

A Study on the Relationship between Live Shopping Characteristics and Consumer Behavior Intention in China

Ke Su¹, Sa Yang¹, Zihao Jin¹, Xin Yan¹, Xianfang Hu¹, Kim Jeong-In¹,
Seung-Wan Ju², Chae-Kwan Lim²

¹Department of Business Administration, Tongmyong University, Korea

²Department of Distribution and Logistics, Tongmyong University, Korea

cklim@tu.ac.kr (corresponding author)

Abstract. This study aims to investigate the effects of live shopping characteristics, which constantly come into the lime light in China, on impulse buying and future consumer behavioral intentions. For this purpose, based on previous studies and literature data, the study extracted factors related to live shopping - tendency of impulse buying and emotional response - and behavioral intention, and empirically examined the structural relationship between these factors. The empirical study was conducted by conducting frequency analysis, reliability analysis, exploratory factor analysis, confirmatory factor analysis, correlation analysis, and structural equation modeling analysis using SPSS26.0 and AMOS26.0, which were collected through online survey method for 508 consumers who used live shopping in China. The results of the empirical analysis and implications of this study are as follows. First, it was verified that the characteristics of live shopping in China have a significant effect on impulse buying. These results suggest that the characteristics of live shopping are more likely to cause impulse buying. So, purchase made through live shopping will have to be done with caution. Second, impulse buying in live shopping had a significant effect on satisfaction. This result suggests that, though impulse purchase should be refrained, it sometimes has a positive effect impulsive buyers' emotional satisfaction by relieving stress or satisfying their needs. Third, it was confirmed that regret had a significant negative effect on behavioral intention. This result suggests that the feeling of regret after impulse buying has a negative effect on the behavioral intention of word of mouth, recommendation of others, and continuous use. Fourth, satisfaction had a significant effect on behavioral intention. This result suggests that positive behavior intention is induced by satisfaction. So, it is necessary to consider ways to heighten the degree of satisfaction through impulse buying.

Keywords: Live Shopping, Impulse Buying, Regret, Satisfaction, Behavioral Intention

1. Introduction

In China, online live broadcasting service has started to become a big trend through Wǎnghóng Live Shopping Broadcasting, which has developed into a new industry called Wǎnghóng marketing and has become an important means of attracting customers. Encouraged by such success, China's leading online shopping platform companies such as 'Taobao.com', 'Mugujie.com' and 'Jumei.com' have also actively started to provide online shopping live broadcasting services. This trend has recently led to a new area of marketing and made such marketing get a name of 'Wǎnghóng Marketing' from Chinese Internet platforms. It has also developed into a form that combines Wǎnghóng show hosts and live broadcasting (Hen & Kim, 2019).

According to the 2021 China Live e-commerce Industry Research Report, it was estimated that the size of Wǎnghóng marketing amounted to about 300 billion yuan (about 50.7 trillion won) in the Chinese online shopping market in 2020 (2021 China Live e-Commerce Industry Research Report, 2021). Wǎnghóng marketing is recognized as a differentiated marketing tool that can meet the demand of consumers in a situation where demand is increasingly diverse and subdivided (Yun, 2017). Many consumers are getting more interested in live shopping and are increasingly aware of it (Fu and Park, 2019; Khwanngern et al., 2020).

However, even though the interest in live shopping and Wǎnghóng marketing and the size of live shopping market is growing in China, there is still a lack of basic research on the characteristics of live shopping. Kim & An (2018) analyzed the effects of live broadcasting flow rate at the time of viewing, interactivity, and perceived pleasure on users' informational usefulness, acceptance intention, attitude toward brands and purchase intention in the study on the Internet live broadcasting. In addition, Zhang & Park (2018) found that entertainment, informativity, reliability, and uniqueness have a positive effect on purchase intention based on broadcasting contents in a study on online shopping live broadcasting.

As such, previous studies on live shopping have focused on the characteristics of Wǎnghóng marketing and on purchase intention. Therefore, this study proceeded with its research to investigate the effects of China's live shopping characteristics, which are continuously in the spotlight, on impulse buying and future consumers' behavior intention.

To achieve the purpose of this study, the theoretical background was presented based on literature review and previous studies. Based on it, the research model and research hypothesis were derived, and the influence relationship between each variable was structurally analyzed. For empirical analysis, this study conducted frequency analysis, reliability analysis, exploratory factor analysis, confirmatory factor analysis, correlation analysis, and structural equation modeling path analysis

based on the data collected through an online survey method for consumers who have experience using live shopping in China. Based on the results of the empirical analysis, the implications of the study and future research tasks are presented.

2. Theoretical Background

2.1. Live Shopping

Due to the recent, unique popularity of live streaming, many companies have used it to increase customers' commitment and reduce uncertainty, which helps online shopping grow (Kokula 2018; Sun et al., 2019). This led to the birth of a new type of live streaming commerce like Taobao Live in China (Cai & Wohn, 2019; Qing and Jin 2022). Live streaming commerce is a subset of e-commerce in real-time social interaction including real-time video and text-based chatting (Hamilton et al., 2014; Cai & Wohn, 2019).

Given that a comprehensive definition of live streaming is to be made, it can be defined as a new type of live broadcasting, in which the Internet technology provides a live broadcasting program consisting of various digital information that users plan and produce content, and the host, creator, and viewers can all lead to social activities such as exchanging messages and communicating by commenting in real-time.

In the study of the factors affecting the repurchase intention of the live commerce consumers, Song (2021) classified the characteristics of the social live streaming commerce into informativity, entertainment, economic efficiency and convenience, and identified that customer satisfaction and flow rate are the factors affecting the repurchase intention in each characteristic. In a study by Kyung Won La and Oh Kyung Wha (2021) on the influence of fashion product live commerce on Chinese consumers' purchase intention, the characteristics of live commerce were set as interactivity and security, and the results showed that it had a positive effect on purchase intention. Besides, Wang et al. (2018), as a result of empirical analysis by adopting interactivity, information and visibility as factors in live commerce characteristics, stated that interaction, informativity and visibility have a positive effect on consumers' trust.

Therefore, as research objects, this study selected interactivity, informativity and entertainment value which are considered to be suitable for the purpose of this study among the sub-factors of live shopping that have been used universally in previous studies.

2.2. Impulse Buying

Impulsiveness means a sudden behavioral tendency toward inner impulses with little consideration of the outcome of the action (Dennis & Fisher, 1995). In a psychological term of human impulsiveness, impulse is not a "strong and sometimes irresistible desire or sudden tendency to act without deliberation" but is immediately induced in the face of stimulus (Wolman, 1973).

Impulse buying has been negatively recognized as compared to planned purchase, with the view that consumers are unconsciously emotionally controlled by various marketing stimuli that companies generally make irrational purchases. But, according to the study by Novak et al. (2003), it found that many consumers perceive planned and reasonable purchases as a kind of work, while impulse buying has a positive meaning in that it has mental and emotional satisfaction such as fun and pleasure.

The classification of impulse purchase by type was first attempted by Stern (1962), but the subsequent studies have attempted to make the unplanned purchase type continuously, but the agreement has not been reached until now. That's why most of the studies on impulse buying have been conducted by borrowing or modifying the four types classified by Stern (Stern, 1962). These four types are 'pure impulse buying,' 'planned impulse buying,' 'suggestion impulse buying' and 'reminder impulse buying,' which are all non-planned purchase types. They are widely used as basic frames of impulse buying.

Therefore, in this study, the four types of impulse buying classified by Stern (1962) - pure impulse purchase, planned impulse purchase, proposed impulse purchase, and reminder impulse purchase - were used as sub-elements of impulse buying, under which the study was proceeded with.

2.3. Regret

The study of regret has been continuously increasing since the 1990s, and the definition of regret has also been expressed in various ways. Regret means negative emotions caused by differences in performance between purchased products and abandoned products after making decisions (Loomes & Sugden, 1982). Also, regret is a negative emotion about cognition. we would feel skeptical when we make a judgment that we can achieve better results and satisfy more needs than you do now if we made other choices (Zeelenberg, 1992).

When consumers did not make a purchase decision, they may regret not buying some products because it was a shame they did not buy them. They may also regret buying some products they are not satisfied with having made an unplanned purchase decision due to an external stimulus or impulse (Macinnis & Patrick, 2006). According to the research by Park and Kim (2014), regret was shown to be a negative dependent variable of impulse buying in many studies. Price sensitivity and overconfidence could be the cause of impulse buying. Impulse buying had a positive (+) effect on regret.

Therefore, this study aims to examine the characteristics of live shopping in China based on previous studies and to examine the effects of impulse buying on regret.

2.4. Satisfaction

Satisfaction is one of the important concepts in the consumer sector. Cardozo (1965) has received high academic emphasis and universal recognition since he first

presented the concept of customer satisfaction in the field of marketing. However, each scholar described various concepts of customer satisfaction.

Generally, satisfaction in a normal transaction means that the desire that a customer has through the purchase of a product or service is satisfied with more than what he or she expected and has positive feelings (Lee, 2019). Howard and Sheth (1969) stated that customer satisfaction is a psychological state that determines whether a buyer is reasonable about his behavior and the profit obtained.

Hempel (1977) stated that customer satisfaction is the degree of how much the customer expects the profit to be realized. He argued that satisfaction is determined by how much the actual result is matched with the profit expected by the customer.

In the study on mobile shopping, Kwon et al. (2019) empirically analyzed the factors that influence the value of mobile shopping on satisfaction. As a result, the perceived practical value, recreational value, and social value of consumers had a significant positive (+) effect on satisfaction when mobile shopping was performed. Choi and Park (2007) confirmed that interactivity had a significant effect on satisfaction in the study on the effect of interactivity on satisfaction, trust and loyalty of users of internet shopping malls.

Therefore, this study aims to examine the characteristics of live shopping in China based on previous studies and to examine the effects of impulse buying on satisfaction.

2.5. Behavioral Intention

In each research field of the social sciences, various names and meanings of behavioral intentions have been interpreted. In particular, in the field of marketing, it has been actively studied with consumer behavior as a key factor (Jo Eun Hye, 2018).

Behavioral intention is a comprehensive concept that explains the outcomes of customer satisfaction such as individuals' will and beliefs to show a specific behavior after consumers form an attitude toward an object, word of mouth for goods and services, repurchase intention, and price sensitivity (Lounsbury & Polik, 1992). It is an attitude and a concept based on actual behavior which is formed as an antecedent that causes consumer behavior, and means individuals' will for actual behavior in the future (Shin, 2008). The components of consumer behavior intention are generally viewed as customers' intention to say word of mouth and customers' intention to repurchase (Zeithaml et al., 1996; Oliver, 1981). In addition, when various previous studies related to consumer behavior intentions are considered, the majority are concerned with revisit intention, positive word-of-mouth, and recommendation (Lee, 2013).

Therefore, this study is to proceed with its research by constructing the repurchase intention, positive word-of-mouth intention, and recommendation intention, which are considered to be suitable for the purpose of this study, as sub-factors of behavioral factors based on previous studies.

3. Research Design

3.1. Research Model

In order to conduct an empirical study on live shopping, which is rapidly developing in China, this study selected the characteristics of live shopping as an independent variable and chose impulse buying, regret, and satisfaction as a parameter. And the behavioral intention was selected as a dependent variable to understand the structural relationship between each variable. Therefore, this study set up a research model like Fig. 1 based on the results of previous studies and literature research, and aims to present research hypotheses according to the research model.

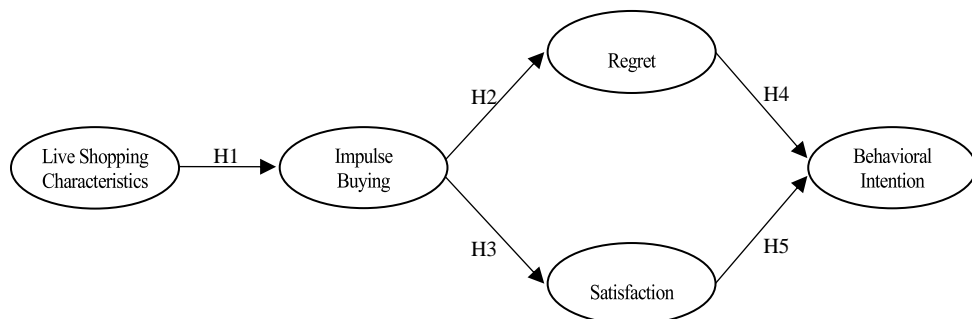


Fig. 1: Research Model

3.2. Hypothesis

3.2.1 The Relationship between Live Shopping Characteristics and Impulse Buying

Xu (2021) in the study of live shopping and impulse buying, asserts that the usefulness of information has a significant effect on impulse buying, and the seller of live commerce can provide information on the product to the consumer even during the live demonstration of products by communicating with the consumer and providing information by releasing his social media account. In the study by Xiong and Jing (2010), he argued that the information about products can be provided to consumers in real-time in a live commerce environment and can cause consumers' impulse buying.

Therefore, this study set the following hypothesis 1 to confirm the relationship between the characteristics of live shopping and the impact of impulse buying based on the previous studies.

Hypothesis 1: Live shopping characteristics will have a positive effect on impulse buying.

3.2.2 The Relationship between Impulse Buying and Regret of Live Shopping Users

Consumers show negative feelings such as regret and sadness if the product does not

reach what they expected after purchase, but regret is relatively weak when they acquire the product after impulse buying (Roseman, 1991). According to the study of Park and Kim (2014), regret was said to be a negative dependent variable of impulse buying. Price sensitivity and overconfidence could be the cause of impulse buying. And impulse buying had a positive (+) effect on regret.

Therefore, this study set up hypothesis 2 as follows to verify the influence relationship between impulse buying and regret based on the previous studies.

Hypothesis 2: Impulse buying will have a positive effect on regret.

3.2.3 Relationship between Impulse Buying and Satisfaction of Live Shopping Users

In the study on impulse buying and satisfaction with fashion products, Yuan and Kim (2015) proved that the impulse buying of Chinese consumers had a positive effect on satisfaction. In the study on a tendency of impulse buying, shopping addiction, and shopping satisfaction, Oh Hee-sun and Lee Ho-jung (2019) suggested that a tendency of impulse buying had a positive (+) effect on shopping satisfaction. In the study by Yoo Ye-kyung and Kim In-shin (2018), the study on the factors of impulse buying at duty-free shops and satisfaction after shopping showed that the characteristic factors in duty-free shops had a positive effect on impulse buying.

Therefore, this study set up hypothesis 3 as follows to confirm the influence relationship between impulse buying and satisfaction after purchase based on previous studies.

Hypothesis 3. Impulse buying will have a positive effect on satisfaction.

3.2.4 Relationship between Regret and Behavioral Intention of Live Shopping Users

In the study on the effect of regret experience on anticipated regret, Yoo Ye-kyoung and Kim In-sin (2018) showed that many consumers had expected regret, and many consumers had low intention to repurchase. Therefore, complex factors such as discomfort with the current situation and remorse about the decision cause regret, which affects negative behaviors such as complaints and discontinuation of using products.

Therefore, this study set up hypothesis 4 as follows to verify influence relationship between regret and behavioral intention after impulse purchase in live shopping.

Hypothesis 4. Regret will have a negative (-) effect on behavioral intention.

3.2.5 Relationship between Live Shopping Users' Satisfaction and Behavioral Intention

In the relationship between the experience of purchasing cosmetics, the satisfaction of purchasing cosmetics and the intention of continuous purchasing, Yuán Méng et

al. (2022) showed a positive (+) relationship with the intention of continuous purchasing, and it was confirmed that the higher the satisfaction of purchasing, the higher the intention of continuous purchasing. And, as a result of empirical analysis on the relationship between perceived trust, customer satisfaction and continuous intention of use in the study on mobile simple payment service, Cho Jin-ho (2018) found that customer satisfaction had a positive (+) effect on continuous intention of use.

Therefore, this study set up the following hypothesis 5 to verify the influence relationship between satisfaction and behavioral intention based on the results of previous studies.

Hypothesis 5. Satisfaction will have a positive effect on behavioral intention.

3.3. Survey Design and Research Method

This study conducted a survey on consumers who are currently using live shopping in China for three months from March 1 to May 31, 2022 through an online survey method. A total of 573 questionnaires were distributed and 508 questionnaires were used for analysis, excluding 65 insincere ones. The questionnaire used in this study consisted of Likert 7-point scale on the characteristics of live shopping (11 items), impulse purchase (13 items), regret (4 items), satisfaction (3 items), and behavioral intention (3 items) presented in the research model. In addition, sample analysis was performed using statistical programs SPSS26.0 and AMOS26.0.

Frequency analysis was performed to identify the general characteristics of the sample, reliability analysis and exploratory factor analysis were performed to verify the reliability and validity of the measurement tool, and also convergent concentrated validity through confirmatory factor analysis and discriminant validity through correlation structural equation model analysis was performed to verify the hypothesis.

4. Empirical Analysis

4.1. Demographic Characteristics

The results of analyzing the general characteristics of the data are as follows.

Table 1: General Status of Data

Division		Frequency	Ratio
Gender	male	236	46.5
	female	272	53.5
Age	10 to 19 years old	41	8.1
	20 to 29 years old	125	24.6
	30 to 39 years old	201	39.6
	40 to 49 years old	47	9.3
	50 to 59 years old	54	1.6
	over 60 years old	40	7.9
Marital Status	married	247	48.6

	unmarried	261	51.4
Education	high school graduation	43	8.5
	university student	122	24
	college graduation	192	37.8
	graduate school student	56	11
	graduate school graduation	47	9.3
	others	48	9.4
Occupation	student	56	11
	civil servant/office worker	137	27
	self-employed	180	35.4
	professional practitioner	47	9.3
	housewife	44	8.7
	others	44	8.7
Monthly Average Income	less than 5,000 yuan	73	14.4
	5,000 yuan ~ 10,000 yuan or less	193	38
	10,000 yuan ~ 20,000 yuan	175	34.4
	more than 20,000 yuan	67	13.2
Total		508	100

The results of the analysis showed that 46.5% of subjects (236 people) were male and 53.5% (272 people) were female. As for the age group, 39.6% (201 people) were in their 30s, followed by 24.6% (125 people) in their 20s, 1.6% (54 people) in their 50s, 9.3% (47 people) in their 40s, 8.1% (41 people) in their 10s, and 7.9% (40 people) over 60s. In terms of marital status, 48.6% were married (247 people), 51.4% (261 people) unmarried. The item of educational background shows that 37.8% (192 people) were university graduates, 24.0% (122 people) university students, 11.0% (56) graduate students, 9.4% (48 people) others, 9.3% (47 people) graduate school graduates, and 8.5% (43 people) high school graduates. As for occupation, 35.4% (180 people) were self-employed, 27.0% (137 people) civil servants/office workers, 11.0% (56 people) students, 9.3% (47 people) professional practitioners, 8.7% (44 people) housewives, and 8.7% (44 people) others. The average monthly income was 38.0% (193) for more than 5,000 yuan to less than 10,000 yuan, 34.4% (175 yuan) for more than 10,000 yuan to less than 20000 yuan, 14.4% (73) for less than 5,000 yuan, and 13.2% (67 yuan) for more than 20,000 yuan.

4.2. Verification of Reliability and Feasibility

In order to verify the validity of the concept of composition of the measurement items used in this study, factor analysis was conducted according to the method of Varimax rotation for main factor extraction, and the eigen value was used for analysis of more than 1.0 factors.

Table 2: Reliability and Validity Analysis Result

Factor	Behavioral Intention	Informativity	Satisfaction	Interrelation	Entertainment Value	Pure Impulse Buying	Suggestion Impulse Buying	Reminder Impulse Buying	Regret	Stimulus Impulse Buying
BI 1	.877	.045	.158	.005	.032	.078	.042	.015	.184	.102
BI 3	.727	.143	.099	.024	.125	.101	.049	.054	.128	.020
BI 4	.725	.019	.188	.078	.116	.050	.061	.037	.128	.094
BI 6	.713	.102	.174	.081	.046	.045	.110	.110	.148	.092
BI 5	.697	.087	.230	.070	.052	.116	.059	.109	.090	.107
BI 2	.680	.124	.167	.147	.053	.074	.102	.068	.198	.089
Inf. 1	.026	.863	.061	.064	.086	.002	-.026	.030	.061	.050
Inf. 4	.160	.762	.069	.165	.123	.035	-.020	.038	.030	.045
Inf. 6	.066	.735	.099	.105	.212	-.034	.018	.051	.057	.051
Inf. 4	.078	.730	.104	.158	.132	-.052	.044	.049	.063	.061
Inf. 2	.071	.712	.025	.159	.142	.110	.076	.028	.055	-.007
Inf. 5	.079	.703	.067	.126	.182	.089	.011	.038	.078	.063
Sat. 1	.155	.065	.883	.031	.111	.046	.033	.063	.046	.052
Sat. 5	.219	.037	.771	.051	.076	.072	.022	.054	.091	.055
Sat. 3	.182	.146	.743	.071	.029	.029	.095	.031	.119	.061
Sat. 4	.174	.099	.737	.008	.033	.067	.100	.088	.059	.029
Sat. 2	.186	.071	.697	.083	.070	.103	.079	.156	.079	.137
Int. 1	.099	.113	.013	.852	.124	-.022	.008	.047	.075	.044
Int. 5	.072	.161	.074	.781	.117	.060	.005	.086	.048	-.016
Int. 4	.043	.169	.037	.758	.190	.023	.030	.063	.094	.067
Int. 2	.055	.180	.083	.723	.166	-.037	.077	.061	.023	.027
Int. 3	.078	.137	.026	.715	.241	.019	.056	.003	.114	.064
EV 1	.050	.123	.062	.134	.851	.024	.045	.031	.079	-.030
EV 5	.059	.184	.099	.167	.723	-.041	.063	.041	.069	.027
EV 3	.036	.223	.066	.187	.705	.011	.044	.025	.128	.050
EV 4	.124	.176	.052	.151	.705	.056	-.007	-.019	.051	-.007
EV 2	.114	.164	.032	.193	.703	.057	-.007	.109	.016	.081
PIB 1	.116	.039	.072	-.012	.043	.843	.096	.141	.029	.058
PIB 3	.142	.078	.120	.007	-.012	.784	.135	.107	.056	.161
PIB 4	.090	-.011	.048	.001	.023	.781	.156	.091	-.018	.111
PIB 2	.045	.027	.056	.038	.042	.768	.105	.145	.110	.139
SIB 1	.046	-.007	.069	.038	.059	.089	.879	.079	.046	.095
SIB 4	.061	.073	.045	.007	.032	.113	.787	.119	.064	.183
SIB 3	.145	.040	.113	.075	-.016	.150	.749	.167	-.034	.146
SIB 2	.111	-.016	.089	.047	.052	.156	.745	.135	.081	.115
RIB 1	.047	.054	.093	.066	.015	.070	.068	.864	.012	.098
RIB 3	.085	.061	.089	.071	.020	.119	.119	.760	.179	.091
RIB 4	.101	.075	.075	.063	.037	.162	.143	.752	.092	.125
RIB 2	.102	.023	.110	.055	.109	.160	.179	.736	.074	.117
Reg. 1	.163	.037	.051	.082	.087	.020	-.002	.086	.883	.023
Reg. 3	.220	.091	.120	.013	.104	.047	.076	.034	.764	.024
Reg. 2	.173	.126	.126	.083	.095	.071	.058	.118	.720	.040
Reg. 4	.240	.075	.084	.175	.046	.041	.033	.113	.711	.035
St.IB 1	.070	.042	.080	.023	.024	.059	.086	.039	.074	.872
St.IB 2	.121	.086	.094	.086	.033	.097	.161	.045	.003	.765
St.IB 4	.149	.053	.040	.021	.042	.151	.132	.172	.003	.738
St.IB 3	.092	.064	.096	.044	.009	.186	.165	.198	.040	.716
Reliability(α)	.885	.879	.872	.870	.849	.853	.855	.846	.842	.837
eigen-value	1.47	4.674	3.192	2.328	2.083	1.942	1.876	1.762	1.644	1.475
Var. (%)	22.278	9.945	6.792	4.953	4.431	4.133	3.992	3.749	3.497	3.137
Cum. Var (%)	22.278	32.222	39.014	43.967	48.398	52.531	56.523	6.272	63.77	66.907

The Kaiser-Meyer-Olkin value of sample adequacy =.900

Bartlett's spherical test approximation chi-square =12373.004, degree of freedom =1081, significance probability =.000

* Index: BI: Behavioral Intention, Inf.: Informativity, Sta.: Satisfaction, EV: Entertainment Value, PIB: Pure Impulse Buying, SIB: Suggestion Impulse Buying, RIB: Reminder Impulse Buying, Reg.: Regret, St.IB: Stimulus Impulse Buying

As shown in Table 2, 10 factors were derived and the explanatory power of the factors was 66.907%. The standard suitability of KMO, which shows the suitability of factor analysis, is .900, so it is desirable to select variables for factor analysis. Bartlett's sphere formation verification value is $\chi^2=12,373.004$, freedom degree=1,081, significance probability $p=.000$. In addition, as a result of the reliability analysis, all Cronbach' α values were above .7, which is the baseline value, indicating that data reliability was secured.

4.3. Confirmatory Factor Analysis

In this study, confirmatory factor analysis was performed to verify the intensive validity of each measurement item, and the results are as follows.

Table 3: Confirmatory Factor Analysis Result

Concept Variable	Variables	Estimate	Std. Estimate	S.E.	C.R.	CV	AVE
Live Shopping Characteristics	INT1	1.000	.836	.*	.*	.921	.516
	INT2	.721	.725	.042	16.992		
	INT4	.763	.759	.042	17.979		
	INT5	.776	.755	.044	17.817		
	INF1	1.000	.847	.*	.*		
	INF3	.731	.728	.043	16.862		
	INF4	.757	.750	.043	17.412		
	INF5	.710	.697	.044	16.051		
	ENT1	1.000	.811	.*	.*		
	ENT3	.814	.753	.053	15.263		
	ENT5	.758	.713	.052	14.676		
Impulse Buying	PIB1	1.000	.839	.*	.*	.935	.527
	PIB2	.723	.727	.042	17.166		
	PIB3	.790	.782	.042	18.677		
	PIB4	.699	.742	.040	17.607		
	SIB1	1.000	.858	.*	.*		
	SIB2	.730	.722	.042	17.404		
	SIB3	.772	.753	.042	18.336		
	SIB4	.784	.765	.042	18.688		
	IMB1	1.000	.729	.*	.*		
	IMB2	.970	.849	.112	8.633		
	TIB1	1.000	.803	.*	.*		
	TIB3	.780	.731	.051	15.339		
	TIB4	.813	.791	.051	16.042		
Regret	REG1	1.000	.891	.*	.*	.820	.535
	REG2	.629	.712	.036	17.486		
	REG3	.648	.739	.035	18.346		
	REG4	.684	.710	.036	17.445		
Satisfaction	SAT1	1.000	.900	.*	.*	.813	.593
	SAT3	.645	.744	.037	17.654		
	SAT5	.684	.775	.037	18.355		
Behavioral Intention	IC1	1.000	.906	.*	.*	.817	.601
	IC4	.661	.746	.037	18.009		
	IC6	.645	.736	.036	17.743		

* item given initial loading value as 1

$\chi^2=156.485(df=93, p=.000)$, $\chi^2/df=1.683$, RMR=.045 GFI=.964, AGFI=.948, NFI=.947, RFI=.932, IFI=.978, TLI=.971, CFI=.978 RMSEA=.037

The overall fit index is acceptable, as the fit recommendation criteria are $GFI \geq .9$, $AGFI \geq .9$, NFI (Normed Fit Index) $\geq .9$, $CFI \geq .9$ and above. In addition, in this study, the factor load of the measurement items was shown to be within the range of .5 to .95. The combined reliability (CR) was .7 or higher, and the average variance extracted (AVE) was .5 or more. Therefore, it is judged that there are no flaws in the concentration validity of the survey because all the indicators representing the factor

loading and the complex reliability meet the standard value.

4.4. Correlation Analysis

In this study, correlation analysis was conducted to verify the discriminant validity between each factor.

Table 4: Correlation Analysis Results

Item	Live Shopping Characteristics	Impulse Buying	Regret	Satisfaction	Behavioral Intention
Live Shopping Characteristics	.516(.718)				
Impulse Buying	.311***	.527(.726)			
Regret	.394***	.272***	.535(.731)		
Satisfaction	.346***	.365***	-.275***	.593(.770)	
Behavioral Intention	.303***	.439***	-.463***	.510***	.601(.775)

The diagonal value is the AVE value, and the value of () is the value of the square root of AVE

*** p<.01

As shown in Table 4, it was found that discriminant validity was secured because When compared with the square root of the diagonal (AVE) value, the correlation coefficient value did not appear to be a large value, indicating that the discriminant validity of the sample was secured. In addition, the correlation analysis showed that all items were significant, and the correlation coefficient value was less than .7. Therefore, in this study, it is judged that there is no problem with the multiple collinearity between each variable, and the suitability of the data is secured.

4.5. Verification of Research Hypothesis

This study investigates the causal relationship between China's live shopping characteristics, impulse buying, regret, satisfaction and behavioral intention. The results of hypothesis verification and the structural equation path coefficient of each research unit can be confirmed in Fig. 2.

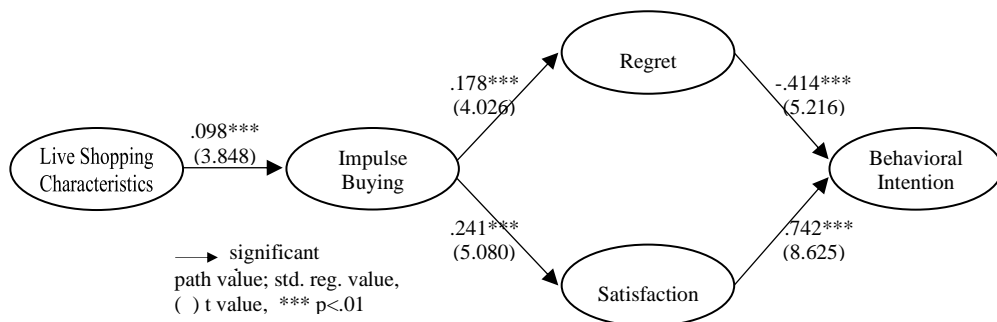


Fig. 2: Path Analysis Results of Structural Equation Model

As a result of conducting the structural equation path analysis to verify the research hypothesis, hypothesis 1 was statistically significant as the path coefficient values are $\beta = .098$, $t=3.848$, and $p=.000(p<.01)$. Therefore, hypothesis 1 was adopted. And the path coefficient value was positive (+), so it was confirmed that the higher the live shopping characteristics are, the higher the possibility of impulse buying is.

As for hypothesis 2, the values were $\beta = .178$, $t=4.026$, and $p=.000(p<.01)$, which were statistically significant. Therefore, hypothesis 2 was adopted. And the path coefficient value has a positive (+) value, and the higher the impulse buying, the greater the feeling of regret.

As for hypothesis 3, the values were $\beta = .241$, $t=5.080$, and $p=.000(p<.01)$, which were statistically significant. Therefore, hypothesis 3 was adopted. And the path coefficient value was positive (+), and the higher the impulse buying, the higher the satisfaction.

As for hypothesis 4, the values were $\beta = -.414$, $t=5.216$, and $p=.000(p<.01)$, which were statistically significant. Therefore, hypothesis 4 was adopted. And the path coefficient value has a negative (-) value, so the higher the feeling of regret, the negative behavioral intention such as word of mouth, recommendation of others, and continuous use can be confirmed.

As for hypothesis 5, the values were $\beta = .742$, $t=8.625$, and $p=.000(p<.01)$, which were statistically significant. Therefore, hypothesis 5 was adopted. And the path coefficient value was positive (+), so the higher the satisfaction, the better the behavioral intention such as word of mouth, recommendation of others and continuous use.

5. Conclusions

The purpose of this study is to investigate the effects of the characteristics of Chinese live shopping, which are continuously in the spotlight, on impulse buying and future consumer behavior intention. Besides, this study empirically investigates the influence relationship between the usage characteristics of Chinese live shopping, impulse buying, regret, satisfaction and behavioral intention. For this purpose, the data collected through the online survey method was Frequency analysis, reliability and exploratory factor analysis, confirmatory factor analysis, correlation analysis and structural equation model analysis were performed.

The results of the empirical analysis are as follows. First, it was confirmed that the characteristics of live shopping in China have a significant effect on impulse buying. Second, it was verified that impulse buying had a significant effect on regret. Third, impulse buying had a significant effect on satisfaction. Fourth, it was confirmed that regret had a significant negative effect on behavioral intention. Fifth, satisfaction had a significant effect on behavioral intention. Based on the results of the empirical analysis, the implications of this study are as follows. First, the characteristics of live shopping in China are likely to act as factors that make more

impulse buying. Second, since there are many times when people feel that they have made a mistake after making impulse buying through live shopping, impulse buying should be refrained from. Third, though impulse buying should be refrained from, it can be said that it has a positive effect on impulse buyers' emotional satisfaction by relieving stress or satisfying their needs. Fourth, the emotion of regret after impulse buying has a negative effect on the behavioral intention such as word of mouth, recommendation of others, and continuous use. Fifth, it is found that positive behavior intention is caused by satisfaction, so efforts should be made to prepare a plan to continue and inspire satisfaction through impulse buying from the perspective of live shopping operator. Therefore, it is necessary to prepare a plan not only to refrain from live shopping broadcasting with the purpose of simply increasing sales through language and behavior that induces impulse buying to customers but also to induce positive behavior intention to customers from a long-term perspective. In addition, the Chinese government needs to improve the administrative system to revitalize the live shopping business. Furthermore, it needs to establish a legal system to prevent the damage of customers due to immoral live shopping operators.

Clarifying the structural relationship among China's live shopping characteristics, impulse buying, regret, satisfaction and behavioral intention, this study makes positive contributions to drawing academic implications and practical implications. Nevertheless, this has limitations because this research was conducted with only live shopping characteristics as independent variables selected for it. In future studies, it is necessary that the factors such as service quality and consumers' preference of live shopping be supplemented for more advanced research.

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