A Study on the Preference and Consumption Intention of Chinese College Students for Online Knowledge Payment

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Abstract: The phenomenon of knowledge payment mainly refers to the phenomenon that the recipient of knowledge pays for the knowledge reading. The year of 2016 is known as "the first year of knowledge payment". With the continuous progress of Internet technology, online knowledge payment has become an important trend of development. Students are the main consumers of knowledge products. It will help enterprises to design products with better quality by studying students' preferences and consumption intentions for online knowledge payment products, and it will be easier to meet the needs of the public. This article first makes the simple classification of the platforms of the knowledge payment, through the information on the Internet. Then with the methods of literature review, and questionnaire survey, it is concluded that the students are more inclined to choose the video class, the type of documentation platform, online courses, content of school related courses and the interest/practical skills class of products; The key factors that influence students' choice of knowledge payment platforms or products are also the main reasons that trigger students' willingness to consume knowledge payment products. This includes the ease of availability of the online product itself, and the quality of the paid product compared to the free product. This paper proposes that we should cater to students' preferences and needs, and design corresponding products for this group; Work closely with the school to further meet students' academic needs; Enrich and improve students' extracurricular interest and skills courses; Improve the interactive nature of the paid knowledge products; Increase publicity; This paper is to optimize the user feedback mechanism and improve their product quality hard power recommendations.

1. Introduction

1.1 Research Background

The year of 2016 is called the "Year of Paying for Knowledge". With the development of science and technology, Internet technology and the improvement and popularization of mobile payment technology, the demand of the public for knowledge and information is gradually increasing, and the relevant laws of intellectual property protection in China are gradually improved. The payment for knowledge has a good foundation for development and huge development potential of the market.

On the supply side, all kinds of online knowledge payment platforms and products are springing up on the market. It is like mushrooms after a spring rain. The success of online knowledge payment products of different modes, such as "Get App", "Zhihu Live" and "Fenda", has set off a wave in the industry and triggered a larger capital investment and R&D output. On the demand side, group anxiety induces strong willingness to learn, and consumers are eager to obtain high-quality content by paying. The scale of users paying for knowledge in China shows a rapid growth trend. In 2015, the number of users of knowledge payment was only 48 million. By 2019, the number increased to 360 million, and it is estimated that it will exceed 420 million in 2020 [2]. Among the numerous users, students who are mainly engaged in study and research are undoubtedly one of the most important groups. More and more students are using knowledge payment products to assist their studies, broaden their knowledge, learn practical skills and satisfy their interests. In response, the market has launched more diversified and professional online knowledge payment products tailored for students.

However, because of the huge development potential of the knowledge payment industry, which is still in the initial stage of development, the advantage and disadvantage of the knowledge payment products are intermixed. For example, the low entry threshold makes the products less professional, and it cannot effectively meet the needs of consumers and their expectations of content quality. It can be seen that the key to the future development of the platform is whether it can independently produce high-quality products and cultivate a large number of good content teams.

1.2 Research Objective and Significance

By selecting students as the research object, this paper studies the preference of students for online knowledge payment platform and types of the products, and also summarizes the driving factors of their willingness to consume knowledge payment products. The paper is aimed to analyze the students' preference and demand trend for online knowledge payment products' communication mode, content, etc., so as to provide some reference for online knowledge payment platform enterprises, helping them to grasp the specific needs of the students as the main user groups. It will also help to create better quality, richer content and more innovative knowledge payment products, in order to promote the further development and maturity of the knowledge payment industry. To meet students' knowledge demands is an important part of talent cultivation. Improving the access to knowledge and information and improving the quality of knowledge and information can also indirectly promote the vitality of the future talent market, and then prosper the social economy.

2. Literature Review

2.1 Online Knowledge Payment

The phenomenon of knowledge payment mainly refers to the phenomenon that the receivers of knowledge pay for the knowledge they read. Knowledge payment allows knowledge receivers to indirectly reward knowledge disseminators and sifters, rather than allowing people who participate in the knowledge dissemination chain to obtain benefits through traffic or advertising and other means[3]. The essence of knowledge payment is to turn knowledge into products or services in order to realize business value. Knowledge payment is conducive to people's efficient screening of information. At the same time, it also encourages the production of high-quality content.

Different from the traditional offline knowledge acquisition methods (such as books, periodicals, physical audio-visual purchase, institutional courses, etc.), online knowledge payment has the characteristics of more direct and convenient acquisition methods, more various forms of content reception, more diversified fields involved, and content system. In fact, in most literatures, even the

broad sense of knowledge payment includes the element of "Internet based". These characteristics of online knowledge payment are derived from the development mode of Internet information.

2.2 Students and Knowledge Payment

Students are one of the main consumers of knowledge payment. They are willing to accept and experience new things with research and learning as their main tasks, and they have a great demand for independent learning and self-improvement. Knowledge products are almost necessary for them. In addition, college students have certain consumption characteristics compared with other people, for example, because most students do not realize economic freedom, that is, they have no stable economic source, and the willingness to consume is more restricted; In terms of consumption content, compared with other adult knowledge payment with various entertainment nature, students' knowledge payment will be more concentrated on academic research and practical skills learning. Besides, influenced by schools and their communities, some of their knowledge payment behaviors are mandatory.

2.3 Types of Online Knowledge Payment Platforms and Products

To study students' consumption intention of knowledge payment, we can start from the platform and the product itself.

Knowledge payment platform is the most direct channel for consumers to access knowledge payment products, and it is the integration of knowledge payment product resources. It has a large number of users, which is a unique advantage and a direct driving factor for the popularization of knowledge payment; Knowledge payment product is the core of knowledge payment. Its content and quality directly determine whether the product is favored by consumers and whether it is sold in the market.

The classification of knowledge payment platform is mainly based on the communication carrier, mode and nature of its products, which can be divided into the following categories:

1) Video, such as Bilibilibili, Youku, Iqiyi, etc., whose products are mainly knowledge-based video. The length, content depth and breadth of the products are also in line with the characteristics of multiple depth. The platform itself has the characteristics of large flow and low threshold;

2) Online courses, such as MOOCS and Tencent classroom in Chinese University, are more authoritative and professional with academic content; Although the products are mainly presented in the form of video. In addition, online guidance, courseware sharing, online testing, online teaching and other forms of teaching services are added;

3) Documents, such as Baidu Wenku, daokebaba, HowNet, etc., whose products are mainly presented in the form of documents, most of which are popular science materials and papers, and are highly academic;

4) Audio products, such as Himalayan FM and dragonfly FM, are mainly audio segments, including but not limited to storytelling, language learning listening materials, broadcasting, etc;

5) Q&A category, such as Baidu Wenga, Zhai, etc., whose products mainly provide experts with targeted answers to questions raised by users, the difference of products is determined based on the level of experts and users' questions;

6) Community type, such as Zhihu, Jianshu, Guoke, etc., with comprehensive product types, including videos, articles, online answers, etc., and the platform is highly interactive.

7) Reading class, such as Fandeng reading club, Zhongdu, etc. The main products are e-books, reading notes, etc.

The above seven are typical types of knowledge payment platforms. Other types of platforms include social networking, Wechat live broadcasting, SaaS tools, community and so on.

In general, consumers will first consider the type of product communication they need when choosing the corresponding platform. If they need systematic teaching products, they will give priority to online tutorial platforms. If they need literature and other reference materials, they will first consider document platforms for product search.

In terms of products, in addition to the classification standard of types of communication, we can also divide them according to the needs of students, who is our main consumer group. Considering the needs of students' academic and development tendency, the products can be divided into the following contents:

1) The contents of in class courses are related, such as online review materials purchased by high school students for college entrance examination, and online teaching videos of professional courses taken by college students, etc;

2) Extracurricular academic research, which is relative to the school curriculum content. It is the product that students choose to buy for their own improvement or demand in other fields;

3) Interest / practical skills, such as online CG original painting introductory course, music arrangement, engineering software course, etc., They are similar to offline interest classes. They are the products purchased by students who are driven by hobbies and other factors. They are not necessary compared with in class courses;

4) Practical experience sharing products, such as examination, job hunting, dry goods in the industry. They are the needs of students to plan for the future out of their development needs;

*5)*Online information consulting, mostly from the Q & a class, community class platform, such as expert consulting products, involving a wide range of business.

2.4 Factors Influencing Platform and Product Selection

The factors of selection can be analyzed from the two perspectives-the platform products themselves and students as consumers.

In terms of platform products themselves, it is obvious that the quality of content information is one of the most important factors to measure the value of knowledge payment products. According to perceived value, the definition of it is the subjective evaluation of the utility of a product or service obtained by the customer after the customer perceives the benefits of the product or service and deducts the cost he or she has paid in obtaining the product or service. In addition, it can be inferred that consumers' perception of the value of paid knowledge products belongs to the core competitiveness, based on the fact that consumers' comprehensive perception of the value of paid knowledge products is mainly achieved through product name, price, introduction, product trial reading or listening [5].In addition, the content aspect of the product also includes the diversity of the content, that is, the breadth of the field involved, and whether it fits with the needs of consumers; The authority of the platform itself and the content is also one of the decisive factors. Professional lecturers or authoritative content with official certification are also the reflection of the quality and value of knowledgeable products in a sense. The user base of the platform and the evaluation of users objectively reflect whether the platform products are of high quality, which is an indirect factor affecting consumer choice.

As for the aspect of students who are the main consumers, first, as mentioned above, students do not have stable economic sources and their willingness to consume is more economically restricted. Therefore, compared with other groups, price, as a factor affecting product selection, is magnified in students. At the same time, students' choice of knowledge payment products is also influenced by their current educational background and campus conditions. Because the knowledge payment products related to the course content in class are one of the key items for students to consume, and the choice of platforms is sometimes even affected by school policies.

3. Research Progress

3.1 Research Methodology

This study mainly adopts two methods: literature analysis and questionnaire survey.

Literature research method mainly refers to the method of collecting, discriminating, sorting out literature, and forming a scientific understanding of the facts through the study of literature. In this study, I mainly searched and read relevant literature on knowledge payment to define relevant content, classify platforms and products for knowledge payment, and at the same time, introducing and listing factors that may affect students' choice of platforms and products.

Questionnaire survey is a widely used method in social investigation at home and abroad. Questionnaire refers to the form which is used for statistics and investigation and it expresses questions in the form of questions. Questionnaire method is a method for researchers to use this controlled measurement to measure the problem under study, so as to collect reliable data [6].

3.2 Questionnaire Design

In this study, I inferred design options and problems based on the classification of platform products and influencing factors in the literature review, aiming to collect students' real choices of platforms and products and to draw a conclusion on the influencing factors of multiple choices. The questionnaire options set up an open channel for people to put forward other points of view in order to broaden their thinking. In order to improve the degree of differentiation, three choices were selected at most in the multiple choice of influencing factors.

Data was collected by online survey, and a total of 83 questionnaires were collected. Among the collected questionnaires, 2 respondents chose "no discretionary income, and their families do not support paying for online knowledge". Therefore, excluding these 2 invalid questionnaires, 81 valid questionnaires were used for analysis in this study.

3.3 Data Statistics and Analysis

It can be seen from Table I that, among the 81 samples, bachelor's degree and high school degree account for the largest proportion, respectively "62.96%" and "22.22%". Although there is the possibility caused by the collection object directivity, it can still be inferred that students with high school degree or above are the main consumers of knowledge payment. In the data of "monthly discretionary amount except living expenses", the amount of disposable income between 500 and 1500 makes up for 41.98%, and the amount above this range accounts for 17.28%. That is to say, 59.26% of people have more than 500 amount of disposable income for development and data consumption every month. It can be seen that in the case of rapid economic development, students also have the basic capital conditions for knowledge payment, and have the relative choice to choose the knowledge payment products that they think are of high quality and relatively high price. However, the proportion of disposable income less than 500 is 33.33%, so it is speculated that the sample selected for this option and its education level are high school.

Table 1 Sample Characteristics

sample variable	options	subtotal	proportion
Educational Background	*Primary school*	*2*	*2.47%*
	Junior high school	*4*	*4.94%*
	Senior high school	*18*	*22.22%*
	Junior college	*6*	*7.41%*

	undergraduate	51	62.96%
Monthly discretionary amount except for living expenses	Below 500	27	33.33%
	500~1500	34	41.98%
	1500~3000	12	14.18%
	Over 3000	6	7.41%
	None, but the family supports the purchase of online knowledge paid products	2	2.47%

In this survey, the knowledge paid products consumed by middle school students are mainly related to the curriculum content in school and interest/practical skills, accounting for "67.9%" and "72.84%" respectively. Students choose to pay for products related to their courses mainly due to the influence of the learning environment, which makes students set the goal of academic self-improvement. Besides, students choose products based on this guidance to pursue their goals. The choice of practical skill products involves students' self-construction. According to self-perception theory and self-signaling theory, students will consume according to their own interests and hobbies and goals that they aspire to achieve, and learn about themselves by observing what kind of knowledge payment products they have purchased.

When analyzing the reasons or basis for college students to choose knowledge payment platforms/products, it is found through the collection of sample data that 80.25% of the people are concerned about the quality of the content and information of knowledge payment platforms, 54.32% are concerned about the richness and diversity of the content, and 53.09% are concerned about whether the price of the knowledge payment platform is affordable. These people are also concerned about the authority of paid content for knowledge. A small number of people (9.88%) are most concerned about the user base of knowledge payment platform, that is, the number of existing users. One in five users are very concerned about user reviews of their choice of knowledge payment platform.

As it mentioned above, perception of consumers of the value of knowledge-paid products belongs to the core competitiveness, and the quality of content and information is the most intuitive reflection of the value of products. In terms of content richness and diversity, it responds to the diversity of students' demands for knowledge. In addition, students who chose less than 500 dollars or between 500 and 1500 dollars in the previous disposable money question preferred to choose "whether the price is affordable" in this question.

Moreover, up to 63.41 percent of college students choose knowledge payment because of the fast and efficient access to information. Secondly, 59.76% of college students choose paid content because the quality of information is better than free products. Among other reasons, 50% of students hope to improve themselves through knowledge payment, and 62.2% choose the product because they like it or are interested in the content. Also, 6.1% of respondents prefer to pay for offline knowledge. Meanwhile, although the number of options was controlled to highlight the difference, the proportions of the options converged, so that each option had its importance. In the "other" option, different fillers all mentioned the reason of "respecting copyright and encouraging creators", which reflects that under the premise of the increasingly perfect national legislation on intellectual property and copyright protection, student as consumers have an enhanced awareness of copyright and have a certain empathy for creators of knowledge products. Other applicants mentioned that "the learning time is relatively flexible and limited by timetable and place" and "it can be used repeatedly", which all reflect the online characteristics of knowledge payment products and the advantages of designing for close to time fragmentation. On the contrary, the applicants who chose "I prefer offline" proposed the advantages of offline knowledge consumption over online knowledge payment. They could have face-to-face talks offline, so that teachers could easily

understand students' problems and apply the appropriate remedy to the situation. The product quality of offline institutions is more guaranteed.

4. Conclusions and Suggestions

4.1 Research Conclusion

The template is designed so that author affiliations are not repeated each time for multiple authors of the same affiliation. Please keep your affiliations as succinct as possible (for example, do not differentiate among departments of the same organization). This template was designed for two affiliations.

1) In terms of platform type preference, students are more inclined to choose video platform, online course platform and document platform. This is because the forms of knowledge products, such as video, text and the original integrated teaching method of online courses, can be presented most intuitively in terms of information transmission. And they meet the needs of students' time management and are more suitable for students' academic needs in terms of content and information.

2) In terms of the preference of product type selection, students are more glad to choose the products related to the curriculum content in school and the products related to interest/practical skills. They respectively mark students' in-class learning needs and extra-curricular expertise development needs.

3) The core factor that influences students' choice of knowledge payment platform/products is content quality. In addition, there are also important factors such as diversity, authority and price.

4) Reasons that lead to students' willingness to consume knowledge paid products are the convenience of online products themselves, the high quality of paid products compared with free products, students' own recognition of products, the goal of self-improvement and the growing awareness of copyright.

4.2 Revelations and Suggestions

In view of the above conclusions, this paper puts forward the following suggestions for knowledge payment enterprises:

1) To cater to students' preferences and needs, design corresponding products for this group, such as inviting tutors in the field of professional education to give lectures, and using the form of video/comprehensive lectures;

2) To close cooperation with school authorities to further meet students' academic needs, and use the reciprocity principle to appropriately provide students with free and high-quality paid knowledge products, so that students can understand the quality and nature of the courses on this platform, thus, it could be more likely to lead to consumption behavior;

3) Enrich and improve the courses of students' extracurricular interests and skills, investigate the fields which students like to be involved in, and expand the product content on this basis;

4) Draw on the experience of online teaching during the epidemic, improve the interactivity of the interactive knowledge payment products, and fully connect the individual needs of each students as consumers, so as the evaluation could be improved;

5) After the rectification of the above plan, the corresponding publicity should be carried out to the target group of students. The reason is that advertising and word-of-mouth not only have a significant positive impact on the willingness to pay for online knowledge payment platform directly, but also affect the willingness of users by affecting their perceived usefulness and perceived fun [7];

6) Optimize user feedback. Based on the feedback and evaluation of consumers, we will add relevant courses and knowledge dissemination mechanisms, and improve after-sales services to optimize consumer experience services in real time.

In addition, looking back at the current knowledge payment industry environment, we can also hear the urgent problems that students and other consumer groups call for: Knowledge payment platforms have problems such as unprofessional knowledge, lacking rich content, infringement, etc. Besides, commercial marketing packaging is prevalent. Products of many platforms are only sold after processing the original knowledge through fragmented means, and the quality cannot meet the needs of consumers. Because of the growing information homogeneity, the big background of knowledge consumption of the disappearing of demographic dividend, and because consumers' sense and preference of paying value for knowledge products belongs to the core competitiveness, companies need to focus more on the quality of construction. They should also create qualified paid products, high quality of knowledge, to win the favour of consumers based on their hard power.

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