

A STUDY OF THE INFLUENCE OF CONSUMER'S PRE-PURCHASE COGNITIVE DISSONANCE ON PURCHASE INTENTION IN SOCIAL E-COMMERCE

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Abstract: Based on Theory of Reasoned Action, Theory of Planned Behavior and Theory of Initial Trust, from the perspective of consumer perception, this thesis studies the influencing factors of consumers' purchase intention on social e-commerce platforms. The influencing factors of purchase intention of users on social e-commerce platforms are analyzed, and the influencing mechanism of different factors on purchase intention is discussed. Using correlation analysis, regression analysis and other methods to test the relevant hypothesis, find out the key factors affecting the purchase intention. The research conclusions are mainly as follows: First, in social e-commerce, consumers' cognitive dissonance has a significant negative impact on their purchase intention. Second, in social e-commerce, seller reputation has a significant positive impact on purchase intention. Third, in social e-commerce, user-generated content has a significant positive impact on purchase intention. Fourth, in social e-commerce, seller reputation has a significant negative moderating effect on the relationship between cognitive dissonance and purchase intention. Fifth, in social e-commerce, user-generated content has a significant negative moderating effect on the relationship between cognitive dissonance and purchase intention. Based on the empirical analysis results, management suggestions on promoting consumers' purchase intention on social e-commerce platforms are put forward from two aspects of seller reputation and user-generated content. Measures that can be taken include enhancing the reputation of social e-commerce sellers through platform governance activities and building intangible assets of enterprises; Strengthen enterprise control over user generated content and improve the quality of user generated content.

Keywords: Purchase Intention, Cognitive Dissonance, Seller Reputation, User-generated Content

Introduction

In the past ten years, among many e-commerce companies, social media + information content e-commerce has become the most representative category. With the popularization of technology products and the improvement of consumer demand, social e-commerce has become the main purchase

channel for a large number of consumers. Our country's social media e-commerce market has received a large amount of capital investment in recent years, and the total number of market transactions has continued to rise. In 2021, the scale of social media e-commerce transactions in our country reached 2.37857 trillion yuan, an increase of 15.1% year-on-year. With the continuous in-depth integration of social media traffic and e-commerce transactions, it is estimated that the scale of social media e-commerce industry in our country is expected to exceed 3.41658 trillion yuan in 2023. The above data shows that social e-commerce is in a stage of rapid development and occupies a core position in major types of e-commerce platforms. In the decision-making stage before the purchase of social e-commerce, due to the special attribute of separation of people and goods, it is easy to induce consumers to have cognitive dissonance, and this cognitive dissonance is universal.

According to media Consulting's 2022 market and consumer research report on the social retail industry in our country, nearly one-third of customers have the intention to consume goods on social e-commerce platforms, but in the end there is no consumption behavior. This kind of behavior that wants to buy but does not buy is essentially the adjustment of the consumption intention formed by the buyer's cognitive dissonance. Although theoretical research on planned behavior points out that attitudes can predict purchase intentions, in practice, buyers often experience cognitive dissonance, which triggers inconsistencies between attitudes and behaviors, affecting purchase intentions. Studies have shown that consumers often take measures to reduce the sense of dissonance after developing cognitive dissonance. In social e-commerce, consumers tend to use seller reputation and user-generated content to enhance initial trust with each other and reduce the negative impact of cognitive dissonance on purchase intentions. There is a large amount of user-generated content in e-commerce with social attributes, and consumers can effectively communicate with other users on the platform when making purchases. Unlike previous online shopping, buyers on social e-commerce platforms can learn more diverse and comprehensive product information when making choices. Pre-purchasers interact with each other, obtain suggestions from the purchasers, and learn about the product from many aspects.

Compared with sellers in traditional e-commerce platforms, social e-commerce platforms can provide a model to increase information display through social media, so that customers do not only stay on the page product details provided by the company when purchasing. However, under the conditions of open social networks, the form of product sales continues to evolve, the types of shopping malls increase a lot, pre-purchasers frequently conduct decision-making analysis, and the scope of decision-making expands, and the complexity of decision-making continues to increase. This makes whether the traditional theoretical model of consumer decision-making process is applicable in this decision-making environment a key point in the practice of enterprise marketing management. At the same time, the increase in the number of social media users has led to an explosive growth in information content, and users are faced with the problem of how to sift through valuable information

and trust others.

Understanding and predicting consumer purchase intentions remains a top priority in industry practice. The urgent need to understand the background of customers has evolved into a large number of professional market survey companies, and FMCG companies have also cooperated with such business survey companies, hoping to grasp the preferences of consumer groups in an all-round way, so as to arrange and determine brand communication and sales channels. Investigate user requests to assist enterprises in locating target customer groups; grasp the channels through which customers obtain product information and purchase goods, help enterprises to target resources and quickly open the sales market; grasp the post-purchase satisfaction of consumer groups, and help enterprises think and replan marketing plans. Especially in recent years, the Internet has entered the era of social new media, more and more consumers understand products, collect information, purchase and share after purchase through the social attributes of e-commerce platforms, how to identify target customer groups through the social attributes of the platform, and efficiently use social media resources such as user-generated content to understand the information categories searched by consumer groups in detail, grasp consumers' purchase intentions and maintain a good seller reputation are new challenges for corporate marketing departments and market survey companies.

Research Objective (s)

1. To explore the impact of cognitive dissonance on consumer purchase intention.
2. To analyze the impact of seller reputation on consumer purchase intention.
3. To examine the impact of user-generated content on consumers' purchase intentions.
4. To investigate the moderating role of seller reputation in the relationship between cognitive dissonance and purchase intention.
5. To explore the moderating role of user-generated content in the relationship between cognitive dissonance and purchase intention.

Literature Review

Theory of Reasoned Action

Rational behavior theory is an important theory to explain and predict consumer behavior and willingness. It was first proposed by American scholars Fishbein and Ajzen in 1975. This view holds that self-willingness to act can be the main indicator for predicting an individual's true behavior. The influencing factors of this indicator involve two aspects: the individual's attitude towards behavior; and social norms. Behavioral attitudes refer to the individual's good or bad evaluation of a certain behavior. This evaluation is mainly limited by the individual's confidence in the likely outcome of the behavior and the evaluation of the final result. Social norms mainly refer to one's own perception that the vast

majority of important people think they should or should not perform this behavior. Some of the research is based on the theory of rational behavior, and their view is that an individual's willingness to act is regarded as an important factor in determining whether the behavior can eventually occur. Personal behavior attitudes and social norms are the two dominant factors of individual behavior willingness, and the two are also positively correlated with it. The study of rational behavior theory implies a very important assumption, that is, it has the ability to fully control behavioral performance. In an organizational environment, individual behavior is limited by various conditions, and sometimes it is impossible to make decisions completely according to autonomy. For example, when purchasing a certain product, due to information asymmetry, the buyer may not be able to form a clear purchase intention, which may lead to restrictions on shopping behavior. Therefore, when predictive analysis interprets users' consumption behavior, it is also necessary to consider the impact of other factors on behavior.

Theory of Planned Behavior

Perceived behavior control is a variable added by planned behavior theory on the basis of the original rational behavior theory. Its purpose is to expose the three major factors that affect behavioral intention, namely attitude, social norms and perceived behavior control. As the foundation of planned behavior theory, expected value theory observes and explains individual behavior from the perspective of signal analysis and processing. Rational behavior theory has an underlying assumption that people can fully control their behavior, but in fact, objective factors also affect one's control over self-behavior performance. Therefore, using the concept of rational behavior alone to interpret individual behavior has the probability of reducing explanatory power. Attitude refers to an individual's positive or negative evaluation of the outcome of the behavior, which is mainly influenced by the overall interests and final results of the behavior. The expectations of important people on individual behavior constitute a factor of social norms and are also influenced by personal beliefs and motivations.

Perceived behavior control refers to the perceived level of individual control over their behavior, and the level of individual control over behavior and the convenience of behavior are the main influencing factors of this concept. The theory of planned behavior also shows that behavioral intention is a key factor in determining individual behavior. In the theoretical model of planned behavior, there are deep connections between various factors. Perceived behavior control is added to the theory of planned behavior as a control variable to better explain the impact of external factors on individual behavior, providing a more comprehensive understanding of the factors affecting behavioral intention, which is the difference from rational behavior theory. Perceived behavior control refers to the individual's perception of resource availability and the probability of success in taking a particular behavior. When individuals perceive abundant resources and have a high success rate, their behavioral intentions will become stronger, and vice versa. For the study of more complex individual behaviors,

the theory of planned behavior provides a theoretical basis and an analytical framework.

At the same time, the theory of planned behavior has also been widely used in consumer attitude changes, new product launches, and other fields. The views of planned behavior theory can be summarized as follows: In addition to behavioral intentions, individuals' abilities, opportunities, and resources also affect their actual behavior. Perceptual behavior control can present the reality of social individuals to a certain extent and can be used as a surrogate variable to predict individual behavior. The three key elements that directly affect individual behavioral intentions are attitudes, social norms, and perceived behavior control. The more positive a person's attitude is, the more recognition they will get from the point person's mouth, the stronger the behavioral control these people will feel, and the stronger their behavioral intentions will be.

In order to conduct a comprehensive exploration of the formation of behavioral willingness, the past behavior of individuals has been studied and confirmed by some scholars as an influencing factor. Therefore, in the theoretical model of planned behavior, scholars introduce past behavior as an indicator to predict future behavior, in order to make the model more accurate and reliable. Ajzen (1991) also added past behavior as a core indicator to the scientific model of planned behavior. However, the theory of planned behavior can only explain some behaviors in society and is not universal, so there are certain deficiencies. It is necessary to explore other factors to complete the postscript of the theory. Some scholars have found that in some special circumstances, selecting one or two of these three variables can complete the prediction of behavioral willingness, and its reliability will not decrease due to the reduction of variables.

Rhodes and Courneya (2011) also pointed out that in the actual purchase situation of consumers, some unexplained behavioral variation will occur. This situation is often treated as a random error, but this will lead to some other unmeasurable factors in the experiment being ignored. Therefore, such situations should be properly handled in the experiment, analyzed and measured as much as possible, and the theory should be continuously improved. Based on the extensive absorption and reference of other scholars' research results, Ajzen and his collaborators have repeatedly revised and improved the theoretical model of planned behavior to better explain the formation and change of individual behavior. In order to better achieve the purpose of the study, the researchers not only studied and observed the three variables of behavioral will, but also added the concept of cognitive basic beliefs to their observation objects, which are usually interpreted as: behavioral beliefs, normative beliefs, and control beliefs.

On this basis, scholars have put forward a variety of new ideas, which have continuously improved the scientific of the theoretical model of planned behavior and strengthened the rigor of the experiment. In addition, Ajzen further explored the relationship between will and behavior, pointing out that the relationship between the two is not always static. Quantitative studies of these people have

proved that there is still a certain distance between will and behavior, and there may be three crucial concepts among them: implementation will, commitment, and consciousness. Practicing will can form a commitment that prompts an individual to take a certain action consciously. This commitment can enhance an individual's sense of responsibility and behavioral stability, making it more likely to be put into practice.

Initial Trust Theory

Mayer (1995) was the first to propose the original trust theory, which defines trust as a behavior based on one person's belief in another person's characteristics and willingness to rely on them to complete important and specific activities. Based on Mayer's research, McKnight and Cummings (1998) extended the original trust model. In their research, it was found that consumers' initial trust formation is influenced by many factors, among which the dominant factors are trust tendency, trust in reputable information, and the process of understanding a business's website. They also divided initial trust into beliefs and motivations, and trust beliefs include benevolence, competence, integrity, and predictability. McKnight and Choudhury (2002) added that trust is an important prerequisite for consumers' willingness to transact online with unknown suppliers. This trust can help consumers overcome perceived risks and hesitation about a company's website. Therefore, establishing initial trust with consumers is an important strategic goal for businesses. Kim (2008) argued that when consumers' trust in a certain merchant increase, this positive emotion directly affects their purchase intention. Trust can influence online purchase decisions in two ways. First, trust can mediate the impact of risk on consumers' purchase intention in situations where consumers have to take risks but cannot fully control the outcome. As trust increases, consumers may feel less risk compared to when trust does not exist. Secondly, consumers' willingness to transact with online providers is directly related to their trust and beliefs.

Cognitive Dissonance

As early as 1956, research in the field of marketing began to pay attention to the phenomenon of consumer psychological dissonance. When faced with multiple goods to choose from, Brehm (1956) proposed that consumers may feel dissonant because they need to make decisions between multiple options. In order to reduce the sense of dissonance, consumers will take many actions to adjust, the most typical of which is to strengthen the value perception of the purchased goods and reduce the value perception of the alternative goods. This kind of behavior can help consumers reduce the sense of cognitive dissonance and make choices more easily and satisfactorily. Later, the theory of cognitive dissonance was widely discussed and applied in psychology. This theory was first proposed by Leon Festinger in 1957. Its core idea is that when individuals recognize that their attitudes or behaviors are inconsistent, they will produce uncomfortable emotions.

To alleviate this emotion, individuals try to adjust their own attitudes or behaviors to achieve

consistency. Cognitive dissonance theory has a wide range of applications, and it has been used as the theoretical basis for research in many fields such as education, psychology, management, information science, and so on, and made their own understandings. In the field of management research, scholars define cognitive dissonance as a sense of falling from expectations and focus on reviewing various applications of cognitive dissonance theory, emphasizing related concepts, dissonance scenarios, and research results. In the field of marketing, Lin et al. (2018) defined cognitive dissonance as the sense of actually feeling the gap after a product is purchased, which is often used to study consumer post-purchase dissonance and service quality perception. The research theme of post-purchase dissonance often refers to consumer return behavior. In terms of organizational change management, Hinojosa et al. (2020) define cognitive dissonance as resistance, which can be used to explain employee attitudes and behaviors towards organizational change.

Cognitive Affective Systems Theory

Research on cognitive affective system theory mainly focuses on medicine, psychology, education management and other fields, and has been introduced into the study of user information behavior in recent years. Cognitive affective system theory was first proposed by Mischel in 1973 to make up for the shortcomings of trait research. In 1995, Mischel and Shoda pointed out that cognitive affective system theory can predict the generation of individual behavior from the cognitive-affective level. When external stimuli activate individual cognitive or affective units, they will cause individual cognitive or affective responses, thereby affecting individual behavior. These two units also constitute an interactive system. Individuals process information from external situations to generate internal cognition. This cognitive stimulus then awakens individual emotions, and finally prompts individual behavior. The activation of one unit of the individual will awaken another unit, thereby affecting individual behavior. Therefore, based on the theory of cognitive-affective systems, a mechanism model of consumer purchase intention in the context of E-commerce LIVE can be constructed from the perspective of cognition-emotion.

Seller Reputation

The concept of reputation originated from the implicit incentive mechanism in economics, whose purpose is to encourage agents to show enthusiasm. If agents can operate with integrity, they will form a good reputation in the consumer market. A good reputation will bring more opportunities and the possibility of higher price premiums to enterprises. Although scholars have conducted a lot of research on corporate reputation, a clear and common definition has not yet been formed. Therefore, scholars have put forward their own views from different research perspectives to explain the meaning of corporate reputation. Weigelt and Camerer (1988) pointed out that corporate reputation usually refers to a series of attributes that are directly related to the company's business conduct in the past.

Forburn & Shanley (1990) stated that corporate reputation is the customer's awareness of the

corresponding status information of the company in the industry. Wartick (1992) stated that corporate reputation usually refers to the company's stakeholders perceived full satisfaction of the company's overall needs and expectations of all stakeholders. Herbig & Milewicz (1995) stated that corporate reputation is the overall view of different stakeholders of the company on the company's past behavior. Based on the research of past scholars, Fombrun (1995) gave his own definition, arguing that corporate reputation is the attractiveness that consumers perceive when comparing other competitive companies based on the company's past behavior and future expectations. This definition has been agreed by many scholars after it was proposed. Schwaiger (2004), based on previous scholars' research, proposed that corporate reputation has two dimensions: cognitive and emotional. The rapid development of social e-commerce platforms has led scholars to focus on the reputation of online enterprises. Considering the characteristics of social e-commerce reputation, research and analysis should be analyzed from two levels: collective reputation and individual reputation.

For social e-commerce reputation, Wang & Zhang (2017) put forward four aspects of social e-commerce reputation. Wang & Song (2021) pointed out that platform e-commerce reputation is dual, and its composition includes the overall reputation of the platform and the reputation of the seller group. Zhang & Wang (2022) believed that platform e-commerce reputation is the overall feeling and evaluation of consumers for shopping on platform e-commerce. Wang et al. (2022) followed the views and divide the reputation of the seller group into product reputation and store reputation. This paper adopts the definition of reputation by Zhang & Wang (2022), and the overall reputation of the platform and the reputation of the seller group together form the reputation of social e-commerce.

User-generated Content

In 2004, the Internet launched Web 2.0. Unlike the Web 1.0 era, Web 2.0 emphasizes people-centered and gives users the opportunity to create information in this environment. The flow of information is no longer one-way, but evolved into a two-way transfer between Internet-based users, and the concept of user-generated content was born in this link. In 2006, the concept of user-generated content began to enter the field of vision of the academic community, and its value and impact in the development of the Internet attracted widespread attention from scholars. With the increase of academic attention, the controversy over user-generated content has also increased, and the academic community has not been able to form a unified definition of user-generated content. In the study of Shim and Lee (2009), the focus was placed on the creators of user-generated content. They make it clear that the producers of user-generated content should be the general public that exists on the Internet, and the content produced by authoritative managers cannot be classified. Hsu (2020) believes that the focus of user-generated content is self-distribution and impact on other users. Chinchanchokchai et al. (2020) found that non-ordinary user-generated content can cause consumers to shy away.

In the study of Zhao et al. (2012), the scope of user-generated content is very wide, and it can

refer to any form of original content such as graphics, audio & video. These contents are organized and created on the Internet and are also published on the Internet. Based on the perspective of content producers, the research of scholars such as Liang (2015) shows that the process of user-generated content refers to the processing of original information using their own smart devices, and then publishing it on the Internet for other users on the same platform to watch, communicate, and share. Gao (2019) 's definition of user-generated content emphasizes that they are non-professional individuals and groups. They will share content on various Internet platforms, from which users in the platform can obtain useful information for themselves. Zhu et al. (2023) defined user-generated content as user-made content, which consumers can browse through the platform.

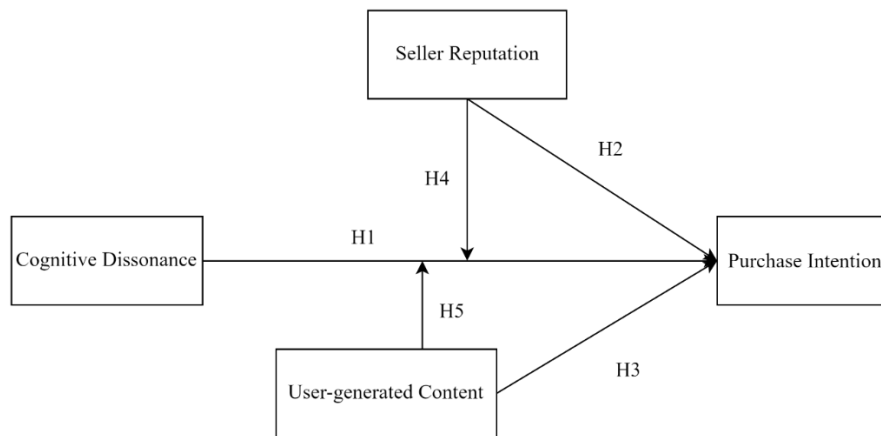
Purchase Intention

Consumer purchase intention refers to the subjective idea that consumers are willing to buy a certain product, and it can also be understood as the possibility of consumers making purchase decisions in the future. At present, some studies have verified the relationship between consumer purchase intention and purchase decision and concluded that there is a strong correlation between consumer purchase intention and purchase decision. Good quality and word-of-mouth, as important factors affecting consumer purchase intention, play a great role in stimulating purchase decision. In the field of mobile e-commerce, consumer purchase intention is interpreted as online purchase desire in combination with specific situations. Zubcsek et al. (2017) believe that consumer behavior patterns need to be paid attention to by scholars, which can reflect consumer preference for goods and take targeted methods to stimulate purchase desire.

In the social context, Huang et al. (2020) defined a consumer's willingness to buy as a probability, which describes the likelihood that a user will buy a product or service in this environment. When consumers decide whether to buy a certain product or service, they compare objective factors such as price, quality, and functionality with subjective psychological expectations to determine whether they can make a final consumption decision. Users in social e-commerce are no longer just simplistic search-based consumer shopping. In addition to viewing user-generated content, communicating with others online multiple times and in a friendly manner in the APP can enhance users' desire for guided impulsive consumer shopping. Social commerce platforms are rich in user-generated content, including many reference product descriptions and new media marketing messages, all of which continue to influence users' willingness to consume.

Conceptual Framework

From the perspective of internal and external management of enterprises, this study constructs a theoretical model in the context of social e-commerce.



Picture 1: Conceptual Framework

Hypotheses

H1: Cognitive dissonance has a significant negative impact on purchase intention.

H2: Seller reputation has a significant positive impact on purchase intention.

H3: User-generated content has a significant positive impact on purchase intentions.

H4: Seller reputation has a significant negative moderating effect on the relationship between cognitive dissonance and purchase intention.

H5: User-generated content has a significant negative moderating effect on the relationship between cognitive dissonance and purchase intention.

Methodology

This study used the quantitative research methods to deeply explore the social e-commerce transaction situation, and the survey objects are clearly consumers who have had social e-commerce shopping experience. The survey area is set in Jiangsu, Zhejiang and Shanghai, which has rapid economic development and developed transportation. People living in this area have rich experience in social e-commerce shopping, which is representative to a certain extent. This study collected 305 valid questionnaires by distributing questionnaires. Among them, 45 were invalid, and the final valid questionnaire was 260. SPSS was used for data analytics.

Results

The study found that the overall Cronbach coefficient of the cognitive dissonance measure was 0.872, indicating that its overall reliability level reached a high level, exceeding the standard value of 0.7. The overall Cronbach coefficient of the seller reputation measure was 0.822, exceeding the standard value of 0.7. The overall Cronbach coefficient of the user-generated content measure was 0.936, exceeding the standard value of 0.7. The overall Cronbach coefficient of the purchase intention measure

was 0.793, exceeding the standard value of 0.7. The overall Cronbach coefficient was 0.750, exceeding the standard value of 0.7. Therefore, this study can conclude that all the measures have high reliability and can be used to make effective measurements of the respondents.

Table 1: Results of Reliability Analysis for Each Variable

Variable	Number of questions	Cronbach 's α
Cognitive Dissonance	5	0.872
Seller Reputation	3	0.822
User-generated Content	9	0.936
Purchase Intention	3	0.793

From the data in Table 1, it can be found that the Kaiser-Meyer-Olkin (KMO) value of the Cognitive Dissonance Scale is 0.874, which is greater than 0.80, indicating that the characteristics of the sample are sufficiently relevant for factor analysis. In addition, the Bartlett spherical test found that the significance of the scale was 0.000, which was less than the standard value of 0.05. This data indicates that the Cognitive Dissonance Scale passed the test and supports the use of factor analysis for the next test.

Table 2: Cognitive Dissonance KMO and Bartlett's Test^a

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.874
Bartlett's Test of Sphericity	Approx. Chi-Square	581.069
	df	10
	Sig.	0.000

According to the results of data analytics, the KMO value of the seller reputation scale is 0.718, greater than 0.7. After the Bartlett spherical test, the seller reputation is 0.000, less than 0.05, indicating that the scale has credibility and is suitable for factor analysis for the next step of analysis.

Table 3: Seller Reputation KMO and Bartlett's Test^a

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.718
Bartlett's Test of Sphericity	Approx. Chi-Square	276.869
	df	3
	Sig.	0.000

As shown in Table 4 below. Relying on the statistical analysis results of the data, the following experimental conclusions are obtained: the KMO value of the user-generated content rating scale is 0.960, which has exceeded the reference value of 0.7; and, the Bartlett spherical test significance level of the user-generated content rating scale is 0.000, which is lower than 0.05, which proves that the rating scale passed the Bartlett spherical test smoothly. Relying on the comprehensive analysis of the KMO

value and the significance level of the Bartlett spherical test, the user-generated content rating scale is suitable for factor analysis.

Table 4: User-generated Content KMO and Bartlett's Test^a

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.960
Bartlett's Test of Sphericity	Approx. Chi-Square	1538.070
	df	36
	Sig.	0.000

As shown in Table 5 below. Relying on the statistical analysis results of the data, the following experimental conclusions are obtained: the KMO value of the purchase intention rating scale is 0.709, which has exceeded the reference value of 0.7; and, the Bartlett spherical test significance level of the purchase intention rating scale in Chapter 5 data analytics and hypothesis test 37 is 0.000, which is lower than 0.05, which proves that the rating scale successfully passed the Bartlett spherical test. Relying on the comprehensive analysis of the KMO value and the significance level of the Bartlett spherical test, the purchase intention rating scale is suitable for factor analysis.

Table 5: Purchase Intention KMO and Bartlett's Test^a

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.709
Bartlett's Test of Sphericity	Approx. Chi-Square	231.311
	df	3
	Sig.	0.000

In this paper, the CFA label variable method is used to test the common method deviation of the questionnaire, and all the measurement items (that is, the measurement scale items corresponding to all factors) are placed in one factor, and then analyzed. From Table 6, it can be seen that CMIN/DF = 3.958, which is greater than the judgment standard value 3; RMSEA = 0.106, which is greater than the judgment standard value 0.10; GFI value is lower than the judgment standard value 0.9, indicating that the scale data of this study cannot be focused into one factor. The results show that there is no serious common method deviation problem in the empirical data of this paper, and hypothesis testing can be carried out.

Table 6: Common method deviation test results

Fit index	CMIN	CMIN/DF	GFI	RMSEA	NFI	IFI	TLI	CFI
Test result data	672.863	3.958	0.842	0.106	0.960	1.002	1.002	1.002

In this study, Person correlation coefficient analysis was used to explore the correlation between

cognitive dissonance, seller reputation, user-generated content, and purchase intention. The analysis results showed that the data in Table 7 showed a significant negative correlation between cognitive dissonance and purchase intention ($r = -0.839$), a significant positive correlation between seller reputation and purchase intention ($r = 0.820$), and a significant positive correlation between user-generated content and purchase intention ($r = 0.890$). In addition, at the significance level of 0.01, the values of the correlation coefficients were statistically significant. In this study, the above results can be obtained by using Person correlation coefficient analysis to test the correlation of sample data.

Table 7: Correlation among various variables

	Cognitive Dissonance	Seller Reputation	User-generated Content	Purchase Intention
Cognitive Dissonance	1			
Seller Reputation	-.821**	1		
User-generated Content	-.897**	.877**	1	
Purchase Intention	-.839**	.820**	.890**	1

In the regression analysis of this study, cognitive dissonance was used as the explanatory variable, and purchasing intention was used as the explained variable. The regression analysis was carried out to explore the causal relationship and mechanism between the variables. The adjusted R-square was 0.703, $F = 612.870$, and the significance level was 0.000, less than 0.05, which reached a significant level. The data showed that the regression equation was statistically significant, and cognitive dissonance could explain 70.3% of the change in purchasing intention.

The absolute value of the normalized coefficient of cognitive dissonance is 0.839, which is greater than 0. The t-value of the significance test of the independent variable regression coefficient is -24.756, and the significance value is 0.000, which reaches a significant level. From the normalized regression coefficient being negative, it can be seen that cognitive dissonance has a significant negative impact on purchase intention. Hypothesis H1: "Cognitive dissonance has a significant negative impact on purchase intention" holds.

Using seller reputation as the explanatory variable and purchasing intention as the explained variable, regression analysis was carried out to explore the causal relationship and action mechanism between the variables. The adjusted R-side was 0.672, $F = 531.301$, and the significance level was 0.000, which was less than 0.05, reaching a significant level. The data showed that the regression equation was statistically significant, and seller reputation could explain 67.2% of the change in purchasing intention.

The absolute value of the normalized coefficient of seller reputation is 0.820, which is greater than 0. The t-value of the significance test of the independent variable regression coefficient is 23.050, and the significance value is 0.000, which reaches a significant level. From the positive number of the

normalized regression coefficient, it can be seen that seller reputation has a significant positive impact on purchase intention. Suppose H2: "Seller reputation has a significant positive impact on purchase intention" holds.

Using user-generated content as the explanatory variable and purchase intention as the explained variable, regression analysis was carried out to explore the causal relationship and mechanism of action between the variables. The adjusted R-side was 0.791, F = 984.051, and the significant level was 0.000, which was less than 0.05, reaching a significant level. The data showed that the regression equation was statistically significant, and the seller's reputation could explain 79.1% of the change in purchase intention.

The absolute value of the normalized coefficient of user-generated content is 0.890, which is greater than 0. The t-value of the significance test of the independent variable regression coefficient is 31.370, and the significance value is 0.000, which reaches a significant level. From the positive number of the normalized regression coefficient, it can be seen that user-generated content has a significant positive impact on purchase intention. Hypothesis H3: "User-generated content has a significant positive impact on purchase intention" holds.

The moderating effect focuses on the influence of the interaction between the moderating variable and the independent variable on the dependent variable. This study used a hierarchical regression method to examine the moderating effect of seller reputation on cognitive dissonance on purchase intention. Model 1 included cognitive dissonance as an independent variable for regression analysis, Model 2 included the moderating variable seller reputation for regression analysis on the basis of Model 1, and Model 3 included the interaction term of cognitive dissonance and seller reputation for regression analysis on the basis of Model 2. According to the data in Table 8, after model 2 increased the regulating variable seller reputation, the increased explanation R side was 0.053, and the significance P = 0.000; Model 3 increased the interaction between cognitive dissonance and seller reputation more than model 2, and the increased explanation R side was 0.018, and the sig. F change value was lower than 0.05, which could indicate the existence of the moderating effect of seller reputation. Suppose that H4 "seller reputation has a significant negative moderating effect on the relationship between cognitive dissonance and purchase intention" holds.

Table 8: The moderating effect of seller reputation on cognitive dissonance and purchase intention

model	R	R ²	R ² after adjustment	Error in standard estimates	Change statistics				
					R ² change	F change	Df1	Df2	Sig. F Change
1	.839	.704	.703	.44121	.704	612.870	1	258	.000
2	.870	.757	.755	.40029	.053	56.440	1	257	.000
3	.880	.775	.772	.38612	.018	20.209	1	256	.000

Cognitive dissonance was used as the independent variable. Model 1 included cognitive dissonance as the independent variable for regression analysis. Model 2 included the regulatory variable user-generated content for regression analysis on the basis of Model 1. Model 3 included the interaction items of cognitive dissonance and user-generated content on the basis of Model 2 for regression analysis. After model 2 added the regulatory variable user-generated content, the increased explanatory R-side was 0.097, and the significance was $P = 0.000$; Model 3 increased the interaction items of cognitive dissonance and user-generated content compared with Model 2. The increased explanatory R-side was 0.005, and the sig. P change value was lower than 0.05, which could explain the existence of the moderating effect of user-generated content. It is assumed that H5 "User-generated content has a significant negative moderating effect on the relationship between cognitive dissonance and purchase intention" is established.

Table 9: The moderating effect of user-generated content on cognitive dissonance and purchase intention

Model	R	R ²	R ² after adjustment	Error in standard estimates	Change statistics				
					R ² change	F change	Df1	Df2	Sig.
1	.839	.704	.703	.44121	.704	612.870	1	258	.000
2	.895	.801	.799	.36248	.097	125.231	1	257	.000
3	.898	.806	.803	.35870	.005	6.445	1	256	.012

Discussion

First, in the social e-commerce environment, the seller's cognitive dissonance before the actual purchase has a negative impact on their purchase intention. Social e-commerce is the same as traditional e-commerce, and there is still a logical link of paying first and then experiencing the product. This segmentation property often results in consumers often not being able to fully understand the purchased product before purchasing, resulting in a large gap between consumers' cognition of the product before purchasing and the actual performance of the product, resulting in cognitive dissonance and inability to make purchasing decisions. The specific manifestation is that consumers take ways to change their behavior or change their cognition in order to reduce the sense of dissonance.

Second, the reputation of sellers in the social e-commerce environment has a positive impact on consumers' purchase intention. This study shows through data that a seller's good reputation will promote purchases when other conditions are consistent. At the same time, when consumers experience pre-purchase cognitive dissonance, seller reputation can also control its impact on purchase intention well. Scholars in the field of marketing have conducted sufficient research on seller reputation and achieved rich research results. Its research involves consumer purchasing behavior, satisfaction, loyalty, etc. This paper verifies the impact of seller reputation in the social e-commerce context and has been confirmed. The research results show that when the seller's reputation is high, customers show higher trust in all aspects of the product, and the perception level of product quality is also improved, thereby

enhancing the propensity to buy goods. Based on the initial trust theory, this paper analyzes the indirect impact of seller reputation on consumers' purchase intention and finds that consumers can adjust their purchase intention by changing the quality perception of the product. This conclusion has also been verified in the actual purchase situation of social e-commerce. Higher seller reputation indicates that consumers can give merchants more trust, thereby narrowing the gap between product cognition and their own cognition and reducing the negative impact of cognitive dissonance. The final conclusion shows that seller reputation can attenuate the effect of cognitive dissonance on purchase intention, and the feasibility of this influence mechanism is demonstrated through sufficient verification.

Third, user-generated content positively affects the purchase intention and plays a moderating role between cognitive dissonance and purchase intention. User-generated content contains a large amount of information with reference significance, and it is easier to describe the product from the consumer side and be adopted by other buyers. The quality of the marketing content unilaterally disseminated by sellers in the traditional e-commerce model varies. The asymmetry of information has caused buyers to lose trust in this relevant information, and the probability of adopting relevant information and becoming their own consumption reference materials has gradually decreased. In social e-commerce, users can generate a large amount of real information independently, and at the same time are not controlled by sellers. They can speak at will, which can not only promote other buyers to obtain valuable consumption reference materials, but also help sellers to obtain the most authentic buyer feedback and adjust product marketing strategies in a timely manner. Consumers want a more comprehensive and detailed understanding of the true value of consumer goods before purchasing.

Conclusions

This paper uses empirical research methods to deeply explore the impact of user pre-purchase cognitive dissonance on purchase intention in social e-commerce. At the same time, this study examines the direct impact of seller reputation and user-generated content on purchase intention from the perspective of both buyers and sellers, and further explores their moderating role between buyer cognitive dissonance and purchase intention. This paper analyzes and studies these factors by constructing a model, aiming to explore the influence mechanism of social e-commerce purchase intention.

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