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Payment behavior of Chinese online literature readers: The use of planned behavior and social capital theories

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Abstract

The Chinese online literature market is a developing market with great potential. The study discussed the influence of online literature readers' social capital on readers' planned behavior and aimed to understand the influencing factors of payment behavior among Chinese online literature readers. The researchers used random sampling and received 424 valid questionnaires. Based on the theory of social capital and planned behavior, this study constructed a structural equation model to analyze the data. The results showed that social capital positively affects attitudes, subjective norms and perceived behavioral control. Furthermore, attitude, subjective norm and perceived behavioral control all have significant effects on intention. Intention can positively and significantly influence behavior. According to the research results, this study believes that to realize the payment behavior of Chinese online literature readers, online literature companies should provide more opportunities to acquire readers' virtual social capital, primarily relational social capital. At the same time, Chinese online literature companies should be aware of the necessary responsibility to design and build high-quality Chinese online literature platforms, establish a positive and healthy brand image, actively accept the state's and the market's supervision and establish a corporate strategy oriented by social responsibility.

Keywords: Chinese internet literature, Payment behavior, Payment intention, Social capital, Structural equation model, Theory of planned behavior.

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1. Introduction

The emergence of the internet has pushed digital age literature to break ground and thrive [1]. Online literature has shown remarkable vitality with the convenience of the digital age in the past ten years [2]. Moreover, online literature has distinctive characteristics for telling good Chinese stories [3]. According to the 2021 report on the development of Chinese online literature released by the Chinese academy of social sciences, Chinese online literature has become one of

the crucial carriers for ordinary people to record Chinese stories, an essential part of national reading and a critical carrier for spreading excellent traditional Chinese culture and writing Chinese stories [4]. Online literature is a landmark achievement of the content creation industries of China's internet and traditional cultural industry.

According to China's National Bureau of Statistics, China's population was about 1.443 billion [5]. According to the 47th Statistical Report on China's Internet Development released by the China Internet Network Information Center (CNNIC) in 2021, the number of internet users in China reached 989 million by December 2020 [6]. Chinese netizens account for 68.53% of the total population. From June 2011 to June 2020, the number of internet users in China increased from 485 million to 939 million [7]. This shows that the scale of Chinese netizens is enormous and there is a massive market for online literature. In addition, the China Internet Network Information Center (CNNIC) shows that from December 2011 to December 2020, the number of Chinese online literature users increased from 202.67 million to 460.13 million [7] an increase of 127%. This shows that the market for online literature in China is enormous and will continue to expand. Therefore, it is imperative to strengthen the management of the online literature market.

Chinese online literature has achieved expansion abroad, a global situation of broad dissemination, deep promotion and diversified development is taking shape. Going abroad has been upgraded from the content output of authorized works to the output of industrial models. As a result, the general trend of "ecological going abroad" has emerged [4]. However, the ensuing copyright problem has caused a significant setback to the development of Chinese online literature [8]. The following problems such as piracy and translation have hindered the growth of Chinese online literature [9]. For example, online literature piracy losses in China reached 6.2 billion Chinese Yuan (CNY) in 2021 [8]. This reflects the contradictory relationship between the development of online literature and its readers. Therefore, it is necessary to analyze the payment behavior of Chinese online literature readers to promote the development of Chinese online literature.

It is essential to guide the safe and orderly development of the online literature market. However, this study finds that most scholars have noticed the serious piracy phenomenon in the online literature market [10, 11], the lack of protection of online literature copyright [12] and the imperfect development of the online literature market. They believe the concept of online literature payment through formal channels has not been paid attention to or standardized [13, 14]. However, previous studies have not provided a clear answer as to what causes this. Therefore, this study believes that factors affecting the payment behavior of online literature is not only helpful in guiding the safe development of online literature but also conducive to expand the content and basis of previous research. Ajzen [13] showed that in the theory of planned behavior, behavioral attitudes, subject norms and perceived behavioral control affect people's behaviors by influencing people's intentions. In addition, consumers' behavior is not only influenced by their characteristics but is also influenced and restricted by their social capital. Therefore, this study innovatively explores the factors affecting the payment behavior of Chinese online literature readers based on the theories of planned behavior and social capital. The purpose of this study is: (1) to clarify the factors affecting the payment behavior of Chinese online literature readers; (2) to put forward constructive suggestions according to the research conclusions to promote the healthy development of Chinese online literature.

The structure of this study is as follows:

The second part reviews relevant literature on Chinese online literature, social capital and the theory of planned behavior and proposes research hypotheses. The third part introduces the research methods. The fourth part shows the data analysis results and discusses the research results. The fifth part puts forward the research conclusion, the policy suggestion and the prospects for future research.

2. Literature Review and Research Hypotheses

2.1. Chinese Online Literature

Online literature is a combination of the internet and literature. Online literature writers use the internet as the medium to create online literature to interact and as a reading channel. Ouyang [15] believes that online literature is a kind of literature that exists and spreads through media such as computers and the internet. It can exist and develop rapidly not only because of the amount of creation, the number of readers, the popularity, the industrial chain and the vast influence of online literature to represent the literary memory in the internet era but also because it meets and shapes the most specific spiritual needs of hundreds of millions of people. Moreover, unlike traditional literary writers who create with their own experiences as materials [16], online writers can communicate with their audience in the creation process and meet their aesthetic needs.

In recent years, online literature as the source value and extension of the internet and literature innovation has expanded more business models formed a new ecology of cultural industries linked by multiple industries and created considerable commercial value [17, 18]. At the same time, through continuous exploration and practice, the international literature paying business model was gradually established. In particular, the success of the "Qidian Chinese" business model exploration and improvement makes it possible to pay for online literature. This shows the possibility of profitable enterprise development in China's online literature industry.

2.2. Social Capital

In modern times, the study of social capital first appeared in sociology. Scholars have extended the concept to economics, management, political science and other fields. Social capital exists in interpersonal relationships through social networks and resources hidden in networks can be stably developed and obtained through normative network relations. It can encourage members to carry out social activities based on common ownership and identification among members [19, 20]. Further, Nahapiet and Ghoshal [21] believe that social capital is the sum of potential or actual resources

in the social relationship network formed by social members or social units of individuals. They divide social capital into three dimensions: the structural social capital, cognitive, social capital and relational social capital. Hazleton and Kennan [22] further developed social capital theory and divided social capital into three dimensions: the structural social capital dimension, the relational social capital dimension and the communicative social capital dimension. Structural social capital refers to the social connections between people [21]. Cognitive social capital refers to resources that facilitate shared comprehension, objectives and values [21, 23]. Relational social capital indicates the connection built through long-term communication, recurrent engagement and the individual's confidence in others or the community as a whole [21].

2.3. Theory of Planned Behavior

The multi-attribute attitude theory proposed by Fishbein [24] is the earliest theory about the relationship between behavioral attitude and behavioral intention. According to this theory, consumer behavior is determined by behavioral intention and behavioral intention is directly determined by behavioral attitude. Ajzen agreed with the prediction of behavioral intention by the theory of multi-attribute attitude and incorporated subjective norms into the pre-influencing factors of behavioral intention thus putting forward the reasoned action theory [25]. Based on the theory of reasoned action, Ajzen [26] incorporated perceived behavioral control into the pre-influencing factor of behavioral intention and then proposed the theory of planned behavior.

According to the theory of planned behavior, factors such as an individual's behavioral attitude, subjective norm and perception of their own behavioral control all play a role in shaping their behavioral intentions. According to Fishbein and Raven [27], attitudes may be broken down into two polarized belief categories, "good" and "bad," which correspond to people's positive and negative assessments of the behavior in concern. When people have a positive attitude towards the activity, they are more likely to engage in it. Ajzen [13] believes that subjective norms are social pressure individuals perceive to decide whether to perform behaviors. When individuals perceive that others disapprove their behavior, they are more likely to give it up. Perceived behavioral control refers to the perceived controlled of an individual's executive behavior. The more manageable the individual perceives the behavior, the more likely he is to carry out the behavior. The theory of planned behavior has been proven effective in predicting individual behavioral intention and specific behavior. It is also suitable for analyzing and researching online literature readers' payment behavior.

2.4. Social Capital and Attitude

Social capital exists in interpersonal relationships as a social network. Through the standardized network relationship, it can develop and obtain the social resources hidden in the networks [19, 20]. Attitude refers to the positive or negative point of view towards objectives. Structural social capital refers to the connection between individuals in social relations. Higher structural social capital means people believe they can connect with other members of a network and access the required resources through the network connection [22]. People with higher cognitive social capital believe the resources provided by the platform are valued in their shared understanding [23]. Relational social capital refers to trust, reciprocity and identity. The higher the relational social capital, the more positive attitude people have in virtual social life [28].

Therefore, this study makes the following hypothesis:

Hypothesis 1a: Structural social capital is positively related to the attitude of Chinese online literature payment.

Hypothesis 1b: Cognitive social capital is positively related to the attitude of Chinese online literature payment.

Hypothesis 1c: Relational social capital is positively related to the attitude of Chinese online literature payment.

2.5. Social Capital and Subjective Norms

Social capital comprises social elements that provide resources for private or collective actions. This kind of convenience mainly exists in the social relationship network. Within the collective, imperative norms are significant social capital. Imperative norms require people to give up self-interest and act in the collective interest. Some studies have shown that imperative norms are always supported by society and strengthened into objective norms, restricting or encouraging people's behavior [29]. However, in other cases, the norms are mainly realized through external support rewarding those who comply with the norms and punishing those who violate the rules, thus restricting specific actions of members. At this point, people develop subjective norms that will regulate their behavior based on social pressure. Therefore, when people realize that solving common problems requires corresponding social capital, they will allocate power to an agent under certain conditions. Moreover, online literature platform is provided by the online literature company in the virtual community for the participants to act as social capital agents. Therefore, this study makes the following hypothesis:

Hypothesis 2a: Structural social capital positively relates to subjective norms of Chinese online literature payment.

Hypothesis 2b: Cognitive social capital positively relates to subjective norms of Chinese online literature payment.

Hypothesis 2c: Relational social capital positively relates to subjective norms of Chinese online literature payment.

2.6. Social Capital and Perceived Behavior Control

Social capital is productive. Some studies have shown that social capital can facilitate specific actions [29]. One of the manifestations of social capital is the interactive relationship, an essential factor affecting collective behavior in social relations. In other words, the more closely connected the network members are, the more likely collective behavior will occur. However, perceived behavioral control refers to the degree of difficulty in performing the behavior of interest, the subjective sense of control over individual-specific behavior and the subjective cognition and evaluation of an individual's ability to participate in a specific behavior [30]. The more manageable the individual perceives the behavior, the more likely he is to carry out the behavior. Online literature is based on the internet and its digital consumption mode brings great

convenience to readers. The more control readers perceive, the more likely they will pay for a reading. Therefore, online literature readers in the paid-for reading mode show high reading stickiness and a strong willingness to pay. Therefore, this study makes the following hypothesis:

Hypothesis 3a: Structural social capital positively relates to perceived behavior control of Chinese online literature payment.

Hypothesis 3b: Cognitive social capital positively relates to perceived behavior control of Chinese online literature payment.

Hypothesis 3c: Relational social capital positively relates to perceived behavior control of Chinese online literature payment.

2.7. Social Capital and Intention

According to Zhou and Tan [23], social capital is the sum of actual and potential resources in social relationship networks that are shared by network members. Social capital significantly impacts users' payment intentions. In a specific network, informal social interaction between users provides opportunities for knowledge exchange and makes users more willing to participate in knowledge-creation activities [31]. On the other hand, intention refers to motivational factors influencing an individual's behavior. Intention reflects the degree to which a person is willing to try a certain behavior and put effort into it. Therefore, it is the direct cause of the behavior and the key indicator to predict behavior [32]. Studies have shown that structured social capital based on social interaction significantly impacts users' purchase intention [33]. At the same time, some scholars believe that trust is the basis of intergroup relationship embedding. The higher the level of trust, the more willing individuals are to participate in group interaction and communication and the more willing they are to share knowledge [34, 35]. Therefore, if users think they can support their favorite high-quality IP through support payments, they are more willing to pay for their favorite works to encourage creators and developers to invest in high-quality IP and produce high-quality content to meet their needs [36]. Therefore, this study makes the following hypothesis:

Hypothesis 4a: Structural social capital is positively related to Chinese online literature payment intention.

Hypothesis 4b: Cognitive social capital is positively related to Chinese online literature payment intention.

Hypothesis 4c: Relational social capital is positively related to Chinese online literature payment intention.

2.8. Attitude and Intention

Ajzen [13] mentioned that behavior attitude is one of the three major determinants of behavior intention which refers to the degree to which a person approves of the behavior under consideration. Wang, et al. [37] mentioned that behavioral attitude is a major factor that promotes the establishment of scientific research behavior intention among members and others in the virtual academic community. Therefore, the more positive the behavior attitude, the stronger the intention of people to implement the behavior. The prediction of behavioral attitude to behavioral intention changes with the change of behavior and situation. In some cases, behavioral attitude may be the only important factor influencing behavioral intention. Therefore, this study makes the following hypothesis:

Hypothesis 5: Attitude is positively related to Chinese online literature payment intention.

2.9. Subjective Norms and Intention

A person's assessment of the societal pressures is the second factor determining their intention to engage in or abstain from the action. This aspect of the equation is referred to as the subjective norm since it concerns the interpretation of norms Ajzen [13]. Deng [38] found that, with Confucian culture as the background, subjective norms are the most influential predictors of purchase intentions in China. In the Chinese cultural context, consumers are more inclined to follow the influence of social norms when making purchase decisions. Under the influence of subjective norms, people consciously or unconsciously use certain group norms or the opinions of the majority as the criterion to form or change their behavioral intentions [39]. Therefore, this study makes the following hypothesis:

Hypothesis 6: Subjective norms positively relate to Chinese online literature payment intention.

2.10. Perceived Behavior Control and Intention

According to the theory of planned behavior, perceived behavioral control and behavioral intention may be used directly to predict behavioral performance [13]. If one assumes that one's goal remains the same regardless of how much or how little control one feels they have over their actions, then one may expect the amount of work required to properly accomplish a behavior to also rise. In contrast, perceived behavior control is often used in place of real control. Therefore, whether perceived behavior control may partially replace absolute control relies mostly on the precision of the level of cognition. For instance, when individual's sense have insufficient resources and opportunities, their perceived behavior control will diminish. In contrast, when individual believe they have many resources, more opportunities and less opposition, their perception of behavior control will grow and their desire to engage in the associated action. This research thus tests the following hypothesis:

Hypothesis 7: Perceived behavior control positively relates to Chinese online literature payment intention.

2.11. Intention and Behavior

In consumer behavior research, most experts and scholars have concluded that behavioral intention is one of the most important predictors of behavior through theoretical and empirical research Ajzen [40]. Ajzen and Driver [41] believed that willingness is a necessary stage of behavior and behavior can only be generated after willingness. As Armstrong, et al. [42];

Han and Tian [43] stated the probability that a consumer is willing to buy before making a purchase can predict the consumer's future purchase behavior. Therefore, purchase intention can directly determine purchase behavior under sufficient actual control conditions. Therefore, the following hypotheses are proposed in this study:

Hypothesis 8: Intention is positively related to Chinese online literature payment behavior.

According to all hypotheses, the conceptual framework is as follows (see Figure 1).

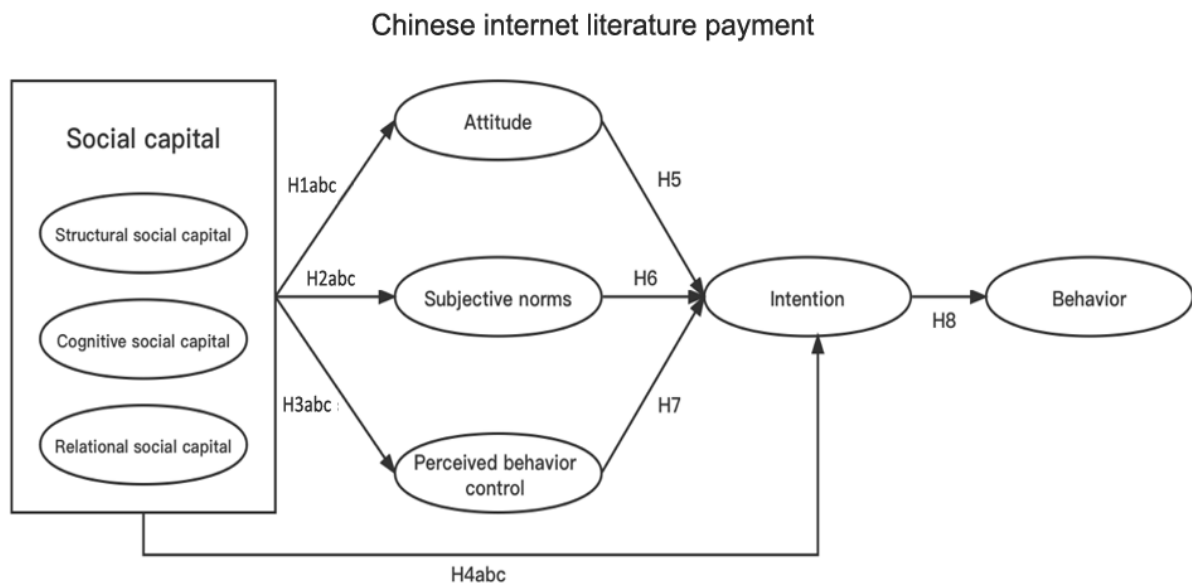


Figure 1.
Conceptual framework.

3. Methods

The research context focuses on Chinese online literature readers in China. Therefore, this study chooses the top ten most popular online literature brand user groups in China as the research object to study payment behavior and influence factors. These ten representative online literature brands are Qidian, Chuangshi, Yunqi, Xiaoxiang Shuyuan, Readnovel, Hongxiu, Qdmm.com, Zongheng, Jinjiang Literature City, and 17k.com. Among them, Qidian, Chuangshi, Yunqi, Xiaoxiang Shuyuan, Readnovel, Hongxiu and Qdmm.com, seven online literature brands belong to China Literature Co., Ltd. Zongheng belongs to Beijing Huanxiang Zongheng Network Technology Co., Ltd. Jinjiang literature City belongs to Beijing Jinjiang Yuanchuang Network Technology Co., Ltd. 17k.com belongs to COL Digital Publishing Group Co., Ltd.

The sample size generation formula from Wilkinson [44] can determine the sample size. At the end of 2020, the popularity of core Chinese online literature readers in China was 460.13 million. Thus, the theoretical sample size of core Chinese online literature readers is more than 400 people, so the valid questionnaires should be more than 400. The data was collected by contacting the online literature platform reader communication communities of ten brands, placing the questionnaire link in the community, inviting readers to answer the questionnaire and informing the questionnaire participants that the answer could be paid for. Readers who answer the questionnaire will be informed of the anonymity and privacy guarantees at the beginning of the questionnaire. The questionnaire was for academic research only and respondents could answer according to objective reality. Through the function of the online questionnaire system, readers who participate in answering the questionnaire could be rewarded in the end. In order to avoid repeating the questionnaire answered by the same reader, the online system was set to accept answers only once.

The questionnaire consists of basic demographic information and measurement items. The basic demographic characteristics include six items: gender, age, education level, average monthly income, online literature reading experience and whether readers have ever paid for online literature. Moreover, this study includes eight main measurement variables: structural social capital, cognitive, social capital, relational social capital, attitude, subjective norms, perceived behavior control, intention, and behavior of online literature readers. In order to ensure the reliability and validity of each variable, this study referred to the more mature scales in existing research, formulated the appropriate number of questions for each variable and selected a total of 24 impact measurement indicators. The question uses a Likert 5-step scale and the score is measured according to the degree of agreement. "Strongly agree" is 5 points, "agree" is 4 points, "general" is 3 points, "disagree" is 2 points, and "strongly disagree" is 1 point. The study analyses the data through the Analysis of Moment Structures (AMOS) which can verify various measurement models and path analyses.

4. Results and Discussion

Five hundred forty-six people viewed the questionnaire and tried to fill it out. Ultimately, 424 filled out questionnaires were collected for data analysis. The questionnaire recovery rate was around 78%.

Most of the respondents in this study were female (68%) and male (32%). Regarding age, the majority were 18-29 years old (55%), 37% were 30-40 years old, 6% were over 40 years old and 2% were under 18. Regarding education, the majority had a bachelor's degree (81 percent), 10 percent had a high school education, 7 percent had a master's degree or

higher and 2 percent had a middle school education or lower. In terms of work income, the average monthly income of most respondents is between 5,001 and 10,000 Chinese Yuan (CNY) (40%), the average monthly income is between 3,000 and 5,000 CNY (24%), below 3,000 CNY (18%), and above 10,000 CNY (18%). Among the 424 readers of online literature, 84 percent had paid for online literature while 16 percent had no experience paying for online literature. See Table 1 for details.

Table 1.
Demographic characteristics of target group.

Variables	Categories	Frequency	Percentage
Gender	Male	136	32%
	Female	288	68%
Age	Under 18 years old	7	2%
	18 to 29 years old	233	55%
	30 to 40 years old	159	37%
	Over 40 years old	25	6%
Education	Junior high school and below	10	2%
	High school level	42	10%
	Undergraduate level	344	81%
	Graduate level and above	28	7%
Monthly income (CNY)	Less than 3,000	75	18%
	3,001 to 5,000	100	24%
	5,001 to 10,000	171	40 %
	More than 10,000	78	18%
Online literature reading experience	Yes	424	100%
	No	0	0%
Online literature payment behavior	Yes	355	84%
	No	69	16%

The research focused on Chinese online literature readers in China and chose the top ten most popular online literature brand readers in China as the target group. According to data analysis, Qidian accounted for 60%, Jinjiang literature City accounted for 54%, Xiaoxiang Shuyuan accounted for 37%, Readnovel accounted for 36%, Zongheng accounted for 34%, Yunqi accounted for 28%, Chuangshi accounted for 27%, Hongxiu accounted for 27%, 17k.com accounted for 25% and Qdmm.com accounted for 17%.

Kaiser and Rice [45] contend that the Kaiser-Meyer-Olkin (KMO) sampling adequacy metric can evaluate if a sample is suitable for factor analysis. The value of the KMO index varies from 0 to 1. When the KMO value is less than 0.50, item variables cannot be factored. If the KMO index value for all item variables is greater than 0.80, the relationship between the item variables is strong and factor analysis should be performed on the item variables. The KMO and Bartlett's Test yield a value of 0.874. Table 2 contains the test results. Thus, factor analysis is applicable to this research.

Table 2.
KMO and Bartlett's test.

Test method	Index	Test result
KMO test	KMO value	0.874
Bartlett's test of sphericity	χ^2	5174.536
	Degrees of freedom	276
	P value	0.000

Consider selecting elements from the correlation matrix during factor analysis [46]. If the correlation between two variables is insignificant or if there is no correlation at all there may be a significant discrepancy between the variables derived from the items and the degree of the paper's original conception. Thus, if there is a highly significant positive or negative correlation between the relative factors, it is easier to build relevant content using factor analysis. Therefore, before doing regression analysis, researchers need to determine which items are more closely associated based on the correlation matrix distribution between the components. The results are shown in Table 3.

A Pearson correlation index analysis showed that all variables were positively correlated with each other. This indicates that there is no significant difference between the derived relevant variables and the original conception of this study and factor analysis is also more suitable for decomposing the project variables of this study.

The alpha coefficient developed by Cronbach [47] is a frequently used measure of reliability in the scale approach. Cronbach's alpha is a measure of internal consistency and reliability frequently employed in Likert scales. The alpha coefficient expresses the scale's internal consistency and reliability. The greater the alpha coefficient, the more consistent the scale's underlying structure is. DeVellis and Thorpe [48] believed that it is good if the coefficient value is between 0.80 and 0.90. Additionally, the composite reliability (CR) of the latent variables' latent variables should be greater than 0.50. The average variance extracted (AVE) is an intrinsic quality evaluation statistic. If the extracted average variance (AVE) of the explanatory variables is more significant than 0.50, the model's intrinsic quality is good. According to the counting

results, the load values of all indexes are greater than 0.5 which meets the conditions for further testing. The results are shown in Table 4.

Table 3.
Pearson correlation coefficient matrix.

Correlation coefficient	SSC	CSC	RSC	PA	PSN	PPBC	PI	PB
SSC	1							
CSC	0.291**	1						
RSC	0.290**	0.379**	1					
PA	0.384**	0.382**	0.437**	1				
PSN	0.404**	0.373**	0.396**	0.344**	1			
PPBC	0.327**	0.419**	0.379**	0.293**	0.360**	1		
PI	0.445**	0.453**	0.479**	0.493**	0.468**	0.457**	1	
PB	0.146**	0.115*	0.096*	0.157**	0.141**	0.245**	0.335**	1

Note: * Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level.

SSC: Structural social capital, CSC: Cognitive social capital, RSC: Relational social capital, PA: Payment attitude, PSN: Payment subjective norms, PPBC: Payment perceived behavior control, PI: Payment intention, PB: Payment behavior.

Table 4.
Cronbach's α , CR, AVE.

Variable	Item	Reliability analysis (Cronbach's α)	CR	AVE
SSC	3	0.834	0.858	0.668
CSC	3	0.821	0.839	0.635
RSC	3	0.847	0.853	0.660
PA	3	0.81	0.832	0.622
PSN	3	0.813	0.838	0.633
PPBC	3	0.851	0.858	0.669
PI	3	0.864	0.803	0.576
PB	3	0.839	0.888	0.726

Note: SSC: Structural social capital, CSC: Cognitive social capital, RSC: Relational social capital, PA: Payment attitude, PSN: Payment subjective norms, PPBC: Payment perceived behavior control, PI: Payment intention, PB: Payment behavior.

Table 5.
Structural equation model fitness index.

Fitness index	Recommended value	Fitted value	Result
χ^2	The less the better	392.404	Accept
χ^2/df	Between 1 and 2	1.684	Accept
GFI	More than 0.9	0.933	Accept
RMSEA	Less than 0.05	0.04	Accept
NFI	More than 0.9	0.926	Accept
IFI	More than 0.9	0.968	Accept
CFI	More than 0.9	0.968	Accept

Note: GFI: Goodness of fit index, RMSEA: Root mean square error of approximation, NFI: Normed fit index, IFI: Incremental fit index, CFI: Comparative fit index.

When determining whether the structural equation model is established, the most fitting indexes should be measured. Therefore, researchers input the processed data into the AMOS 26.0 software and use the maximum likelihood estimation method for model checking and analysis to obtain the model estimation results. The overall model-relevant test results are shown in Table 5. It is not difficult to see that all the fitting indexes in Table 5 are within the judgment criteria indicating that the overall fitting degree of the theoretical model in this study is promising.

Table 6 reports the estimated coefficients, significance and hypothesis test results.

Table 6 presents the results that support hypotheses 1- 8. The path coefficients of three types of social capital structural, cognitive and relational on payment attitude were 0.284, 0.260 and 0.298 respectively. The order of influence was relational social capital > structural social capital > cognitive social capital. This finding suggests that social capital can significantly affect the attitude of online literature readers, confirming hypothesis 1. Moreover, the path coefficients of the three types of social capital on subjective norms were 0.310, 0.247 and 0.213 respectively, with the order of influence degree being structural social capital > cognitive social capital > relational social capital. These results imply that social capital can significantly affect subjective norms supporting hypothesis 2. Furthermore, the path coefficients of the three types of social capital on perceived behavioral control were 0.226, 0.401 and 0.231 respectively and the P values were all less than 0.001. The order of influence was cognitive social capital > structural social capital > relational social capital indicating that social capital can significantly affect the perceived behavioral control of online literature readers confirming hypothesis 3. The study concludes that to modify the payment attitude, subjective norm and perceived behavior control of online literature readers, it is crucial to enhance the social capital of online literature particularly the structural and cognitive social capital.

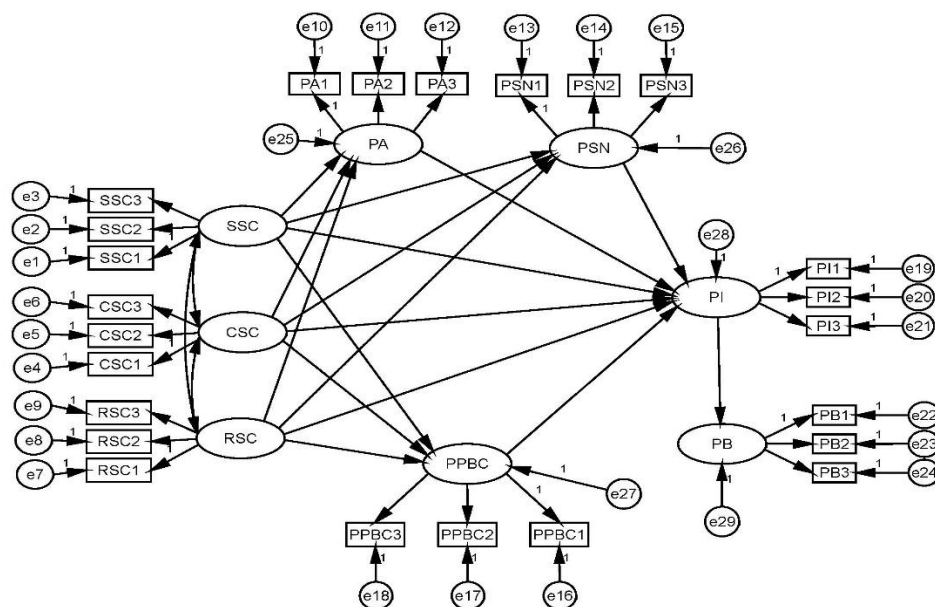
Table 6.

Path analysis, hypothesis test results.

Hypothesis	Path	Estimate	S.E.	C.R.	Result
H1a	SSC → PA	0.284***	0.060	4.707	Support
H1b	CSC → PA	0.260***	0.072	3.593	Support
H1c	RSC → PA	0.298***	0.056	5.361	Support
H2a	SSC → PSN	0.310***	0.055	5.595	Support
H2b	CSC → PSN	0.247***	0.066	3.741	Support
H2c	RSC → PSN	0.213***	0.050	4.230	Support
H3a	SSC → PPBC	0.226***	0.063	3.610	Support
H3b	CSC → PPBC	0.401***	0.079	5.088	Support
H3c	RSC → PPBC	0.231***	0.060	3.871	Support
H4a	SSC → PI	0.160**	0.057	2.791	Support
H4b	CSC → PI	0.153*	0.067	2.284	Support
H4c	RSC → PI	0.130*	0.052	2.505	Support
H5	PA → PI	0.231***	0.061	3.813	Support
H6	PSN → PI	0.182**	0.064	2.833	Support
H7	PPBC → PI	0.172***	0.050	3.464	Support
H8	PI → PB	0.360***	0.054	6.693	Support

Note: *, **, *** indicates the significant level at 10%, 5% and 1% level respectively. S.E. indicates the standard error of estimated parameters. C.R. indicates the critical ratio. SSC: Structural social capital, CSC: Cognitive social capital, RSC: Relational social capital, PA: Payment attitude, PSN: Payment subjective norms, PPBC: Payment perceived behavior control, PI: Payment intention, PB: Payment behavior.

The path coefficient of structural social capital on readers' willingness to pay is 0.160 and the P-value result is less than 0.01 which is lower than the significance level of 5%. The path coefficients of cognitive social capital and relational social capital on readers' willingness to pay are 0.153 and 0.130 respectively. The P-value results are less than 0.05 lower than the 10% significance level. However, the results show that social capital can significantly affect the payment intention of online literature readers. Hypothesis 4 is verified. The path coefficient between payment attitude and willingness of online literature readers is 0.231 and the P value is less than 0.001. This shows that payment attitude can significantly affect the willingness to pay. Hypothesis 5 is verified. The path coefficient between the subjective norm of online literature readers and their willingness to pay is 0.182 and the P value is less than 0.01. This shows that subjective norms can significantly affect willingness to pay. Hypothesis 6 is verified. The path coefficient of online literature readers' perceived behavior control on their willingness to pay is 0.172 and the P value is less than 0.001. This indicates that perceived behavioral control can significantly affect willingness to pay. Hypothesis 7 is verified. The path coefficient between payment intention and payment behavior of online literature readers is 0.360 and the P value is less than 0.001. This shows that willingness to pay can significantly affect payment behavior. Hypothesis 7 is verified. The results verify the primary content of the theory of social capital and the theory of planned behavior. Therefore, to effectively use the positive relationship between relevant variables to strengthen the willingness of readers to pay, we must strengthen the social capital of online literature. Research model depicting the proposed hypotheses (see Figure 2). According to all results, relational social capital is the most apparent and significant path to attitude and behavioral intention.

**Figure 2.**

The structural equation model.

Note: SSC: Structural social capital, CSC: Cognitive social capital, RSC: Relational social capital, PA: Payment attitude, PSN: Payment subjective norms, PPBC: Payment perceived behavior control, PI: Payment intention, PB: Payment behavior.

5. Conclusion, Recommendations and Limitations

According to the results of the conceptual framework, people's gender, age, education and income do not directly or indirectly influence their payment behavior. Therefore, this study focuses more on those structural variables that affect payment behavior directly or indirectly. Through hypothesis testing, the researchers found that the theory of planned behavior applies to online literature payment in China. Therefore, based on the theories of planned behavior and social capital, this study systematically analyzes the relevant factors affecting the paying behavior of Chinese online literature readers through quantitative research methods and verifies the conclusion through data analysis. First, there is a positive correlation between the social capital of online literature readers and their planned behavior. Specifically, online literature readers' structural capital, cognitive capital and relational capital can significantly affect their attitude, subjective norm and perceived behavioral control. Secondly, there is a significant positive relationship between social capital and the payment intention of online literature readers. Thirdly, online literature readers' payment attitude, subjective norms and perceived behavioral control can significantly affect their willingness to pay. Finally, willingness to pay can significantly affect payment behavior. The conclusion is consistent with the previous research and supports the content of the theory of planned behavior. This study enriches the research in the field of online literature research. It provides a basis for effectively guiding the development of online literature enterprises, better regulating the payment behavior of online literature readers and promoting the development of the internet culture industry.

Based on the above conclusion, this study puts forward the following suggestions: Regarding attitude, whether online literature can bring value to readers, "spiritual wealth," is significant. Therefore, enterprises must not stop developing high-quality online literature. In terms of subjective norms, online literature enterprises should always establish a positive brand image, actively accept the state's and the market's supervision have strict tax awareness and establish a corporate strategy oriented by social responsibility. If society positively recognizes the existence of online literature and gives positive guidance then reading online literature can be seen as a positive. In terms of perception and behavior control, online literature platform enterprises must be convenient for readers. In the design of the online literature platform, the interface and operation of the platform should be as simple as possible so that all readers can easily join the online literature platform. More importantly, online literature companies should try to combine marketing knowledge to sell paid-for chapters such as discounts, promotions, and other promotional activities. In addition, it is also essential for online literature enterprises to construct a virtual society for readers. According to the results of this study, when online literature enterprises provide users with more online literature related to virtual social capital, they can indirectly increase the payment behavior of online literature readers to obtain profits. Therefore, in this process, online literature enterprises should pay attention to the social capital related to online literature. At the same time, Chinese online literature companies should be aware of their necessary responsibility to design and build high-quality Chinese online literature platforms which are the basis of virtual social capital for Chinese online literature readers. It is necessary for Chinese online literature companies to actively understand why the existing paying groups pay as well as the users' vision, goals and values.

Good faith management is the basic principle of management. In the operation of the Chinese online literature platform, it is necessary to seek truth from facts and fulfill promises.

This study has some limitations. First of all, most of the respondents in this study have a high level of education which may have an impact on the research results. Secondly, this research is conducted from the perspective of online literature readers and the conclusion may be relatively one-sided. Therefore, future research will focus on the level of education to explore the demand for online literature discuss the advantages and disadvantages of online literature enterprise management and explore whether the online literature marketing channel can effectively meet market demand. The above research will contribute to the further standardization and development of the online literature market.

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