

# ***The Moderating Role of Social Media Use on Paid Knowledge Consumption Intention in China: A Generation Z Perspective***

**Mingyang Zhu<sup>1,a,\*</sup>**

<sup>1</sup>*School of Arts and Humanities, Sichuan Fine Arts Institute, Chongqing, 401331, China  
a. 201940331003@stu.qhnu.edu.cn*

*\*corresponding author*

**Abstract:** With social media becoming a dominant platform, its use is frequently explored as a variable in various research contexts. Generation Z, being the digital natives, is deeply connected to social media, which has a considerable influence on their behaviors. This study examines Paid Knowledge Consumption (PKC), an emerging method of acquiring knowledge, and applies the Theory of Planned Behavior (TPB) to assess whether social media usage moderates Generation Z's intention toward PKC. Specifically, the study investigates the moderating role of social media use in the relationships between attitude, social norms, perceived behavioral control, and intention to engage in PKC. Data were collected from a sample of 211 Generation Z respondents using a quantitative research approach. Regression and moderation analyses were conducted after confirming model fit indices and Cronbach's alpha reliability. The regression analysis indicated that attitude, social norms, and perceived behavioral control significantly influenced PKC intention. However, the moderation analysis revealed that social media usage did not significantly moderate the relationship between the independent variables (attitude, social norms, perceived behavioral control) and PKC intention. These findings suggest that social media use does not affect Generation Z's intention to engage in PKC through its influence on these key factors.

**Keywords:** Theory of Planned Behavior, Paid Knowledge Consumption, Social Media Use, Moderation.

## **1. Introduction**

With the development of the Internet and the diversification of information acquisition methods. Paid knowledge consumption has become a new way of learning and acquiring knowledge, which is becoming more and more popular in mainstream social media, and more and more people are gradually accepting acquiring knowledge in this way.

As the phrase suggests, paid knowledge consumption is a method of paying for access to knowledge and information. Simply put, it means paying a fee to access specific knowledge, skills training, or professional consultation. This method involves various forms, such as online courses, e-books, lectures, video tutorials, professional consulting, and so on, and is different from the way of accessing knowledge by simply searching on the Internet, the knowledge obtained through the paid knowledge channel typically has a high degree of professionalism and credibility.

Social media use has often been used as a factor in exploring people's consumption intentions in previous studies. Generation Z, as digital natives, is a major user group in the current online environment, and their consumption behaviors, learning habits, and decision-making processes are significantly different from those of previous generations. They live in the age of social media, and their consumption behaviors are heavily influenced by social media. According to the study, by 2020, China's Generation Z population reached about 260 million people, and consumption expenditure reached RMB 4 trillion, accounting for about 13 percent of total household expenditure nationwide, with consumption growing at a much faster rate than that of other age groups. According to the report, the average time spent on smartphones by the Gen Z population is up to 174.9 hours per month [1]. Because of the close relationship between this group and social networks, it is more meaningful to consider Generation Z as a target group for social media research. In this study, social media use was used as a moderator to explore whether it moderates Gene.

## 2. Literature Review

With the increasing frequency of paid knowledge consumption in people's lives, many academics have made studies on related topics. Most of the studies combine paid knowledge consumption with consumers, such as Luyan Su Ying Li and Wenli Li's study focuses on the factors that drive consumers' intention for online paid knowledge [2]. Through the Cognitive-Emotional-Identity framework and Customer Value Theory, it is demonstrated that customer value and recognition of knowledge contributors significantly affect trust in OPKs, and thus purchase intention. A study investigates which factors affect customer satisfaction with paid knowledge consumption by integrating users' activities on certain free or payment platforms, using a new conceptual model with data collected from Zhihu, the model was also empirically tested by hierarchical OLS regression [3].

There are fewer studies that combine social media use and paid knowledge consumption as a theme, and most social media use is only mentioned in studies about paid knowledge consumption. However, due to the strong connection between Generation Z and the digital age, there are many studies on social media and Generation Z. For example, a study argued that social platforms' activities can influence the audience and thus brand perceptions, purchase decisions, or motivation to act, they focus on Generation Z users and analyze the use of social media and its impact on the intrinsic motivation of people's behavior [4]. Social media use is also frequently used to explore people's willingness to consume. There is a study that explores how specific motivations for using social media, viewed from a cognitive perspective as general or non-action goals, impact perceptions of paid mobile advertisements [5]. In addition, a study examines how online trust plays an important mediating effect in the positive impact of two variables, social media use, and electronic word-of-mouth, in purchase decisions [6].

In the selection of theoretical models, the TPB model, which is often used to explore individuals' behavioral intentions, was chosen for this study. The Theory of Planned Behavior (TPB), first proposed by Ajzen, suggests that human behavioral intentions are influenced by attitudes, subjective norms, and perceived behavioral control [7]. The TPB model has also been frequently extended as a base model in previous research exploring people's intentions to spend money. A study proposed an extended Theory of Planned Behavior (TPB) model that links consumers' environmental concerns, firms' perceived image, consumers' innovativeness, and environmental knowledge with green product purchasing behavior. The study also explored consumers' green purchase intentions through this framework [8]. Therefore, this study extends and explores the addition of social media use as a moderator to this model.

The TPB suggests that the more favorable a person's attitude, perceived behavioral control, and subjective norm, the stronger the person's behavioral intention; and the stronger the behavioral intention, the more likely he or she is to commit the behavior [7]. The present study proposes an

extended TPB framework (Figure 1) to explore whether social media use would have a moderating effect on the relationship between these variables. According to the literature review mentioned above, social media use has been previously treated as a variable for studying things like purchase decisions and is also often discussed in connection with Generation Z. Based on this hypothesis, the following directional hypotheses were formulated to conduct a study on the moderating effect of social media use on the relationship between ATT, SN, and PBC under the test of their effects on willingness to Paid Knowledge Consumption.

H1 People's attitudes towards paid knowledge consumption are positively related to their intention of paid knowledge consumption.

H2 People's subjective norms towards paid knowledge consumption are positively related to their intention of paid knowledge consumption.

H3 Individuals' perceived behaviors control towards paid knowledge consumption is positively related to their intention of paid knowledge consumption.

H4 Social media use moderates the relationship between attitudes towards paid knowledge consumption and intention of paid knowledge consumption.

H5 Social media use moderates the relationship between people's subjective norms about paying for knowledge and their intention of paid knowledge consumption.

H6 Social media use moderates the relationship between individuals' perceived behavior control towards paid knowledge consumption and their intention of paid knowledge consumption.

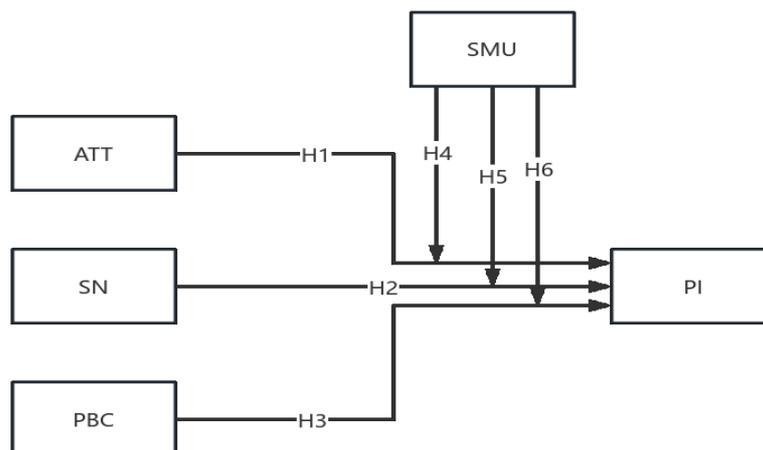


Figure 1: Conceptual research model

Although existing research has explored both paid knowledge consumption and social media use, fewer studies have explored the combination of the two as a topic, especially those addressing the moderating role of Generation Z and those based on the TPB model. An in-depth exploration of this topic could provide academics and industry with new insights into the payment decisions of Generation Z, a group of digital natives, helping to identify their unique needs and preferences in knowledge acquisition and thus develop strategies that better align with their needs, and it could also enrich the existing field of research and contribute to the understanding of paying for knowledge as emerging consumer behavior.

### 3. Methodology

The survey method was chosen for this study, and the survey was distributed to the Chinese Generation Z group, which was born in the period 1995 - 2010. Based on the theoretical model of

TPB, seventeen scale questions were developed based on four variables: attitude, social norm, personal perceived behavioral control, and social media use. The survey included control variables such as age, gender, education, and revenue, and all measured variables was adapted from previous studies, and all variables were set up with questions assessed using a 7-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree”. This study aims to ensure the convergent validity and reliability of the survey, the validity of the survey was measured before distributing the surveys, and then 15 surveys were first distributed to the study participants for the preliminary study.

As of 30 August 2024, 225 surveys were received, of which 211 were valid. The Wenjuanxing platform, which is similar to Amazon Mechanical Turk, was used to create the surveys. And Weibo, one of the largest social media platforms in China, was chosen for distribution. Weibo is a mobile social media application developed by Sina, a Chinese web portal and online media company. The survey was delivered by the survey company on the Weibo platform to ensure that the data covered more levels of the population and a wider range of research subjects. As the survey was obtained through online completion in this study, responses from non-Generation Z participants could not be completely avoided, so the survey was removed for those whose age did not fall within this range. Given that the data collected came from different geographical areas, chi-square tests and t-tests were applied to investigate possible differences between these samples. The results showed no statistically significant differences.

#### 4. Result

SPSS 27.0.1 was chosen for this study to measure the data collected from the results.

##### 4.1. Descriptive Statistical Analysis

Based on Table 1, since the study was conducted on the Generation Z population, the selection of respondents was limited to 14 - 29 years old, and other control variables such as gender, education level, and revenue level were set. The data shows that 46.4% of the respondents are male and 53.6% are female. In terms of age, most of the respondents are in the 19-24 age group, accounting for 49.8 percent, while those in the age ranges of 14-18 and 25-29 account for 16.6% and 33.6% respectively. The education level of the respondents is mainly concentrated in Undergraduate and Branch, accounting for 57.8% of the respondents. In terms of income, the monthly average of RMB 2,000-5,000 was higher, at 51.7%, followed by RMB 5,000-10,000, at 37%.

Table 1: Respondents' Profile.

Gender	Frequency	Percentage
Male	98	46.54%
Female	113	53.46%
Total	211	100%
Age	Frequency	Percentage
14-18	35	16.6%
19-24	105	49.8%
24-29	71	33.6%
Total	211	100%
Education	Frequency	Percentage
High school and below	79	37.4%
Undergraduate and Branch	122	57.8%
Postgraduates	10	4.7%

Table 1: (continued).

Total	211	100%
Revenue(CNT)	Frequency	Percentage
2,000-5,000	109	51.7%
5,000-10,000	78	37%
10,000-30,000	22	10.4%
30,000 and above	2	0.9%
Total	211	100%

#### 4.2. Reliability Testing

The Cronbach's Alpha was used to assess the internal consistency of the survey or scale which was named as reliability. The Cronbach's Alpha ranges from 0 to 1, with values closer to 1 indicating a higher internal consistency of the scale. Before data measurement, reliability was first analyzed and validity was not analyzed as the scale questions developed by the survey based on the variables were adapted from previous papers. According to Table 2, the results showed that Cronbach's Alpha were all greater than 0.7 respectively, demonstrating that the scale has good reliability and that there is a high degree of consistency between the items of the survey, which can reliably measure the results of the study.

Table 2: Reliability of Constructs.

Variables	Cronbach's Alpha
Attitude(ATT)	0.827
Social Norm(SN)	0.851
Perceived Behaviours Control (PBC)	0.778
Social Media Use(SMU)	0.820
Purchase Intention(PI)	0.812
Overall	0.816

#### 4.3. Linear regression

It is worth mentioning that moderation analysis is a type of regression analysis used to test the extent to which moderators affect the relationship between predictor and outcome variables. Therefore, moderation analysis is supported if there is a significant interaction between the variables. According to Baron and Kenny, moderation occurs when the effect of the independent variable on the dependent variable varies with the change in the third variable (i.e., the moderator variable) [9].

Model 2 in all tables shows the relationship between the independent and dependent variables and Model 4 incorporates the calculation of the interaction term.

First of all the authors start with the data calculation of the relationship between the independent variables and the dependent variable. The results of the linear regression analysis in Table 3 show that the adjusted R-squared value of Model 2 is 0.614, which is greater than 0.2, indicating that ATT, SN, and PBC explain 61.4% of the change in people's intention of paid knowledge consumption and that the model fit is good. Model 4 in Table 3 adds the calculation of the interaction term, and the adjusted R-squared value is 63.7%, indicating that the effect of social media use on the relationship between the independent and dependent variables is minimal.

Table 3: Model Summary.

Model	R	R Square	Adjusted R Square
1	.110 <sup>a</sup>	.012	-.007
2	.792 <sup>b</sup>	.627	.614
3	.806 <sup>c</sup>	.635	.635
4	.810 <sup>d</sup>	.637	.637

According to Table 4, Model 2, 3, and 4 p-values were <0.05, and the model was significant.

Table 4: ANOVA.

Model	Sig.
1	.638 <sup>b</sup>
2	<.001 <sup>c</sup>
3	<.001 <sup>d</sup>
4	<.001 <sup>e</sup>

According to Coefficients, which is also Table 5, it can be obtained that the statistics VIF is <10, it is indicated that there is no multicollinearity between the variables.

Meanwhile, the result of model 2 shows that people's attitude towards Paid Knowledge Consumption is positively correlated with the intention of carrying out Paid Knowledge Consumption ( $\beta=0.173$ ,  $p=0.018$ ), which supports H1. Similarly, subjective norms ( $\beta=0.326$ ,  $p<0.01$ ) are positively correlated with the intention of Paid Knowledge Consumption and therefore support H2. Next, individual perceived behavioral control is positively associated with Paid Knowledge Consumption intention ( $\beta=0.366$ ,  $p<0.01$ ), thus supporting H3. From Model 3, it can be concluded that social media use is positively associated with Paid Knowledge Consumption intention ( $\beta=0.253$ ,  $p<0.01$ ), and from Model 4, the coefficient of the interaction term is not significantly positive, which suggests that, in Generation Z., social media use does not moderate the relationship between attitudes, subjective norms, and personal behavioral control and willingness to paid knowledge consumption, and H4, H5, H6 do not hold.

Table 5: Coefficients<sup>a</sup>.

	Beta Coefficient	Statistics VIF
Direct Effect		
ATT→PI	.173	2.850
SN→PI	.326	3.189
PBC→PI	.366	2.389
Moderation Effect		
ATT→SMU→PI	-.144	3.405
SN→SMU→PI	.026	5.322
PBC→PSMU→PI	.082	4.913

## 5. Discussion

According to the results, it can be concluded that attitude, social norms, and perceived behavioral control in the Theory of planned behavior model have a significant positive effect on Generation Z's intention of Paid Knowledge Consumption, which is consistent with the results of the study made by

Jing, J and Lu, C in 2020 for young Chinese people [10], and the results of the study by Xu A, Li W et al. in 2021 further illustrate that variables such as attitude can have an effect on knowledge payment decisions [11]. To explore the role of social media, which is closely linked to Generation Z, the authors added the variable of social media use in this study to explore whether social media use would moderate the relationship between the independent variables of attitudes, social norms, and perceived behavioral control and intention of Paid Knowledge Consumption. The results of the study indicate that social media use does not moderate these relationships.

As a generation closely connected to social media, Generation Z has diverse purposes for social media use, with multiple motives such as entertainment, socializing, and information acquisition. Therefore, although social media is an important part of their daily life, Generation Z relies more on personal attitudes, social norms, and perceived behavioral control in their Paid Knowledge Consumption decisions, and the external moderating effect of social media does not have an impact on these variables. They may have developed solid ideas about Paid Knowledge Consumption, and social media use is not enough to shake these core factors. In addition to this, the complexity and variety of information on social media and the varying quality of content that users are exposed to may lead them to selectively focus on or ignore information. Therefore, although social media can provide a great deal of information and social influence, this did not directly influence their decision-making in the area of Paid Knowledge Consumption.

## 6. Conclusion

In this paper, the relationship between attitude, social norm perceived behavioral control, and intention of Paid Knowledge Consumption was first investigated and the data results showed that the independent variables were significantly and positively correlated with the dependent variable, therefore, H1, H2, and H3 were accepted. In addition, the authors also tested whether it moderated the relationship between the independent variables and the dependent variable: the intention of paid knowledge consumption by adding a variable of social media use, and the results showed that the coefficient of the interaction term was not significant, indicating that social media use does not moderate the relationship between these variables and H4, H5, and H6 are not valid.

Although Generation Z lives in the digital age and has a strong connection to social media, the study population is concentrated in the 14--29-year-old range, and has formed its own set of perceptions of their own attitudes towards the intention of paid knowledge consumption, social norm, and personal perceived behavioral control of these variables are more difficult to change, and are not greatly influenced by external factors, such as social media use.

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