How User-Generated Content Characteristics Influence the Impulsive Consumption: Moderating Effect of Tie Strength[1)]

사용자 제작 콘텐츠 특성이 충동구매에 미치는 영향: 유대강도의 조절효과를 중심으로

라위의 (Weiyi Luo)   Hunan Institute of Humanities, Science and Technology, China[2)]

이영찬 (Young-Chan Lee)   Dongguk University[3)]

〈 Abstract 〉

In recent years, with the continuous integrative development of e-commerce and social media, social commerce, as a trust-centered social transaction mode, has become an important performance form of e-commerce. The good experience of online community and abundant user-generated content (UGC) attract more and more users and businesses to participate in the community contribution. In this context, the cost of accessing information is continuously decreasing, which not only makes the purchase process more concise and efficient, but also greatly increases the possibility of consumers' impulsive consumption. However, there are very few empirical studies on the internal influencing mechanism of consumers' impulsive consumption based on the characteristics of UGC for social commerce. In view of this, based on S-O-R model, this study constructs a model of consumers' impulsive consumption in the context of social commerce from the characteristics of UGC, with perceived risk as the mediating variable and tie strength as the moderating variable. The results show that content authenticity, content usefulness, and content valence of UGC have significant negative impacts on consumers' risk perception in the process of purchase decision-making, and consumers' perceived risk has a significant negative impact on consumers' impulsive consumption. Meanwhile, the tie strength between UGC producer and UGC receiver plays a moderating role between content usefulness and perceived risk, as well as between perceived risk and impulsive consumption. Finally, combined with the above findings, this study provides effective suggestions for relevant participants in social commerce in terms of business management.

Key words: User-Generated Content, Perceived Risk, Tie Strength, Impulsive Consumption, S-O-R Model

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1. Introduction

Social commerce is the product of the integration of e-commerce and social media. It is composed of a community platform that encourages users to freely create and share information, and an e-commerce platform that provides valuable commodities such as products or services, aiming to provide consumers with one-stop services from decision making to purchase. Among them, the community platform of social commerce allows users to share the experiences of product usage or release the information about new products, which can provide a channel for product-focused interaction to break the merchants' barrier of information monopolization. Users can get more realistic information about the experiences of product usage from the community platform, or accept recommendations and suggestions from others to make consumption decisions which can better meet their own needs while reducing the decision-making cost.

With the rise of live streaming commerce, merchants are in urgent need of an alternative marketing approach, through which can not only achieve similar marketing effects with live streaming, but also effectively reduce the cost of selling goods. In this context, social commerce based on the concept of wide-acquaintance socializing has gained the favor of merchants. Compared with acquaintance social commerce and stranger social commerce, community platform-centered is an important feature of wide-acquaintance social commerce, and the existence of key opinion leader (KOL) is its most important characteristic. KOL is a class of advanced users with high contribution rate, high-quality contents and a large number of fans in the community, and the information spread by KOL is more influential than ordinary users. Therefore, the promotion of brands and products through KOL is also one of the emerging e-commerce marketing methods in recent years.

The Content generated spontaneously by users in community platform is called user-generated content (UGC), which has various forms, including but not limited to text, pictures, audio, video, etc. Among them, text, as an expression tool to bear user's attitude and emotion, occupies an important position in UGC, which can convey user's experiences of product usage to other consumers in a concise and clear manner. UGC can help consumers make better purchase decisions. Existing studies have shown that users generally perceive information from companions to be more reliable and trustworthy than advertising from merchants (Rogers, 1995).

In the current online environment, the cost of accessing information is getting lower and lower, and the wide application of big data analysis, artificial intelligence and other technologies have also further reducing the cost of obtaining information for consumers, which not only makes the purchase process more concise and efficient, but also greatly increases the possibility of consumers' impulsive consumption.

However, there are very few empirical studies on the internal influencing mechanism of consumers' impulsive consumption based on the characteristics of UGC for social commerce. Therefore, by exploring the internal influencing mechanism of UGC characteristics on consumers' impulsive consumption, this study can fill the knowledge gap in the research field of social commerce. Meanwhile, the findings of this study can provide effective suggestions for the relevant participants in social commerce in terms of business management.

2. Literature Review

2.1. S-O-R Model

The stimulus-organism-response model (S-O-R model) is a human learning theory mainly used to study the influence of external environmental stimuli on the behavior of an individual or organization (Belk, 1975). Stimulus refers to the information received by consumers in the purchase process, which can be further divided into environmental factors and commodity information. This study believes that UGC is the main source of information that affects consumers' purchase intention in the context of community platform-based social commerce.

Organism refers to the internal change of an individual or organization in response to external stimuli, including psychological changes such as cognitive switching and emotional feelings, and the change of internal state is an important antecedent of the change of human behavior. In general e-commerce context, perceived risk and perceived value are two effective mediators of cognitive change, which have important impacts on the subsequent rational purchasing behavior of consumers (Sweeney & Soutar, 2001; Paul, 2007). In contrast, arousal and pleasure are two effective emotional mediators, which can exert important influences on consumers' irrational purchasing behavior (Eroglu et al., 2003; Sautter, 2004). However, in the context of community centered social commerce, the useful information for consumers to make purchase decisions depends entirely on their acceptance of UGC, and they cannot obtain supplementary information or relevant suggestions through real-time interaction with the UGC producers or reviewers. The lack of real-time

interaction affects the emotional experience of consumers in the purchase process to some extent. At the same time, the uneven quality of UGC, the endless incidents of KOL helping merchants to carry out false publicity and the obvious lack of after-sales service provided by such platforms, all of which further deepen the uncertainty of consumers' purchasing decisions. In view of this, this study considers perceived risk as the cognitive transformation mechanism of consumers after browsing UGC and before conducting impulsive consumption.

Response refers to the external behavior change caused by the internal state change of an individual or organization, which is often regarded as the behavioral mapping of mental state. In summary, in this study, the external stimulus received by consumers is the UGC published in a community platform, the cognitive transformation mechanism is the perceived risk of purchase decision-making by consumers, and the response is the impulsive consumption behavior of consumers.

2.2. Characteristics of User-Generated Content

The rise of social commerce has changed the way of communication between enterprises and customers. With the continuous improvement of consumers' autonomy, content users are gradually transformed into content producers and content disseminators (Peters et al., 2013). More and more enterprises begin to actively seek cooperation with head content producers to further strengthen the contact with consumers and enhance the consumers' purchase intention through the effective transmission of enterprise brand and product information, in order to

achieve rapid improvement of corporate marketing performance ultimately. By sorting out relevant studies and combining with the current information-centered status of the community platform in wide-acquaintance social commerce, this study divides the characteristics of UGC into four dimensions: content authenticity, content interestingness, content usefulness and content valence.

Among them, content authenticity is an important standard for consumers to evaluate UGC, and it is also the basis to attract consumers to click and browse content (Lawrence et al., 2013; Thompson & Malaviya, 2013). Unlike the content published by enterprises on social media for marketing purposes, UGC published in the community platform is often regarded as unbiased, objective and impartial, so consumers will perceive such information as more trustworthy (Christodoulides et al., 2012).

Currently, seeking entertainment has become an important motivation for consumers to use social media (Schulze et al., 2004). Burgess et al. (2009) indicated that tourism consumers prefer to participate in the activities described interesting in UGC. Interest is one of the key variables affecting the response, and Interesting UGC tends to be more acceptable to consumers. If UGC can bring relaxed and pleasant viewing experience to consumers, it will help improve consumers' recognition of corporate brands and products.

UGC in the community platforms helps consumers to evaluate the quality of products, and usefulness is an important reflection of UGC's value. UGC with high usefulness can effectively reduce the time cost of acquiring target information and motivate consumers to use UGC as a reliable basis for purchase decision-making

(Hsu and Lu, 2004). UGC with high usefulness has a greater impact on consumers' purchase decisions than the contents from other sources (Chen et al., 2008).

Content valence is an important dimension of UGC, which reflects the overall attitude of the content producer towards the specific product (Clemons et al., 2006). High valence of UGC indicates that content producer is satisfied with the quality of the product, which can be regarded as a comprehensive reflection of product quality from an objective perspective (Senecal & Nantel, 2004). The more positive the attitude towards the enterprise's brands or products in the UGC, the more likely it is for other consumers to trust in the brands or products, so as to improve the purchase intention of consumers.

2.3. Tie Strength

Tie strength is an important concept in social network analysis, which describes the closeness of relationships between people in the context of social network, and is also a multi-dimensional and complex structure (Gilly et al., 1998). Tie strength can be divided into strong relationship and weak relationship, Granovetter (1973) pointed out that the relationship is weak if the contact between two individuals is less than twice per week based on the contact frequency. It is worth noting that in social interactions and daily life, strong relationship can ensure high quality and efficient usage of information. While weak relationship cannot guarantee the quality of information transmission, it can make the information spread in different social groups, so as to have a good spreading property.

Brown and Reingen (1987) pointed out that information

receivers under strong relationships are more likely to trust in the information released by information producers. Luo et al. (2015) pointed out that in offline society, people are more inclined to accept the information released by friends, family members and other people who have strong relationships with them. Hossain et al. (2009) explored whether the strength of social relations would affect users' acceptance of virtual communities through network analysis, and the results showed that users are more likely to accept the opinions of groups with which they maintain strong social relationships. In view of this, this study considers tie strength as an important moderating variable to be investigated, and defines it as the intimate degree of interpersonal relationship between producers and receivers of UGC within a community platform.

3. Research Model and Hypothesis

3.1. Content Authenticity and Perceived Risk

The authenticity of UGC refers to the information in the UGC is true, accurate and trustworthy, and it can accurately describe the actual usage of the enterprise's products in terms of quality, utility and other aspects. In order to achieve the dissemination effect of UGC in social media, the premise is that the information must be authentic and credible, and only authentic and credible content can enhance consumers' willingness to adopt the content (Cheung et al., 2008; Fang, 2014). Brown and Reingen (1987) found that compared with advertisements

provided by enterprises, UGC is more likely to be considered by consumers as a true and reliable information source, which can exert an important influence on consumers' purchasing decisions. Hsu et al. (2011) showed that knowledge quality has a significant positive effect on system trust and inter-member trust. Hussain et al. (2017) found that the source credibility of online word-of-mouth can play a key role in the information adoption by consumers through their perceived risk. Through an empirical analysis, Mutaz et al. (2015) pointed out that online word-of-mouth can affect consumers' trust and then their purchase decisions. This study believes that the UGC with high-quality can help consumers quickly understand whether the product meets their own needs, and the authenticity of UGC ensures the consistency of product usage experience and product publicity to a certain extent. Therefore, the UGC with higher authenticity is more likely to generate consumer' trust and then reduce their perceptions of risk caused by information adoption, and the following hypothesis is proposed.

H1: The content authenticity of UGC has a negative effect on perceived risk.

3.2. Content Interestingness and Perceived Risk

The interestingness of UGC is used to describe the vivid and interesting language style of UGC, and the pleasing form of presentation can make consumers feel relaxed and happy during the browsing process. In the e-commerce context, Simth et al. (2004) suggested that a pleasant shopping environment helps to reduce

consumers' perceived risk. Rodgers and Chen (2005) found that the interest of web content is one of the important factors to attract online users to visit, and regarded attractiveness, excitement and dynamic as the important characteristics of interest. Yu and Zou (2015) believed that in the process of consumers' information search, the interest of UGC is more important than other UGC characteristics, and the UGC with strong interest can significantly affect the purchase intention of tourism consumers. This study believes that the more interesting the UGC is, the more it can attract consumers to have deeper understandings of the product, which can strengthen their rational perception of the product, thus help to reduce consumers' perceived risk, and proposes the following hypothesis.

H2: The content interestingness of UGC has a negative effect on perceived risk.

3.3. Content Usefulness and Perceived Risk

The usefulness of UGC means that it can effectively convey brand personality and product characteristics, which can help consumers to enhance their product cognition or match their consumption needs, and has high reference value for consumers' purchase decision-making. In the case of information asymmetry, consumers always lack complete information about the products to be purchased, so they can only seek external clues to help accomplish the purchase decision in order to reduce the potential risk of purchase behavior (Dodds et al., 1991). Hussain et al. (2016) found that the more users know about the usefulness of information, the easier it is for

users to adopt relevant information and take it as an important reference for purchase decision-making. Riegner (2007) noted that UGC has become an important source of high-quality information and also an important means for consumers to obtain the information about product quality, which can not only improve consumers' cognition of products, but also significantly reduce consumers' uncertainty about product purchases. This study believes that the more useful the UGC is, the more it can meet consumers' needs in information collection and product cognition, and then reduce uncertainty in consumption decisions, and proposes the following hypothesis.

H3: The content usefulness of UGC has a negative effect on perceived risk.

3.4. Content Valence and Perceived Risk

Content valence is used to describe the positive or negative emotion and the tendency to recommend or not recommend towards the products evaluated by UGC, which reflect the overall attitude of content producers (Clemons et al., 2006). Efficient UGC often reflects the content producer's high level of satisfaction with the product quality (Senecal & Nantel, 2004). If consumers receive positive information related to products, they will have positive perceptions of the product quality, so as to reduce their risk perceptions of product purchases. Kim and Lennon (2013) pointed out that in the network environment with asymmetric information, in order to reduce the loss caused by asymmetric information, consumers will pay more attention to product reviews published by other consumers. Ho-Dac (2013) stated that the valence of product reviews affects consumers' emotion

and cognition of commodities, which has a significant impact on the sales of commodities. Accordingly, this study proposes the following hypothesis.

H4: The content valence of UGC has a negative effect on perceived risk.

## 3.5. Perceived Risk and Impulsive Consumption

Bauer (1960) argued that consumers have to take certain risks due to their limited information about products before making purchase decisions. Wood and Scheer (1996) considered perceived risk as a part of shopping cost and argued that perceived risk is an emotional attitude that can have an impact on consumers' behavioral intention. Liao et al. (2001) found that when consumers perceive higher risk, they will reduce their purchase intention and even give up purchase. In fact, the process of making purchase decisions is complex and risky, especially in the context of online shopping, consumers' consumption decisions have greater uncertainty. However, consumers tend to reduce the decision-making cost and hope to achieve higher decision-making accuracy at lower decision-making cost, and impulsive consumption is one way to effectively reduce the decision-making cost. In view of this, this study believes that consumers will form higher tendency of impulsive consumption in order to further reduce the decision-making cost on the premise of eliminating the uncertainty of consumption decision through the reduction of perceived risk and puts forward the following hypothesis.

H5: The perceived risk has a negative effect on impulsive consumption.

3.6. Moderating Effect of Tie Strength

As an important concept of social network, tie strength is used to describe the construction state of customer relationship, which reflects the ability of relationship to cope with internal and external challenges. Bone (1992) found that word-of-mouth is more likely to occur in strong connection as strong connection can help to obtain a better understanding of the needs, preferences, and evaluation criteria of word-of-mouth seekers, so as to effectively reduce the perceived risk of receivers. Bruyn and Lilien (2008) suggested that tie strength has a positive impact on the decision-making process of information receivers. If consumers' information sources have different relationship strengths, strong relationship sources can promote information exchange between each other, and this phenomenon is more likely to occur when the frequency of interaction between the two sides is high (Brown & Reingen, 1987). Rogers (1995) argued that strong relational sources can give people stronger perceived credibility and reliability than weak relational sources. Sweeney et al. (2008) pointed out that the strength of the relationship between transmitter and receiver of word-of-mouth would affect the acceptance of word-of-mouth. As strong relationship represents deep friendship and high level of trust between each other, consumers are more likely to accept the information from the strong relationship channel. Koo (2016) showed that the tie strength affects the credibility of information and further affects the purchase intention of consumers. Accordingly, this study proposes the following hypotheses.

H6a: Tie strength plays a moderating role between content authenticity and perceived risk.
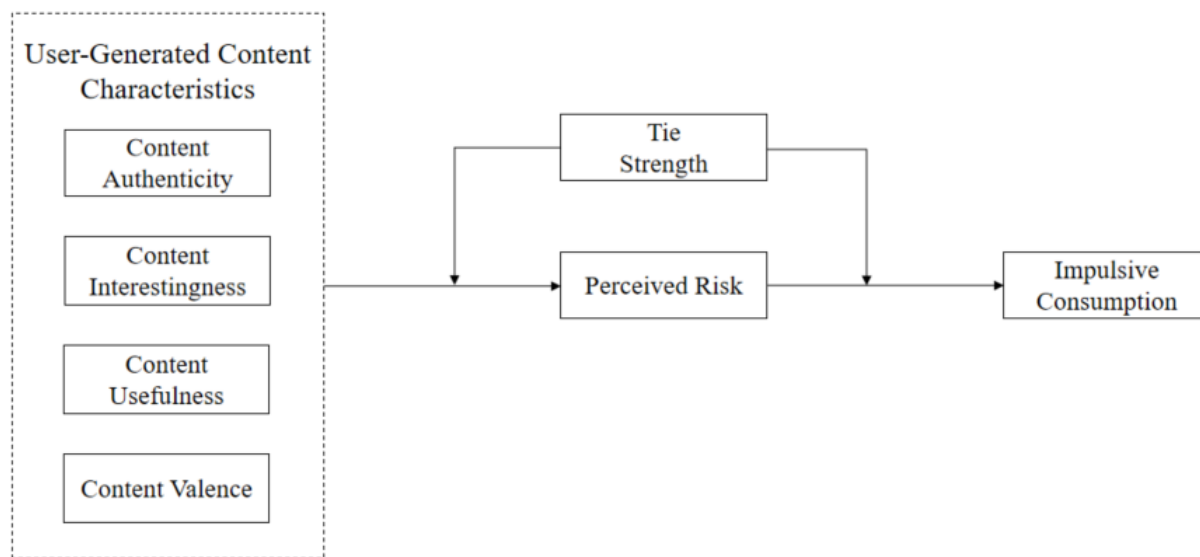
〈Figure 1〉 Research Model

H6b: Tie strength plays a moderating role between content interestingness and perceived risk.

H6c: Tie strength plays a moderating role between content usefulness and perceived risk.

H6d: Tie strength plays a moderating role between content valence and perceived risk.

H6e: Tie strength plays a moderating role between perceived risk and impulsive consumption.

From the perspective of the characteristics of UGC, this study constructed a research model of consumers' impulsive consumption in the context of social commerce, as shown in <Figure 1>.

4. Empirical Analysis

4.1. Data Collection

In this study, consumers who had experience of impulsive consumption through browsing UGC on the platform of "Little Red Book" were the research subjects, as "Little Red Book" is the largest social commerce platform in China. And the sample data were collected through an online questionnaire platform called questionnaire star from June 12 to July 10, 2022. Finally, 357 questionnaires were collected, of which 331 questionnaires were valid, with a valid questionnaire recovery rate of 92.7%. Meanwhile, *SPSS 21.0* and *SmartPLS 4.0* were used for statistical analysis in this study. The demographic statistics of the sample are presented in <Table 1>.

In terms of gender, the majority of respondents were female, accounting for 58.3%, and the reason for this is because "Little Red Book" was an information sharing platform for overseas purchasing based on beauty products at the beginning, it introduced community modules, such as clothing matching and consumer electronic products, which were attractive to male users in recent years. As a result, the number of female users on the platform is significantly more dominant. In terms

〈Table 1〉 Demographic Statistics

Characteristic	Description	Frequency	%
Gender	Male	138	41.7
	Female	193	58.3
Age	Under 18	69	20.8
	18 ～ 29	107	32.3
	30 ～ 39	92	27.8
	40 ～ 59	44	13.3
	Above 60	19	5.8
Education	Junior high school or below	34	10.3
	High school or technical secondary school	65	19.6
	Junior college or bachelor	192	58.0
	Postgraduate or above	40	12.1
Monthly Income	Less than 1000 Yuan	53	16.0
	1000 ～ 3000 Yuan	131	39.6
	3001 ～ 5000 Yuan	85	25.7
	5001 ～ 10000 Yuan	47	14.2
	More than 10000 Yuan	15	4.5

of age and education, 60.1% of respondents were aged from 18 to 39. The respondents with college degree or above accounted for 70.1%. In terms of monthly disposable income, 16.0% of the respondents were below 1000 yuan, 65.3% of the respondents were between 1000 and 5000 yuan, 14.2% of the respondents were between 5001 and 10000 yuan, and the respondents with monthly disposable income of more than 10000 yuan accounted for the least, only 4.5%.

4.2. Measurement Model

At present, Cronbach's α and combined reliability (CR) are widely used to verify the reliability of the measurement scale, and standardized factor loading and average extracted variance (AVE) are widely used to verify the aggregate validity of the measurement scale. Hair (2006) suggested that Cronbach's α ranging from 0.70 to 0.90 indicates that the scale has a high reliability. As shown in <Table 2>, the Cronbach's α of all variables were greater than 0.90, and CR of all variables were greater than 0.70, indicating that the measurement scale of this study had a good reliability. In addition, KMO and Bartlett-test-of-sphericity are important testing method to judge whether the sample are suitable for factor analysis. The KMO value of the sample was 0.906 with a significance level of 0.000, indicating that the sample of this study were suitable for factor analysis. The absolute value of the standardized factor loading for each item were greater than 0.70, and AVE were greater than 0.60, indicating that the measurement scale of this study had a good aggregate validity.

4.3. Discriminant Validity Analysis

In this study, the discriminant validity of the

〈Table 2〉 The Results of Reliability & Convergent Validity Analysis

Construct	Items	Standard estimate	Cronbach's α	CR	AVE
Content Authenticity	CA1	0.849	0.926	0.878	0.706
	CA2	0.832			
	CA3	0.840			
Content Interestingness	CI1	0.784	0.908	0.828	0.617
	CI2	0.797			
	CI3	0.775			
Content Usefulness	CU1	0.778	0.922	0.858	0.668
	CU2	0.839			
	CU3	0.834			
Content Valence	CV1	0.846	0.921	0.873	0.696
	CV2	0.853			
	CV3	0.803			
Tie Strength	TS1	0.815	0.901	0.874	0.698
	TS2	0.857			
	TS3	0.833			
Perceived Risk	PR1	−0.729	0.938	0.869	0.624
	PR2	−0.803			
	PR3	−0.806			
	PR4	−0.819			
Impulsive Consumption	IC1	0.808	0.904	0.850	0.655
	IC2	0.799			
	IC3	0.820			

〈Table 3〉 The Results of Discriminant Validity Analysis

	Mean	STDEV	CA	CI	CU	CV	TS	PR	IC
CA	3.593	0.848	0.840						
CI	3.541	0.855	0.574	0.785					
CU	3.711	0.805	0.504	0.533	0.817				
CV	3.700	0.793	0.454	0.485	0.510	0.834			
TS	3.347	0.989	0.440	0.547	0.397	0.413	0.835		
PR	2.342	0.786	−0.518	−0.567	−0.569	−0.570	−0.515	0.790	
IC	3.698	0.787	0.456	0.513	0.541	0.507	0.420	−0.600	0.809

* Correlation is significant at the 0.01 level (2-tailed)

measurement scale was verified by calculating the correlation coefficient and the square root of AVE for each variable. It is generally accepted that a measurement scale has a good discriminant validity if the correlation coefficient between two variables is less than the square root of AVE in the same column (Fornell & Larcker, 1981). According to <Table 3>, the correlation coefficients were smaller than the square root of AVE in the same

column, indicating that the measurement scale of this study had a good discriminant validity.
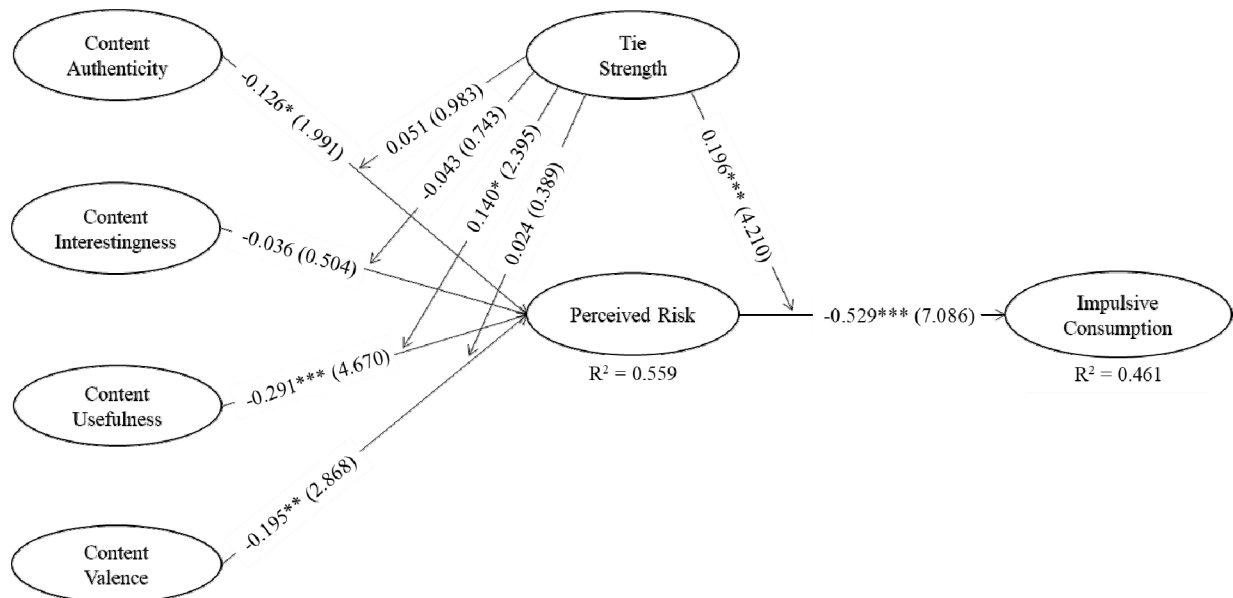
4.4. Structural Model

This study used 331 valid sample data to fit the research model and bootstrapping (subsamples=1000) algorithm through *SmartPLS 4.0* to test the significance of the path coefficient of the structural equation model.

The results are summarized in <Table 4>.

Bootstrapping aims to calculate the standard errors, t-values and p-values of the coefficient estimates by repeating random sampling to verify the statistical significance of the path in the structural equation model (Vinzi et al., 2010). As shown in <Table 4> and <Figure 2>, except for content interestingness, other characteristics of UGC have significant negative impact on perceived risk, thus hypotheses H1, H3 and H4 are accepted. Meanwhile,

〈Table 4〉 The Results of Hypothesis Test

Hypothesis	Relationship	Path coefficients	SD	t–value	p–value	Results
H1	CA → PR	−0.126	0.063	1.991	0.047	Accepted
H2	CI → PR	−0.036	0.072	0.504	0.614	Rejected
H3	CU → PR	−0.291	0.062	4.670	0.000	Accepted
H4	CV → PR	−0.195	0.068	2.868	0.004	Accepted
H5	PR → IC	−0.529	0.075	7.086	0.000	Accepted
H6a	TS*CA → PR	0.051	0.052	0.983	0.326	Rejected
H6b	TS*CI → PR	−0.043	0.058	0.743	0.458	Rejected
H6c	TS*CU → PR	0.140	0.058	2.395	0.017	Accepted
H6d	TS*CV → PR	0.024	0.062	0.389	0.698	Rejected
H6e	TS*PR → IC	0.196	0.047	4.210	0.000	Accepted

〈Figure 2〉 Path Coefficients and R^2

perceived risk has a significant negative impact on impulsive consumption, thus hypothesis H5 is accepted. In the moderating effect test of tie strength, tie strength plays a positive moderating role between content usefulness and perceived risk, as well as between perceived risk and impulsive consumption, thus hypotheses H6c and H6e are accepted. Apart from the above hypotheses, the other four hypotheses are not accepted.

5. Conclusion

5.1. Summary of Results

Based on the S-O-R model, this study explored the influence mechanism of the characteristics of UGC on consumers' impulsive consumption, and verified the relevant hypotheses through empirical analysis. First of all, regarding the effect of environmental stimuli on organism, the research results showed that all the characteristics of UGC, except content interestingness, have significant negative impact on consumers' perceived risk. In other words, the UGC with high quality can effectively reduce consumers' perception of potential risks in the consumption decision-making process. Meanwhile, content usefulness has the greatest influence, followed by content valence, and content authenticity has a relatively small influence. This study believes that in the context of social commerce, one of the main purposes for consumers to browse UGC spontaneously is to identify the goods that can better meet their own potential needs and has a clear task orientation. Consumers can identify, extract and process useful information in UGC

to provide reliable basis for consumption decisions, while content authenticity and content valence affect consumers' judgment of content usefulness to a certain extent. Although content interestingness can bring consumers a pleasant browsing experience, it cannot play a positive role in consumers' information processing, and thus cannot directly reduce consumers' perception of the uncertainty of consumption decision.

Secondly, regarding the effect of organism on response, this study found that consumers' perceived risk has a significant negative impact on consumers' impulsive consumption. In other words, the lower the perceived risk of consumers' decision-making, the more likely they are to produce impulsive consumption.

Finally, in terms of the moderating effect of tie strength, this study found that tie strength only played a positive moderating effect between content usefulness and perceived risk, while there was no significant moderating effect between all other characteristics of UGC and perceived risk. It is worth noting that taking the scandal of Weiya as a trigger, who was the top-ranked KOL on Taobao platform and faced a fine of 1.3 billion yuan for tax evasion, the problem of KOL's excessive consumption of fans on various platforms has gained wide attention from all walks of life. As a result, fans no longer blindly believe the product experience, product recommendation, product evaluation and other information contained in UGC released by KOL, and their consumption behavior has become more and more cautious. As the cost of information acquisition continues to decrease, fans begin to choose other ways to obtain supporting information about products to reduce the potential risks of product purchasing decisions. Accordingly, tie strength plays an

insignificant moderating role between the characteristics of UGC and perceived risk, except content usefulness. Meanwhile, the tie strength has a positive moderating effect on the relationship between perceived risk and impulsive consumption.

5.2. Implications and Discussions

5.2.1. Academic Implications

First of all, at present, there are very few empirical studies on the internal influencing mechanism of consumers' impulsive consumption based on the characteristics of UGC for social commerce. This study aimed to fill the knowledge gap in the research field of social commerce by exploring the internal influencing mechanism of UGC characteristics on consumers' impulsive consumption. Through the structural equation model, this study found that UGC characteristics had a 55.9% explanatory power on the variation of perceived risk, indicating that in the context of social commerce, UGC is indeed the main information source for consumers to make consumption decisions. Moreover, consumers tend to eliminate the uncertainty of consumption decisions by identifying, extracting and processing the useful information in UGC. Meanwhile, perceived risk had a 46.1% explanatory power on the variation of consumers' impulsive consumption, indicating that perceived risk, as one of the rational cognitions, is a powerful intermediary leading to consumers' impulsive consumption behavior in the context of social commerce, which further shows that consumers' real consumption decision-making behavior relies on bounded rationality between rationality and irrationality, and the degree of bounded rationality is

jointly influenced by consumers' emotion and cognition.

Secondly, tie strength played a positive moderating role between content usefulness and perceived risk. It is worth noting that this positive moderating effect does not simply enhance the influence of the pathway, but provides the possibility of influence substitution. In other words, when consumers' perception of the usefulness of UGC is low, the substitution effect of higher tie strength between consumers and content producers can still effectively reduce consumers' perception of risk in consumption decisions. However, when consumers' perception of the usefulness of UGC is high, even if the intensity of the relationship between consumers and content producers is low, the influence of content usefulness in perceived risk will not be weakened. At the same time, tie strength also played a positive moderating role between perceived risk and impulsive consumption, which is still a substitution effect in essence. In other words, when consumers' perception of risk is high, the substitution effect of higher tie strength between consumers and content producers can still make consumers have strong impulsive purchase intention, thus leading to impulsive consumption behavior. However, when consumers' perception of risk is low, even if the intensity of the relationship between consumers and content producers is low, the influence of perceived risk in consumers' impulsive consumption will not be weakened.

5.2.2. Practical Implications

The UGC characteristics of content authenticity, content usefulness and content valence can effectively reduce consumers' perception of potential risks in the process of purchasing decision-making, indicating that the

promotion of brands and products through KOL in community platforms is one of the effective ways for merchants to increase their revenue performance. Therefore, the managers of social commerce should pay more attention to strengthening word-of-mouth marketing, and strictly control varying quality of UGC in the current platform by setting up a good supervision mechanism. At the same time, through building platform rules with clear rewards and penalties, the KOL's merchandising behavior can be morally and legally constrained, which is helpful for social commerce platforms to build a complete commercial closed-loop centered on word-of-mouth marketing. On the other hand, the content interestingness of UGC has no significant effect on consumers' risk perception, indicating that KOL does not need to spend too much time on the entertainment of content form and language wording, but should spend more time on analyzing and understanding fans' psychology, and then create content according to their needs to ensure that consumers can obtain enough useful information in the process of purchase decision-making. Meanwhile, KOL should maintain an objective and fair stance on merchant's products in the process of content creation, and reduce the time cost for consumers to obtain information about the overall attitude and recommendation intention of the products from the content, so as to reduce the risks perceived by consumers in the process of making purchase decisions and promote consumers to make purchase behaviors.

5.3. Limitations and Future Research

Although this study has many contributions, it also has some limitations. First of all, by combing relevant references, this study divided the characteristics of UGC into four dimensions: content authenticity, content interestingness, content usefulness and content valence. However, whether the aforesaid four dimensions can fully reflect the characteristics of UGC remains to be further discussed and confirmed. Secondly, based on S-O-R model, this study verified that perceived risk is a powerful mediator between the characteristics of UGC and consumers' impulsive consumption, but the absence of other potential mediators, such as perceived value and perceived pleasure, makes it difficult for this study to provide a more comprehensive reflection of the internal influencing mechanism of consumers' impulsive consumption in the context of social commerce. Follow-up studies should address these limitations with additional validation.

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〈Appendix〉 Questionnaire items

Content Authenticity
The usage experience of the product in the UGC is basically consistent with the actual situation.
The product information provided in the UGC is accurate and credible.
The evaluation of the product in the UGC is genuine and objective.
Content Interestingness
The information provided in the UGC is vivid and interesting.
The information provided in the UGC is attractive.
Reading the UGC makes me feel good.
Content Usefulness
The product information shared in the UGC is useful.
The UGC helps me to understand the product better.
The UGC contributes to making my purchase decision.
Content Valence
In general, the number of positive reviews for the product in the UGC is high.
In general, most of the product reviews in the UGC are positive.
In general, most people recommend purchasing the product in the UGC.
Tie Strength
I know the producer of the UGC very well.
I interact a lot with the producer of the UGC.
I will respond positively to other UGCs created by the same producer.
Perceived Risk
I am worried about the product purchased directly in the UGC doesn't match the description of the UGC.
I am worried about the product purchased directly in the UGC is not the original product.
I am worried about the product purchased directly in the UGC is more expensive than purchasing it elsewhere.
I am worried about the product purchased directly in the UGC can't get good after-sales service.
Impulsive Consumption
I have an intense desire to get the product recommended in the UGC.
I will purchase the product directly in the UGC without considering whether I need it indeed.
The product I want to purchase in the UGC is not the product I have planned to purchase.

저 자 소 개

라 위 의 (Weiyi Luo)

현재 중국 호남인문과학기술대학교에 재직 중이다. 동국대학교 일반대학원 국제비즈니스 협동과정에서 석사 및 박사학위를 취득하였다. 정보시스템연구, 인터넷전자상거래연구, Information Systems Review 등에 논문을 게재하였다. 주요 연구 분야는 전자상거래, 소비자 행동분석 등이다.

이 영 찬 (Young-Chan Lee)

현재 동국대학교 WISE캠퍼스 상경대학 경영학부 교수로 재직 중이다. 서강대학교에서 경영학사, 동 대학원에서 경영학 석사 및 박사학위를 취득하였다. 주요 관심분야는 데이터 마이닝, 다기준의사결정, 기업성과측정, 지식경영, 시스템 다이내믹스 등이다. 지금까지 International Journal of Bank Marketing, Human Factors and Ergonomics in Manufacturing & Service Industries, Information Systems Management 등 주요 학술지에 논문을 발표하였다.

〈 국문초록 〉

사용자 제작 콘텐츠 특성이 충동구매에 미치는 영향: 유대강도의 조절효과를 중심으로

라위의[*], 이영찬[**]

　최근 몇 년 동안 전자상거래와 소셜미디어의 지속적인 통합 발전과 함께 소셜커머스는 신뢰 중심의 사회적 거래 방식으로서 전자상거래의 중요한 형태로 자리를 잡았다. 온라인 커뮤니티의 긍정적인 측면과 풍부한 사용자 제작 콘텐츠 (UGC)로 인해 커뮤니티에 참여하는 사용자와 기업이 점점 더 증가하고 있는 추세이다. 이러한 상황에서 정보접근 비용은 지속적으로 감소하고 있고 구매 프로세스는 보다 간결하고 효율적으로 개선되고 있는 반면에 소비자의 충동구매 가능성을 크게 높이는 결과를 가져오게 된다. 그럼에도 불구하고 아직까지 소셜커머스에서 UGC의 특성을 기반으로 한 소비자 충동구매의 메커니즘에 대한 실증적 연구는 거의 없다. 본 연구는 자극-유기체-반응 (S-O-R) 모델을 이용하여 소셜커머스에서 UGC 특성이 소비자 충동구매에 미치는 영향을 분석하는 연구모형을 구축하였고, 이 과정에서 지각된 위험을 매개변수로, 유대강도를 조절변수로 각각 설정하였다. 실증분석 결과 콘텐츠 진정성, 콘텐츠 유용성, 그리고 콘텐츠 가치는 구매의사결정 과정에서 소비자의 지각된 위험에 유의한 영향을 미치고, 소비자의 지각된 위험은 충동구매에 유의한 영향을 미치는 것으로 나타났다. 한편, UGC 생산자와 이용자 간의 유대강도는 콘텐츠 유용성과 지각된 위험의 관계 및 지각된 위험과 충동구매 관계를 조절하는 것으로 나타났다. 이러한 연구결과는 소셜커머스 사업자들로 하여금 고객의 소비행동에 대한 심층적인 이해를 도울 뿐만 아니라 소비자 충동구매가 왜 일어나는지에 대한 메커니즘을 학술적 관점에서 분석할 수 있는 이론적 틀을 제공하였다는 점에서 의의가 있다.

주제어: 사용자 제작 콘텐츠, 지각된 위험, 유대강도, 충동구매, 자극-유기체-반응 모형

　* 중국 호남인문과학기술대학교 경영대학
** 동국대학교 WISE캠퍼스 상경대학 경영학부