

Research Progress on Precise Marketing Strategies for Different Customer Groups Based on Mobile Banking Data in the Banking Industry

Han Xie^{1,a,*}

¹*Bank of China Dangui Dajie Sub-branch, Zigong Branch, Sichuan Province, 643000, China*

a. cormac_xie@foxmail.com

**corresponding author*

Abstract: For precise marketing, this article takes the existing payment method data of a bank's mobile banking as the research object, analyses the current situation of mobile banking, and sums up the basic information of customers who currently use mobile banking. Then the basic information of customers is subdivided into customer groups by gender, age, bank product holdings, and payment means to study the use of mobile banking. Through the research on the customers' holding bank products and payment at the current stage, put forward marketing strategy optimization suggestions. First, improve the convenience of using mobile banking, enrich product functions, and create unique mobile banking; Second, in terms of channel strategy, strengthen cooperation with third parties to improve the convenience of channels; Then, in terms of a promotion strategy, it is mainly recommended to adopt record precision marketing based on customer's common bank products; Finally, in terms of process strategy, establish marketing service standards and tracking feedback mechanism.

Keywords: banking industry, mobile banking, precise marketing

1. Introduction

Now that the world is in a period of rapid development of the Internet economy, an increasing number of bank clients are turning online, so online banking transactions have become normal. And, with the technical support of the Internet and big data, not only can companies provide high-quality customer experience but also greatly change their financial behavior and preferences. Under the circumstances, the banking industry has been unable to meet the demands of clients in diversified scenarios due to homogeneous financial products and its traditional marketing places and strategies. Therefore, in recent years, most banks have vigorously developed their online banking, especially mobile banking, which has attracted a growing number of users because of the convenient services they can provide. With the spread of COVID-19 after 2019, many offline industries have been impacted, and the banking industry was no exception. Affected by COVID-19, a large number of clients seldom came to banks. Gradually, the connection between banks and these clients were decrease, making the bank's traditional marketing strategies invalid, and the bank might lose customers. Thus, today, the traditional marketing strategies and places of the banking industry are being challenged. This article summarizes this issue by consulting relevant literature and combining the latest mobile banking

strategies in domestic and abroad, in order to increase the banking industry's understanding of marketing strategies and establish the foundation for formulating more accurate marketing plans in the future.

2. Literature Review

2.1. Overseas Research

The progress of mobile banking abroad started earlier than that in China. Since Czechoslovakia launched the world's first mobile banking in 1996, the United States, Germany, and Japan have successively initiated mobile banking and promoted business on them, making mobile banking entered maturity. Therefore, learning from their experiences has become a major way to better evolve the mobile banking business in China [1].

2.1.1. Wells Fargo

Wells Fargo found that the number of patrons who conducted financial services through mobile banking had grown rapidly in recent years, and a client logged into his or her mobile banking 15 times per month. In 2018 and 2019, the number of transactions in mobile banking has increased by more than 163%, which means that users' demand for business through mobile banking has surged, and mobile banking has covered most of the financial service needs of customers [2]. Therefore, based on the increasing of clients, Wells Fargo has developed a new mobile banking service, which allows customers to directly make an appointment to meet with the wealth management manager, increasing the online diversion function of clients and reducing the waiting time in the banks [3]. The operation is bank dominated. During this process, communication operators are only serve as supporters, providing network support for the operation of mobile banking, but not involving the core business development and management of banks [4].

Apply Pay. With Apple Pay launched by Apple, users only need to entered their mobile phone number and PIN code, and the bank would directly transfer the funds to the merchant's account. This model is third-party payment-oriented. The advantage of this mothed is that customers can check the balance of their accounts anytime and anywhere [5].

2.1.2. MTN

Mobile Telephone Network (MTN for short) is the largest communication operator in Uganda. In March 2009, MTN took the lead in launching mobile financial services in Uganda using its communication network. Due to the high mobile phone penetration rate in Uganda, and MTN's service network can cover 85% of Uganda [6]. Therefore, by the end of 2012, MTN had provided mobile financial services to 38% of households in Uganda, including more than 9 million active users; MTN had 15000 branches with a trading volume of 450 million US dollars. Although MTN's mobile financial business and scale were not as large as those of financial institutions in other African countries, its development speed was still in the ranks of Africa [7]. This mode is dominated by communication operators. In underdeveloped countries and regions, the mobile financial model led by communication operators can effectively overcome the problems such as the shortage of traditional bank branches [8].

2.2. Domestic Research

2.2.1. Current Situation of Domestic Mobile Banking

Compared with mobile banking in other countries, domestic mobile banking started relatively late, but due to the many cases that can be used for reference, it has developed rapidly [9]. And since COVID-19 in 2019, the traditional marketing strategies of banks have been affected, which has accelerated the development of online for banks. Mobile banking is the main means of online banking services and has also become an important grasp of banks' digital transformation. According to the "2020 China Electronic Banking Development Report", the proportion of personal mobile banking users maintained a relatively high growth rate in 2020, with an increase of 8% in 2020, and the proportion of users reached 71%, a year-on-year increase of 12% [10].

2.2.2. Main Problems

From the current, the domestic mobile banking presents a situation of coexistence of multiple development models, and the banking industry temporarily occupies a dominant position, that is, the bank-dominated model [10]. However, at this stage, mobile banking in the banking industry is only used as an auxiliary handle in the banking marketing strategy. Although the banking industry has listed mobile banking as one of the key development directions, it has not formulated corresponding marketing strategies for different customer groups.

At present, the bank's marketing methods are still traditional, and the types are relatively monotonous. Although customers would be classified by their deposit, loan, and other relevant assets through the bank's system automatically, this kind of division can only reflect the assets of clients, and cannot understand their real needs of them [11]. Therefore, the result of this marketing approach is that the marketing activities do not attract customers, and the advantages of banks are not fully utilized.

2.3. Goal

If banks want to attract customers, they must consider and analyze customers' needs. By probing deeply into the records of customers' banking business, to track clients in an all-around way. Therefore, it is necessary to dissect the exited data of users to find the needs of customers and establish precise marketing strategies to improve their experience. This will ensure that the communication between customers and banks will be deepened, and will further increase the sales volume of bank financial products. Thus, the next goal is to analyze the customers' transaction data to find out their consumption habits, and to work out the marketing plan according to their needs.

3. Results

3.1. Results by Gender

This research is mainly based on the data provided by the Personal Digital Finance Department of a branch of the Bank of China in Sichuan Province. The data is based on the customers' usage of the bank's mobile banking from 2018 to 2022. It includes the basic information of the customer, such as gender, age, customer assets, and other data. In addition, it also contains data on transaction methods classified into four categories, debit card quick payment, UnionPay QR code payment, electronic bank transfer payment, and digital currency payment.

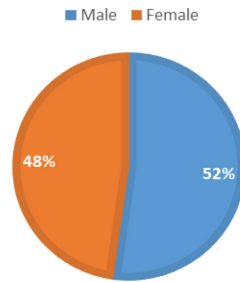


Figure 1: Gender ratio of debit card quick payment quick payment by debit card.

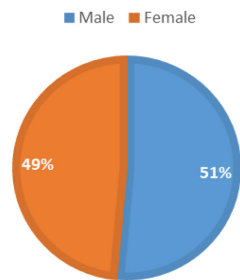


Figure 2: Gender ratio of electronic bank transfer payment.

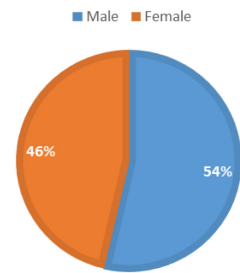


Figure 3: Gender ratio of Unionpay QR code payment.

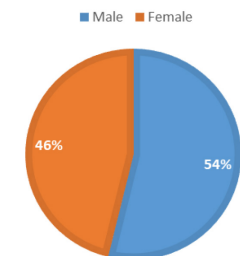


Figure 4: Gender ratio of digital currency payment digital currency payment.

All four categories of data as shown in Figure 1 to Figure 4, blue represents male and orange represents female. It can be learned that the gender ratio of males and females who used the bank's mobile banking for daily transaction processing was not different. In terms of debit card quick payment and electronic bank transfer payment, the number of male users was slightly more than that of female users, with a gap of less than 5%. However, in terms of UnionPay QR code payment and digital currency, the number of male users was more than that of female users, and the number gap exceeded 5%.

3.2. Results by Age

The age distribution is divided into six stages and is still classified by debit card fast payment, UnionPay QR code payment, electronic bank transfer payment, and digital currency payment. It can be discovered from Figure 5 that the age distribution of the four payment methods is concentrated in the four age groups from 20 to 60. However, there are relatively few customers under the age of 20 and over the age of 60. Moreover, among the four age groups in the centralized distribution, 20 to 30 and 30 to 40 are the most concentrated compared with the other two age groups. In addition, in terms of payment means, debit card quick payment and UnionPay QR code payment are the first choice of payment methods for all age groups.

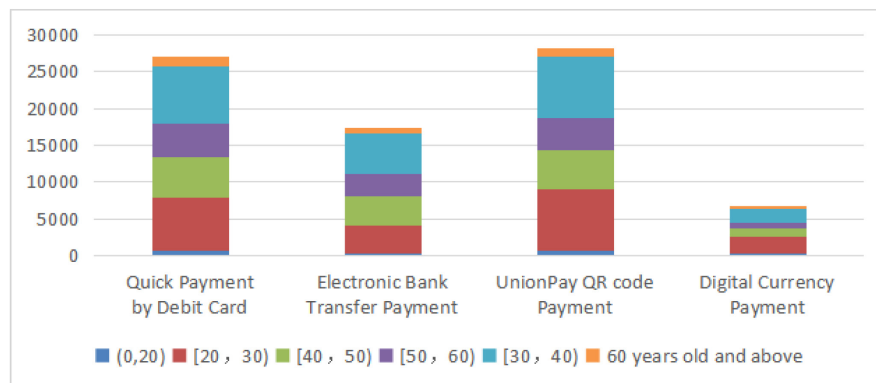


Figure 5: Age distribution of 4 payment methods age structures.

3.3. Results by Payment Methods

Figure 6 to Figure 8 showed data line charts of debit card quick payment, UnionPay QR code payment, and electronic bank transfer payment in recent five years. Since 2018, the number of users has shown a gentle increase trend, and only slightly decreased after 2021. Besides, the number and amount of mobile banking transactions used by customers also exhibited the same trend, but after 2021, the decline was much larger shown in Figure 6.

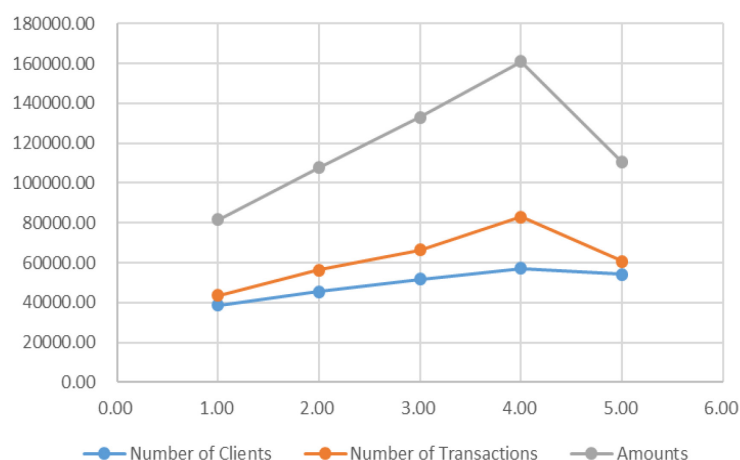


Figure 6: Quick payment transactions of debit cards from 2018 To 2022 quick payment by debit card.



Figure 7: Unionpay QR code payment transactions from 2018 To 2022 Unionpay QR code payment.

In 2018, the usage of UnionPay QR code payment was very low compared with the subsequent data, regardless of the number of users, transaction volume, or transaction amount. However, there has been a sharp increase since then. Even though the transaction volume of users has declined in 2021, the overall utilization rate of clients has increased. Also, the transaction amount has soared, compared with 2018, the total transaction amount of users has increased until 2022.

From the data of Electronic bank transfer payment displayed in Figure 8, the number of users using the electronic banking transfer payment of mobile banking was in a stable state from 2018 to 2022. There was a decline, but the overall number of users remained relatively stable after 2021. The growth rate of transaction volume was increasing year by year, and the increasing amount was approximately equal to the increase and the line chart of the number of users and transactions maintained the same slope. In terms of the transaction amount, the total amount increased rapidly between 2018 and 2020, but the rate of increase slowed down since 2021, and there was a decline after 2021.

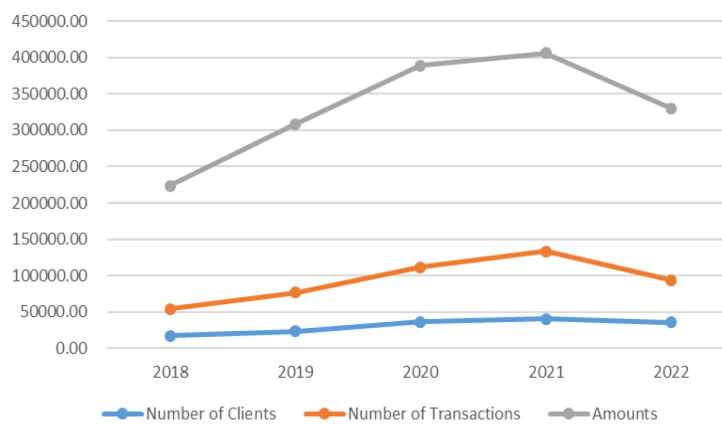


Figure 8: Electronic bank transfer payment transactions from 2018 To 2022 electronic bank transfer payment.

3.4. Results by Deposits and Assets

From the customer's total assets and customer's deposit data, the total deposits of customers using the four functions of mobile banking account for about 50% of the customer's total assets, among which the total deposits of customers using debit card quick payment and UnionPay cloud flash payment

account for more than 70% of the total assets. The proportion of total deposits of customers who use electronic banking transfer and digital currency to total assets fluctuates around 60%.

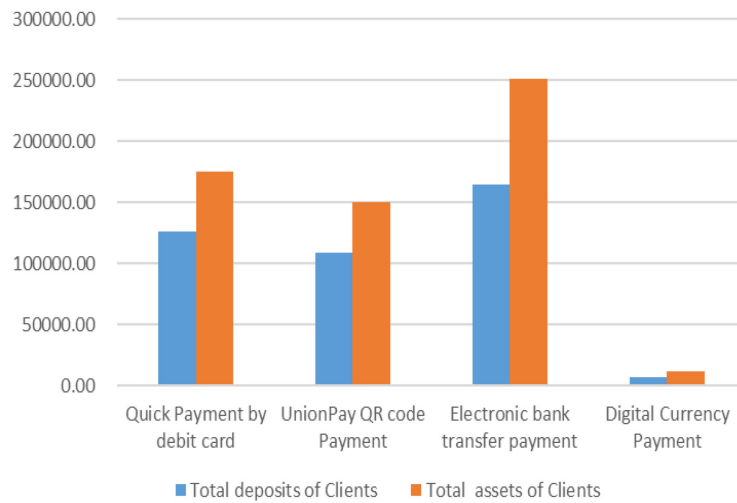


Figure 9: The proportion of clients' total deposits and assets.

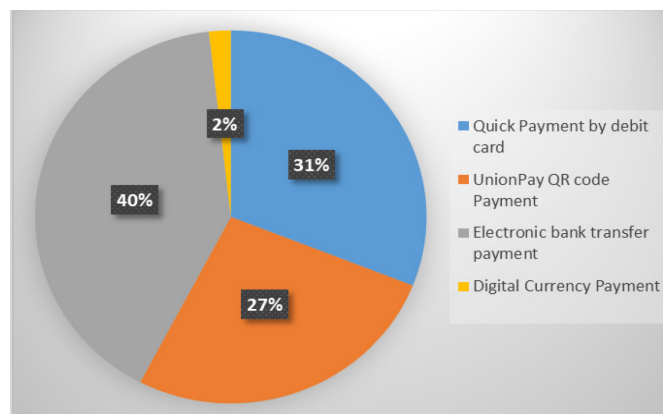


Figure 10: The proportion of clients' total deposits.

In terms of the proportion of customer deposits using the four payment methods in Figure 10, the proportion of customers using electronic bank transfer payment is the highest, reaching 40% of the total. Then customers who use debit cards for quick payment, account for slightly close to one-third. The proportion of customers who pay with the UnionPay QR code is more than one quarter. The customers who pay in digital currency account for only 2%.

4. Discussion

According to the above data, the gender distribution of customers using mobile banking was in line with the overall gender ratio of China at this stage from the perspective of gender structure, that is, there are more men than women. And it can be discovered that the number of clients who applied for debit card quick payment and electronic banking transfer payment as the transaction medium between the two genders was similar, but among the users who used UnionPay QR code payment and digital currency payment, males were higher than females. As mentioned above, the number difference was more than 5%. That is to say, with UnionPay QR code payment and digital currency payment as payment means, males were more acceptable than females. Therefore, for banks, males are potential

customers that can be marketed to digital currency. And because there was still a certain gap between the proportion of males and females, there were fewer females and more males. Therefore, in the marketing process of mobile banking, banks should pay more attention to designing ways that can attract females to use it in order to expand the female market.

Based on the age structure of customers, the groups between the ages of 20 and 60 account for more than 90% of the total number of them using the four payment methods. The proportion of the two groups, the ages 20 to 30 and 30 to 40, was relatively flat. And they were more than half of the groups in the ages of 20 to 60. The causes of clients aged 60 and above applying for mobile banking seldom are two. One is the difficulty for the group to operate on mobile phones. Another is that most of them still apply the passbook, a traditional savings medium that can only operate deposits and withdrawals on the counters. Therefore, the marketing of mobile banking is difficult for such customers. In addition, people who are younger than 20 years old are students almost. Due to the impact of card breaking, which is an action against telecom fraud, led to restrictions on students' opening cards and applying for mobile banking. Thus, the focus of marketing for customers should be on the groups between the ages of 20 and 60.

Still taking the data of the four payment methods of mobile banking for the past five years as an illustration. From the image of debit card quick payment, the number of transactions of it has increased year by year from 2017 to 2021, basically maintaining the same slope. However, the number of transactions of it has decreased to almost the same level as 2019. The main reason was the implementation of the card breaking making banks more cautious in handling the card opening business. Thus, banks' new bank card business was limited, and even if a new debit card was opened, it would also impose certain restrictions on the transaction amount and times of the debit card, so the transaction volume of the debit card quick payment has been rapidly reduced.

Customers' assets are the significant points that banks need to study carefully. Take total assets as an example. customers who use any payment method will deposit part of their assets in banks in the form of bank deposits, accounting for about 40% of the total assets.

5. Conclusion

At present, males are more likely to use the UnionPay QR code or digital currency for payment. Therefore, for those males, banks should combine with the policies of the People's Bank of China to vigorously promote the usage of digital currency to male users. Marketing digital currency to the people around those men to create the market of banks in the digital currency market. In addition, according to the age distribution, the focus of marketing should be on people aged 20 to 40 because they are the backbones of the bank user group. And for the elderly, banks carry out a stable marketing strategy for them. For their marketing fixed deposits, ensure that their funds are kept in the bank. Moreover, customers under the age of 20 should be provided with financial management that is easy to operate and easy to use, which can help them understand the relevant knowledge of financial management.

As the number of people using the UnionPay QR code to pay has increased sharply, marketing activities for them can be carried out. For instance, when users use it, they can get scores that can be redeemed for some discount coupons, instead of just redeeming some video website members. And fixed deposits are still the focus of marketing for the deposit is the core business. Besides, the proportion of clients who use electronic bank transfer payment is the highest, so banks should increase marketing efforts for them. For example, use regular telephone return visits to understand their financial trends.

This paper studies the optimization suggestions of a bank's mobile banking marketing strategy. It has a certain reference value to promote the further development of its mobile banking business and also can provide a reference for the development of other banks' marketing business. However, the

research still has certain limitations. Primary, many materials have not been obtained because they involve trade secrets, which affects the content of data reference. Moreover, since the author's limitations in the research, further analysis of the problems in marketing through data are only relatively superficial, therefore further probes will be made in the analysis in the future. Eventually, the marketing strategy optimization suggestions put forward in this study need to be tested in practice, and with the further rapid development of the mobile finance business, the marketing strategy should also be adjusted according to the actual situation.

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