse purchases in China's live streaming commerce.

Table 1

#### *Propositions to be tested*

P1	There is a positive relationship between para-social interaction and urge to buy impulsively.
P2	There is a positive relationship between platform social presence and urge to buy impulsively.
P3	There is a positive relationship between other viewers social presence and urge to buy impulsively.
P4	There is a positive relationship between live streamers social presence and urge to buy impulsively.
P5	There is a positive relationship between telepresence and urge to buy impulsively.

From the practical perspective, both researchers and live streaming merchants and live streamers can gain a greater knowledge of consumers' impulsive purchases in live streaming commerce. Live streaming shopping has grown in popularity among Chinese consumers recently. The implementation of live streaming will no longer be an option for typical ecommerce sites, but rather a default feature. Furthermore, general ecommerce businesses and brick-and-mortar sellers interested in entering live streaming channels will benefit from further empirical research.

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