

Investigation and Analysis of Online Knowledge Payment of College Students

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Abstract: With the rapid growth of people's per capita disposable income and the increase of development-oriented consumption, there is a large demand for high-quality knowledge and information. In the Internet era, free and abundant Internet resources provide users with convenient ways to obtain information. With the launch of the video website membership system and paid Q&A, the market education level has increased significantly, and the behavior of paying for online knowledge has gradually appeared. In this study, college students in Guangdong Province were selected as the research object, and the questionnaire survey method was used to analyze the online knowledge payment of college students. The survey found that college students generally know the online knowledge payment method, and have a higher willingness to pay and use knowledge products, but the utilization rate is lower and the amount they are willing to pay is less. The survey results obtained by this paper and the corresponding recommendations can promote a better online knowledge payment experience for college students, and can also provide reference for knowledge providers.

1. Introduction

The business model of knowledge payment existed long ago [1]. Google has set up a peer-to-peer bonus system allowing employees to reward useful behavior through token payments. Google Answer, founded in 2002, is an online Q&A platform where knowledge demanders have the pricing power. Since 2016, a series of landmark events have gradually made content payment mainstream. In 2016, the paid voice Q&A platform "Split Answer" was launched. Subsequently, Luo Zhenyu, the founder of Luo Ji Thinking, made every effort to create a "get APP"; Himalaya FM Launches Knowledge Payment Festival; Zhihu is online, Zhihu live and so on. In 2017, this trend showed no signs of slowing down, and Douban launched its first paid product - "Douban Time". Nowadays, online paid knowledge such as Weibo Q&A, WeChat public account rewards, paid audio, paid literature search, and online courses has been popularized and developed rapidly. It can be seen that knowledge payment is in a period of rising development. With the continuous increase in the number of paid products and the diversified presentation of content forms, the knowledge payment products in the market have also appeared in the situation of good and bad and survival of the fittest [2].

College students are in the golden period of learning and growth, they receive the knowledge of the school's professional system, and on the other hand, they are eager to expand the knowledge of society and its hobbies. But in the face of mixed information and the ever-increasing rate of

information iteration, they are looking for a more convenient and faster path. Paying for knowledge that quickly obtains high-quality and effective information can undoubtedly meet the needs of college students. At present, the research on knowledge payment mainly focuses on the development status, dissemination mode, profit model, etc., and there are few investigations and studies on the online knowledge payment of college students. This paper mainly investigates college students' understanding and use of knowledge payment products, the purpose and tendency of learning methods, and the acceptable price range. It has a promoting effect on the knowledge payment industry to continuously correct problems and launch more guaranteed knowledge payment products.

2. Overview of Research Questions

Knowledge payment mainly refers to the phenomenon that the recipient of knowledge pays money for the knowledge viewed, and its essence is to turn knowledge into products or services to achieve commercial value [3]. At the same time, knowledge payment has a broader definition, that is, any form of direct capital injection in the process of knowledge circulation. Knowledge payment is conducive to people to efficiently screen information, and at the same time, payment also stimulates the production of high-quality content, so that knowledge acquirers indirectly pay knowledge disseminators and screeners, rather than allowing people involved in the knowledge dissemination chain to obtain income through traffic or advertising and other means. Payment for knowledge has the following characteristics: online payment; Covering a wide range of conceptual resources or experience knowledge and information in all aspects of life, learning, and entertainment; Rich forms of expression, which can be text, audio, video Q&A, live broadcast, etc.; The provider of knowledge or information is a professional in some area with a cognitive surplus; Be sociable; Highly interactive [4].

In the era of rapid development of the Internet, free sharing used to be the mainstream form, but it is precisely because of this that the threshold for information release is getting lower and lower, and the Internet is full of huge and complex information, resulting in effective information being drowned in, and the time to obtain effective information increases. In the era of unlimited information and limited experience, people began to think about how to efficiently obtain effective information, prompting the transformation of human needs from free information on the Internet to paid information. This study mainly focuses on the investigation of online knowledge payment by college students of different grades, different professional categories, different regions and different living expense levels, understands the online knowledge payment needs of college students, analyzes the impact of various factors on their online knowledge payment, finds out the problems found in the process of knowledge payment and proposes corresponding improvement measures, and comprehensively explores the online knowledge payment of college students [5].

3. Study Design

3.1. Research Methods

In order to study the online knowledge payment of college students in more depth, this paper designs the questionnaire of "Online Knowledge Payment Survey of College Students", which is carried out on Questionnaire Star platform. The questionnaire consists of 16 questions in five sections. The first part is a basic personal situation, which covers five questions, namely, gender, grade, professional category, region from the region and monthly living expenses at school. The second part is the understanding and purchase of knowledge payment, which involves three issues: the online knowledge payment method known to college students, the way to understand knowledge payment, and whether they have paid for online knowledge. The third part is the specific payment and usage,

and three questions are set, namely the content of knowledge payment, the reason for choosing online paid knowledge, and the frequency of use of knowledge payment platform. The fourth part is the demand for knowledge payment, and four questions are set, which are if the purpose of knowledge payment is chosen, the price of knowledge payment accepted, the preferred online knowledge presentation method, and the factors affecting the purchase of online knowledge. The fifth part is the existing problem, that is, the problem that college students think exists in the existing knowledge payment platform.

3.2. Respondents

The survey was conducted among college students, and the survey sample was mainly from Guangdong.

3.3. Questionnaire Collection

A total of 282 questionnaires were collected, of which 66 were male students, accounting for 23.4%. There were 216 female students, accounting for 76.6 per cent. After screening statistics, the final valid questionnaire was 282, with an effective rate of 100%, reaching the expected set number.

4. Research Analysis and Reflection

4.1. Analysis of the Basic Situation of the Respondent

Table 1: Basic information of university students participating in the survey

personal information		quantity (N=282)	Percent (%)
sex	male	66	23.4
	Female	216	76.6
grade	Freshman	24	8.5
	Sophomore	87	30.9
	Junior	150	53.2
	Senior	21	7.4
specialized	Literature and history	93	33
	Science and engineering	132	46.8
	Economy class	15	5.3
	Art	5	5.3
	Physical education	9	3.2
	other	18	6.4
come from	countryside	177	62.8
	town	105	37.2
Monthly living expenses	<800	15	5.3
	800-1200	138	48.9
	1200-1500	75	26.6
	1500-2000	45	16.0
	>2000	9	3.2

In this questionnaire, there was a large difference between the proportion of men and women, with more girls and fewer boys. From the perspective of grade structure, there were more junior students, accounting for 53.2% of the total sample; followed by sophomores, accounting for 30.9%. The proportion of students in other grades is small, and there is not much difference. In the subject

classification, science and engineering accounted for the largest proportion, with 46.8%; followed by literature and history, with 33%. The rest of the professional categories account for a smaller proportion. From the perspective of regions, the majority of college students participating in the survey came from rural areas, accounting for 62.8%, and the remaining 37.2% were from urban areas. Among the monthly living expenses, the largest proportion is 800-1200 yuan, 48.9%, followed by 1200-1500 yuan and 1500-2000 yuan. The lower and higher cost of living accounts for a smaller share of 5.3 per cent and 3.2 per cent, respectively, as shown in Table 1.

In short, the sample group of this survey and study is mainly sophomore and senior students, the number of men and women is quite different, and the majors are distributed in the mass majors, and the sample distribution is reasonable.

4.2. College Students' understanding of Knowledge Payment and Analysis of Purchases

Table 2: Status of online knowledge payment methods known to college students

Online knowledge payment method	quantity	Percent
Zhihu live	132	46.8%
Weibo Q&A	81	28.7%
WeChat public account tipping	174	61.7%
Himalaya FM and other paid audio	165	58.5%
Weipu, CNKI and other literature retrieval websites	201	71.3%
MOOCs and other online courses, training, seminars	186	66.0%
English learning software	204	72.3%
Completely understood	0	0%
other	6	2.1%

All college students who participated in the survey had some understanding of how to pay for online knowledge, as shown in Table 2. Among them, the most well-known is English learning software, accounting for 72.3%; More than half of the knowledge of literature retrieval websites, online courses, official account tips, and paid audio is available. It can be seen that the popularity of various knowledge payment software among college students has been high, and the learning motivation and ability of college students are relatively strong, which is a potential huge market for online knowledge payment that has not been expanded.

Further analysis found that boys paid the most about literature search websites. Girls, on the other hand, pay more attention to English learning software. Boys know more about Zhihu Live than girls; Girls know more about Weibo Q&A, WeChat public account tips, paid audio, and online courses than boys. It shows that there are differences in the interest and level of understanding of online knowledge payment methods between boys and girls, as shown in Table 3.

Table 3: Cross-table of online knowledge payment methods known to college students of different genders

Online knowledge payment method	male	Female
Zhihu live	36	96
Weibo Q&A	15	66
WeChat public account tipping	33	141
Himalaya FM and other paid audio	36	129
Weipu, CNKI and other literature retrieval websites	48	153
MOOCs and other online courses, training, seminars	36	147
English learning software	33	171
other	3	3

In terms of understanding channels, the largest way for college students to pay for online knowledge is online media, accounting for 95.7%; followed by advertisements and leaflets, accounting for 38.3%; 27.7% were recommended by teachers; 22.3% through a friend's referral. It can be found that college students' understanding of knowledge payment platforms is mainly through online media to push relevant information and then understand the corresponding knowledge payment products. Mainly because the Internet is an indispensable part of the university life of modern college students, and the information coverage of the network is wide, it is easier to achieve the purpose of publicity.

In terms of willingness to pay, more than half of the students who participated in the survey had paid for online knowledge, and 29.8% were willing but did not pay. Only 12.8% had no willingness to pay. The college students who participated in the survey had a certain understanding of online knowledge and were more willing to pay, but the actual payment was less, indicating that online knowledge payment was attractive to the survival of universities, but there was no payment due to the restrictions of some elements.

4.3. Analysis of the Impact of Various Basic Information of College Students on Online Knowledge Payment

In terms of gender, both men and women pay more for knowledge. The proportion of boys who have paid and are willing but have not paid is higher than that of girls; Girls have a higher proportion of unwilling and unintended payments than boys. Knowledge payment can reduce the time of information retrieval and quickly obtain the desired information, and the demand of boys for knowledge payment platforms is greater than that of female students, indicating that gender has a certain impact on online knowledge payment [6].

In terms of grades, the proportion of college students in different grades who pay for online knowledge is different, but the difference is not much, more than half. First-year students are willing to pay for online knowledge, while seniors have the highest proportion of students who are not willing to pay for online knowledge and do not intend to pay. Because the freshman year has just entered the university, the exploration and enthusiasm of new things is high, and the learning ability is strong; In the fourth year, facing internships and graduation, there is relatively little free time and energy, so there is no willingness to pay for online knowledge. Different grades have a certain impact on online knowledge payment.

Regionally, there are differences in how college students from rural and urban areas pay for online knowledge [7]. More than half of college students from rural and urban areas have paid for online knowledge, but the proportion of urban payers is greater than that in rural areas; The proportion of people in rural areas who are unwilling and do not intend to pay is higher than in urban areas. With economic and social development, the difference between urban and rural areas has been narrowing, but there are still differences in some aspects.

From the perspective of student living expenses, there are great differences in online knowledge payment of college students with different living expenses [8]. In general, college students with medium and upper living expenses are more willing to pay and pay, while college students with lower living expenses are less willing to pay for online knowledge. Among college students whose living expenses are less than 800 yuan, there are more people who are unwilling and do not intend to pay than those who have paid the fee; College students with living expenses of more than 2,000 yuan have paid for online knowledge. The economic base determines the superstructure, and the level of living costs determines the level of consumption. Compared with some paid knowledge online, some students are willing to spend more time searching for the free knowledge they need. Scenario 2 is established, and different living expenses have a greater impact on online knowledge payment.

4.4. Specific Payment and Usage Analysis of Online Knowledge of College Students

Learn more about the specific payment status of online knowledge of college students, as shown in Table 4.

Table 4: Content of online knowledge payment by college students

Content	Quantity	Percent
Subscription to paid consultations/paid downloads (e.g. subscriptions, paid downloads, etc.)	112	63.0%
Paid online courses/trainings/seminars (e.g. paid online courses, Zhihu live)	99	61.1%
Tipping (WeChat public account/Weibo article)	24	14.8%
Pay to add WeChat group/QQ group to obtain resources	45	27.8%
Paid membership (watch member videos or download paid music)	123	75.9%

From the data, we can see the specific content of online knowledge payment for college students. Among them, the most college students pay for video and audio membership, followed by subscription paid consultation and paid download materials; Pay to participate in online courses, trainings, seminars. These proportions are more than half. The least paid is the WeChat public account and Weibo article tips. In short, the content of online knowledge payment for college students is relatively rich and involves various fields. The vigorous development and continuous improvement of online knowledge in various fields can expand the market for online knowledge payment.

In terms of consumption reasons, college students mainly value that paying for knowledge can obtain better quality products than free products, and can choose a wider range of knowledge learning [9]. The second is: respect for knowledge, encouragement, and support for original content. Save time and effort in searching and filtering massive information; Paid is the only channel for obtaining content from the platform, which also accounts for a relatively large proportion. It can be seen that the characteristics of paid knowledge can obtain efficient information in a limited time to meet the needs of college students. This shows that if the paid industry wants to broaden the college student market, it needs to cater to the demand of college students for rich knowledge and save time and cost, and start with content specialization and a more comprehensive search method to attract users, the specific data is shown in Table 5.

Table 5: Influence Factors students choose to pay for knowledge online

Influence Factors	Quantity	Percent
You can get better products than free products, and you can choose from a wider range of knowledge and learning	117	72.2%
Save time and effort searching and filtering massive amounts of information	81	50.0%
Respect, encouragement, support for original content of knowledge	90	55.6%
Paid is the only channel for getting content from the platform	66	40.7%
You can get the opportunity to communicate with celebrities and experts	3	1.9%
It doesn't matter if you charge less	15	9.3%
Curiosity tends to be tendentious	3	1.9%

In addition, through the survey, it was found that the use rate of online knowledge payment platforms for college students is low, with 40.7% using them within an average of 3 times a month.

This is due to low usage due to less time available to users and platform resources not meeting expectations. Therefore, the knowledge payment platform can summarize experience, and design and develop modules that attract college students, such as friend interaction, check-in, etc., so as to improve the utilization rate of college students' knowledge payment.

4.5. Analysis of College Students' demand for Online Knowledge Payment

College students' demand for paid knowledge presents diversified characteristics, involving postgraduate examinations, knowledge learning, hobbies, and communication. College students have a strong willingness to pay for knowledge in terms of postgraduate examination (29.4%), knowledge learning (38.8%) and hobbies (22.4%), and their demand for communication is not high. College students' consumption of learning needs dominates, which is consistent with the identity characteristics of college students.

Second, the acceptance range of college students' paid price for knowledge is generally low [10]. The vast majority of people accept online knowledge with a price of less than 300, accounting for 93.6%. The price range of 0-50 yuan is the most acceptable, accounting for 50%. The college student group has not yet entered the society and does not have independent financial ability. This reflects the shortcomings that the platform does not match students well in price settings, which can provide a basis for the knowledge payment industry to meet the student population with appropriate paid prices. More than half of the students have a monthly living expenses of less than 1,200 yuan, and for them, they need to spend most of the money on food and clothing, and can spend less on intellectual consumer goods. The high price of online knowledge is a major barrier for college students who are not yet financially independent. At present, the biggest factor restricting the consumption of knowledge by college students may be the most realistic economic factor.

5. Conclusion

Through the analysis and reflection of this questionnaire survey, the following suggestions are given to improve the paid experience of college students' knowledge.

5.1. Reasonable Paid Prices

As the main consumer group, college students do not have a high economic foundation, so it is difficult to consume high expenses. Many knowledge paid products are overpriced, which makes most college students prohibitive of these products. Some platforms require monthly subscriptions, which can result in a waste of resources and money for some people who only need to use online knowledge once. Merchants should control the price within a reasonable range according to the knowledge content, and launch a diversified pricing model, so that more college students in need can use the knowledge payment platform to solve problems, so that the university will become the main consumer group of the knowledge payment platform. The pricing of content should be in line with the level of content quality to create cost-effective quality content products.

5.2. Knowledge Quality Assurance

The quality of knowledge is an important factor for college students to consider when choosing knowledge payment, and the paid content often affects the users repurchase of the online knowledge. Knowledge payment should be based on college students, improve the content quality of products, and strengthen access regulations for content publishing; Keep the content up to date and relevant to current topics; Broaden the variety of content to meet customer requirements. The essence of online

knowledge payment is an information service, which improves user experience and protects user rights and interests, which is the core interest of knowledge payment platform.

5.3. Improve User Satisfaction

Satisfaction is an important factor that affects the user's willingness to continue to use. The platform should frequently conduct user satisfaction surveys, follow up and strive to solve problems according to the problems and suggestions raised by users, meet user needs, improve the practicality of the platform, and improve user product experience.

In general, most college students are willing to pay for online knowledge. The region and living expenses of college students have a certain impact on online knowledge payment; Demand and platform quality have a positive impact on online knowledge payment; Price factors and the complexity of the payment process have a negative impact on online knowledge payment. On the one hand, knowledge payment platforms should improve the content quality of products and set reasonable prices; On the other hand, it is necessary to improve the degree of confirmation and satisfaction of college student users, so as to improve the willingness of college students to continue to use. In the knowledge payment products for college students, more attention should be paid to the professionalism and application value of the content, and the knowledge and experience of professional knowledge should be biased.

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