



温州肯恩大学
WENZHOUCHEAN UNIVERSITY

College Students' Willingness to Use Credit Cards

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by

Xu Yuange

1098721

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Yuange, Xu

Abstract

After the supervision of college students' credit cards fell into a depressed state, Internet consumer credit products led by Huabei were widely used by contemporary college students due to the lack of supervision. This makes many bad campuses loan events occur frequently in the society. To end this, the regulatory authorities have lowered the threshold of credit cards and encouraged college students to re-use credit cards to regulate the use of loans by college students. At the same time, restore the college student market of bank credit card, and provide new profit opportunities for banks. In order to study the borrowing habits of contemporary college students and their willingness to use credit cards to guide college students to use credit cards. This paper conducted a questionnaire survey and studied the credit card usage and willingness of college students through descriptive analysis, difference analysis, regression analysis and other methods. This paper firstly introduces the background of college students' credit cards and reviews the research on the influencing factors of credit card use. From the perspective of the performance of loan products to prove the opening and granting of credit, the amount and use, interest and cost, repayment, and credit investigation impact, preferential and rights and interests on the willingness to use college students. And the characteristics of users who are willing to use credit cards are analyzed. It can be concluded that the customers are highly educated and have more financial knowledge, and their families are more willing to use credit cards. College students are more inclined to use credit cards because of their high cognition of credit cards. At the same time, this paper will put forward suggestions on the development and popularization of credit cards to assist the healthy development of college students' credit market.

Keywords: Credit Card, College Students, Huabei

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INTRODUCTION

At first, credit products are a way for banks to put out the money and monetary funds concentrated by means of loans to meet the needs of supplementary funds for social reproduction expansion and promote economic development. People use credit cards to borrow money from banks to meet their overspending needs. However, contemporary college students are rarely exposed to credit cards and even have less understanding of credit cards. In its place are Internet consumer credit products such as Huabei.

In 2004, China's first college student credit card was born, and the business of college student credit card has grown rapidly in just a few years. However, the bank does not restrict college students and carry out reasonable risk control. College students with weak credit concepts cause frequent credit card defaults. So in 2009 regulators raised the bar for college students to apply for credit cards. Regulation college student does credit card to need second reimbursement source. This has greatly inhibited the development of credit cards among college students.

The scale of college students' consumption market and the volume of consumer loans are huge. Contemporary college students are accustomed to online shopping, but also more recognition of advance consumption, credit consumption. However, as the credit card threshold is too high, it is difficult to handle credit cards. They still rely heavily on their parents to finance their spending. Credit card consumption should have been an important channel to solve the short-term consumption of insufficient funds for college students and an important helper of financial management. However, under

strict supervision, the huge gap in the field of college student credit provides a market for emerging Internet consumer finance.

In the early stage of development, Internet consumer finance was outside the regulatory system, and a variety of lending products and platforms emerged, among which there were many large Internet companies with good development, such as Huabei and Jingdong Baitiao. But there are also illegal profit-making products, such as "naked loans", which seriously infringe on the rights and interests of college students and hinder the healthy development of China's consumer finance industry.

Therefore, in 2017, the regulatory authorities issued relevant policies to encourage banks to develop financial products suitable for college students, so as to regulate the use of loans by students. Prevent college students from being harmed by bad loan products.

Most college students borrow money online, but they don't know about traditional credit card borrowing methods. But in fact, for college students, compared with other financial institutions, the business of banks is more mature and safer. Banks provide more targeted credit card products, which can save the time for them to choose credit products, and also make the use of credit products more secure for college students, so as to protect the rights and interests of students.

At the same time, for banks, College students are a young and potential customer group, and they are the main force of the future market. At present, Internet consumption has been integrated into the daily life of young college students. Part of the service functions of banks will be replaced. Commercial banks should develop

targeted and differentiated financial products under the premise of controllable risks. Attracting college students to use credit cards can open up new markets and improve their competitiveness with Internet finance companies. Student credit cards could also be a new source of profit for banks. It is very important to guide college students to revive credit cards in order to better serve college students and standardize the correct use of credit cards. Therefore, this paper puts forward three questions: what are the factors that affect college students' choice of credit products? How willing are college students to use credit cards? With the advance of Internet finance in the emerging era, how should banks look for new development opportunities in the college student credit market?

LITERATURE REVIEW

2.1 Discovery of Characteristics of Credit Card Use

In recent years, with the listing of Internet financial products and the lack of supervision by relevant departments, college students have access to credit products through Internet credit in advance. It is very important to analyze the influencing factors of college students' use of Internet consumer products and credit cards and guide them to choose and use credit cards reasonably. This paper summarizes the factors influencing customers' use of credit cards and spending in chronological order. The literature will provide background information for future research and help further understand the reasons why college students choose Internet consumer credit or credit cards.

Developed countries such as the United States mainly focus on credit cards and have done a lot of research on credit problems earlier. Early scholars focused more on the impact of demographic variables on users' credit card use behavior, and agreed that demographic variables have a significant impact on credit behavior. Adcock, Hirschman and Goldstucker (1977) studied the influence of demographic variables such as gender, marital status, age, education level and income level on credit behavior and found that there was significant difference in demographic variables on whether credit behavior occurred. With the gradual deepening of credit research, scholars begin to realize that credit attitude is an important variable to determine whether credit behavior occurs. Attitude belongs to the category of social psychology. Some scholars regard

attitude as the interrelated unity of cognition, emotion and behavior. Based on the attitude theory, Furnham(1984) and Xiao et al(1995) constructed a set of three-dimensional attitude indicators covering the emotional, cognitive and behavioral aspects, opening a new field of credit behavior research from the perspective of credit attitude. Kara et al(1996) used five-level Likert scale to study the relationship between users' credit attitudes and their credit behaviors, and found that users who liked and were extroverted toward credit attitudes were more likely to engage in credit behaviors, while users who were disgusted and introverted were less likely to engage in credit behaviors. Hayhoe(2000) used the credit attitude scale developed by Xiao et al(1995) to predict the relationship between college students' holding of credit cards and their attitude toward credit cards. The study showed that the emotional attitude toward credit behavior of college students was positively correlated with the number of credit cards they held. That is, the more positive the emotional attitude of college students towards credit behavior, the more likely they are to have credit behavior. In addition, Hayhoe (2005) attitude to the credit of the three dimensions (cognitive, emotional attitude and behavior attitude) was carried out in more detail, and put forward a cognitive attitude of credit attitude means that the credit card holder to operate the credit products' understanding of the related processes, emotional attitude means cardholders to hold a credit card behavior evaluation, And behavioral attitude means willingness to hold credit cards. Hancock et al(2013) also studied college students' credit card attitude as one of the factors affecting credit behavior, and the results showed that college students' credit behavior was mainly influenced by their parents' financial knowledge, work

experience, credit attitude and personality. It can be found from a large number of previous research literature on credit attitude to their behavior that although scholars use different measurement methods, it can be seen from the research results that credit attitude is related to credit behavior. As for the research on college students' credit risk, some scholars analyze the influencing factors of college students' credit default by examining their credit card debt holdings. Xiao,Tang ,Serido and Shim (2011) studied the factors related to college students' credit card debt and found that college students' financial knowledge level, parents' norms and parents' social and economic status were important factors affecting students' credit default behaviors. Adam Michael Hancock, Bryce, and Melvin(2013) found that the gender factor of college students' personal characteristics is significantly correlated with their behavior of using credit.

2.2 Discovery of Characteristics of Internet Consumer Products Use

Internet consumer products led by Huabei rise in China with the development of the Internet. As a new product in the field of finance, Internet consumer lending has attracted more and more attention from researchers. Research in recent five years shows that the security and rights and interests protection of Bai Hua is a major issue in the use of Huabei. Ma Chunfen (2015) studied the development status of personal credit payment products on e-commerce platforms and believed that such businesses could be called virtual credit cards. Because such online lending products do not involve the withdrawal of borrowed money, they are circumvented by financial licences. Li Zhuoning (2017) believes that the procedures of Internet consumer lending products taking Huabei as an example are too simple,also with industry competition and internal

supervision loopholes. At the same time, improperly regulated Internet financial products lack risk rating for customers and cannot predict their repayment ability. The opening of such Internet credit products to college students also raises significant credit risks of its own. Chen Chun and Shi Fuhou (2019) investigated college students in Guangzhou and found that since There was no credit threshold and the amount was too high, college students had insufficient repayment ability and weak repayment willingness when using Huabei. Among college students, cash out behavior is frequent. Many college students no nothing about the consequences of late payment.

As for the reasons why college students use Internet consumer products, a series of recent studies have analyzed the factors that affect users' use of Internet consumer finance. Wang Lei (2016) constructed a binomial Logistic regression analysis model to study the factors affecting users' demand for Internet consumer finance. It is found that age, income and other people's influence have a significant positive impact on the use of Internet consumer finance, while product installment rate and product risk have a significant negative impact. Peng Zhihao, Yang Ke, Xu Zimeng et al. (2017) studied the use willingness of Huabei among college students in Wuhan and found that college students were willing to choose Huabei for advanced consumption due to its wide application scope, high user experience and high convenience. However, the high risk of use and the lack of privacy protection are the restricting factors of their excessive consumption. Another related study also shows that ant Huabei and other online consumer credit products may leak personal privacy (Liu, Wang, Huang, Huang, Yang, & Li, 2019). In contrast, this study points out that since college students do not

understand the negative impact that information leakage may have on individuals, information leakage does not affect young people's willingness to use Huabei. The different influences of information leakage on the willingness of college students to use Huabei and the credit risks of college students both indicate that college students lack basic financial knowledge, so it is necessary to reasonably regulate their borrowing and consumption behavior.

Numerous previous studies have shown that gender, age, income, and level of financial education are all factors that influence people's choice to use credit cards and online consumer products. To a large extent, people choose a lending product because of a positive attitude toward it. College students prefer to use Huabei Because of its wide application scope, high user experience and high convenience. However, the high use risk and low privacy guarantee of Huabei have become the use problems of Huabei. But the privacy issue does not affect college students' continued use of Huabei. It can be seen that all the studies are based on credit cards or Internet consumer credit, but no study can make a comparison between new Internet credit and traditional credit cards. This paper will take ant as a substitute representative, from the multidimensional comparison with credit cards, and empirical research on the factors that affect the tendency of college students to use to borrow and spend. At the same time, this paper will give reasonable consumption and financial management suggestions for college students' borrowing and consumption, and guide the revival of credit card business.

RESEARCH METHOD

3.1 Research Design

In this paper, Huabei as a comparative product, the use of credit card behavior and willingness of college students.

First of all, this paper uses literature review method to collect a large number of researchers' literature on credit cards and Chinese scholars' research reports on Internet financial products, and summarizes and comments on the literature. Through the literature review to understand the current use of college students credit products more comprehensively. Then, background and suggestions are provided for the following research according to the existing research results. For the rest of the study.

Secondly, this study obtains the required data in the form of questionnaire survey, and takes college students as the research object. The research content mainly focuses on credit card behavior, and takes Huabei as the comparison product to understand the situation and willingness of college students to use credit cards. This study will collect online questionnaires among college students in different cities in China. In order to collect the data of college students from different cities and educational backgrounds, this paper collected 250 questionnaires by releasing questionnaires in the forum to prepare for the data later. This paper will use descriptive analysis, difference analysis, regression analysis and other methods to investigate the differences between college students who use different consumer credit products, and analyze the factors that affect

college students' willingness to use credit cards. By explaining the analysis results, this paper demonstrates the significance of the factors that influence college students' willingness to use credit cards.

3.2 The Data Processing

In this paper, the behavior characteristics of the samples will be described by charts to compare the differences between the use of Huabei and credit cards.

This paper will investigate the differences among college students who use credit card or not. In the regression analysis, this paper chooses "the number of credit cards in use", "whether you are willing to use credit cards" and "prefer to use credit cards or Huabei " as dependent variables to study the factors affecting "willingness to use". This paper will assign values to its options for quantitative research.

In order to group variables for difference analysis, items in the original questionnaire were re-coded during data analysis. In "Number of credit cards used," "None" is still assigned a value of 0, and "only 1," " 2," and " 3 or more" are combined assigned a value of 1. Categorize this item as "Use credit card or not." Cost factor and compensation factor are generated variables after taking average values of corresponding items in question 19. The following is the encoding process of quantitative data.

	Variable description	Assignment	Short for variables
Grouping variable	Use credit card or not	Do not use =0 Use =1	
Dependent variable	Willingness to use a credit card	No =1 It doesn't matter =2 Yes =3	Willingness
	Number of credit cards in use	No card = 0 Only one card =1 There were 2 = 2 3 or more =3	Number
	Prefer to use credit cards or Huabei	I prefer to Huabei =1 Not necessarily = 2 I prefer credit card =3	Propensity
Independent variables	Gender	Male = 0 Female= 1	Gender
	Permanent city	Beijing, Shanghai, Guangzhou and Shenzhen =3 New first-tier cities =2 Others =1	Environment 1_ City
	Whether overseas consumption experience	No overseas consumption experience =0 Overseas consumption experience =1.	Environment 2_ Overseas
	The status of the family, friends	None =0 less =1 more =2	Environment 3_ Family and friends
	education	Junior college =1, Undergraduate =2, graduate =3	Cognition 1_ degree
	Financial knowledge reserve	Don't know much about it=1 Non-professional, but with knowledge =2 Economics and Management major =3	Cognition 2_ Finance
	Credit Card Knowledge	Have no understanding =1 Have basic understanding =2 Clearer =3	Cognition 3_ credit cards
	Average monthly disposable income	Less than 1000 yuan =1 RMB 1000-2000 = 2 RMB 2000-3000 = 3 RMB 3000-5000 = 4 More than 5000 yuan =5	Economy 1_ income
	Source of disposable income	All provided for families =0 Additional sources of income =1	Economy 2_ Source of income
	Average monthly consumption amount	Less than 1000 yuan =1 RMB 1000-2000 = 2 RMB 2000-3000 = 3 RMB 3000-5000 = 4 More than 5000 yuan =5	Economy 3_ spending
	Credit Card service	Generating variables, quantification	Cost factor, Compensation factor
	Whether to use other consumer financial products	Using = 1 Do not use= 0	Substitute

Table 1.

Among them, gender, environment 2_ overseas, economy 2_ source of income, and substitute use are typical 0-1 dichotomous variables, which belong to fixed data. Cost factor and compensation factor are generated variables after taking average values of corresponding items, which belong to quantitative data. Although the other variables are classified data in attribute, there are degrees of depth between categories, which belong to ordered data and can also be treated as quantitative data

RESULTS

4.1 Sample Descriptive Analysis

This study takes college students as the research object to study their willingness to use credit cards. The study released a questionnaire that collected 252 data from college students with different academic degrees. Among them, 53 individuals have overseas consumption experience. According to the degree of financial knowledge of college students, 88 students have knowledge of finance although they have not studied finance. 41 were from business majors, and 123 said they were not familiar with finance. This shows that it is necessary to strengthen the popularization of financial knowledge among college students. The main source of income for college students is from their families, but one-third of them said they have other sources of income, such as part-time jobs, in addition to money from their parents. According to the survey sample, the average monthly disposable income of students is mainly concentrated in 1000-3000. According to the cross-analysis of monthly average disposable income and monthly average expenditure, it can be seen that the monthly average disposable income of the survey sample can basically meet the monthly average expenditure, but a small number of students (about 1/10) overspend. When money is insufficient, the preferred solution for more people is to ask their parents for money or take a part-time job, and getting extra money through borrowing is their last choice.

From the perspective of college students' understanding of credit cards, "never understand", "basic understanding" and "relatively clear" account for 55%, 36% and 8% respectively. This shows that contemporary college students generally do not know

much about credit cards. Of these, 29% have used credit cards, most of the students who have used credit cards have one or two, and most of the credit cards they have are master cards. The others didn't use credit cards. The main reason they don't use credit cards is because they have enough money or prefer to use Internet lending products. A small number of people fail to open credit cards and give up using credit cards because of the barriers.

Among the survey samples, 73% of people have used Internet financial products such as Huabei and JINGdong Baitiao. In the comparison between credit card and Huabei, most students think that Huabei is more convenient, but 56 students think that if the threshold of credit card is lowered, they will consider getting a credit card. There was no significant difference in impulse spending between credit cards and spending. Most college students are not sure which one is more favorable, which may be caused by their lack of understanding of the two. Sixty-one percent of college students think credit cards are better for future loans. When asked about their willingness to use credit cards, a total of 45 percent of college students are willing to try using credit cards. This shows that if the product is properly adjusted and publicized, it can attract college students who have not used the card temporarily.

4.2 Analysis of Differences in Credit Card Use Among College Students

4.2.1 Reliability and Validity Analysis

As can be seen from the above table, the reliability coefficient value is 0.839, greater than 0.8, indicating that the reliability quality of the research data is high. As for the " α coefficient of item deleted", 18. If the Card style (such as star Anime Games, etc.)

is deleted, the reliability coefficient of the Card style(such as star Anime Games, etc.) will rise significantly, so it can be considered to amend or delete the item. As for the "CITC value", the CITC value corresponding to Card style (such as star anime Games, etc.) of 18, is less than 0.2, indicating that its relationship with other analysis items is weak. Deletion may be considered (in the case of a pre-test analysis, this may be corrected before formal data is collected). In summary, the reliability coefficient value of the research data is higher than 0.8, which indicates that the data reliability is of high quality and can be used for further analysis.

Table 2. Reliability Analysis

Cronbach	
Items	Item has deleted the α coefficient
Name recognition of issuing bank	0.805
Credit card limit	0.803
Interest level/interest free period	0.801
Preferential activities - gift points, member coupons, etc	0.819
Promotional activities - cash back	0.811
Card style (such as star anime games, etc.)	0.891
Easy to use (including card opening, consumption and repayment, etc.)	0.807
Safe and reliable	0.804
Credit investigation (repayment situation affects individual credit record)	0.831

KMO and Bartlett tests were used for validity verification. It can be seen from the above table that the KMO value is 0.925 and the KMO value is greater than 0.8. The research data is very suitable for extracting information (good validity reflected from the side).

Table 3. Validity Analysis

Validity analysis results		
Items	Factor load factor	Degree of commonness
	Factor 1	(variance of common factors)
Name recognition of issuing bank	0.792	0.627
Credit card limit	0.802	0.643
Interest level/interest free period	0.821	0.674
Preferential activities - gift points, member coupons, etc	0.682	0.466
Promotional activities - cash back	0.753	0.567
Card style (such as star anime games, etc.)	-0.202	0.041
Easy to use (including card opening, consumption and repayment, etc.)	0.791	0.626
Safe and reliable	0.79	0.624
Credit investigation (repayment situation affects individual credit record)	0.574	0.33
Characteristic root value (before rotation)	4.598	-
Variance interpretation rate % (before rotation)	51.09%	-
Cumulative variance explanation rate % (before rotation)	51.09%	-
Characteristic root value (after rotation)	4.598	-
Variance interpretation rate % (after rotation)	51.09%	-
Cumulative variance interpretation rate % (after rotation)	51.09%	-
KMO value	0.925	-
Bart spherical value	935.972	-
Df	36	-
P values	0	-

4.2.2 Normality Test

The data for an OVA should satisfy normal distribution. Considering that subsequent regression analysis is needed, normality tests are conducted for all quantitative data and ordered data. The sample size of the study data was greater than 50, so k-S test was used. In general, if the absolute value of kurtosis is less than 10 and the absolute value of skewness is less than 3, it can be basically accepted as a normal distribution. All variables in the table can be basically accepted as normal distribution

and can be used for further analysis.

Table 4. Normality Test

	N	Min value	Max value	Mean	Standard deviation	Partial degrees	kurtosis	Kolmogorov Smirnov		Shapiro Wilke	
								statistic	p	statistic	p
The compensation factor	252	1	5	3.5694	1.06938	-0.741	-0.182	0.176	0.000**	0.917	0.000*
The cost factor	252	1.2	5	3.8071	0.99326	-0.932	-0.258	0.189	0.000**	0.871	0.000*
Environment 1_ City	252	1	3	1.67	0.851	0.688	-1.27	0.364	0.000**	0.697	0.000*
Environment 3_ Family and friends	252	1	4	2.08	0.622	0.742	1.75	0.379	0.000**	0.734	0.000*
Cognition 1_ degree	252	1	3	1.67	0.74	0.603	-0.951	0.307	0.000**	0.763	0.000*
Cognition 2_ Finance	252	1	3	1.54	0.652	0.823	-0.397	0.346	0.000**	0.726	0.000*
Cognition 4_ credit investigation	252	1	5	4.24	0.846	-0.873	0.16	0.284	0.000**	0.793	0.000*
Economy 1_ income	252	1	2	1.3	0.46	0.87	-1.253	0.442	0.000**	0.576	0.000*
Economy 2_ spending	252	1	5	2.61	0.804	0.738	0.277	0.295	0.000**	0.823	0.000*
Number	252	1	4	1.41	0.734	1.679	1.869	0.431	0.000**	0.61	0.000*
Intend	252	1	3	2.1	0.889	-0.196	-1.713	0.293	0.000**	0.744	0.000*
Propensity	252	1	2	1.27	0.443	1.066	-0.87	0.46	0.000**	0.551	0.000*

4.2.3 Results in Differences in Credit Card Use/Non-use Groups

According to the results of Chi-square analysis and variance analysis, there are significant differences between credit card users and non-credit card users on environment 2_ overseas, environment 3_ family and friends, cognition 2_ finance, cognition 3_ credit card, economy 1_ income, and economy 3_ expenditure.

By comparing percentage differences, it can be seen that:

- (1) The proportion of those who use credit cards with overseas consumption

experience is significantly higher than that of those who do not use credit cards. The proportion of those who do not use credit cards who have no overseas consumption experience is significantly higher than those who use credit cards.

(2) The number of family members and friends who use credit cards is significantly more than that of those who do not.

(3) Those who use credit cards have a higher degree of financial knowledge than those who don't.

(4) The knowledge of credit card in the group using credit card is significantly higher than that in the group not using credit card

(5) The average monthly disposable income of the group using credit cards is significantly higher than that of the group not using credit cards

(6) The average monthly expenditure of the group using credit cards is significantly higher than that of the group not using credit cards.

Table 5.1. Results in Differences in Credit Card Use/Non-use Groups

		Use credit card or not		total	p
		Don't use	use		
Environment 2_ Abroad	1	38 (20.99)	15 (21.13)	53 (21.03)	0.002**
	2	143 (79.01)	56 (78.87)	199 (78.97)	
Environment 3_ Family and friends	1	126 (69.61)	20 (28.17)	146 (57.94)	0.000**
	2	29 (16.02)	14 (19.72)	43 (17.06)	
	3	26 (14.36)	37 (52.11)	63 (25.00)	
Cognition 2_ Finance	1	112 (61.88)	11 (15.49)	123 (48.81)	0.006**
	2	53 (29.28)	35 (49.30)	88 (34.92)	
	3	16 (8.84)	25 (35.21)	41 (16.27)	
Recognize 3_ credit cards	1	126 (69.61)	13 (18.31)	139 (55.16)	0.000**
	2	47 (25.97)	44 (61.97)	91 (36.11)	
	3	8 (4.42)	14 (19.72)	22 (8.73)	
Economy 1_ income	1	7 (5.11%)	0 (0.00%)	7 (2.78%)	0.000**
	2	66(48.18%)	39(58.21%)	102 (49.21%)	
	3	51(37.23%)	18(26.87%)	69(34.52%)	
	4	9 (6.57%)	10(14.93%)	19(11.51%)	
	5	4 (2.92%)	0 (0.00%)	4 (1.98%)	
Economy 3_ spending	1	7 (3.87)	0 (0.00)	7 (2.78)	0.022*
	2	91 (50.28)	33 (46.48)	124 (49.21)	
	3	61 (33.70)	26 (36.62)	87 (34.52)	
	4	18 (9.94)	11 (15.49)	29 (11.51)	
	5	4 (2.21)	1 (1.41)	5 (1.98)	

Table 5.2. Results in Differences in Credit Card Use/Non-use Groups

	Use credit card or not (mean ± standard deviation)		p
	Not used (n=169)	Used (n=161)	
Environment 3_ Family and friends	0.86±0.51	1.32±0.57	0.000**
Recognize 3_ credit cards	1.53±0.46	2.16±0.59	0.002**
Economy 1_ income	2.23±0.80	2.67±1.03	0.000**
Economy 3_ spending	2.34±0.71	2.39±0.85	0.030*

4.3 Analysis of Influencing Factors of Credit Card Use

4.3.1 Analysis of Influencing Factors of Credit Card Use Intention (Multiple Logistic regression)

Take economy 2source of income _ family supply, substitute use _ 1, environment 2 overseas _ 1, gender _ male, environment 1 city, cognition 1_educational background, cognition 2 _finance, Economy 1_income, economy 3_expenditure, cognition 3_credit card, environment 3_family and friends, cost factor and compensation factor as 13 independent variables. Willingness was used as a dependent variable to perform multiple Logistic regression analysis. Use "unwillingness to use credit cards" as a reference for comparison analysis. Therefore, there will be two final formulas, and the final model formula is as follows:

$$\ln(\text{indifferent/unwilling}) = 2.446 + 0.582 * \text{Economy 2_source of income} - 0.504 * \text{substitute use} + 1.755 * \text{Environment 2_overseas} + 0.405 * \text{Gender} - 0.275 * \text{Environment 1_City} - 0.051 * \text{Cognition 1_Educational background} - 0.234 * \text{Cognition 2_Finance} - 0.069 * \text{Economy_1 Income} - 0.769 * \text{Economy _ expenditure} - 0.352 * \text{Cognition 3_Credit card} + 0.281 * \text{Environment 3_Family and friends} - 0.399 * \text{Cost factor} + 0.276 * \text{Compensation factor}$$
$$\ln(\text{willing/unwilling}) = 0.872 - 0.144 * \text{Economy 2 Source of income} - \text{Family providing} - 0.540 * \text{Substitute use} + 0.528 * \text{Environment 2_overseas} + 0.115 * \text{Gender} - 0.327 * \text{Environment 1_City} + 0.045 * \text{Cognition 1_Education} - 0.358 * \text{Cognition 2_Finance} + 0.437 * \text{Economy 1_Income} - 0.138 * \text{Economy 3_Expenditure} + 0.745 * \text{Cognition 3_Credit card} + 0.055 * \text{Environment 3_Family and friends} - 0.392 * \text{Cost}$$

factor + 0.057* compensation factor

In contrast to "unwilling", under the premise of "indifferent" :

(1) The regression coefficient environment 2 _overseas was 1.755(P =0.001<0.01).

This means that compared with no other consumption experience, overseas consumption experience has a significant positive impact on college students' willingness to use credit cards. That is, when the number of family and friends using credit cards increases, the willingness of college students to use credit cards will change from "unwilling" to "indifferent".

As opposed to "unwilling", under the premise of "willing"

(1) Economy 1_Income the regression coefficient of income was 0.437(P =0.016<0.01). It means that the monthly average income has a significant positive impact on the willingness to use credit cards, that is, when the monthly average income increases, the willingness of college students to use credit cards will change from "unwilling" to "willing".

(2) The regression coefficient of cognition 3_credit card was 0.745(P =0.008<0.01). It means that the understanding of credit card has a significant positive impact on the willingness to use credit card, that is, when the cognition of credit card deepens, the willingness of college students to use credit card will change from "unwilling" to "willing".

Table 6 Summary of multiple Logistic regression analysis results - simplified format

	Whatever	Willing to
Environment 2 overseas 1.0	1.755** (3.445)	0.528 (1.181)
Economy 1 Income	-0.069 (-0.286)	0.437* (2.400)
Cognition 3 Credit card	-0.352 (-0.891)	0.745** (2.651)
Intercept	2.446 (1.677)	0.872 (0.787)
Likelihood ratio test	$\chi^2(26)=70.311, p=0.000$	

Dependent variable: willingness

McFadden *R* square: 0.133

Cox & Snell *R* square: 0.243

Nagelkerke *R* square: 0.277

* $p < 0.05$ ** $p < 0.01$ The z value is in parentheses

4.3.2 Analysis of the Influencing Factors of the Number of Credit Card Use

(Stepwise regression)

The quantity is used as the dependent variable for stepwise regression analysis. After automatic recognition by the model, there are 3 items left in the model: cognition 2_finance, cognition 3_credit card, environment 3_family and friends. The model formula is as follows:

$$\text{Quantity} = 0.118 + 0.283 * \text{Cognition 2_Finance} + 0.366 * \text{cognition 3_Credit card} + 0.154 * \text{Environment 3_Family and friends},$$

R square value is 0.326, meaning cognition 2 finance, cognition 3 credit card,

environment 3 family and friends can explain 32.6% of the variation in quantity. Moreover, the model passed the F-test ($F=39.989$, $P=0.000<0.05$), indicating that the model is valid.

Specific analysis shows that:

(1) The regression coefficient value of cognition 2finance is $0.118(P=0.000<0.01)$, which means that the degree of financial knowledge has a significant positive impact on the number of credit card use, that is, the more familiar with financial knowledge, the more of credit card use.

(2) Cognition 3_credit card the regression coefficient value of is $0.366(P=0.000<0.01)$, which means that the knowledge of credit card has a significant positive impact on the number of credit card use, that is, the more they know about credit card, the more they use credit card

(3) The regression coefficient of environment 3_family and friends was $0.154(P=0.000<0.01)$. It means that the use of credit cards by family and friends has a significant positive impact on the number of college students using credit cards, that is, the more family and friends use credit cards, the more the college students use credit cards.

Table 7 Stepwise regression analysis results - simplified format

	Regression coefficient	95% CI	VIF
Constant	0.118 (0.952)	-0.126 ~ 0.363	-
Cognition 2_Finance	0.283** (5.317)	0.179 ~ 0.387	1.060
Cognition 3 Credit card	0.366** (5.621)	0.239 ~ 0.494	1.235
Environment 3 Family and friends	0.154** (3.104)	0.057 ~ 0.251	1.219
Sample size		252	
R^2		0.326	
Adjust R^2		0.318	
F		$F(3,248) = 39.989, p = 0.000$	

Dependent variable: quantity

D - W value: 1.376

* $p < 0.05$ ** $p < 0.01$ The t values are in parentheses

4.3.3 Analysis of Influencing Factors of Propensity to Huabei/Credit Card Use

(Multiple Logistic regression)

Taking "propensity" as the dependent variable and "more inclined to spend" as the reference item, this paper studies the influence of various factors on college students' propensity to spend and use credit cards. Therefore, there will be two final formulas, and the final model formula is as follows:

$\ln(\text{not necessarily/inclined to Huabei}) = -3.807 - 0.462 * \text{Substitute use} - 0.479 * \text{Economy 2_Source of income} + 0.571 * \text{environment 2_Overseas} - 0.743 * \text{Gender} + 0.427 * \text{Environment 1 City} + 0.005 * \text{Cognition 1 education} + 0.161 * \text{Cognition 2 Finance} - 0.249 * \text{Economy 1 Income} + 0.657 * \text{Economy 3 Expenditure} + 0.044 * \text{Cognition 3 Credit card} + 0.324 * \text{Environment 3 Family and friends} + 0.154 * \text{Cost}$

factor + 0.096* compensation factor

$\ln(\text{preferred credit card/preferred Huabei}) = -3.204 - 1.529 * \text{Substitute use} - 0.282 * \text{Economy 2_Source of income} - 0.032 * \text{Environment 2_Overseas} + 1.175 * \text{Gender} - 0.940 * \text{Environment 1 City} - 0.566 * \text{Cognition 1 Education} + 0.272 * \text{Cognition 2 Finance} + 0.201 * \text{Economy 1 Income} + 0.505 * \text{Economy 3 Expenditure} + 0.398 * \text{Cognition 3 Credit card} + 0.556 * \text{Environment 3 Family and friends} - 0.303 * \text{Cost factor} + 0.226 * \text{compensation factor}$

Compared with "inclined to Huabei", under the premise of "not necessarily":

(1) The regression coefficient of gender _ male is -0.743. It means that male college students are more likely to use credit cards than women.

(2) The regression coefficient of environment 1 city is 0.427, which means students in big cities are more inclined to use credit cards.

(3) The regression coefficient of expenditure of economy 3 is 0.657. It means that the average monthly expenditure has a significant positive impact on the willingness to use credit cards, that is, when the average monthly expenditure increases, college students are more inclined to use credit cards.

Compared with "inclined to Huabei", under the premise of "inclined to credit card":

The regression coefficient value of substitute use is -1.936 ($z = -5.501$, $P = 0.000 < 0.01$), which means that college students who have used Huabei are more inclined to use Huabei.

Table 8 Summary of multiple Logistic regression analysis results - simplified format

	Not certain	Credit card preference
Substitute 1.0	-0.462 (-1.301)	-1.529* (-2.515)
Gender _ male	-0.743* (-2.220)	1.175 (1.703)
Environment 1_ City	0.427* (2.037)	-0.940 (-1.724)
Economy 3_ spending	0.657** (2.713)	0.505 (1.286)
Intercept	-3.807** (-3.135)	-3.204 (-1.490)
Likelihood ratio test	$\chi^2 (26) = 62.594, p = 0.000$	

Dependent variable: propensity

McFadden *R* square: 0.156

Cox & Snell *R* square : 0.220

Nagelkerke *R* square : 0.276

* $p < 0.05$ ** $p < 0.01$ The z value is in parentheses

CONCLUSION

5.1 Sample descriptive analysis

Most contemporary college students do not know much about finance and credit cards. Most students have enough money each month, but a few students often overspend. When students overspend, they prefer to get money from other sources rather than borrowing. More students have used Huabei and found it convenient. Most students are not averse to using credit cards and are willing to use them. If the threshold of credit card is lowered, some students will consider getting a credit card.

5.2 Differences in Credit Card Use Among College Students

Compared with people who do not use credit cards, people who use credit cards have a higher proportion of overseas consumption experience, more family and friends who use credit cards, higher financial knowledge, higher understanding of credit cards, higher average monthly disposable income and higher average monthly expenditure.

5.3 Factors Influencing College Students' Credit Card Use

(1) Gender factor: girls are more likely to use Huabei, while boys are more likely to use credit cards.

(2) Environmental factors: Students who live in big cities are more likely to use credit cards. Overseas experience has a significant positive impact on college students' willingness to use credit cards. The use of credit cards by family and friends has a significant positive impact on the number of college students using credit cards.

(3) Cognitive factors: educational background and financial knowledge reserve

have no significant influence on the number, intention and tendency of using credit cards. The more financial knowledge college students have, the more they tend to have more card holders. College students' knowledge of credit cards has a significant positive impact on the number and willingness to use credit cards. Credit card cognition can be regarded as a directional refinement of financial knowledge reserve, and the results are in line with expectations.

(4) Economic factors: groups with more monthly disposable income have a positive impact on their willingness to use credit cards. But the source of income had no significant effect on the amount of use, willingness or inclination. Average monthly expenditure has a significant positive effect on credit card usage tendency. In other words, when the average monthly expenditure increases, the necessity of using consumer financial products increases, and college students prefer to use credit cards.

(5) Use of substitutes: The use of substitutes has a significant impact on the propensity to use consumer credit products. College students who have used Huabei are more inclined to use Huabei.

5.4 Implications

To strengthen the willingness of college students to use credit cards, we should make joint efforts from college students, home schools, credit platforms and the government. College students should improve their financial mastery and form reasonable and scientific consumption habits. Schools and families should work together to create a good atmosphere of consumption and cultivate rational and healthy consumption outlook of college students. Credit platforms should carry out targeted and

reasonable publicity of college students' credit cards and make differentiated products to attract college students. The government should strengthen the supervision of college students' consumer credit and establish standardized laws and regulations on college students' consumer credit. At the same time, it is necessary to reduce the threshold of credit card processing, so as to promote the credit card market on the basis of healthy and harmonious development.

5.5 Limitations and Contributions

This paper improves and innovates on the basis of previous research.

Due to the limitations of The Times, the past studies were all conducted separate studies on different kinds of lending methods. In this paper, a comparison is made between Huabei and credit card, and the intention tendency of influencing college students to use Huabei and credit card is analyzed. Considering that some college students may have the intention to use credit card products, but do not use them temporarily due to the restriction of some practical conditions, this paper not only examines the "actual use situation", but also examines the "use intention". Considering the increasing number of college students traveling abroad, studying abroad and taking exams, and the application scope of credit card for overseas overdraft consumption is relatively wider, this paper adds the option of overseas consumption for analysis.

However, there are still areas for improvement in this article.

The data collected on university students' degrees are scattered and not comprehensive enough to be analyzed. This paper does not carry out a more detailed classification and comparative analysis of people who use credit cards or Huabei only

to study their differences in characteristics. This article does not involve the comparison between Huabei and credit card performance, such as limit, security performance, etc. The following research can study the comparison between credit card and Huabei in terms of performance.

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Questionnaire on college students' willingness to use credit cards

1. Gender
 - Male
 - Female

3. Overseas consumption Experience
 - Yes
 - No

4. education background
 - junior college
 - Undergraduate
 - postgraduate
 - PHD

5. Financial knowledge
 - Not familiar
 - Have not learned, but have certain knowledge reserve
 - I majored in business

6. Your monthly income (living expenses) is:
 - 1000
 - 1000-2000
 - 2000-3000
 - 3000-5000
 - 5000+

7. Your disposable income sources are:
 - Families provide
 - Sources other than family (scholarship, part-time job, etc.)

8. Your monthly expenditure is:
 - 1000
 - 1000-2000
 - 2000-3000
 - 3000-5000
 - 5000+

9. Your solution when you run out of money?

- Ask parents for it
- Borrow from friends
- Working part-time job
- Use credit products

10. Do you know anything about credit cards (such as terms of opening, limit, interest, special offers, etc.)?

- Did not understand
- Have a basic understanding
- Fairly clear

11. Have you ever used a credit card?

- No
- Only one
- Two
- Three and above

12. The main reason you don't currently use credit cards is?

- Prefer to use Huabei
- Enough money
- Failed to open card
- Others

13. Are you using a main card or a supplementary card?

- The main card
- Supplementary card
- Both

14. Credit cards used by your family and friends

- None
- less
- More

15. Do you use other consumer financial products (Huabei, IOUS, Instalment, etc.)?

- Yes
- No

16. Whether there has been a default?

- Yes
- No

17. Are you willing to use a credit card?

- No
 Whatever
 Yes

18. Whether the following factors affect your willingness to use credit cards? 1-5 More and more influence

	1	2	3	4	5
Name recognition of issuing bank	<input type="radio"/>				
Credit card limit	<input type="radio"/>				
Interest level/interest free period	<input type="radio"/>				
Preferential activities - gift points, member coupons, etc	<input type="radio"/>				
Promotional activities - cash back	<input type="radio"/>				
Card style (such as star anime games, etc.)	<input type="radio"/>				
Easy to use (including card opening, consumption and repayment, etc.)	<input type="radio"/>				
Safe and reliable	<input type="radio"/>				
Credit investigation (repayment situation affects individual credit record)	<input type="radio"/>				

19.

19. Please comment on the following statements

	Agree	Disagree	Not sure
I think the opening, consumption and repayment of Huabei are more convenient than credit cards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think credit cards are more likely to lead to impulse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

spending and overspending than spending			
I think credit card offers more benefits than spending	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer spending money to using credit cards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will consider applying for a credit card if the threshold for applying for a credit card is lowered (such as not notifying parents and other secondary payers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'd be more inclined to use a credit card if the credit limit is higher than spending	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using credit cards makes me feel more respectable than using cash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The rational use of credit cards is more conducive to personal credit investigation than the use of bai, which is conducive to the future loan from the bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>