

# Analysis of the Mechanism of Credit Card Stimulating Consumption When Considering the Characteristics of the Population

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## Abstract

According to data disclosed by the People's Bank of China, as of the third quarter of 2018, the number of domestic credit cards issued reached 659 million, an increase of 43% compared to the first quarter of 2015. In just over three years, the number of cards per capita rose from 0.31 in the first quarter of 2015 to 0.47. Total outstanding credit of credit cards: The scale of bank card credit continued to expand. As of the end of the third quarter, the total amount of bank card credit was 14.69 trillion yuan, an increase of 5.05% from the previous quarter; the total outstanding credit of credit cards overdue for half a year was 88.098 billion yuan, an increase of 16.43% from the previous quarter. . In 2018, the cumulative card volume of Bank of China and Agricultural Bank exceeded 100 million. Together with the Industrial and Commercial Bank of China, China Construction Bank and China Merchants Bank, there are currently five domestic banks that have achieved card volume exceeding 100 million, and the number of cards issued by other commercial banks has also increased by leaps and bounds. It can be seen that the development of credit cards has achieved great development and has become increasingly common. Looking at the existing literature, it can be found that the current domestic and foreign research on the analysis of the mechanism of credit card stimulating consumption when considering the characteristics of the population is very insufficient. This article will combine the relevant characteristics of different consumer groups to explore and summarize the mechanism of credit card stimulating consumption and promoting economic growth.

## Keywords

Population Characteristics; Credit Card; Consumption; Mechanism of Action.

## 1. Introduction

The source of this topic is: under the policy environment of expanding consumer demand, the development of credit consumption is considered an important means to stimulate consumer demand. The innovations of this article are mainly reflected in the following two aspects: 1. Use the data of the Chinese household finance survey in the past five years and check the "China Statistical Yearbook" to check China's consumption in recent years. 2. Based on the research results that credit cards can bring positive effects on consumption, in-depth exploration of the mechanism of credit card stimulating consumption.

## 2. Experimental

### 2.1. Study Area

For this topic, firstly, briefly introduce the basic information about credit cards. Definition of credit card: The so-called "credit card" refers to those issued by banks, financial institutions or

franchised companies to units and individuals with good credit standing in accordance with the law, which can be used for direct consumption in designated stores or places, and can be used in issuing banks and associated institutions. A credit voucher and payment tool for consumer credit enjoyed within the credit limit for deposits and withdrawals, transfer and settlement of business outlets (Liu & Siegfried, 2021).

The development process of credit card: Another way of saying is that credit card is a non-cash transaction payment method, which is a simple credit service. A credit card is generally a plastic card with a length of 85.60 mm, a width of 53.98 mm, and a thickness of 1 mm. It is issued to the cardholder by the bank or credit card company in accordance with the user's creditworthiness and financial resources. The cardholder does not need to pay cash when using the credit card. Repay the loan again. Except for some credit cards combined with financial cards, ordinary credit cards are different from debit cards and debit cards. Credit cards will not directly deduct funds from the user's account. In February 2012, the bank confirmed that the credit card is more secure without a password, and the bank shares the responsibility if it is stolen. Enjoy an interest-free period of 25-56 days (or 20-50 days). Credit card consumption enjoys an interest-free period, and the bill amount will be paid off before the due date of repayment without incurring charges. There is no interest-free repayment period for cash withdrawal. Five ten-thousandths of a daily interest will be charged from the day of cash withdrawal, and the bank will also charge a certain percentage of cash withdrawal fees. There are two types of credit card issuance objects: corporate cards and personal cards. The company card is issued to various industrial and commercial enterprises, scientific research and education institutions, national party and government agencies, troops, groups and other legal organizations. Individual cards are issued to individual urban and rural residents, including workers, cadres, teachers, scientific and technological workers, self-employed households, and other adult urban and rural residents with a stable source of income. The personal card is applied for in the name of an individual who bears all the responsibilities of using the card. Credit cards can be divided into ordinary cards and gold cards according to the creditworthiness and status of the cardholder. Ordinary cards are issued to cardholders with average economic strength, reputation and status, and their various requirements are not high. The gold card is a premium credit card that pays high membership fees and enjoys special treatment. The card issuance targets are those with high creditworthiness, strong repayment ability and credit, or with certain social status. The starting point of the authorization limit of the gold card is higher, and the additional service items and scope are much wider, so the requirements for related service fees and guarantee funds are relatively high. There are two repayment methods for credit cards: credit card and quasi-credit card. Credit cards are used when the issuing bank provides bank credit, first overdraft, and then repayment or instalment. Most of the cards in circulation in the world are of this type. That is to say, the way that the cardholder is allowed to pay without deposit in the credit card account is "consumption first, deposit later". Most of the cards used in international circulation are of this type. Quasi-credit card refers to a credit card that the cardholder must first deposit a certain amount of reserve fund according to the card issuing bank's requirements. When the reserve fund account balance is insufficient to pay, the credit card can be overdrawn within the credit limit specified by the issuing bank, but the overdrawn part is automatically Interest is calculated and collected from the day of overdraft, and interest-free period is not enjoyed (the quasi-credit card does not need to pay a reserve fund). Secondly, the consumption behavior of credit cards. In most cases, citizens with full capacity for civil conduct (citizens of 18 years of age or older in mainland China) and a certain direct source of income can apply for a credit card from the issuing bank. Sometimes, legal persons can also act as applicants. The objects for applying for a credit card can be divided into units and individuals. The applicants should be institutions, corporate business units, foreign-funded enterprises and individual industrial and commercial

households with independent legal personality in China. Each unit applying for a credit card can receive one main card and multiple (5-10) supplementary cards as needed. Individuals applying for credit cards must have a fixed career and a stable source of income, and provide guarantees to the bank. The forms of guarantee include personal guarantee, unit guarantee and personal fund guarantee. The application method is generally by filling in a credit card application form. The content of the application form generally includes the name of the applicant, basic information, economic status or source of income, guarantor and basic information, etc. And submit certain copies of certificates and certificates to the issuing bank. After the customer fills in the application form truthfully, he/she must submit the relevant credit certificate while submitting the completed application. The application form is accompanied by a credit card contract. The applicant authorizes the card issuing bank or relevant departments to investigate its relevant information, and submit a statement of the authenticity of the information, the card issuing bank's privacy protection policy, etc., and the applicant's autograph is required.

### 3. Results and Discussion

There are mainly five documents related to this article.

The increase in credit card limit, therefore, the increase in consumer credit has played a role in promoting consumption, significantly increasing the frequency of credit card use and transaction amount (Batiz-Lazo, 2018).

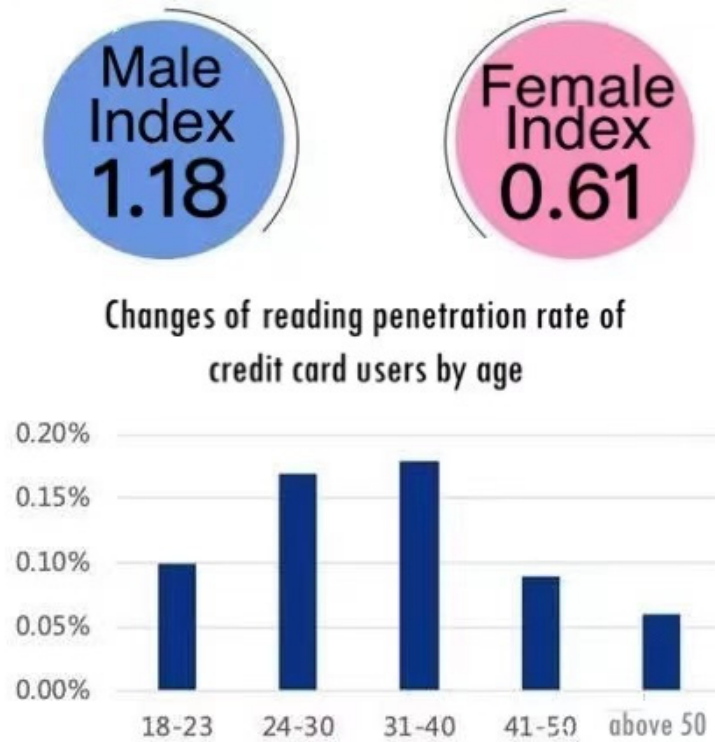
1. Research on which types of users are more attractive to credit cards (Rong, 2018). The theory believes that people with different characteristics are greatly related to credit card spending habits. First, the number of female cardholders overdrawing credit cards is less than that of male overdrawing credit cards; second, the level of education of cardholders is directly proportional to the degree of credit card overdraft; third, compared to married and single groups, divorced Because fewer people come from family restrictions, they are more likely to overdraft credit cards; fourth, the number of young people and the elderly who use credit cards is not large, and middle-aged people who use credit cards are the largest proportion; fifth, The closer the relationship between the cardholder and the bank, the more times they will use the credit card to make purchases.

2. After the credit limit is increased, what will happen to the default rate of bank credit cards? The result of the research is that as the credit limit of cardholders increases, irrational consumption will appear on credit cardholders.

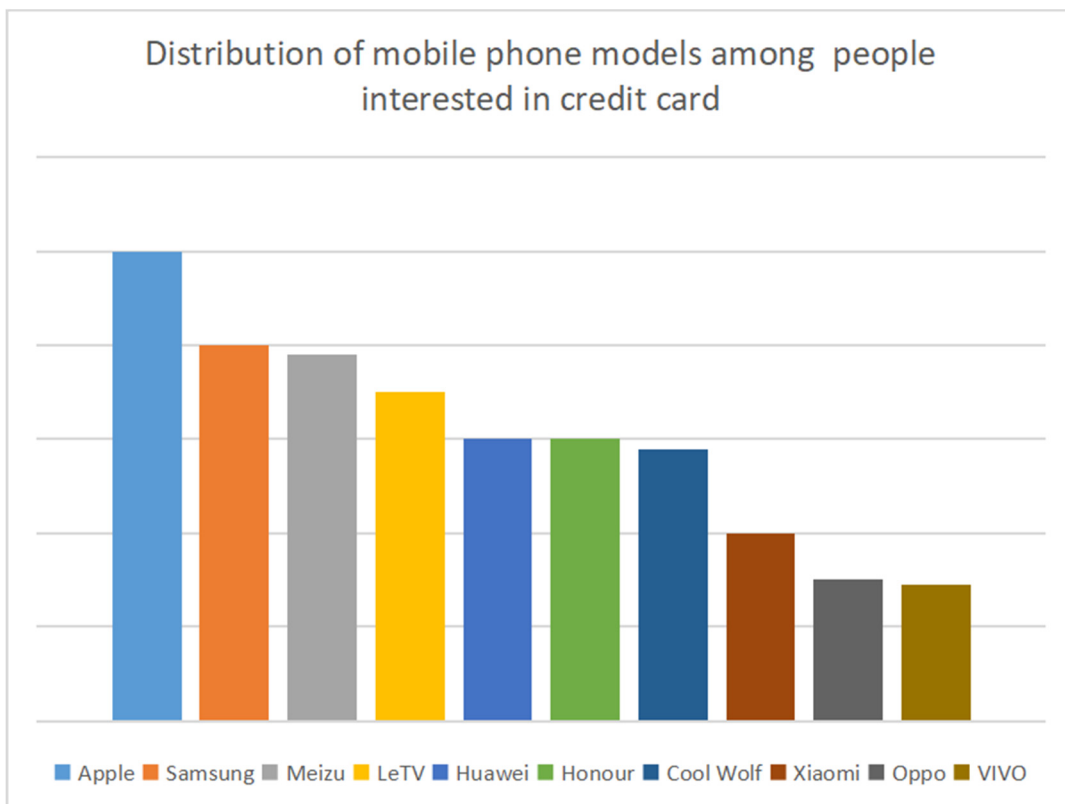
3. During the slowdown of economic development, credit card-related businesses have now become the breakthrough point in major retail reforms of various banks, and credit card intermediary business income will become the main profit point of the new retail layout (Marilyn & Fran, 2020).

4. Credit card is a very convenient tool for using credit payment. The essence of a credit card is to meet the needs of a single customer for short-term funds. On the one hand, credit cards give full play to their convenient payment and credit overdraft functions to meet customers' payment needs, and on the other hand, they expand various consumption scenarios to cater to customers' consumption needs (Ting, Then & Ong, 2020).

Analysis of credit card users is as follows: (1) Male users pay more attention to credit cards than female users; the age group is concentrated in the 24-40 years old, which is in line with mainstream consumer groups; Beijing, Shanghai, Guangzhou and Shenzhen pay the most attention to credit cards (occupies the first four), Chengdu, Wuhan and other places are in the front. (See Figure 1) (2). Credit card interest groups are highly concentrated on iPhone phones, followed by Samsung, Meizu, LeTV, Huawei, and Honor models. (See Figure 2)



**Figure 1.** Changes of reading penetration rate of credit card users by age



**Figure 2.** Distribution of mobile phone models among people interested in credit card

(3) The use of credit card defaults (data source: UCI\_Credit\_Card SVM Classifier Acc.0.82, a bank’s billing information for credit card users from April to September of the current year obtained on the kaggle website.) 1. 1. Find information from gender, Use SQL to query the default ratio of men and women. (Figure 3) It can be seen that the default rates of male and

female customers are actually very similar, but the number of male customers is much smaller than the number of female customers. (Figure 4) So we can draw a conclusion: the default rate of male customers is higher than women.

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select sex as "sex", count (sex) as "Number of male clients",
(select sum ( case when sex = 1 then 1 else 0 end ) from uci_credit_ card where defa = 1 )/count (sex) as "Proportion of male default"
from uci_credit_ card where sex=1;
select sex as "sex" , count (sex) as "Number of female clients",
(select sum ( case when sex = 2 then 1 else 0 end ) from uci_credit_ card where defa = 1 )/count (sex) as "Proportion of female default"
from uci_credit_ card where sex=2;
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Figure 3. Programming process of gender default data

Gender	Number of male clients	Proportion of male default
1	11888	0.2417

Figure 4. Results of gender default data

### 4. Conclusion

The significance of this research is to find relevant materials and big data analysis conducted in the data, and in-depth study of the impact of population characteristics on credit card use. This will have positive theoretical and practical significance for promoting the healthy development of my country's credit card market and promoting the psychological maturity of the vast number of credit card consumers.

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