

## A Uses and Gratification Theory Based Study on the Influence of Extrinsic Motivation, Intrinsic Motivation and Gratification on Consumers' Behavioral Intention in Webcasting

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**Abstract.** Online live streaming is currently a powerful tool, and its surge has attracted great attention from marketing practitioners and scholars. This study aims to explore the impact of internal and external motivations of behavioral intention on consumer participation in online live streaming and the mediating role of gratification. This study collected 220 valid questionnaires from consumers and analyzed the data using Smart PLS 3.0 software. The methodology used in this paper was to search literature reviews from databases on topics related to live steaming, uses and gratification theory, shopping motivation and behavioral intention. Research has found that external and internal motivation positively affect consumers' behavioral intentions in online live streaming, and gratification plays a mediating role between internal and external motivation and consumer behavioral intentions. The results of this study not only contribute to a theoretical understanding of consumer behavior in online live streaming, but also help practitioners adjust strategies based on different consumer motivations and preferences, ultimately promoting the growth of the live streaming economy.

**Keywords:** Live Streaming Platform; Extrinsic Motivation; Intrinsic Motivation; Gratification; Behavioral Intention; Uses and Gratification Theory.

## **1. Introduction**

As a new form of social media, online live streaming is gaining popularity due to its real-time video content delivery and social interaction features. Its success can be attributed to its integration of social commerce and social media attributes. Webcasting combines live streaming with real-time socialization, representing a new form of e-commerce (Cai et al., 2018). Webcasting offers powerful interactivity, high conversion rates, and decentralized consumption, breaking down the barriers of time, location, and device. There are two main types of webcasts: those that integrate live streaming functionality into e-commerce websites or apps (eg: Taobao and Jingdong), and those that are specialized live streaming platforms with commercial activities (e.g., Tiktok and Kuaishou). Live streaming promotes interaction between hosts and viewers, fosters social presence, and influences viewers' behavioral intentions (Vukadin et al., 2018).

The rapid development of webcasting has also generated problems like unattractive live content, unclear product descriptions, untimely interactions with customers, and low popularity of live broadcasts, which have an impact on customer behavioral intentions. Many scholars have studied this area, Vukadin et al. (2018) investigated consumers' purchase intentions from the perspective of customer values (utilitarian, hedonistic, and symbolic values). Ming et al. (2021) focused on social presence as a way to stimulate consumer evaluations and ultimately influence their impulse purchasing behavior. Rao et al. (2021) found through a questionnaire that product trust and the anchor's own quality were the main factors influencing consumers. Zhang et al. (2022) pointed out that the quality of live shopping interactions influences consumers' willingness to make impulse purchases.

However, limited research has examined motivations and gratifications influencing engagement on live streaming e-commerce platforms. Uses and gratification theory suggests that psychological needs are key drivers of consumer adoption of a medium (Whiting & Williams, 2013). In online live streaming, consumers' gratification is largely dependent on the level of innovation and enjoyment they derive from watching live streams (Liu et al., 2012). Consumers judge the usefulness of live streaming and decide whether to continue watching or not. Motivational theorists have found that both external motivations (convenience, etc.) and internal motivations (enjoyment, etc.) influence people's willingness to use information technology (Davis et al., 1992; Kim et al., 2008; Van der Heijden, 2004), and this is true of webcasting, which stems from the use of information technology. Consumers' behavioral intentions vary depending on internal and external motivations. Therefore, this study takes the live streaming industry as the background and consumers who have shopping experience in live streaming as the research object. Guided by the uses and gratification theories, it attempts to investigate the mediating roles of internal and external motivation and gratification that influence their behavioral intentions to participate in live streaming, and to use gratification as a mediator to investigate the relationship between these variables and their paths of influence.

## **2. Literature Review**

### **2.1. Uses and Gratification Theory**

Uses and Gratification Theory is a communication theory proposed by Katz et al. (1973) to explore the ways in which people actively choose and use media to fulfill specific needs and wants. The theory emphasizes that viewers or users are not only passive recipients of media content, but that they have an active will and purpose in choosing when, where, and how to use media. Uses and gratification theory has been widely used in the fields of media studies and communication research. Researchers use this theory to explore how different types of media consumers choose and use media to fulfill their information needs, entertainment needs, social needs, etc. (Eginli & Tas, 2018; Ray et al., 2019; Hossain et al., 2019).

The Uses and Gratification Theory posits that consumers actively utilize media to meet their individual needs and desires, resulting in a sense of gratification. This study builds upon this theory by examining how extrinsic and intrinsic motivations relate to gratification and subsequently influence behavioral intentions in the context of TikTok's live streaming e-commerce platform. Within this context, consumers who have made purchases are viewed as individuals with distinct motivations, and their interactions on the platform are seen as a means to fulfill these motivations and achieve gratification.

## **2.2. Live streaming platform**

"Live streaming "has become a synonym for" online live streaming ", which means setting up an independent signal collection device on site to import the guidance terminal, then uploading it to the server through the network, and publishing a website for people to watch the broadcast method (Smith, 2018). Live streaming can be divided into four categories: e-commerce live streaming, e-sports live streaming, sports live streaming, and entertainment live streaming. Due to the rise of e-commerce and social media, live commerce or live shopping has rapidly become popular. It includes using live streaming to directly sell products or services to consumers, providing real-time product demonstrations and interactive shopping experiences. As people seek interactive online shopping experiences, this trend is particularly high during the COVID-19 pandemic. Various platforms, including TikTok Live, Taobao Live, and Amazon Live, provide opportunities for businesses and individuals to interact with customers and increase sales through live streaming. The growth of live streaming e-commerce platforms is attributed to the increasing reliance on internet shopping during the pandemic, the desire for participation experiences, and the demand for easy shopping methods for others.

TikTok has over 1 billion users worldwide and has significant influence in countries such as China and the United States. Sales on TikTok Live involve using live streams to directly sell products or services to users. Sellers showcase their products, interact with audiences, and process orders or payments in real-time. This form of e-commerce is very popular among small businesses and individual sellers, allowing them to establish connections with a large audience, showcase product advantages, and drive sales in an interactive manner. TikTok's live sales platform supports various payment methods, making it convenient for users to conduct transactions. Overall, live sales on TikTok provide an innovative and attractive way for businesses and individuals to reach target audiences and promote sales. So this study will take TikTok live streaming platform as an example for research.

## **2.3. Extrinsic Motivation**

Motivation is a psychological force that drives and maintains an individual's actions towards a goal. It explains most human behavior and influences perception, emotions, and actions. Over time, scholars have divided motivation into two categories: external motivation and internal motivation. External motivation is externally driven, while internal motivation comes from within. External motivation is mainly caused by external factors, and individuals take actions to pursue external rewards. External motivation can be measured through tangible (such as money) and intangible (such as recognition) rewards (Davis et al., 1992). Amabile (1993) distinguishes external motivation as motivation driven not by the work itself, but by achieving goals or outcomes that are separate from the task. This motivation can come from various external factors, including material rewards and non material expectations unrelated to the task itself.

During the live broadcast, product prices are usually cheaper than usual, allowing consumers to feel the relative advantage of prices and making the shopping process more convenient. Consumers only need to click on the link during the live broadcast to purchase the product. Therefore,

e-commerce live streaming enhances consumers' emotional attitudes towards products and enhances their sense of gratification through strong regulation of entertainment, convenience, special discounts, and instant interaction (Wang et al., 2019). From the perspective of perceived usefulness, Chen & Lin (2018) found that fast and efficient shopping methods positively affect consumers' purchasing intentions. Zhu et al., (2023) believes that during the live shopping process, consumers can inquire about any questions about products and receive timely responses and solutions, enabling them to quickly find the products they need, thereby promoting their purchasing behavior. Based on this, this study makes the following hypotheses:

H1: Extrinsic motivation has a positive impact on gratification

H2: Extrinsic motivation has a positive impact on behavioral intentions

## **2.4. Intrinsic Motivation**

Intrinsic motivation refers to an individual's behavior based on their interest in the behavior itself, rather than being influenced by external reinforcement (Davis et al., 1992). In other words, intrinsic motivation refers to the intrinsic gratification of engaging in an activity, rather than a separable outcome. When an individual takes action out of pleasure or challenge, they exhibit intrinsic motivation rather than being driven by external products, pressure, or rewards. Intrinsic motivation is a key mechanism driven by the activity itself or interest in the work itself, which motivates people to engage in spontaneous exploration and curiosity (Berlyne, 1965).

People with intrinsic motivation may take action due to pleasure or challenges, rather than being influenced by external interests, pressure, or rewards (Ryan & Deci, 2000). The source of intrinsic motivation is the process of the activity itself, even in the absence of external reinforcement or rewards, when an individual's intrinsic motivation drives them, they will engage in the activity out of their intrinsic interest and happiness. Therefore, it can be seen that intrinsic motivation leads to a positive attitude towards activities.

With the development of the internet and live streaming, intrinsic motivation is increasingly being used to study consumer behavior on the internet. Innovative consumers may have an inherent motivation to experience and enjoy online live streaming as a novel technological development, thereby obtaining a sense of gratification (Reeve, 1989). Davis et al., (1992) found that consumers who derive pleasure from using technology are more likely to perceive its advantages and be more satisfied. Lin (2005) found that perceived entertainment in the system has a positive impact on gratification. Hu et al. (2017) found that the joy and excitement in online live streaming can promote purchase intention and drive viewers to share their viewing experience on social networks. Based on the SOR theory, Huang & Zhang (2019) investigated the pleasure and attractiveness of customers in social e-commerce platform environments and found that the happiness obtained through online live streaming can positively affect customers' purchasing intentions. Based on this, this study makes the following hypotheses:

H3: Intrinsic motivation has a positive impact on gratification

H4: Intrinsic motivation has a positive impact on behavioral intention

## **2.5. Gratification**

The concept of 'gratification' originated in the field of mass communication and media studies and refers to a variety of needs and desires that people seek to satisfy through their media consumption behavior, whether it be social, informational, entertainment, or other forms of gratification. Customer gratification is a cognitive state in which consumers evaluate whether costs and benefits are balanced (Cardozo, 1965).

With the development of e-commerce, more and more scholars have begun to study the

relationship between consumer gratification and online shopping intention. Xu et al. (2012) found that the key to webcasting is to provide users with an engaging media experience, including interesting content and instant interaction, and that the gratification of this user experience affects consumers' behavioral intentions. In addition, Cao et al. (2022) argued that webcasting and socializing can strengthen consumers' connection with e-commerce, increase their knowledge of the desired product or service, and improve consumer gratification, which in turn affects consumers' behavioral intention towards webcasting. Based on this, this study makes the following hypotheses:

H5: Consumer gratification has a positive impact on behavioral intentions

## **2.6. Behavioral Intention**

Behavioral intentions are often an important indicator for studying the relationship between cognition and behavior, initially proposed by social psychologists Fishbein and Ajzen in 1975. In the early days, scholars mainly studied the prediction of a person's actions through behavioral intentions. Behavioral intention is a person's conscious behavioral tendency, which is the prediction and decision-making of the actual behavior occurring (Singh, 1988). Bamberg et al. (2003) believe that consumers' behavioral intention is a process that inevitably precedes the occurrence of their purchasing behaviors, and plays a decisive role in the emergence of consumers' purchasing behaviors.

With the development of the Internet, scholars began to pay attention to the behavioral intention in the direction of webcasting. Hong & Cho (2011) believes that the behavioral intention of webcasting consumers refers to the likelihood of making a purchase behavior on the Internet, willing to continue to purchase, or recommending a third person to use the product. Therefore, behavioral intention is an important reference value for understanding consumer behavior and decision-making in the online environment. This study takes webcasting as the research direction, combines relevant literature, and defines behavioral intention as the tendency of consumers to watch live broadcasts, purchase products, or share live broadcasts in webcasting. This study has important value for webcasting platforms to understand consumer needs and maintain long-term customer relationships .

## **2.7. Mediation effect**

Some scholars have found that intrinsic motivation (e.g., aspects of information seeking, interaction, and hedonic enjoyment) affects consumer gratification to a certain extent, which in turn promotes the behavior's intention to continue to occur. Osei-Frimpong et al. (2023) found that when Chinese consumers derive enjoyment from engaging in live streaming, they are intrinsically motivated to derive gratification such as perceived enjoyment, which further promotes the behavior of continuing their viewing intentions. Xu et al. (2012) found that the categorization settings in webcasting formed groups of people with similar interests, facilitated group communication through real-time chats, and enhanced social presence, which not only increased customer gratification, but also facilitated behavioral intentions such as viewing and sharing. Gan & Li (2018) argued that perceived enjoyment positively affects consumers' gratification which leads to sustainable behavior.

Some other scholars believe that extrinsic motivation affects consumers' sense of gratification, which promotes customers' purchase intentions. Khan et al. (2015) found that price discounts and giveaways for goods in webcasts can increase customer gratification, which in turn leads consumers to generate purchase intentions. Liu (2005) emphasized that consumers in the e-commerce environment are not constrained by time or location, as they can select goods and services that cater to their needs anytime and from anywhere. This level of convenience fosters a sense of relative advantage among consumers, leading them to increase their propensity to make purchases and share information. Based on this, this study makes the following hypotheses:

H6: Gratification mediates the effect of intrinsic motivation on behavioral intentions

H7: Gratification mediates the effect of extrinsic motivation on behavioral intentions

### 3. Methodology

#### 3.1. Data collection and sampling

The "2022 China Cross-border Live E-Commerce Industry Analysis" report by iiMedia highlights the emergence of "live streaming + e-commerce" in China, with TikTok, boasting over 1 billion global monthly users, as a key player. A significant finding reveals that a quarter of TikTok users engage in product research and purchases post-video viewing, this implies that the TikTok platform offers a valuable resource for researchers, supplying ample data and user samples for the study of consumer behavior within the live streaming ecosystem. Consequently, this study focuses on consumers who have prior experience purchasing products within TikTok's live broadcast rooms. The study employed convenience sampling techniques by sending friend requests to customers who had placed orders and provided feedback in TikTok stores. Subsequently, once these friend requests were accepted, individuals were invited to complete an electronic questionnaire. In total, the study collected and analyzed 220 valid responses.

Table 1. Descriptive statistical analysis of demographic variables

Demographic Variables	Frequency	Percentage
Gender		
Male	113	51.4
Female	107	48.6
Total	220	100.0
Age		
18 years old and below	33	15.0
19~30 years old	52	23.6
31~40 years old	47	21.4
41~50 years old	36	16.4
51~60 years old	27	12.3
Older than 60 years old	25	11.4
Total	220	100.0
Marital status		
Married	61	27.7
Unmarried	102	46.4
Other	57	25.9
Total	220	100.0
Education Background		
High school and below	76	34.50
Junior College	53	24.10
Bachelor	55	25.00
Master and above	36	16.40
Total	220	100.0
Disposable monthly income		
3000 RMB and below	56	25.5
3001-5000 RMB	58	26.4
5001-7000 RMB	41	18.6
7001-9000 RMB	29	13.2
More than 9000 RMB	36	16.4
Total	220	100.0
Time spent per day in the live platform		
Less than 1 hour	64	29.1
1-3 hours	53	24.1
4-6 hours	46	20.9
More than 6 hours	64	29.1

Total	220	100.0
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### 3.2. Measurement

In this paper, all the variables are second-order constructs. Measurement scales employed in this study were adapted from established research scales and subsequently tailored to the specific context of this research. A total of 48 items were included in the measurement instrument, each assessed using a Likert five-point scale, ranging from 1 (indicating strongly disagree) to 5 (indicating strongly agree).

### 3.3. Data analysis techniques

Following data collection, SmartPLS 3.0 is employed for data analysis. Consistent with the guidance provided by Anderson and Gerbing (1988), this study adopts a two-step approach to assess the structural equation model. Initially, the measurement model is scrutinized to confirm the scale's reliability and validity. Subsequently, the structural model is examined to establish the relationships between variables.

## 4. Results

### 4.1. Measurement model

As shown in Table 2, the Cronbach Alpha for all constructs is greater than 0.8 and the composite reliability is greater than 0.9, thus indicating that the constructs in this paper have good reliability. For convergent validity, the factor loading values of all items in this study were greater than 0.8 and the AVE values were greater than 0.5, indicating good convergent validity (Fornell and Larcker, 1981). According to the suggestion of Henseler et al. (2014), for the analysis of the discriminant validity in the analysis based on structural equation modeling, the HTMT method showed stronger advantages compared to other methods, therefore, this study used the HTMT method to analyze the discriminant validity between the variables of this study, and the results, as shown in Table 3, showed that all the second-order constructs had HTMT values less than 0.9 of the critical criterion (Henseler et al., 2014), therefore, it can be determined that the constructs in this study have good discriminant validity among them.

Table 2. Measurement Model

Construct	Items	Factor loading	Cronbach Alpha	CR	AVE
Time Saving	TS1	0.848	0.900	0.926	0.715
	TS2	0.859			
	TS3	0.833			
	TS4	0.846			
	TS5	0.841			
Monetary Saving	MS1	0.850	0.868	0.910	0.717
	MS2	0.817			
	MS3	0.877			
	MS4	0.842			
Convenience	C1	0.852	0.910	0.933	0.736
	C2	0.882			
	C3	0.843			
	C4	0.842			
	C5	0.870			
Consumer Innovativeness	CI1	0.873	0.936	0.949	0.757
	CI2	0.877			
	CI3	0.876			

	CI4	0.871			
	CI5	0.863			
	CI6	0.858			
	P1	0.889			
Pleasure	P2	0.898	0.915	0.940	0.797
	P3	0.882			
	P4	0.901			
	PRA1	0.829			
Perceived Relative Advantage	PRA2	0.852	0.868	0.910	0.716
	PRA3	0.841			
	PRA4	0.863			
	SP1	0.888			
Social Presence	SP2	0.847	0.931	0.946	0.744
	SP3	0.883			
	SP4	0.840			
	SP5	0.865			
	SP6	0.852			
	PE1	0.887			
Perceived Enjoyment	PE2	0.874	0.928	0.946	0.777
	PE3	0.880			
	PE4	0.886			
	PE5	0.882			
	VI1	0.897			
Viewing Intention	VI2	0.914	0.884	0.928	0.812
	VI3	0.892			
	PI1	0.917			
Purchase Intention	PI2	0.909	0.901	0.938	0.835
	PI3	0.915			
	SI1	0.911			
Sharing Intention	SI2	0.905	0.891	0.932	0.821
	SI3	0.902			
	Time Saving	0.890			
Extrinsic Motivation	Monetary Saving	0.829	0.937	0.944	0.549
	Convenience	0.885			
Intrinsic Motivation	Consumer Innovativeness	0.932	0.933	0.944	0.626
	Pleasure	0.852			
Gratification	Perceived Relative Advantage	0.811	0.946	0.952	0.573
	Social Presence	0.901			
	Perceived Enjoyment	0.892			
	Viewing Intention	0.813			
Behavioral Intention	Purchase Intention	0.830	0.901	0.919	0.559
	Sharing Intention	0.829			



Table 3. HTMT Analysis

	Behavioral Intention	Extrinsic Motivation	Gratification	Intrinsic Motivation
Behavioral Intention	-			
Extrinsic Motivation	0.369	-		
Gratification	0.548	0.466	-	
Intrinsic Motivation	0.559	0.211	0.410	-

#### 4.2. Common method variance testing

This study used the same respondents to fill out the entire questionnaire, which may raise the issue of common method bias, i.e., the data are subject to the subjective tendencies of the respondents and are not objective enough. In order to assess the potential common method bias effect, the Harman one-way test was used in this study. The SPSS factor analysis showed a total of 10 factors with eigenvalues greater than 1 for the questionnaire questions, and the variation explained by the first factor was 31.622%, which is less than the critical criterion of 40%. The results indicate that the questionnaire data used in this study does not have a serious problem of common method bias.

#### 4.3. Structural model

By bootstrap resampling technique, 5000 iterations were run in SmartPLS 3.0 and the results are shown in Table 4, our research model explains 27.96% of variations in gratification, 38.2% in behavioral intention. The P-value of all paths is less than 0.05 and H1-H5 are supported. In addition to this, the assessment of effect size ( $f^2$ ) gives an idea of the magnitude of the influence of each predictor. Except for extrinsic motivation, which has a small effect on behavioral intention ( $f^2 = 0.023$ ), all predictors have a significant effect (Cohen, 1988).

Table 4. Structural Estimates

No.	Path	Original Sample (O)	Standard Deviation (STDEV)	T-value	P-Value	$f^2$
H1	Extrinsic Motivation -> Gratification	0.379	0.057	6.676	0.000	0.193
H2	Extrinsic Motivation -> Behavioral Intention	0.133	0.057	2.322	0.020	0.023
H3	Intrinsic Motivation -> Gratification	0.310	0.062	5.031	0.000	0.130
H4	Intrinsic Motivation -> Behavioral Intention	0.369	0.056	6.631	0.000	0.190
H5	Gratification -> Behavioral Intention	0.307	0.066	4.657	0.000	0.110

#### 4.4. Testing of mediation effects

The test of mediating effect is shown in Table 5, both paths are significant, therefore, it can be determined that gratification plays a mediating role in the influence of intrinsic motivation on behavioral intention, hypothesis H6 is supported; gratification plays a mediating role in the influence of extrinsic motivation on behavioral intention, hypothesis H7 is supported.

Table 5. Mediation Effects

No.	Path	Estimate	S.D.	Bias-corrected 95% CI		P-value
				2.5%	97.5%	
H6	Intrinsic Motivation -> Gratification -> Behavioral Intention	0.095	0.030	0.043	0.159	0.001
H7	Extrinsic Motivation -> Gratification -> Behavioral Intention	0.116	0.030	0.062	0.178	0.000

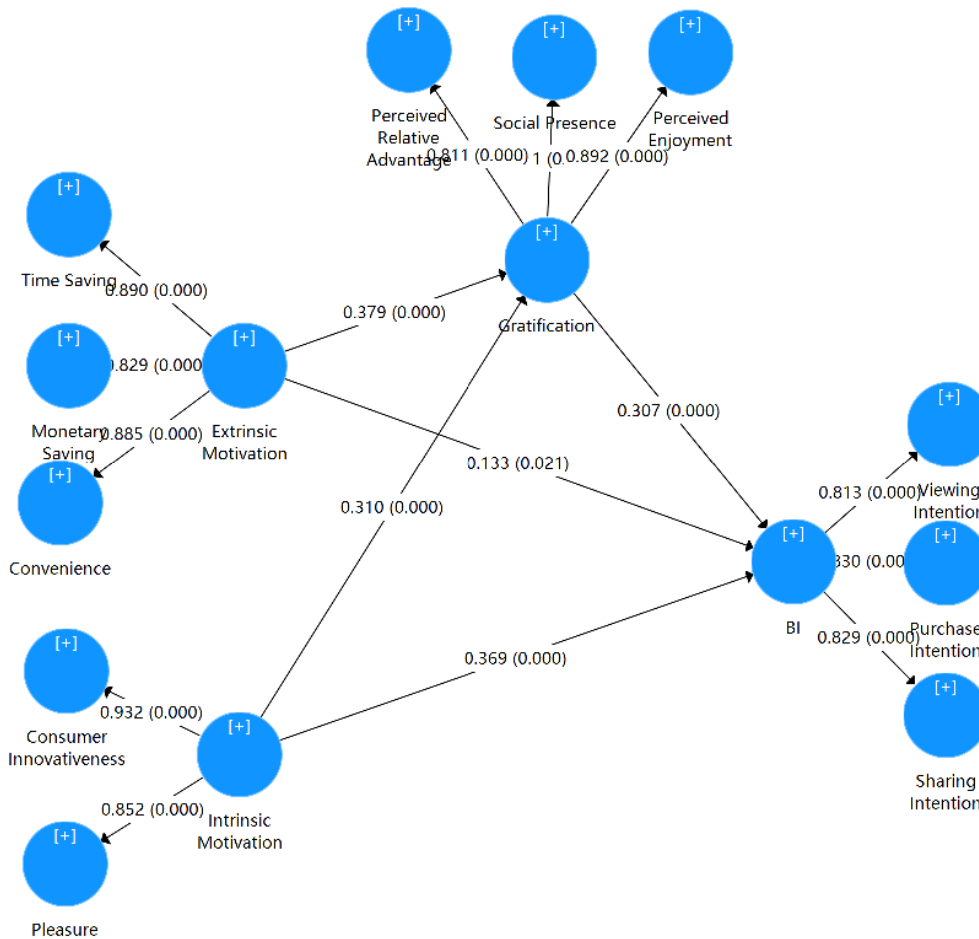


Fig.1: Research Framework

## 5. Conclusion

The results of this study found that consumers' extrinsic motivation can significantly and positively influence their shopping gratification and drive their behavioral intentions to browse, consume, and share in the live stream. Convenience and affordability are the main attractive factors for online shopping, and the importance of economic factors and convenience in the shopping process on shopping intention has been widely noted (Teo et al., 2004; Butt et al., 2016).

Modern life is fast-paced, and people are placing more and more emphasis on time- and labor-saving shopping. Convenience includes not only the ease of shopping, but also the smoothness and seamlessness of the shopping experience. Therefore, for consumers, being able to browse, purchase, and share products in a living streaming room not only reduces their time costs, but also provides a relaxing and enjoyable shopping experience, a view that has been supported in previous

research (Singh, 2014). People tend to consider economic factors such as price, discounts and offers when shopping. On a live e-commerce platform, consumers have access to unique offers and discounts, which are crucial in motivating them to make a purchase, especially in the field of online shopping (Chen & Dubinsky, 2003).

The results of this study found that consumers' intrinsic motivation can significantly and positively influence their shopping gratification and drive their behavioral intentions to browse, consume, and share in the live stream. Ryan and Deci's (2000) self-determination theory emphasizes that when people are satisfied internally, they are more likely to experience lasting satisfaction. The results of this study further validate this theory, especially in a shopping environment. Intrinsic motivation is closely related to consumers' emotional experience and gratification (Ryan & Deci, 2000; White, 2015). Innovative consumers show more positive and proactive characteristics in the shopping process, and they are more willing to seek unique shopping experiences, which is closely related to their strong desire for gratification (Eun Park et al., 2010; Lee & Cho, 2020). In addition to this, consumers' shopping experience is closely related to their emotional state and happiness (Hausman, 2000; Dhar & Wertenbroch, 2000). Therefore, the motivation to pursue pleasure is regarded as one of the important driving forces for consumers to make purchases on live streaming platforms, and the fun nature of the content of e-commerce live streaming platforms can increase the sense of users' experience in the live streaming room, which in turn enhances their willingness to browse, consume, or share.

The results of this study found that gratification plays an important mediating role in the influence of intrinsic and extrinsic motivation on behavioral intentions. The results of the study emphasize that the influence of intrinsic and extrinsic motivation on behavioral intentions is mediated through the mediating mechanism of gratification. This is consistent with the uses and gratification theory that consumers use specific media or platforms to satisfy their needs and desires and thus gain satisfaction (Papacharissi & Rubin, 2000). Gratification, as an affective and cognitive experience, can translate these motivations into positive behavioral intentions, such as purchasing, sharing, or continuing to browse (Ryan & Deci, 2000).

### **5.1. Therotical Implications**

This study applies the uses and gratification theory to the context of live e-commerce to explore in depth the relationship between extrinsic motivation, intrinsic motivation, gratification and behavioral intention, enriching the theory. Uses and gratification theory emphasizes that consumers actively choose and use media to satisfy their needs and desires, which in turn creates a sense of gratification (Katz et al., 1973). While previous research has focused on traditional media, this study expands it to include emerging media platforms. The study addresses the live e-commerce environment, a field that is rapidly developing globally, providing examples for further development of the theory and helping academics to deepen their understanding of the field.

### **5.2. Practical Implications**

The results of this study reveal the relationship between extrinsic motivation, intrinsic motivation, gratification, and behavioral intention, which helps marketing professionals better understand consumers' needs and motivations for shopping in live streaming. Live streaming e-commerce practitioners need to focus on the identification of consumers with different motivations, and marketing strategies can be optimized according to the characteristics of different motivation groups. Personalized recommendation systems and ad customization can be implemented based on different motivations of consumers. This helps to increase the click-through rate and purchase conversion rate of advertisements and increase sales. For consumers who focus on convenience and affordability, companies can optimize their pricing strategies by offering more attractive discounts and offers, emphasizing the convenience of online shopping and price competitiveness to incentivize shopping

behavior. For consumers looking for innovative and entertaining experiences, interactive content can be added, such as online games, sweepstakes or celebrity interactions, which can help increase user stickiness and retention.

### 5.3. Revised Conclusion and recommendation

(1) In conclusion, this study enhances theoretical understanding of consumer motivations and gratifications in live streaming e-commerce. The findings regarding the influence of extrinsic and intrinsic motivations, mediated by gratification, provide novel insights into consumer psychology in this emerging context. The results have important practical implications for optimizing engagement on live streaming platforms. Further research should address limitations around sample characteristics and investigate additional factors like content types.

(2) The sample of this study is mainly from Tiktok users in China, which limits the external generalizability of the study. Consumers in different countries or regions may have different cultures, social backgrounds, and shopping habits, so the applicability of the study's results on a global scale may be limited. Future research could explore the influence of cultural factors on shopping behavior by comparing users of live e-commerce platforms in different countries or regions. This could help reveal the role of cultural factors in consumer decision-making and interactions, and provide cross-cultural marketing strategies regarding live e-commerce for the international market.

(3) Given the strengths of the research and the areas earmarked for improvement, my recommendation for this paper would be "Minor Revisions." The research promises valuable insights into the digital media consumption landscape, and once refined, could serve as a key reference in this academic niche.

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