

# Exploring Serendipity and Impulse Buying: Insights through Regulatory Focus Theory

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## Abstract

*The objective of this study is to examine the impact of perceived serendipity on impulse buying in the context of live streaming commerce, with a focus on the moderating effect of price on this relationship. A total of 205 usable datasets were collected in Korea. All four proposed hypotheses were supported, and perceived serendipity was found to have a positive effect on both impulse buying intention and impulse buying. High-priced products amplified the impact of perceived serendipity on impulse buying. The findings of this study offer significant contributions to both academic research and practical applications.*

**Keywords:** *Perceived Serendipity, Impulse Buying, Price Moderating Effect, Regulatory Focus Theory*

## Introduction

Consider the following scenario: You are shopping at a local grocery store and come across a wine that you particularly enjoy. To your delight, the wine is available at a discounted price, a circumstance that is not commonly observed. This fortuitous discovery evokes a sense of serendipity, a pleasant and surprising encounter that feels almost too good to be true. In line with the grocery store example, serendipity has been defined as “unexpected discovery,” “fortuitous accident,” or “unpredictable surprise” in previous studies (Chung et al., 2017; Foster & Ford, 2003; McCay-Peet, et al., 2015; Yi, et al., 2017). Research into serendipity has spanned a variety of disciplines, ranging from information science (Foster & Ford, 2003), to business and marketing (Denrell et al., 2003; Dew, 2009; Kim et al., 2021; Liang et al., 2022), and even to service industries (Chung et al., 2017; Kotkov et al., 2016). Across these domains, the role of serendipity in shaping consumer behavior has been well-documented. According to Yi et al. (2017), serendipitous experiences resulted in unplanned purchases and consumer satisfaction. Similarly, Beatty & Ferrell (1998) found a link between serendipity and higher levels of impulse buying behavior, as well as elevated purchase intentions. While there is growing attention regarding the impact of serendipity in buying behavior (Bao & Yang, 2022; Chung et al., 2017; Kim et al., 2021; Kosuge & Yasuda, 2022; Yi et al., 2017), relatively limited attention has been paid to the significant role of serendipity in purchase behavior in live streaming commerce (Liu et al., 2023; Son & Yoon, 2024; Wang & Wu, 2019). Such an approach, thus, necessitates an understanding of the significance of serendipity in the realm of impulse buying in live streaming commerce.

In order to explain the influence of serendipity on impulse buying, regulatory focus theory has been employed in the present study. Regulatory focus theory, introduced by Higgins (1997), explains how individuals pursue goals based on two primary motivational orientations: promotion focus and prevention focus. Regulatory focus theory has been widely applied across diverse disciplines, including medicine, decision-making, and marketing (Higgins, 1997, 2002; Kidwell et al., 2008; Semin et al., 2005; Sengupta & Zhou, 2007). However, its application to retail contexts remains limited (Arnold & Reynolds, 2009; Das, 2015). To address the extant research gaps, by leveraging regulatory focus theory, this study investigates how serendipity influences impulse buying behavior in live streaming commerce. Therefore, the purposes of this study are threefold. First, it aims to empirically test the impact of serendipity on impulse buying behavior within live streaming commerce. Secondly, it examines whether impulse buying intention serves as a cognitive and emotional bridge between serendipity and actual impulse buying behavior. Third, it explores whether product price amplifies or weakens the relationship between serendipity and impulse buying, providing insights into the role of price sensitivity in shaping impulsive tendencies.

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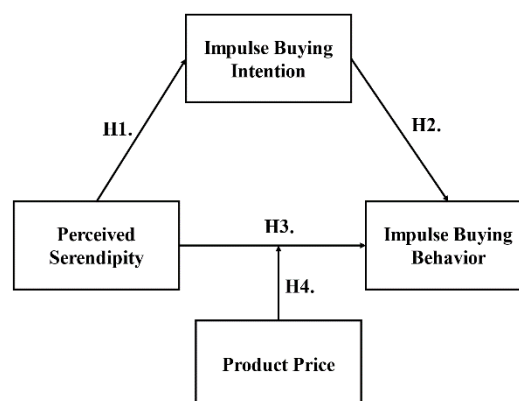
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The present study contributes to the existing body of knowledge in three primary ways. Firstly, it introduces a theoretical research framework based on regulatory focus theory to explain how serendipity influences impulse buying in live streaming commerce. Secondly, this study synthesizes prior literature on the subject, connecting serendipity, impulse buying, and regulatory focus theory within the retail context. Thirdly, by identifying varying price as a potential moderator, this study further highlights how varying price levels affect the strength of serendipity's influence, demonstrating that serendipity may lead to different outcomes depending on consumers' perceptions of product value. Finally, this study provides practical marketing guidelines for businesses, marketers, and retailers seeking to leverage serendipity as a strategic tool for influencing purchasing behavior.

## Literature Review and Hypotheses Development

This study applies regulatory focus theory as a theoretical framework to investigate the influence of serendipity on impulse buying within the context of live streaming commerce. The proposed model suggests that perceived serendipity has a direct relationship with impulse buying, mediated by impulse buying intention. Furthermore, this study examines whether the price of products moderates the relationship between perceived serendipity and impulse buying behavior. The following sections elaborate on the theoretical foundation, conceptual definitions, and hypothesized relationships between key variables. A visual representation of the research model and hypotheses is provided in Figure 1.

**Figure 1.** The Hypothesized Model



### *Regulatory Focus Theory*

Regulatory focus theory has emerged as a foundational framework for explaining and predicting consumer behavior across various domains, including hospitality (Cai & Leung, 2020; Gao et al., 2020), psychology (Higgins, 1997), health psychology (Berezowska et al., 2018), decision-making (Bryant & Dunford, 2008; Fazeli et al., 2020; Förster et al., 2003; Semin et al., 2005), etc. Despite its broad applicability, the theory has received comparatively less attention in retail and commerce contexts. Addressing this gap, the present study employs regulatory focus theory to examine the role of perceived serendipity in impulse buying decisions in live streaming commerce.

Regulatory focus theory refers to an individual's self-regulation system, which is characterized by two contrasting orientations: promotion focus and prevention focus (Higgins, 1997). Individuals with a promotion focus prioritize aspirations, growth, and accomplishments, seeking to maximize positive outcomes. In contrast, those with a prevention focus emphasize safety, security, and the avoidance of losses, striving to minimize negative outcomes (Aaker & Lee, 2001; Brockner & Higgins, 2001). According to Semin et al. (2005), promotion-focused individuals are characterized by their willingness to explore new opportunities and engage in abstract thinking. This orientation allows them to interpret ambiguity in experiences more favorably and to embrace hedonic consumption, focusing on the pursuit of pleasure and positive emotional states (Chernev, 2004).

### *The Relationship between Perceived Serendipity and Impulse Buying Intention*

Serendipity, defined as “unexpected discovery,” “accidental finding,” or “unintended delight,” is characterized as a pleasant surprise that occurs beyond expectation (Chung et al., 2017; Foster & Ford, 2003; McCay-Peet, et al., 2015; Sun et al., 2013; Yi et al., 2017). Within the context of live streaming commerce, “perceived serendipity” refers to the degree to which consumers feel that this shopping experience has allowed them to uncover valuable products they were not initially searching for (Yi et al., 2017). Prior studies have shown that serendipitous experiences evoke positive emotions, such as joy, excitement, and satisfaction, which in turn increase impulsivity (Bao & Yang, 2022). Beatty & Ferrell (1998) also found that positive emotional triggers, such as unexpected pleasures or fortuitous occurrences, heighten the tendency to make impulsive purchases. Similarly, Kim et al. (2013) demonstrated that serendipitous experiences not only enhance shopping satisfaction but also stimulate impulsiveness, motivating consumers to act on their desires without prior planning. Therefore, this study posits that there is a positive relationship between perceived serendipity and impulse buying intention in live streaming commerce.

**H1:** *Perceived serendipity is positively associated with impulse buying intention.*

### *The Relationship between Impulse Buying Intention and Impulse Buying*

Impulse buying is defined as an unplanned, sudden, and compelling purchase behavior (Rook, 1987). It has been the subject of extensive research across a variety of retail contexts, including traditional brick-and-mortar stores, online platforms, social media, and mobile commerce (Beatty & Ferrell, 1998; Block & Morwitz, 1999; Chong et al., 2023; Luo et al., 2024). More recently, there has been a notable surge of interest in examining impulse buying behavior in live streaming commerce (Gao et al., 2022; Li et al., 2023). A recent study indicated that approximately 68% of online purchases are impulsive (Hu et al., 2019).

Live streaming commerce, characterized by its distinctive attributes of engagement, immediacy, and interactivity, has been shown to stimulate consumers to make purchases immediately, spontaneously, and without prior planning (Chen et al., 2022; Ma et al., 2022; Son & Yoon, 2024). Moreover, the marketing strategies employed in live streaming commerce are often designed to deliberately promote impulsiveness and urgency among consumers (Son & Yoon, 2024).

A substantial body of research has identified various factors that contribute to impulsive purchasing behaviors, including individual self-control, the presence of impulsive traits, external stimuli, etc. (Chung et al., 2017; Dholakia, 2000; Hu et al., 2019; Rook & Fisher, 1995; Sharma et al., 2010). Dholakia (2000) found that consumers with higher levels of impulsive traits are more likely to develop impulse purchase intentions, which subsequently lead to actual impulse buying behavior.

Supporting these findings, Chen and Wang (2016) demonstrated a positive correlation between the intention to make impulsive purchases and actual impulsive purchasing behavior. In other words, consumers who have a stronger intention to buy impulsively are more likely to follow through with unplanned purchases. Given these findings, this study hypothesizes that impulse buying intention increases the likelihood of impulse buying behavior in live streaming commerce.

**H2:** *Impulse buying intention is positively associated with impulse buying.*

### *The Relationship between Perceived Serendipity and Impulse Buying*

Serendipity, often described as a “happy surprise,” “unexpected discovery,” or “accidental finding,” refers to moments when individuals encounter pleasant surprises that exceed their expectations (Yi et al., 2017). Several studies have identified a positive relationship between serendipity and impulse buying (Beatty & Ferrell, 1998; Son & Yoon, 2024; Wang & Wu, 2019). Consumers who experience serendipitous encounters are more prone to making impulsive purchases, as these moments often elicit positive emotions such as joy and excitement (Bao & Yang, 2022; Son & Yoon, 2024; Xu et al., 2024). Research has further established that serendipity serves as a catalyst for impulsive purchases, particularly on social commerce platforms (Niu et al., 2021). These platforms

create environment where consumers can stumble upon unexpected discoveries, reinforcing their emotional arousal and increasing the likelihood of impulsive buying decisions.

In the context of impulse buying and the regulatory focus theory, promotion-focused consumers are more likely to act on serendipitous discoveries because they associate these moments with pleasure, excitement, and emotional fulfillment. Supporting this view, Novak and Hoffman (2009) found that promotion-focused consumers tend to rely on their emotions and intuitions when making decisions. This emotional reliance can lead to behaviors such as impulse buying, which are aimed at fulfilling emotional needs (Hausman, 2000). In light of these findings, this study anticipates that perceived serendipity will have a positive influence on impulse buying behavior.

*H3: Perceived serendipity is positively associated with impulse buying.*

#### *The Moderating Effect of Product Price*

Price is a fundamental element of marketing strategy and plays a critical role in shaping consumer behavior patterns and influencing purchasing decisions. A substantial body of research has established a positive relationship between low prices and both purchase intention and actual purchase behavior (Biswas et al., 2006; Chiang & Jang, 2007). Lower prices often reduce perceived risk, making consumers more inclined to buy products impulsively.

However, regulatory focus theory suggests that price may interact with consumers' motivational orientations, influencing the likelihood of impulse buying. Consumers with a promotion focus are driven by aspirations achievements, and hedonic rewards. They tend to view high-priced products as symbols of status and quality, associating them with pleasure and emotional gratification (Chernev, 2004). In contrast, consumers with a prevention focus are motivated by security and practicality, prioritizing utilitarian benefits and cost efficiency. This group is more likely to gravitate toward low-priced products, which align with their desire to minimize risk and maximize functional value (Chernev, 2004). Given this framework, it is hypothesized that price will significantly moderate the relationship between perceived serendipity and impulse buying.

*H4: The price of products moderates the relationship between perceived serendipity and impulse buying. A stronger relationship is expected for high-priced products, and a weaker relationship is expected for low-priced products.*

## **Method**

A survey was conducted to test the hypotheses proposed in this study. The survey targeted respondents living in Korea who had prior experience purchasing products through live commerce platforms. Since product price was a key variable in this study, only respondents who frequently purchased either low-priced or high-priced products were included in the final sample. Respondents who primarily purchased medium-priced products or had no prior experience with live commerce were excluded from the analysis. After filtering responses, the final sample size consisted of 205 respondents.

The questionnaire was initially prepared in English and then translated into Korean. Respondents provided demographic information, including age and gender, before answering items related to the main research variables.

The demographic breakdown of respondents indicated that 12.7% were in their 20s, 32.7% in their 30s, 40% in their 40s, 11.2% in their 50s, and 3.4% in their 60s. 48.8% of the survey respondents were male.

Among the four main research variables, three were measured using a 7-point Likert scale (1 = 'strongly disagree', 7 = 'strongly agree'). Serendipity was measured using a modified version of four items developed by McCay-Peet et al. (2015). Impulse buying intention was assessed by adapting four items proposed by Chen and Wang (2016). Lastly, impulse buying was evaluated with four items derived from the scales developed by Beatty and Ferrell (1998).

To measure product price, respondents were asked to select the average price of products they purchased on a one-time basis through live commerce platforms. Responses were categorized as follows: Low-priced products (10,000-50,000 KRW) were coded as 0; High-priced products (over 100,000 KRW) were coded as 1. Responses

indicating prices between 50,000–100,000 KRW were excluded from the analysis based on expert consultation. After categorization, 108 respondents were classified as low-price purchasers, and 97 respondents were classified as high-price purchasers.

## Results

Table 1 presents the means, standard deviations, and correlation coefficients for the main research variables. Before testing the hypotheses, exploratory factor analysis was conducted using principal component analysis with the varimax rotation method.

**Table 1.** Means, Standard Deviations and Correlations

Variables	M	SD	1	2
1. Perceived Serendipity	4.91	.84		
2. Impulse Buying Intention	4.90	.95	.62***	
3. Impulse Buying	4.76	1.09	.55***	.48***

Note. \*\*\*  $p < .001$

**Table 2.** Exploratory Factor Analysis Results and Cronbach's Alphas

Factors and Items	Factor loadings	Cronbach's $\alpha$	KMO
Factor 1: Perceived Serendipity		.827	.869
PSE1	.688		
PSE2	.668		
PSE3	.777		
PSE4	.808		
Factor 2: Impulse Buying Intention		.827	
IBI1	.853		
IBI2	.876		
IBI3	.613		
Factor 3: Impulse Buying		.888	
IMB1	.828		
IMB2	.780		
IMB3	.862		
IMB4	.799		

Table 2 shows the results of the exploratory factor analysis, indicating that all factor loadings were acceptable. The Kaiser-Meyer-Olkin (KMO) test statistic (.869) and the Bartlett spherical test ( $\chi^2$  (df = 55) = 1304.296,  $p < .001$ ) confirmed that the constructs obtained a reasonable level of reliability, and were suitable for further analysis. Cronbach alpha values for all variables exceeded .80, demonstrating acceptable levels of reliability. These findings supported the validity and reliability of the main study variables, enabling the next step of hypotheses testing.

To test the hypotheses, PROCESS Models 1 and 4 were used, incorporating 5,000 bootstrapped subsamples to calculate confidence intervals (Hayes, 2012). First, the analysis confirmed that perceived serendipity had a positive and significant effect on impulse buying intention ( $b = .70$ ,  $SE = .06$ ,  $p < .001$ ). This result supported H1. Next,

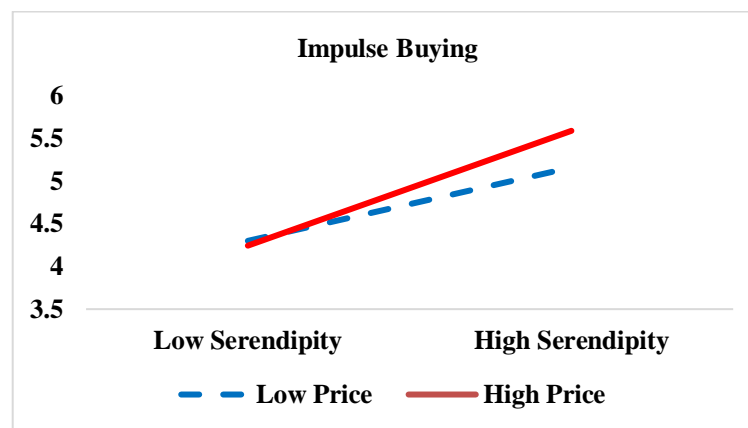
a positive and significant relationship was observed between impulse buying intention and impulse buying behavior ( $b = .25$ ,  $SE = .08$ ,  $p = .003$ ), providing support for H2. Furthermore, perceived serendipity had a direct positive effect on impulse buying ( $b = .54$ ,  $SE = .10$ ,  $p < .001$ ), confirming H3. To test the mediating role of impulse buying intention, the analysis revealed a significant indirect effect of serendipity on impulse buying through impulse buying intention ( $b = .18$ ,  $SE = .08$ , 95% confidence interval: [.0279, .3334]).

**Table 3.** Results on Mediating and Moderating Effects

Variables	Step 1 Intention	Step 2 Buying	Step 3 Buying	Step 4 Buying
Perceived Serendipity	.70***	.54***	.54***	.57***
Impulse Buying Intention		.25**		
Product Price				-1.43
Serendipity*Price				.32*
R <sup>2</sup>	.39***	.33***	.30***	.32***

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

The moderating effect of product price was then examined. Perceived serendipity, product price, and their interaction term were included in the model to test their combined effect on impulse buying. The results in Table 3 (Step 4) showed that product price significantly moderated the relationship between impulse buying intention and impulse buying behavior ( $b = .32$ ,  $SE = .15$ ,  $p = .035$ ). This finding supported H4. To further explore the moderating effect, the patterns were visualized in Figure 2. The graph illustrates that the positive relationship between perceived serendipity and impulse buying was stronger for high-priced products ( $b = .90$ ,  $SE = .12$ ,  $p < .001$ ) compared to low-priced products ( $b = .57$ ,  $SE = .10$ ,  $p < .001$ ).



**Figure 2.** Moderating Effect of Price on the Relationship between Serendipity and Buying

## Discussion

This study investigates the relationship between perceived serendipity and impulse buying, emphasizing the mediating role of impulse buying intention. To provide a deeper understanding of this relationship, regulatory focus theory is employed as the underlying theoretical framework. Additionally, this study examines the moderating effect of product price, assessing whether variations in price influence the relationship between perceived serendipity and impulse buying. The major findings and their implications are discussed in detail below.

The results support the notion that perceived serendipity exerts a positive influence on impulse buying by fostering impulse buying intention. Both perceived serendipity and impulse buying intention play crucial roles in driving



unplanned purchases, particularly in the context of live streaming commerce. As anticipated, perceived serendipity significantly enhances impulse buying intention, aligning with prior research indicating a positive association between serendipity and impulsive purchasing behavior (Beatty & Ferrell, 1998; Kim et al., 2013). The findings underscore the power of hedonic and positive emotions, elicited through serendipitous experiences, in triggering spontaneous buying decisions.

The mediating role of impulse buying intention is also confirmed, highlighting its position as a cognitive bridge between perceived serendipity and impulse buying behavior. This theoretical framework emphasizes that perceived serendipity influences both direct and indirect pathways to impulse buying, further validating its role as a key driver of purchasing behavior in live commerce environments.

In addition to the mediating role of impulse buying intention, this study identifies product price as a moderating factor in the relationship between perceived serendipity and impulse buying. The findings reveal that higher-priced products are more likely to amplify the effects of serendipity on impulse buying, while lower-priced products have a positive, yet weaker influence. These results are consistent with Chernev's (2004) argument that high-priced products, often associated with status and hedonic value, evoke stronger emotional responses that encourage impulse buying. Conversely, lower-priced products are more likely to satisfy utilitarian motivations, which may limit their emotional appeal and impulsive purchase behavior.

#### *Theoretical and Practical Implications*

This study makes several important contributions to both theory and practice. From a theoretical perspective, this research highlights the significance of perceived serendipity as a key antecedent of impulse buying in live streaming commerce. While serendipity has been explored extensively in fields such as information sciences, medicine, health psychology, marketing, and hospitality business (Chung et al., 2017; Denrell et al., 2003; Dew, 2009; Foster & Ford, 2003; Kim et al., 2021; Liang et al., 2022), its role in retail—particularly within live streaming commerce—has remained underexplored. This study represents one of the first attempts to examine the role of perceived serendipity in shaping impulse buying behavior within this emerging retail channel.

This study also extends the application of regulatory focus theory by integrating concepts of perceived serendipity and impulse buying. Although regulatory focus theory has been comprehensively studied in organizational psychology, consumer psychology, and decision-making (Bryant & Dunford, 2008; Fazeli et al., 2020; Förster et al., 2003; Higgins, 1997; Semin et al., 2005), its application to live streaming commerce has been limited. By demonstrating its relevance to its retail format, the present study expands the scope of regulatory focus theory and offers a new lens through which to examine consumer behavior in e-tailing environments.

Another notable theoretical contribution of this study is the identification of product price as a moderating factor in the relationship between perceived serendipity and impulse buying behavior. While previous research has often suggested a negative correlation between price and purchase intention this study challenges that assumption. The findings indicate that higher-priced products do not necessarily inhibit purchases; instead, their association with status and emotional gratification can amplify the effects of serendipitous discoveries, promoting impulse buying. This insight provides an important theoretical shift in understanding the emotional appeal of high-priced products in live commerce settings.

From a practical perspective, this study offers actionable insights for retailers, marketers, and businesses seeking to optimize their live streaming commerce strategies and tactics. The findings suggest that serendipitous discovery can serve as a catalyst for impulse buying. Therefore, marketers should develop strategies that create “unexpected delights” or “happy accidents” for consumers. Examples of such strategies include lucky draws, mystery boxes, limited-edition product releases, and giveaway events designed to evoke positive emotions and curiosity.

Retailers should also consider presenting high-priced products during live streaming sessions, as these products are more likely to elicit emotional responses and drive impulse purchases. Premium product categories—such as luxury fashion, beauty and anti-aging products, health and dietary supplements, and hobby or lifestyle products—may be particularly effective in attracting promotion-focused consumers who seek hedonic rewards.

### *Limitation and Future Study*

This study has certain limitations that should be acknowledged. First, the research model was relatively narrow in scope, focusing specifically on the impact of perceived serendipity on impulse buying in live streaming commerce. Future research could extend this framework by incorporating additional antecedents, mediators and moderators to provide a more comprehensive understanding of impulse buying behavior.

Another potential limitation of the present study is its generalizability, which is constrained by the limited number of data sets examined, hindering a comprehensive assessment of the impact of perceived serendipity on impulse buying in live streaming commerce. Future studies should examine broader and more diverse samples to strengthen the applicability of the results across different cultural and market contexts.

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