

The Influence of E-commerce Live Streaming on Consumers' Irrational Consumption Behavior: A Case of Changsha City, China

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Abstract

Irrational consumption behavior is an important part of human consumption activities. In recent years, e-commerce live streaming has developed rapidly in China. Some consumption behaviors of Chinese consumers have shifted from offline or traditional e-commerce to e-commerce live streaming, and irrational consumption behaviors have also migrated to e-commerce live streaming. Based on previous studies, the objectives of this study are: 1) To study the components of e-commerce live streaming that influence consumers' irrational consumption behavior; 2) To clarify the correlation between e-commerce anchors' attributes, sellers' characteristics, consumers' shopping status and irrational consumption behavior; 3) To analyze the mediating role of consumer trust in e-commerce live streaming and irrational consumer behavior; 4) To identify the biggest factors of e-commerce live streaming that influence consumers' irrational consumer behavior according to the degree of their role. Using the snowball sampling method, 425 valid samples were collected. Descriptive statistical analysis and confirmatory factor analysis were performed on the sample data to test reliability and validity, and a structural equation model was constructed to verify the research hypothesis.

The research results show that: 1) the factors that affect consumers' irrational consumption behavior through e-commerce live streaming include e-commerce anchor attributes, e-commerce seller characteristics, consumer shopping status and consumer trust; 2) e-commerce anchor attributes, e-commerce seller characteristics and consumer shopping status significantly affect consumers' irrational consumption behavior; 3) consumer trust plays a mediating role between e-commerce live streaming and irrational consumption behavior; 4) consumer shopping status is the most important factor affecting consumers' irrational consumption behavior. It is recommended to enhance the attributes of e-commerce anchors, improve the integrity of e-commerce sellers, and advocate rational consumption by consumers.

Keywords: E-commerce live streaming; Irrational consumption behavior; Consumer; Changsha City of China

Introduction

Consumption behavior is an important part of human life, consumers will be affected by internal and external factors and the limitations of information processing capacity when making consumption decisions, sometimes violating the principle of utility maximisation and individual preference consistency, irrational consumption (Kahneman, 2003). Irrational consumption is a concept opposite to rational consumption, and irrational consumption behavior is generally regarded as irrational consumption decisions that are not made in accordance with the pursuit of utility maximisation (Kollat, 1969). Some studies have shown

that 80% of consumers have engaged in impulsive or blind consumption behavior, and consumers are more prone to irrational consumption in online shopping environments (Tibert & Willemijin, 2011). In August 2023, the 52nd China Internet Development Statistical Report released by the China Internet Information Centre (CNNIC) showed that as of June 2023, China's e-commerce live streaming user scale reached 765 million people, accounting for 71.0% of the total Internet users, of which the e-commerce live streaming user scale was 526 million people, accounting for 48.8% of the total Internet users (CNNIC, 2023). A large part of Chinese consumers' shopping behavior has shifted from physical shopping to online platforms, especially e-commerce live streaming shopping, and consumers' irrational consumption behavior has migrated to e-commerce live streaming platforms. Its interactive shopping experience, convenient shopping methods, fast payment means and festive online promotions stimulate consumers' buying desires, and the irrational consumption behavior in real life has extended to the e-commerce live streaming field, with "hand-chopping party", "moonlight family", "eat dirt", "buy it buy it" and other network buzzwords, image describes the irrational consumption behavior of e-commerce live streaming.

Existing scholars have conducted few studies on the mechanism of irrational consumer behavior in the context of e-commerce live streaming, or have only focused on one dimension. Ding(2018) studied the factors that affect consumer purchasing behavior in the "Internet celebrity + live streaming + e-commerce" model, and used in-depth interviews and questionnaires to conduct in-depth exploration and empirical testing of the factors that affect the irrational consumer behavior of e-commerce live streaming consumers; Han&Xu (2020) believed that the attributes of e-commerce anchors will affect consumers' shopping behavior. This study will comprehensively consider the key elements of consumer behavior such as e-commerce anchor attributes, seller characteristics, and shopping status, construct a theoretical model, explore the factors that affect consumers' irrational consumer behavior through e-commerce live streaming, deeply analyze the causes of irrational consumer behavior, and put forward reasonable suggestions.

Research Objectives

1) To study the components of e-commerce live streaming that influence consumers' irrational consumption behavior and determine the measurement indicators of their role consumers' irrational consumption behavior.

2) To clarify the correlation between e-commerce anchors' attributes, sellers' characteristics, consumers' shopping status and irrational consumption behavior, and analyze the mechanism of their role.

3) To analyzing the mediating role of consumer trust in live e-commerce and irrational consumer behavior.

4) To identify the biggest factors of live e-commerce that influence consumers' irrational consumer behavior according to the degree of their role.

Literature Review

1. E-commerce anchor attributes

E-commerce anchors are the most important link between consumers and sellers. The anchor's personal attributes, that is, skills, have a strong impact on consumers' shopping motivation. The anchor's personal attributes are more important than consumers' perception of the value of online shopping products (Cheng et al., 2022). Most consumer behaviors are based on trust in anchors and then extended to trust in products. Compared with traditional celebrities, e-commerce anchors can make consumers have stronger brand attitudes and willingness to buy (Fei&Zhou,2021), stimulating consumers' irrational consumption behaviors. Based on previous studies and the background of this study, hypotheses H1 and H2 are proposed.

H1 E-commerce anchor attributes significantly influence consumers' irrational consumption behavior.

H2 E-commerce anchor attributes significantly affect consumer trust.

2. Characteristics of e-commerce sellers

Sellers in e-commerce live streaming can be either the merchants who provide goods or the e-commerce anchors themselves. Consumers choose e-commerce sellers to purchase goods mainly based on the reputation and promotion strength presented by the e-commerce sellers. If consumers trust a seller with a good reputation, they tend to think that the seller's products may be of high quality (Mavlanova et al. 2016), and promotions may reduce the actual financial expenditure of consumers, allowing consumers to gain price advantages and make repeat purchases (Chandon et al., 2000), or they may cause consumers to deviate from their original purchase plans and produce irrational consumption behaviors. Therefore, this study proposes hypotheses H3 and H4.

H3 E-commerce live streaming seller characteristics significantly influence consumers' irrational consumption behavior.

H4 E-commerce live streaming seller characteristics significantly affect consumer trust.

3. Consumer shopping status

Whether shopping online or offline, consumers' consumption behavior will be affected by the immediate shopping status. This shopping status is on the one hand the consumer's mood when consuming, and on the other hand the presence and suggestions of peers when consuming. As more conversations and tasks take place in virtual environments such as e-commerce platforms, emotional contagion can occur without a physical location (Meng et al., 2021), affecting more consumer consumption behaviors. At the same time, the essence of shopping is a social experience. Peers will change the consumption experience. Peers can enhance the shopping experience by sharing experiences and providing support and help in the decision-making process (Borges et al. 2010). Based on previous research, hypotheses H5 and H6 are proposed.

H5 Consumer shopping status in e-commerce live streaming context significantly influences consumers' irrational consumption behavior.

H6 Consumer shopping status in e-commerce live streaming context significantly affects consumer trust.

4. consumer trust

An important reason why consumers generate consumption behavior is the trust transfer between merchants and consumers. Merchants establish trust relationships through product display and communication with consumers, and transform consumer trust into consumption behavior through interpersonal relationships and the flow of information. Li et al. (2014)

believe that trust is even more important for e-commerce than offline merchants. Accepting trust involves accepting a certain risk because they cannot experience the goods and check the products they are interested in buying before they arrive, so they consume. The more consumers trust, the more they buy. Consumer trust not only directly affects irrational consumption behavior, but also plays an intermediary role between the various components of e-commerce live broadcast and consumers' irrational consumption. Research by He et al. (2018) confirmed that consumer trust plays an important role in e-commerce marketing. There is a significant mediating effect between design and consumers' continued purchase intention. Therefore, we propose research hypotheses H7-H10.

H7 Consumer trust significantly affects consumer irrational consumption behavior.

H8 Consumer trust in mediating between e-commerce anchor attributes and consumer irrational consumption behavior.

H9 Consumer trust mediates between e-commerce seller characteristics and consumer irrational consumption behavior.

H10 Consumer trust mediates between consumer shopping status and consumer irrational consumption behavior.

5. Irrational consumer behavior

Irrational consumption behavior is an irrational consumption decision made without pursuing utility maximization (Kollat&Willett, 1969). The comprehensive influence of internal and external factors prompts consumers to produce irrational consumption behavior. External factors include product characteristics, consumption scenarios, marketing Stimulation, etc., internal factors include consumer characteristics, emotions, etc. In the context of e-commerce live streaming, the interesting and interactive live broadcast atmosphere created by anchors is significantly positively related to consumers' impulse buying intentions, and personalized live broadcast content and easy-to-operate live broadcast interfaces can enhance consumers' pleasure. and a sense of immersion, thereby awakening consumers' impulse purchases (Yang&Yang, 2017).

Research Methodology

1. Population and sample

This study adopts a quantitative research method and selects consumers who watch e-commerce live streaming and have consumption behavior as the sample population in Changsha City, Hunan Province, China. As of the end of 2022, the resident population of Changsha City is 10,420,600, but there is a lack of specific data on the number of consumers who watch e-commerce live streaming and have consumption behaviors. Therefore, this study uses the formula of W.G. Cochran (1953) to calculate the sample size, in order to obtain the appropriate sample size ratio is set to 0.5, the confidence interval is 95%, and the maximum error capacity is not more than $\pm 5\%$, resulting in a sample size of about 385 people, taking into account the error rate of questionnaire distribution and the rate of invalid questionnaires, the sample size will be increased by 10% based on the calculation results, and the final sample size is determined to be 424 people. Non-probability sampling method - snowball sampling method for sampling, from small to large, gradually expanding the sample population, in order to facilitate the author to go beyond their own interpersonal circle, to reach more target groups, to complete the sample data collection.

2. Research tools

At present, the research on the influence of e-commerce anchors on consumers' irrational consumption behavior is still in the beginning stage, and the scale with higher authority and in line with the research objectives has not been retrieved for the time being, therefore, this study adopts the literature survey method and the expert interview method, collects the measurement items related to e-commerce Live Streaming and irrational consumption behavior in the previous studies to improve them accordingly, and invites five experts in the related fields after the preliminary development of the scale is completed, scholars for IOC test to further improve the feasibility of the scale, and finally the questionnaire was made on this basis. The questionnaire is divided into two parts: The first part is demographic characteristics. This includes gender, age, occupation, income, number of live e-commerce views per month, number of live e-commerce purchases viewed per month, and dollar amount.

The second part is the body of the questionnaire, which includes survey items for the independent, dependent, and mediating variables.

There are three independent variables, totaling eight dimensions, with five question items for each dimension. The e-commerce anchor attractiveness, compatibility, professionalism, and interactivity entries were modified using the scales of Liu et al (2020), Lee&Watkins (2016), and Ohanian (1990); the e-commerce seller reputation entries were modified by the scale designed by Sirkka et al (1999); the e-commerce seller promotion entries were modified by the scale designed by scale modified by Beatty&Ferrell (1998); consumer sentiment entries modified by the scale designed by Adelaar et al (2003); and consumer shopping companion entries adapted from the scale designed by Bearden et al. (1989) and others.

The mediating variable was consumer trust, with five question items, adapted from the scale developed by Palvia (2009) et al.

The dependent variable was irrational consumer behavior, with eight question items, adapted from scales designed by Dholakia (2000), Stern (1962), and Rook&Hoch (1985).

Table 1 Measurement Scale Provenance

Projects	No.	Measurement item	Reference Scale Sources
Attractiveness (EA)	EA1	You watch an e-commerce anchor whose appearance appeals to you	Liu et al. (2020), Lee&Watkins (2016)
	EA2	You watch an e-commerce anchor who is attractive	
	EA3	You watch an e-commerce anchor with a good sense of humor	
	EA4	The e-commerce anchor you watch has engaging live content	
	EA5	The e-commerce anchor you watch has a certain level of influence	
Compatibility (EC)	EC1	The image of the e-commerce anchor you watch is compatible with the products they recommend	Liu et al. (2020)

Professionalism (EP)	EC2	The image of the e-commerce anchor you watch is a good match for the product you recommend.	Ohanian(1990), Liu et al. (2020)
	EC3	The image of the e-commerce anchor you watch is highly relevant to the products they recommend.	
	EC4	The communication style of the e-commerce anchor you watch is similar to yours.	
	EC5	The lifestyle of the e-commerce anchor you watch is similar to yours.	
	EP1	The e-commerce anchor you watch has specialized skill expertise	
	EP2	You watch an e-commerce anchor with a special skill set.	
	EP3	You watch an e-commerce anchor who has extensive experience with the recommended products	
	EP4	You watch an e-commerce anchor with sufficient expertise	
	EP5	You watch an e-commerce anchor who can give you professional guidance	
	EI1	The e-commerce anchor you watch has a good rapport with you	
Interactivity (EI)	EI2	You watch an e-commerce anchor whose content engages you effectively	Liu et al. (2020)
	EI3	The content of the live streaming you watch is of interest to you.	
	EI4	You watch the e-commerce anchor can reply and solve your problems in a timely manner	
	EI5	You can communicate with other consumers through pop-ups in the live streaming of the e-commerce anchor to exchange shopping experience	
	SR1	The live e-commerce you watch has a great reputation	
Reputation (SR)	SR2	The live e-commerce you watch has an honest reputation	Sirkka et al., (1999)
	SR3	The e-commerce live stream you watched has a good reputation for recommended goods	
	SR4	The e-commerce live streams you watch recommend goods that are reliable in quality	

Promotion (SP)	SR5	The e-commerce live streams you watch have good fan reviews	Beatty&Ferrell (1998)
	SP1	Ecommerce live promotions when you think it's a good deal	
	SP2	You save money during e-commerce live sales	
	SP3	You buy more than you need during a live sale.	
	SP4	The shorter the duration of an e-commerce live sale, the more you'll want to buy the item	
Emotions (SE)	SP5	You buy things you didn't intend to buy during a live e-commerce sale.	Adelaar et al (2003)
	SE1	Watching a live e-commerce stream will change your low mood for the better	
	SE2	Watching live e-commerce releases your stress	
	SE3	Watching live e-commerce makes you feel happy	
	SE4	Watching live e-commerce makes you feel excited	
Shopping Companion (SC)	SE5	Watching live e-commerce will give you a thrill	Bearden et al.(1989)
	SC1	You'll share e-commerce live shopping experiences with your peers	
	SC2	Your peers often share live e-commerce shopping experiences with you	
	SC3	You buy live e-commerce products based on your peers' recommendations.	
	SC4	You listen to your peers' opinions when purchasing unfamiliar live e-commerce products.	
Consumer trust (TC)	SC5	You refer to the comments of other consumers in the live stream when you shop on the e-commerce channel.	Palvia (2009), Liu et al. (2020)
	TC1	You find Ecommerce Live to be trustworthy	
	TC2	You feel Ecommerce Live's content is reliable	
	TC3	You feel that Ecommerce Live is honest	
	TC4	You feel that you will receive the same products as shown on E-Commerce Live	
	TC5	You feel that the products you buy on Ecommerce Live are exactly as expected	Stern(1962),Rook& Hoch(1995),
	IC1	When you watch e-commerce live streaming, you see a lot of products that	

		you don't plan to buy, but you want to buy them.	Beatty&Ferrell (1998), Dholakia (2000)
	IC2	When you watch e-commerce live streaming, you have the urge to buy the products you have no plan to buy.	
	IC3	When you watch e-commerce live streaming, you have the intention to buy products for which you have no purchase plan.	
Irrational consumer behavior (IC)	IC4	You make purchasing decisions with little thought when watching e-commerce live streaming.	
	IC5	You make purchasing decisions based on the number of buyers when watching e-commerce live streaming	
	IC6	You don't use many of the products you buy while watching a e-commerce live streaming.	
	IC7	You purchase items that were not part of your plan when watching a e-commerce live streaming	
	IC8	You buy the products you like when you watch live e-commerce.	

The questionnaire survey is adopted and has passed the STIU-HREC075/2024 certification.

Research Conceptual Framework

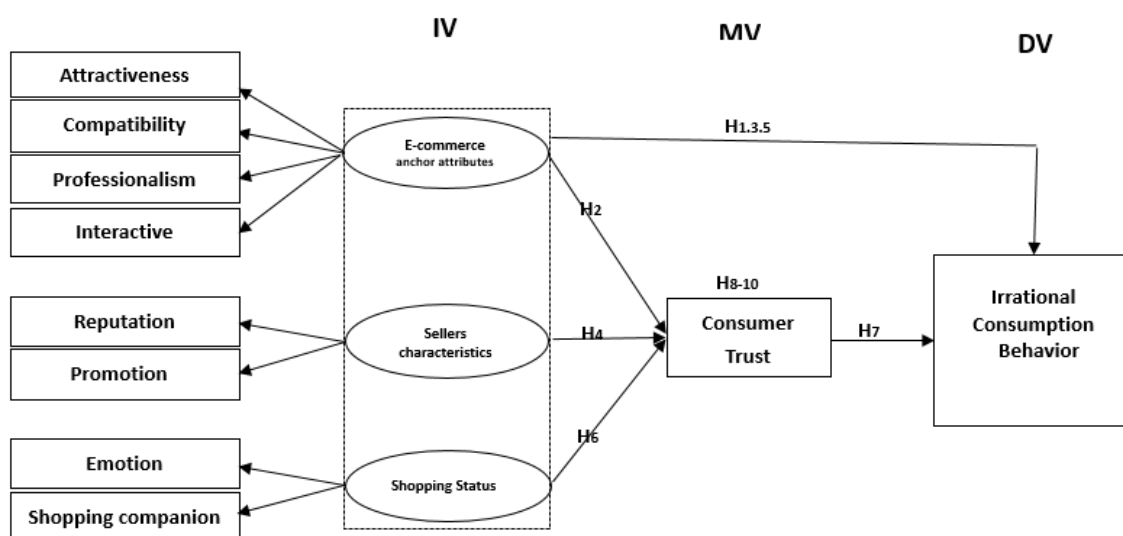


Figure 1 Research Conceptual Framework

E-commerce live streaming is an external stimulus for consumers to produce consumption behavior, and under the effect of a strong sense of presence, consumers are prompted to produce consumption behavior, and even irrational consumption behavior occurs unconsciously. This study expands on the basis of organizing and analyzing the existing research results of scholars at home and abroad, taking e-commerce anchor attributes, seller characteristics, and shopping status as the independent variables, and the dependent variable as the consumer's irrational consumption behavior, and trust as the mediating variable between e-commerce live streaming and the consumer's irrational consumption behavior. The conceptual framework of the study is established on the basis of the SOR model, which integrates the research dimensions of e-commerce anchor's attractiveness, compatibility, professionalism, and interactivity, and e-commerce seller's reputation, promotions, and consumers' emotions and shopping companions. The theoretical framework used in this study and the relationship between independent variables, dependent variables, and mediating variables are shown Figure 1.

Data analysis

In this study, through the snowball sampling method, for consumers who watch e-commerce live streaming and have consumption experience in Changsha, Hunan Province, China, 510 formal questionnaires were issued, 85 points of questionnaires with no e-commerce live streaming shopping experience, identical or missing answers were removed, and 425 valid questionnaires were recovered, with an effective sample recovery rate of 84%, and SPSS 22.0 was used to analyze the sample's gender, age, education, income, the number of times per month to watch e-commerce live streaming, the number of times per month e-commerce live streaming shopping and the cost of information such as descriptive statistical analysis, the mean value is greater than 3, the standard deviation is greater than 0.8, indicating that the data are real and effective. Cronbach's alpha coefficient was used to measure the scale, and the Corrected Item-Total Correlation (CITC) values of each variable were higher than 0.6, and the Cronbach's alpha coefficients were all higher than 0.8, indicating that the scale has a high degree of reliability and good internal consistency. Upon further examination, the KMO value of the scale in this study was 0.912, which was higher than 0.7; at the same time, the P value was <0.05 , which indicated that there was a good correlation between the variables and it was suitable for factor analysis. Using principal component analysis and orthogonal rotation method for validation factor analysis, the average extracted variance value (AVE) of each variable is higher than 0.5, and all the combined reliability CR values are higher than 0.7, the internal consistency of the variables is better, and there is a correlation between the total indexes and the variables, which means that the survey questionnaire has a good convergent validity, and the measurement model has a high degree of stability and reliability. On this basis, this study constructed a structural equation model to test whether the hypothesized relationship is valid.

1. Hypotheses Testing

Table 2 Path Analysis and Hypothesis Test

Path			β	Unstd.	S.E.	C.R.	P	Result
ZBSX	→	IC	0.215	0.374	0.110	3.392	***	Accepted
ZBSX	→	TC	0.310	0.592	0.135	4.387	***	Accepted
MJSX	→	IC	0.194	0.349	0.129	2.708	**	Accepted
MJSX	→	TC	0.210	0.414	0.155	2.663	**	Accepted
GWZT	→	IC	0.379	0.708	0.131	5.422	***	Accepted
GWZT	→	TC	0.208	0.425	0.141	3.02	**	Accepted
TC	→	IC	0.195	0.178	0.052	3.403	***	Accepted

Note: *** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$.

EA :Attractiveness,EC :Compatibility ,EP :Professionalism ,EI :Interactivity ,SR :Reputation,SP: Promotion,SE :Emotions,SC: Shopping Companion,TC: Consumer trust,IC :Irrational consumer behavior ,ZBSX:E-commerce Anchor Attribute,MJTX:Sellers Characteristics,GWZT:Shopping Status

First, the standard path coefficient (β) of e-commerce anchor attributes (ZBSX) and irrational consumption behavior is 0.215, $P < 0.001$, which indicates that e-commerce anchor attributes have a positive and significant impact on consumers' irrational consumption behavior, and hypothesis H1 is valid. The standardized path coefficients (β) of attractiveness (EA), compatibility (EC), professionalism (EP), interactivity (EI) and e-commerce anchor attributes (ZBSX) are 0.671, 0.761, 0.723, 0.695, respectively, which are greater than 0.6, indicating that the four observational variables are positively correlated with the latent variable e-commerce anchor attributes, and work together to influence consumers' irrational consumption behavior.

Second, e-commerce anchor attributes (ZBSX) and consumer trust (TC) have a positive and significant effect, the standardized path coefficient $\beta = 0.310$ and $P < 0.001$, the H2 hypothesis is valid, indicating that e-commerce anchor attributes can effectively promote the degree of consumer trust. The four e-commerce anchor attributes also work together to promote consumer trust.

Third, the standardized path coefficient (β) of e-commerce seller characteristics (MJSX) and irrational consumption behavior is 0.194 and $P < 0.01$, indicating that e-commerce seller characteristics have a positive and significant impact on consumers' irrational consumption behavior, and hypothesis H3 is valid. The standardized path coefficients (β) of reputation (SR), promotion (SP) and e-commerce seller characteristics (MJSX) are 0.736 and 0.670, respectively, which are greater than 0.6, indicating that the two observed variables are positively correlated with the latent variable e-commerce seller characteristics, and jointly act on consumers' irrational consumption behavior.

Fourth, the standardized path coefficient of e-commerce seller characteristics (MJSX) and consumer trust (TC) $\beta = 0.210$ and $P < 0.01$, there is a positive and significant effect, and the hypothesis of H4 is valid, which indicates that e-commerce seller characteristics can effectively promote the degree of consumer trust. E-commerce sellers' reputation and promotion work together to promote consumer trust.

Fifth, the standard path coefficient (β) of consumer shopping status (GWZT) and irrational consumption behavior is 0.379, $P < 0.001$, indicating that consumer shopping status has a positive and significant effect on irrational consumption behavior, and hypothesis H5 is valid. The standardized path coefficients (β) of Consumer Emotion (SE), Shopping Companion (SC) and Consumer Shopping Status (GWZT) are 0.722 and 0.784 respectively, which are all greater than 0.7, indicating that the two observed variables are positively correlated with the latent variable, Consumer Shopping Status, and work together to influence consumer irrational consumption behavior.

Sixth, the standardized path coefficient of consumer shopping status (GWZT) and consumer trust (TC) $\beta = 0.208$ and $P < 0.001$, there is a positive and significant effect, and the H6 hypothesis is valid, which indicates that consumer shopping status affects consumer trust. Consumer shopping emotions, shopping companions together affect consumer trust.

2. Mediating Effect Testing

Table 3 Mediating Effect Testing

Path	Effect	Mediating Effect Testing			P	Result
		β	LLCI	ULCI		
ZBSX→TC→IC	Direct	0.215	0.084	0.341	0.003	Mediation
	Indirect	0.060	0.018	0.114	0.003	
	Total	0.275	0.151	0.392	***	
MJTX→TC→IC	Direct	0.194	0.030	0.335	0.020	Mediation
	Indirect	0.041	0.006	0.089	0.021	
	Total	0.234	0.076	0.370	0.008	
GWZT→TC→IC	Direct	0.379	0.267	0.512	***	Mediation
	Indirect	0.040	0.009	0.081	0.010	
	Total	0.420	0.303	0.549	***	

Note: *** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$.

EA :Attractiveness,EC :Compatibility ,EP :Professionalism ,EI :Interactivity ,SR :Reputation,SP: Promotion,SE :Emotions,SC: Shopping Companion,TC: Consumer trust,IC :Irrational consumer behavior ,ZBSX:E-commerce Anchor Attribute,MJTX:Sellers Characteristics,GWZT:Shopping Status

First, the mediating effect of consumer trust (TC) between e-commerce anchor attributes (ZBSX) and irrational consumption behavior (IC) was verified. The total effect is $c=0.275$, $p < 0.001$, indicating that consumer trust mediates significantly between e-commerce anchor attributes and irrational consumption behavior. Where the direct effect does not contain 0 as $c'=0.215$ (LLCI=0.084,ULCI=0.341), the indirect effect is $ab=0.060$ (LLCI=0.018,ULCI=0.114), indicating that e-commerce anchor attributes not only directly affect consumers, but also indirectly affect consumers' irrational consumption behavior through the mediator of consumers' trust, and consumers' trust plays a partial mediating role between the two.

Second, the mediating effect of consumer trust (TC) between e-commerce seller characteristics (MJTX) and irrational consumption behavior (IC) is verified. As shown in Table 3, the mediating effect of consumer trust between e-commerce anchor attributes and irrational consumption behavior is significant, with an effect size of $c=0.234$, $p<0.001$. where the direct effect does not contain 0 as $c'=0.194$ (LLCI=0.030,ULCI=0.335), and the indirect effect is $ab=0.041$ (LLCI=0.006 ,ULCI=0.089), indicating that e-commerce seller characteristics can influence consumers' irrational consumption behavior both directly and through consumer trust, and that consumer trust plays a partial mediating role between the two.

Finally, the mediating effect of consumer trust (TC) between consumer shopping status (GWZT) and irrational consumption behavior (IC) is verified. The direct effect does not contain 0 as $c'=0.379$ (LLCI=0.267,ULCI=0.512), and the indirect effect is $ab=0.040$ (LLCI=0.009,ULCI=0.081), which indicates that the consumer shopping status will directly affect the consumer irrational consumption behavior, and also act on the consumer's irrational consumption behavior through the consumer trust, with the effect size is $c=0.275$, $p<0.001$, consumer trust has a partial mediating role between shopping status and irrational consumption behavior.

3. Discussion

Table 4 has shown that the standardized path coefficients between the variables are 0.215, 0.310, 0.194, 0.210, 0.379, 0.208, 0.195 respectively, confirming that e-commerce live streaming anchor attributes, e-commerce seller characteristics, and consumer shopping status significantly affect irrational consumption behavior and consumer trust, and that there is a partially intermediary role of consumer trust in the relationship between the three elements of e-commerce live streaming's "people+goods+fields" and the consumer's irrational consumption behavior. partially mediating role, the size of the mediating role is 0.275, 0.234, 0.420, respectively, and the 10 research hypotheses of this study are all valid, as shown in Table 4. The results are basically consistent with the research results of Liu et al. (2020), Meng et al. (2020), Han&Xu (2020), Soderlund et al. (2021) on the impact of e-commerce anchors and consumer trust on consumer behavior, and are consistent with the research conclusions of Kotler et al. (2000), Luo (2005), Ma (2011), Chang (2013) and others based on offline or traditional shopping research on the impact of reputation, promotions, consumer emotions, and shopping companions on consumer consumption behavior.

Table 4 Results of Hypotheses

No.	Hypothesis	Result
H1	E-commerce anchor attributes significantly influence consumers' irrational consumption behavior.	Accepted
H2	E-commerce live streaming seller attributes significantly influence consumers' irrational consumption behavior.	Accepted
H3	Consumer shopping status in e-commerce live streaming context significantly influences consumers' irrational consumption behavior.	Accepted
H4	E-commerce anchor attributes significantly affect consumer trust.	Accepted
H5	E-commerce live streaming seller characteristics significantly affect consumer trust.	Accepted

H6	E-commerce live streaming significantly affects consumer trust in the context of consumer shopping status.	Accepted
H7	Consumer trust significantly affects consumer irrational consumption behavior.	Accepted
H8	Consumer trust in mediating between e-commerce anchor attributes and consumer irrational consumption behavior.	Accepted
H9	Consumer trust mediates between e-commerce seller attributes and consumer irrational consumption behavior.	Accepted
H10	Consumer trust mediates between consumer shopping status and consumer irrational consumption behavior.	Accepted

Research Findings

1. Through searching and analyzing previous studies and conducting questionnaire surveys, a structural equation was constructed for verification. The main factors that affect consumers' irrational consumption behavior through e-commerce live streaming include e-commerce anchor attributes, e-commerce seller characteristics, consumer shopping status, and consumer trust. Among them, the e-commerce anchor attributes include four observed variables: attractiveness, matching, professionalism, and interactivity. The e-commerce seller characteristics include two observed variables: reputation and promotion. The consumer shopping status includes two observed variables: consumer emotions and shopping companions. The e-commerce anchor attributes, e-commerce seller characteristics, consumer shopping status, and consumer trust can affect consumers' irrational consumption behavior individually or in combination.

2. E-commerce anchor attributes, e-commerce seller characteristics, consumer shopping status, and consumer trust are positively correlated with consumers' irrational consumption behavior, and significantly affect irrational consumption behavior, with effect sizes of 0.215, 0.194, 0.379, respectively. 0.195. In other words, the greater the attractiveness of the e-commerce anchor, the more consistent the match with the product, the stronger the professionalism, and the more frequent the interaction with consumers, the better the reputation of the e-commerce seller, the stronger the promotion, and the greater the consumer's confidence. The more excited the emotion, the more shopping companions and the more positive the reviews, the more irrational consumption behavior can be stimulated by consumers. Moreover, the more consumers trust e-commerce live streaming, the more they will reduce their risk awareness and lead to irrational consumption behavior.

3. E-commerce anchor attributes, e-commerce seller characteristics, and consumer shopping status can directly affect consumer irrational consumption behavior, and can also act on consumer trust, and then act on consumer irrational consumption behavior through consumer trust. The direct positive impact of e-commerce anchor attributes, e-commerce seller characteristics, and consumer shopping status on consumer irrational consumption behavior is 0.215, 0.194, 0.379, and 0.195. After introducing the variable of consumer trust, the total impact on irrational consumption behavior reached 0.275, 0.234, and 0.420. The total impact effect is significantly higher than the direct impact effect, indicating that consumer trust plays a mediating effect between e-commerce anchor attributes, e-commerce seller characteristics, consumer shopping status, and consumer irrational consumption behavior. The size of the mediating effect is 0.060, 0.014, and 0.40, respectively. In other words, e-commerce live

broadcasting will stimulate consumers' irrational consumption behavior by enhancing consumer trust.

4. E-commerce anchor attributes, e-commerce seller characteristics, consumer shopping status, and consumer trust can significantly affect consumers' irrational consumption behavior, but the degree of influence varies. The data in Table 2 and Table 3 show that the most influential factor in consumers' irrational behavior during watching e-commerce live streaming is the consumer's shopping status. The consumer's own emotional stability and the degree of influence by shopping companions are the factors that affect consumers' irrational consumption behavior. The biggest influencing factor. This is one of the reasons why e-commerce live streaming continue to launch promotional gimmicks such as limited-time flash sales, lottery draws, red envelopes, buy one get one free, etc. It is hoped that exciting prices and seductive words from e-commerce anchors can change consumers' shopping state and make irrational consumption decisions.

Recommendations

1.Theoretical Recommendation

First, further study the relationship between consumer shopping status and irrational consumer behavior. Future research should explore the specific impact of different emotions (negative or positive, etc.) and different types of shopping companions (real or virtual, etc.) on irrational consumer behavior when watching e-commerce live streaming, as well as the role of this impact on different types of consumer groups. This will help to further understand the impact mechanism of e-commerce live streaming on consumer irrational consumer behavior.

Second, conduct international comparative studies. The degree of development of e-commerce live streaming in different countries is different, and the impact on consumer irrational consumer behavior is different. Moreover, the mechanism of irrational consumer behavior of consumers from different cultural backgrounds when watching e-commerce live streaming is also different. It is conducive to enriching the perspective of theoretical research and more comprehensively understanding the irrational consumer behavior of consumers in the context of globalization.

Finally, increase research elements and build a more comprehensive theoretical model. Taking into account factors such as consumers' economic income, education level, e-commerce live broadcast platform, and e-commerce live broadcast product types, it is convenient to have a deeper and more comprehensive understanding of the impact of e-commerce live streaming on consumers' irrational consumer behavior.

2.Practical Recommendation

First, advocate rational consumption by consumers. Although irrational behavior of consumers is inevitable, consumers should sort out the correct consumption concept. You can set up a psychological account to reduce unnecessary consumption expenditure; try to understand the product information before consumption, and strictly purchase on demand; extend the interval between each consumption and reduce the frequency of consumption, especially during e-commerce festivals such as 6.18 and Double Eleven, restrain the temptation of e-commerce live marketing information.

Secondly, improve the integrity of e-commerce sellers. In recent years, the phenomenon of "turnover" of e-commerce live streaming has been common, which has seriously damaged the reputation of the live broadcasters and brands and affected consumer trust. As the provider of goods, e-commerce sellers have the obligation to be responsible for the goods purchased by

consumers. The product information, quality and price provided should be true and effective, rather than relying solely on low-price marketing to deceive consumers.

Finally, enhance the attributes of e-commerce anchors. E-commerce anchors are the most important component of e-commerce live streaming and are the key to attracting consumers. However, at this stage, the homogeneity, modeling and scripting of e-commerce anchors are very serious, which can easily cause consumers' aesthetic fatigue. Therefore, e-commerce anchors should learn to develop in a differentiated manner, further highlight their own characteristics, strengthen their product selection capabilities, continuously learn professional knowledge, enhance their emotional connection with consumers in the live broadcast room, and increase user stickiness and loyalty.

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