ANALYSIS OF FACTORS AFFECTING MOBILE PAYMENT BEHAVIOR: A CASE STUDY OF CHINA MARKET

ZHANG LONGYI
5917195439

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT
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ANALYSIS OF FACTORS AFFECTING MOBILE PAYMENT BEHAVIOR:

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Thematic Certificate

To

ZHANG LONGYI

This Independent Study has been approved as a Partial Fulfillment of the Requirement of International Master of Business Administration in International Business Management

Advisor:..... Date:...../...../.....

(Doctor Kuang Jinrong)

.....

(Associate Professor Dr. Jomphong Mongkhonvanit)

Acting Dean, Graduate School of Business Administration

Date:...../...../.....

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Date: 1 / 8 / 2018
Siam University, Bangkok, Thailand

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ABSTRACT

Title : Analysis Of Factors Affecting Mobile Payment Behavior: A Case Study Of China Market

By: Zhang Longyi

Degree : Master of Business Administration

Major : Business Administration

Advisor: .....

(Doctor Kuang Jinrong)

25 / 7 / 2018

With the rapid development of electronic commerce and Internet finance, the era of electronic commerce has quietly entered our lives. The popularity of the Internet and smartphones has greatly promoted the booming of electronic commerce. Mobile payments derived from smartphones make online transactions easier, more time-saving and more efficient. Mobile payment became and the popular among consumers. The existing payment methods have change in decelopment, which brings great convenience to people's lives. At the same time, the impact of mobile payment, the opinions of consumers on mobile payment and the defects of mobile payment have become to influence to electronic commerce. Through a questionnaire survey of young and middle-aged students and office workers, this paper makes a statistical analysis of the factors affecting the behavior of mobile payment from four aspects, such as personal, security, mobile equipment APP, society and so on, and studies the influencing factors of mobile payment behavior.

Analysis results show: User mobile payment behavior is related to gender and occupation, and has nothing to do with income. The security of mobile payment is the most worrying factor for users. The ease and usefulness of mobile device APP will also affect users' attitude towards mobile payment. Students or colleagues and media publicity have some influence on mobile payment behavior of users.

Keywords: Mobile payment, Influential factors, Statistical analysis

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Today, I would like to write an acknowledgements, which means that I have come back to the stage of review and conclusion.

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Finally, thank all once again !

TABLE CONTENT

CHAPTER 1 INTRODUCTION

1.1 Research background

In recent years, with the rapid development of mobile communication technology and Internet communication technology, electronic commerce based on modern communication technology has developed rapidly, and with the popularization of mobile terminal devices such as tablet computers and smart phones, mobile payment makes online transactions more convenient, more time-saving and more efficient. Mobile payment is becoming more and more popular among consumers (Li, 2015). Mobile payment is changing people's consumption patterns and ways of payment. Although the traditional business model and pattern still occupy a large market share, the impact of e-commerce on people's consumption concept and consumption behavior can't be underestimated. For the vast number of consumers, the behavior of "mobile payment", especially for young consumers, almost happens every day in their lives, meeting their different needs.

According to the statistics report on the development of China Internet network, the scale of mobile phone users in China reached 772 million by the end of December 2017 (China Internet Information Center, 2017), and China Internet financial report (2017) showed that by December 2017, the number of mobile phone users in China reached 527 million, the annual growth rate was 11.9%, far higher than that of bank card receipts and interconnection. The overall situation report on the latest payment system issued by the official website of the Central Bank of China shows that in 2017, China's banking financial institutions dealt with 152 billion 580 million electronic payments, with a total amount of $372 trillion and 200 billion. Among them, the online payment business 48 billion 578 million, the amount of 319 trillion and 240 billion dollars. The number of entries increased by 5.20% compared to the same period last year, the amount dropped by 0.47% compared with the same period last year. The mobile payment business was 37 billion 552 million, with an amount of $31 trillion and 220 billion, up 46.06% and 28.80% respectively (China Central Bank, 2017).

With the development of mobile payment services, the giants of the internet war games include Tencent, Alibaba and Baidu, and also have a rising star to divide the big cake of mobile payment. If we want to win the top spot, we must make a deep study of the characteristics of consumers. According to Ipsos's recent survey of Internet users' behavior, mobile payment business presents the following characteristics:

(1)Some new mobile payment businesses have become popular stars, and are slowly developing their own popularity.

(2)Consumers still attach great importance to safety, and there is a tendency to pay more attention to safety with age.
(3)The use of preferential policies and attracting propaganda means a more effective for people under 30 years of age (Ma, 2014).

The development of mobile payment is in full swing. There are few scholars in our country to divide and study the mobile payment people, especially for the working people and students. Based on this, the author tries to influence the user's mobile payment from four aspects, such as personal, security, mobile equipment, APP and society. The factors of behavior were analyzed by (Yan, 2013). In order to explore the problems that mobile payment should pay attention to in the process of development and improvement.

1.2 The purpose and significance of the study

1.2.1 The purpose of the study

(1)Enhance the connotation of mobile payment business development, find the main factors that attract consumers for the third party payment institutions, thus provide guidance for the development practice, help the mobile payment industry chain and some confused consumers to strengthen the understanding of mobile payment.
(2)Study the correlation between mobile payment and consumer development, find the influencing factors in the association, and find out the key factors that affect the consumer's use of mobile payment through analysis, and provide support for the rapid and long-term development of mobile payment.
(3)In order to improve the loopholes in mobile payment, we should find out the most concerned factors from the perspective of consumers and put forward specific suggestions.

1.2.2 The significance of research

With the rapid development of Internet and the rapid popularization of mobile terminals, consumers have never experienced any convenience. Mobile payment business is permeating our daily life, more and more consumers have begun to use multiple mobile terminals, not only using a certain device, using desktop computers in the office, and other terminals with tablet computers, hand-held computers and mobile phones. Therefore, consumers who have always been weak, scattered, and passive have become knowledgeable, widely connected and proactive.

Consumer demand is the ultimate driving force for the development of mobile payment business. Consumer dominance has increased unprecedentedly, and niche market and long tail market have huge space. In the era of mobile scene fragmentation, consumer

choice of goods or services in accordance with the established route, with the wide application of intelligent terminals, the popularity of Internet application customer habits, especially WeChat, Alipay and other software products, attracting a large number of users, but also greatly user identity.

1.3 The main content and structure of this article

1.3.1 The main contents of this paper

Chapter one: preface. The background, purpose and significance of the research are briefly described. The main contents, structure and research route of this article are introduced.

The second chapter: literature review. The theoretical analysis part of this article. This paper introduces the development status of mobile payment business, and studies the factors that affect the use of mobile payment business both at home and abroad.

The third chapter: research method. The questionnaire was designed, and the measurement index was determined. Data were collected through questionnaires, and reliability and validity of the survey data were analyzed by statistical tools. According to the data obtained from the questionnaire, we collate and analyze the data.

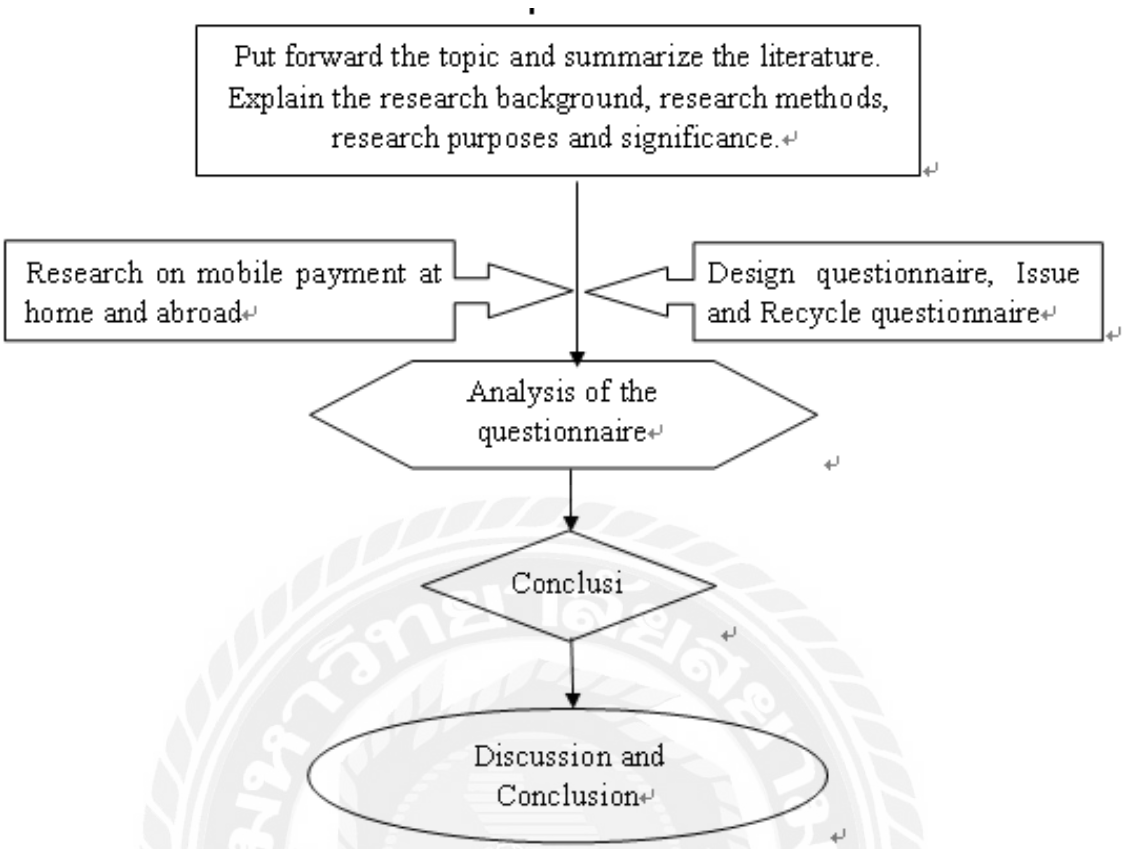
The fourth chapter: the result. Through data analysis, the difference between the behavior of user mobile payment and gender, education, occupation, income, security, ease of use and usefulness of mobile device APP, students or colleagues and media publicity, etc.

The fifth chapter: discussion and conclusion. This paper briefly summarizes the research idea of the paper and the prospect of mobile payment business, as well as the problems that need further study in the future.

1.3.2 The structure and research route of this paper

The technical route refers to the structural schematic diagram of the content, research object, relationship, research method and solution of the mobile payment business project. In this paper, we can summarize and summarize the main technical route from the confirmation of topic selection to conception, research and planning, as shown in Figure 1 below. In the research work, we insist on the principle of empirical research and analyze the direct variables that affect users.

Figure 1: Research Roadmap



1.4 Research method

1.4.1 Literature review

Through historical data, it reviews the previous research literature on the new mobile payment business at home and abroad, and has a more comprehensive understanding of the related factors and development direction that affect the consumer's use of mobile payment. On this basis, this paper will affect the factors that consumers use the mobile payment business as the research work.

1.4.2 Questionnaire survey

In this study, we use questionnaires to understand the willingness and influencing factors of mobile payment users. At the same time, in order to further test the feasibility of the research model and the validity of the hypothesis, a questionnaire about the factors affecting the related factors of mobile payment was designed. After the completion of the questionnaire, the reliability and validity of the questionnaire were tested by a small scale, and the questionnaire on the related sub factors of mobile payment was determined by a slight revision of the measurement items and problems.

1.4.3 Statistical analysis

After the questionnaires were issued to the subjects, the questionnaires were collected and the data were obtained, the statistical tools were used to analyze the result data, and to reflect the basic characteristics of the population variables, such as age, sex, region and frequency of use. Then the statistical system was used to test the results of the questionnaire, focusing on whether the reliability and validity of the survey results were consistent.

CHAPTER 2 LITERATURE REVIEW

2.1 Overview of mobile payment service

2.1.1 The concept of mobile payment service

Mobile payment (also referred to as mobile money, mobile money transfer, and mobile wallet) generally refer to payment services operated under financial regulation and performed from or via a mobile device. Instead of paying with cash, cheque, or credit cards, a consumer can use a mobile to pay for a wide range of services and digital or hard goods (Wikipedia, 2018).

When consumers use online payment, they use such as mobile PDA, mobile PC, smart phone and so on (Mobile Payment Forum White Paper Enabling Secure, 2002). Different participants and research institutes define mobile payment from their respective perspectives.

Dennis Viehland believes that mobile payment services are consumers' purchase of a commodity or service, mobile terminals, such as mobile phones and PDA as payment carriers, to pay and purchase for a commodity through the transfer of funds (Viehland & Leong, 2007).

The definition of Guan Xiao Xing (2014) to mobile payment business is that users can use mobile terminals as an auxiliary means to purchase goods at anytime and anywhere, a new type of service consumption, through financial payment (Guan, 2014).

2.1.2 The classification of mobile payment services

There are many types of mobile payment, and they are divided into small payment and macro payment according to the amount of payment. According to the completion payment network conditions, it can be divided into terminal payment and zero distance payment. According to the nature of payment, it can be divided into bank card payment, third party payment and generation fee account payment.

2.2 Research on the current situation of mobile payment service

According to the "2017 mobile payment industry status report" released by GSMA (2017 State of the Industry Report on Mobile Money). Mobile payments have covered 90 countries around the world. The 690 million registered a mobile payment account, an increase of 25% compared to 2016. The entire mobile payment industry generated more than $2 billion 400 million in direct revenue. Mobile money pays an average of $1 billion per day. More than 20% mobile payments provide savings, retirement or investment

products, and 37% will provide these services next year. In Kenya, Rwanda, Tanzania and Uganda, 66% of adults often use mobile payments. In December 2017, 168 million mobile payment accounts were being actively used. A typical mobile payment user consumptions $188 per month.

Mobile payment is being adopted all over the world in different ways. In 2008, the combined market for all types of mobile payments was projected to reach more than $600 billion globally by 2013, which would be double the figure as of February, 2011. The mobile payment market for goods and services, excluding contactless payments using near field communication (NFC) and money transfers, is expected to exceed $300 billion globally by 2013. Investment on mobile money services is expected to grow by 22.2% during the next two years across the globe. It will result in revenue share of mobile money reaching up to 9% by 2018. Asia and Africa will observe significant growth for mobile money with technological innovation and focus on interoperability emerging as prominent trends by 2018. (Wikipedia, 2018)

As the goal of sustainable development (SDGS) enters the third year, mobile technology has proven to be an important tool for achieving these global goals, increasing connectivity and providing innovative services to achieve more inclusive communities. Mobile payments remain the core of the story, promoting the growth of basic services, such as health and education, and providing women with employment opportunities in the financial services sector to improve the quality of life and reduce poverty by (GSMA, 2018).

Following the globalization of information age, China has made significant progress in the field of communication network production and consumption. Since 2012, the third party payment industry often attract social attention, in the Alipay Alibaba founded Ali small and micro financial services group, Tencent, WeChat mobile business community and mobile payment extension, Suning, Baidu and other Jingdong, have the layout of third party mobile payment, to provide for the entrance of mobile terminal equipment. The balance of treasure and Alipay cooperation with Celestica fund development, created 3 months sales of more than 13 billion 800 million dollars of funds myth, there are a number of Alipay enterprises to participate in the establishment of private banks in the concept of speculation.

According to the China Electronic Commerce Research Center released the "double 11" business platform evaluation report 2017. Key investigation and tracking of the Jingdong, Tmall, Suning.com and other well-known domestic e-commerce platform,

according to the star map data monitoring shows that 2017 "double 11" total net trading volume reached 39 billion 70 million dollars, a year-on-year increase of over 45%. Among them, Alibaba's Tmall mall "double 11" activities created a sales miracle of $25 billion 880 million per day, with 90% coming from mobile payment (China Electronic Commerce Research Center, 2017).

2.3 Research on the influencing factors of mobile payment at home and abroad

In the academic research on the influencing factors of mobile payment at home and abroad, many researchers believe that the key to the rapid development of mobile payment business from the source is security, industry standards and consumers' subjective factors. It is found that mobile payment, as a new means of Internet payment, is influenced by various factors such as network equipment security, transaction trust, promotion of payment factors and convenience and ease of use in the process of consumer payment. At the same time, sex is also the reason for consumers to use mobile payment.

CHAPTER 3 RESEARCH METHOD

3.1 Questionnaire survey and survey collection

3.1.1 Questionnaire design and data acquisition

Through the practice of questionnaire, we can understand the consumers' understanding, use and influence factors on mobile payment business. The collection of questionnaires is an important way to study the influence factors of consumers' use of mobile payment, so the quality and effectiveness of the questionnaire have an important impact on each link of the model.

In order to ensure the expected accuracy and practicality of the whole questionnaire survey of this design from the source, this study will follow the investigation principles of the purpose, logic, validity and easy to handle the questionnaire, and Nunnally (1978) points out that each of the variables in the questionnaire must contain three or more than three measurements. In order to maintain the accuracy of (Hirschman E C, 1980).

The questionnaire includes three components:

The first part: is the measurement of the basic information needed to collect the individuals involved in the measurement, including the sex, age, area, educational level, occupation and monthly disposable amount of the measured person.

The second part: is to investigate whether the use of mobile payment, common mobile payment, the use of mobile payment time, the frequency of the weekly use, the frequency of the weekly mobile payment and cash payment, the use of mobile payment type of consumption, monthly payment of the payment of expenditure.

The third part: the influencing factors of mobile payment behavior, investigate the reasons for the choice of mobile payment, the popularity of mobile payment, the degree of understanding of mobile payment (promotion degree), and the security performance of mobile payment.

3.1.2 Questionnaire survey index

The questionnaire adopts the Richter five point scale method and uses "very disagreement, disagreement, general, consent, and very agreement" to express the degree of consent of the user to various factors affecting the behavior of mobile payment, mainly from the three aspects of the time, the efficiency of the process and the income obtained by the consumer in the use of the means of mobile payment. This is consistent with the scientificity and validity of the questionnaire (Tang, 2016).

3.1.3 Questionnaire distribution and data collection

From January 5, 2018 to March 1st, the author carried out questionnaires, such as questionnaire survey website, WeChat friend circle, QQ group and paper questionnaire survey, and so on. Family. In order to ensure the usefulness and applicability of the questionnaire, the authors distributed questionnaires to the community. In order to ensure the recovery of the questionnaire, the author is also in the field, on the one hand, answers the questions of the respondents, on the other hand, reclaim questionnaires on the spot to ensure that the questionnaire is recovered in a timely manner. In the electronic questionnaire, the author also notes the detailed filling methods and instructions on the questionnaire. If the respondents have not understood the place, they can also contact the author through social tools to answer the answer, which ensures the validity of the questionnaire.

In this study, 170 questionnaires were issued with anonymous methods, of which there were 55 copies of the paper version questionnaire, 115 copies of the electronic version questionnaire and 161 copies of the total sample data. After screening, 8 samples were found to be clearly perfunctory, successively contradictory, and the data were the same. 3 samples did not use mobile payment services. In addition to the invalid questionnaire and no sample of mobile payment business, there were 150 final data samples, with a sample recovery rate of 88.2%.

3.2 Data statistics and analysis

3.2.1 Statistics and analysis of basic information

This study mainly analyzes the amount of sex, age, area, education, occupation and month's disposable amount in the sample. The basic situation of the sample is as Table 1.

Table 1: Basic information of interviewees

Sample statistical project	Category	Frequency (person)	Percentage (%)	Cumulative percentage
Sex	Male	41	27.3%	27.3%
	Female	109	72.7％	100%
Age	19 years old and below	33	22.0%	22.0%
	20-29 years old	35	23.3%	45.3%
	30－39 years old	45	30.0%	75.3%
	40 years old and above	37	24.7%	100%
Location	Countryside	44	29.3%	29.3%
	City	106	70.7%	100%

Educational level	High school and below	4	2.7%	2.7%
	Junior College	14	9.3%	12.0%
	Undergraduate	116	77.3%	89.3%
	Graduate students and above	16	10.7%	100%
Occupation	Student	35	23.3%	23.3%
	Office worker	115	76.7%	100%
Monthly disposable amount	Less than 150 dollars	21	14.0%	14.0%
	150-300 dollars	37	24.7%	38.7%
	301-450 dollars	21	14.0%	52.7%
	451-600 dollars	20	13.3%	66.0%
	More than 600 dollars	51	34.0%	100%

In this survey, 150 valid questionnaires were selected, and some basic information of the respondents was counted. The results are as follows:

(1) Among the respondents, there were more women than men, 27.3% for men and 72.7% for women.

(2) At the age level, the subjects of all ages were distributed. The results showed that 19 years and below were 22%, 20-29, 23.3%, 30-39, 30%, 40 and above 24.7%, and the proportion was more uniform, and the sampling was more representative.

(3) The survey in the area is divided into rural areas and towns, 29.3% in rural areas and 70.7% in urban areas.

(4) At the level of education, the respondents are mainly faced with the whole society, so they are divided into different grades in education. High school and below accounted for 2.7%, college accounted for 9.3%, accounting for 77.3%, postgraduate and above accounted for 10.7%.

(5) At the professional level, there are two categories of students and office workers, 23.3% of students and 76.7% of office workers.

(6) In terms of monthly discrepancy, the discrepancy between the amount of students and office workers is considered, and the amount of money allocated is relatively large. Of these, 150 accounted for 14%, $150-300 for 24.7%, $301-450 for 14%, 451-600 for 13.3%, and 34% for 600 dollars.

3.2.2 Investigation and analysis of the use of mobile payment

For the analysis of the user's use of mobile payment, this study is from the user's use of mobile payment, the common mobile payment method, the use of mobile payment time, the frequency of weekly use, the comparison of the frequency of the weekly mobile

payment and cash payment, the consumption type of mobile payment, and the monthly average mobile payment The amount of such amount is investigated, and the statistics are shown in Table 2 below.

Table 2: Descriptive statistics on the use of mobile payments by interviewees

Sample statistical project	Category	Frequency (person)	Percentage (%)	Cumulative percentage
Usage	Not used	3	2.0%	2%
	Used	150	98.0%	100%
Common mode of mobile payment (select 2 items)	WeChat payment	146	97.3%	
	Alipay to pay	102	68.0%	
	CAIFUTONG payment	6	4.0%	
	Online bank APP payment	45	30.0%	
	BAIDU payment	1	0.7%	
Time to use mobile payment services	Less than 1 years	19	12.7%	12.7%
	1-2 years	48	32.0%	44.7%
	3-5 years	47	31.3%	76.0%
	More than 5 years	36	24.0%	100%
Frequency of weekly use of mobile payments	2 times and below	51	34.0%	34.0%
	3-6 times	53	35.3%	69.3%
	7 times and above	46	30.7%	100%
Weekly cash payment and mobile payment frequency comparison	mobile payment	72	48.0%	30.7%
	Cash payment	32	21.3%	69.3%
	Both are the same	46	30.7%	100%
Consumption types using mobile payments (multi selection)	Online shopping	136	90.7%	
	Living payment	113	75.3%	
	Scavenging two-dimensional code payment	97	64.7%	
	Transfer remittance	81	54.0%	
	Take a taxi	76	50.7%	
	Buy a ticket	62	41.3%	
	recreation	54	36.0%	
Monthly average cost of mobile payment	Less than 150 dollars	50	33.3%	33.3%
	150-300 dollars	51	34.0%	67.3%
	301-450 dollars	22	14.7%	82.0%
	451-600 dollars	6	4.0%	86.0%

	More than 600 dollars	21	14.0%	100%

The statistical results are as follows:

(1) From the level of use, the number of people who did not use mobile payments was the least, accounting for 2% of the total number of 153 samples, and the majority of the number of people using mobile payments accounted for 150, accounting for 98% of the total number of samples of 153 samples. 3 samples that have not been used for mobile payments are mainly due to their "use of cash payments", "no understanding of mobile payments", and "complex payment processes and no operation". The reasons for this situation are closely related to the living consumption concepts and habits of interviewees.

(2) Commonly used in mobile payment level, you can choose both as a commonly used mobile payment, mobile payment is the most used WeChat payment accounted for 97.3%, followed by Alipay payment accounted for 68.0%. WeChat and Alipay to pay payments total payment 82.7%.

(3) From the time of using the mobile payment business, there are 19 people for less than 1 years, accounting for 12.7% of the total number of samples, 48 people with 1-2 years, accounting for 32% of the total number of samples and 31.3% of the total number of samples used for 3-5 years, and 31.3% of the total samples for more than 5 years, accounting for 24% in the total number of samples.

(4) In the frequency of the weekly use of mobile payments, 51 people use 2 times a week and below, accounting for 34% of the total number of samples, 3-6 times a week for 53, 35.3% of the total number of samples, and 46 people used for 7 times a week and more than 30.7% of the total number of samples, and even more evenly distributed.

(5) Observe the frequency of weekly cash payments and mobile payments, with 72 people using the highest frequency of mobile payments per week, 48% of the total number of samples, 32 with the highest frequency of cash payment per week, 21.3% of the total number of samples, and 46 of the use of mobile payments and the use of cash payments for the same amount of 46 per week. People, accounting for 30.7% of the total number of samples.

(6) From the use of the type of mobile payment, 136 people choose to use mobile payment for online shopping, accounting for 90.7%. 113 people choose to pay water, electricity, gas and communication, accounting for 75.3%. 97 people choose to face a sweeping sweep of payment, accounting for 64.7%, and the rest of the options are relatively balanced.

(7) In terms of monthly average mobile payment, monthly average spending on mobile payment is 33.3%, 150-300 US dollars, 34%, 301-450 dollars, 14.7%, 451-600 US dollars

4%, and 600 US $14%.

3.2.3 Analysis of user's mobile payment behavior

This study investigates the reasons for mobile payment, the popularity of mobile payment, the degree of understanding of mobile payment (promotion degree), and the security performance rating of mobile payment, and the number of statistics is listed in Table 3.

Table 3: Descriptive statistics of mobile payment behavior of interviewees

Sample statistical project	Category	Frequency (person)	Percentage (%)	Cumulative percentage
Select the reasons for the mobile payment (select 2 items)	Easy to use and quick	127	84.7%	
	Real name system, safe and reliable	53	35.3%	
	Wide range of business	51	34.0%	
	Record consumption	44	29.3%	
	Have a discount	18	12.0%	
	Feeling of freshness	7	4.7%	
The popularity of mobile payments	Not universal	15	10.0%	10.0%
	More popular	96	64.0%	74.0%
	Very popular	39	26.0%	100%
Degree of understanding of mobile payment (promotion)	Do not understand	8	5.3%	5.3%
	Understanding but not deep enough	114	76.0%	81.3%
	Very well understood	28	18.7%	100%
Security performance rating for mobile payment	30 points and below	1	0.7%	0.7%
	30-59 points	8	5.3%	6.0%
	60-89 points	129	86.0%	92.0%
	90-100 points	12	8.0%	100%
	Average	78.6 points		

The statistical results are as follows:

(1) In the choice of the reasons for mobile payment, two items can be chosen as the main choice. The most chosen reason is that the mobile payment method is convenient and quick to use, accounting for 84.7%, followed by real name system, security and trustworthiness accounting for 35.3%, and a wide range of business scope 34%.

(2) From the level of popularization of mobile payment, it is considered that the popularization of mobile payment is not enough. There are 15 people, accounting for 10% of the total number of samples, and that there are a maximum of 96 people, accounting

for 64% of the total number of samples, and that 39 people are very popular, accounting for 26% of the total sample.

(3) From the degree of understanding of mobile payment, the extent to which the operators are popularized, 8 people are not known, 5.3% of the total number of samples, but 114 people who know but not deep enough, accounting for 76% of the total number of samples, and 28 people, accounting for 18.7% of the total number of samples.

(4) In the assessment of the security performance of the mobile payment, the rating of 30 points and below is 1, accounting for 0.7% of the total number of samples, 8 of the 30-59 points, 5.3% of the total number of samples, 129 in the 60-89, 86% of the total sample, and 12 in 90-100, accounting for 8% of the total sample. The average score of 150 valid samples was 78.6 (100%).

Due to the influence of the consumer and the consumption environment, the daily consumption in China is still dominated by cash consumption and credit card consumption, while the online consumption, especially the mobile payment, is growing rapidly in a particular group, but it is still difficult to shake the leading position of the offline consumption in the short term. Concern about security is also an important factor for the respondents who do not choose mobile payments. Mobile payments are virtual payments. Consumers can't feel the liquidity of funds. It is difficult to control the funds. This uneasy psychology is easy to cause consumers to be reluctant to try. In addition, many well-known businesses have been burst out of the dishonorable news of the user's information disclosure, which makes consumers feel scared from the bottom of their heart, so it is prohibitive for mobile payment.

3.3 Identification of influential factors

Based on the study of related literature and the statistics and analysis of the above data, the author determines the influencing factors of mobile payment behavior as individual factor, mobile payment security factor, mobile device APP factor and social factor 4 factors (Wen & Cai, 2014).

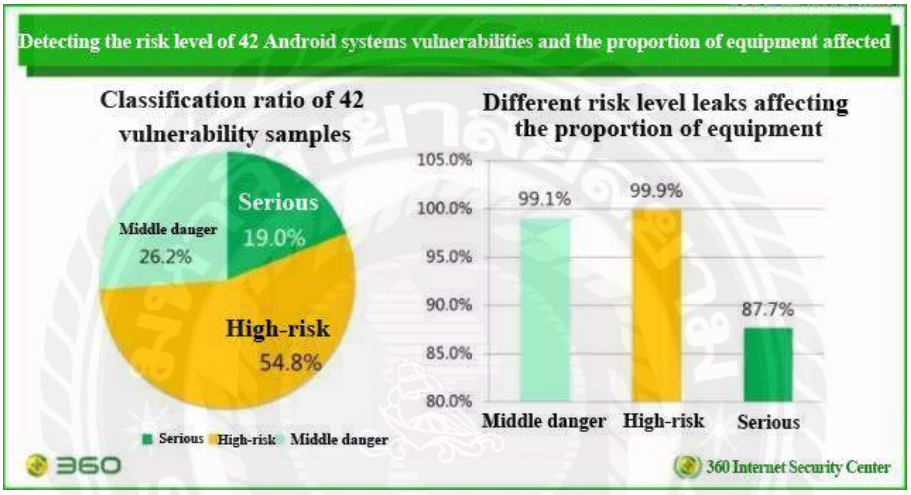
3.3.1 Personal factors

Consumer behavior is the first to be affected by its own factors. Different gender, age, occupation and education level will affect users' payment decisions. The payment scenes of men and women are also very different. For example, most of the consumers are men, such as cigarettes and wine, while women prefer jewelry and cosmetics. At different stages of the life cycle, consumers' demand for goods is also different. One's age, occupation and educational background will affect his way of payment.

3.3.2 Security factors of mobile payment

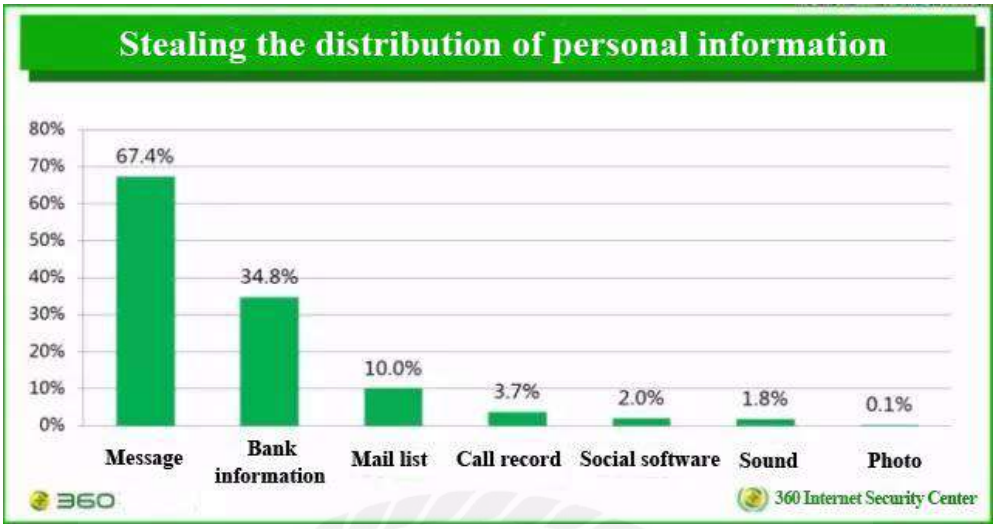
One of the bottlenecks of mobile payment promotion is the security of mobile payment. It is also the most relevant and most worrying problem of public interest, (Dang , 2015). According to the data published by the 360 Internet security centers (China mobile phone safety risk report 2017), 99.99% Android smartphones have a system vulnerability, 99.1% of the Android devices are vulnerable to the vulnerability of the middle risk level, 99.9% Android devices have high risk vulnerabilities and 87.7% Android devices are affected by a serious level of vulnerability to such as Figure 2.

Figure 2: Vulnerability level and impact ratio



In the first quarter of 2017, 360 Internet security centers intercepted 2 million 228 thousand new samples of new malware on the Android Android platform, averaging nearly 25 thousand new samples of new mobile phone malware each day (China mobile phone safety risk report 2017). Cumulative monitoring of mobile terminal users infected with malicious programs 58 million 127 thousand people, the average daily malware infection reached 646 thousand people. From 2016 full year data, 98 thousand samples of mobile phone malware stolen personal information were sampled and analyzed. 67.4% of the samples will steal message information, 34.8% of the samples will steal mobile bank information, 10% of the samples will steal phone contact information, 3.7% of the sample will steal phone calls, 2% of the samples will steal social software (such as WeChat, QQ) chat records, 1.8% of the samples will steal the cell phone recording information, 0.1% The sample will steal mobile phone photo information such as Figure 3.

Figure 3: Stealing personal information, malicious samples, stealing information types



39.7% of mobile phone users think the security of mobile security is the most important, and 60% of the smartphone users say they are most worried about the security of the mobile phone in the process of using it.

3.3.3 APP factors for mobile devices

As a platform for mobile payment transactions, the mobile device client plays an extremely important role. For the client, the effectiveness and ease of use are the prerequisite and necessary condition for the survival and successful operation of the client. The client is not easy to use, can't clearly display the main business of the business, the client's information is very tedious or can't provide valuable information for the user, users will leave. In this era of information expansion, users will not spend too much time studying how the client uses it, because there are many other similar software, leaving is the first choice. Therefore, a clear interface, browsing and use of convenience and usefulness will also affect the user's decision-making, the usefulness and usability of the client is an important factor in the user's choice of mobile payment.

3.3.4 Social factors

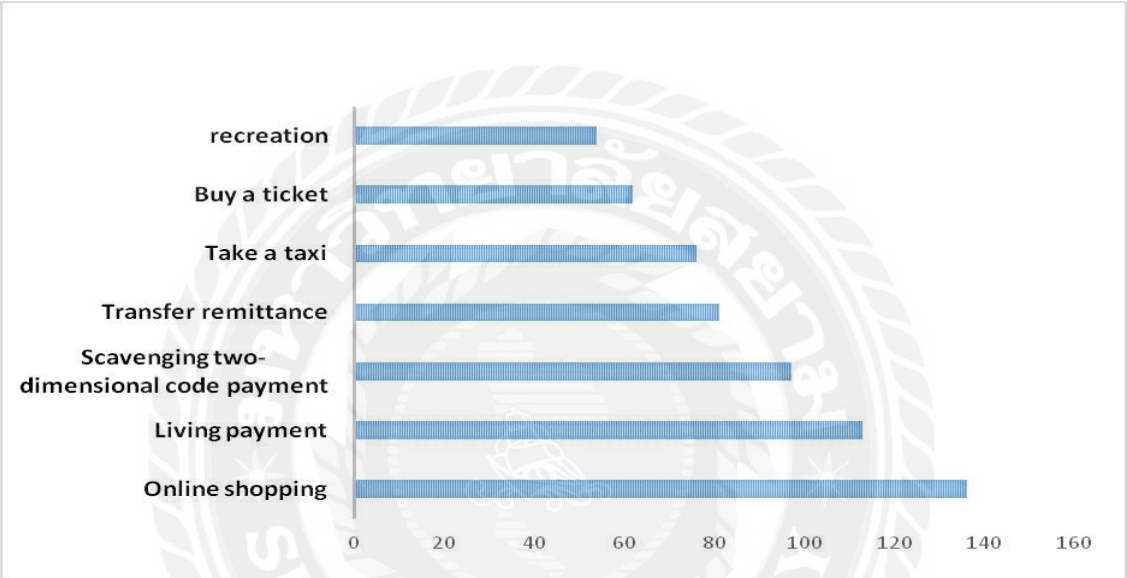
People live in society, so social factors also affect payment behavior. As a member of the society, daily life has various connections with work units, schools, families and so on. Parents, friends, colleagues and classmates are the important groups affecting consumer behavior, and the users often affect the product evaluation before they produce the payment behavior. In addition, the marketing means of merchants will also have a certain impact on the user's payment behavior.

CHAPTER 4 RESEARCH RESULTS

4.1 Analysis of personal factors

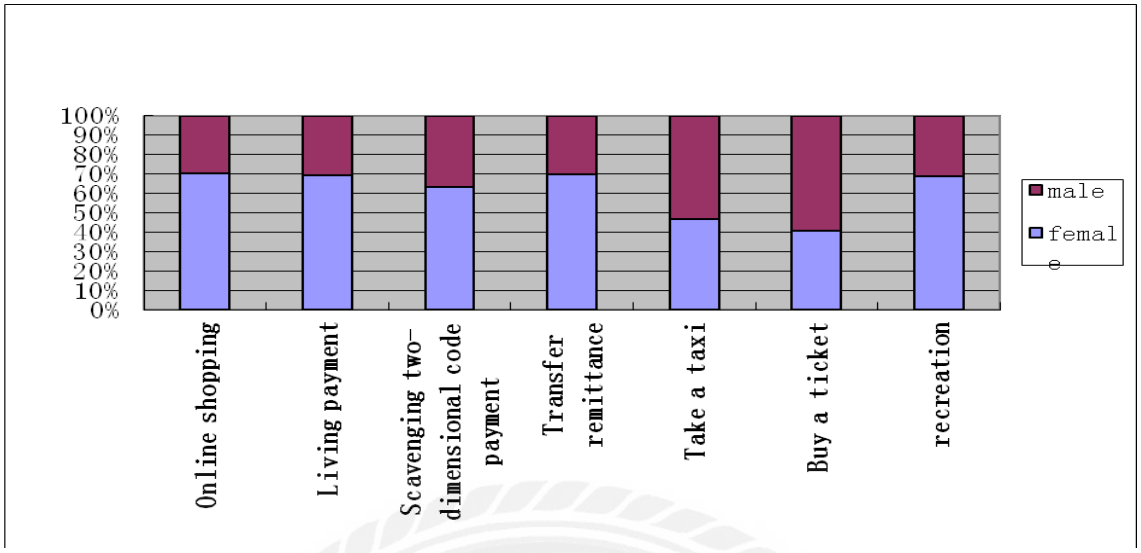
Through the data statistics of users' use of mobile payment scenes, the scenes of mobile payment for young students and workers are diverse, of which the proportion of online shopping is the largest, reaching 90.7%, followed by daily life payment, face sweeping sweep and transfer remittance, such as Figure 4.

Figure 4: Consumption types using mobile payments



According to gender statistics, the difference analysis of scene groups is shown in Figure 5.Different sex respondents were different in the use of mobile payment scenes, for example, 70.59% were women in mobile terminal online shopping, indicating that the proportion of women in online shopping and living using mobile payment was significantly higher than that of men; and the proportion of men using mobile payment and buying ticketing was higher than that of women.

Figure 5: Different sex user payment scenarios



4.2 Analysis of the security factors of mobile payment

According to the data analysis done by the young and middle-aged groups, such as table 4, the respondents believe that there are many areas for mobile payment to be improved, which can dig out the various needs of the users, and thus promote the development of the mobile payment market (Chen & Tang, 2013).

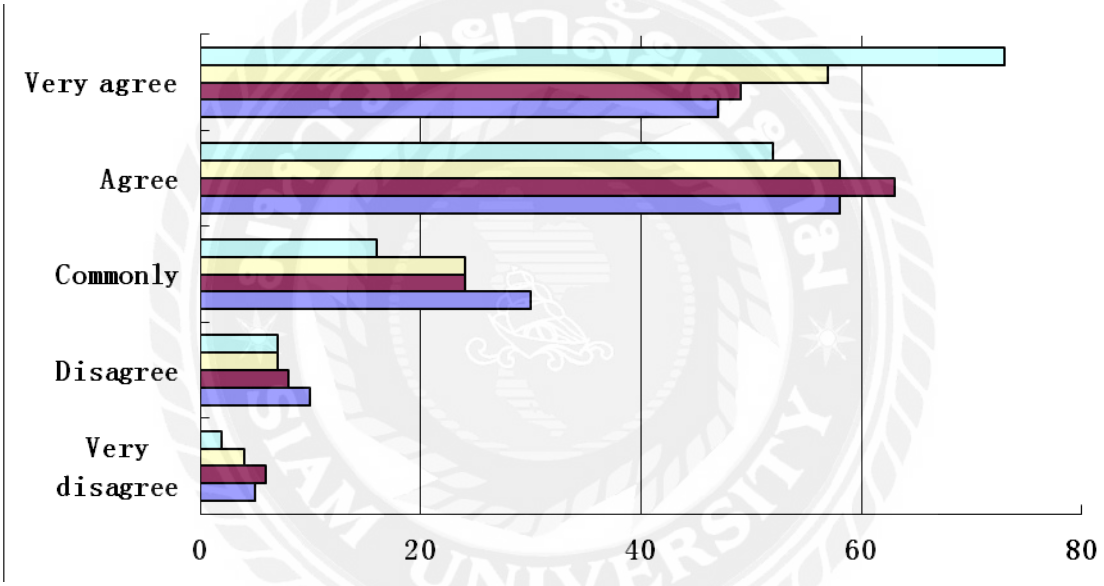
Table 4: Where mobile payments need to be improved

A place that needs to be improved	Frequency (person)	Percentage (%)
Improve transaction security	109	72.7%
Improve relevant laws and regulations, protect the legitimate rights and interests of users	98	65.3%
Reducing intermediate fees	78	52.0%
Simplified operation process	60	40.0%
Expanding the scope of application business	46	30.7%
Perfect the standard and connect with the international mobile payment	43	28.7%
Opening up more types of payment	16	10.7%

The data show that, for the improvement of mobile payment, the expected value is still mostly safe, "improve transaction security", "improve relevant laws and regulations, guarantee the legitimate rights and interests of users" accounted for 72.7%, 65.3% of the high proportion respectively, and table 3 users of mobile payment security performance score is only 78.6 points. Consumers' awareness of the protection of their own interests is increasing, and their attention to their own rights is far higher than the expectation of the improvement of mobile payment services. In the process of experience of mobile

payment users, the security of mobile terminals has become the key link, and "reduction of fees", "simplified operation process", "expansion should be" Respondents in the four areas of business scope "and" perfect standards and international mobile payment "accounted for 52%, 40%, 30.7% and 28.7% respectively. In the questionnaire survey, the user's awareness of the risk of mobile payment is like Figure 6 (the column chart from top to bottom is in turn "worry about loss of property due to the loss of mobile phone, transaction password theft, etc.", "worry that the merchant bank takes illegal means to collect personal information", "worry about the privacy of a person's privacy", "worry about the existence of payment." Security vulnerabilities will be intercepted by hackers to tamper with transaction content ".

Figure 6: Users' awareness of the risk of mobile payment

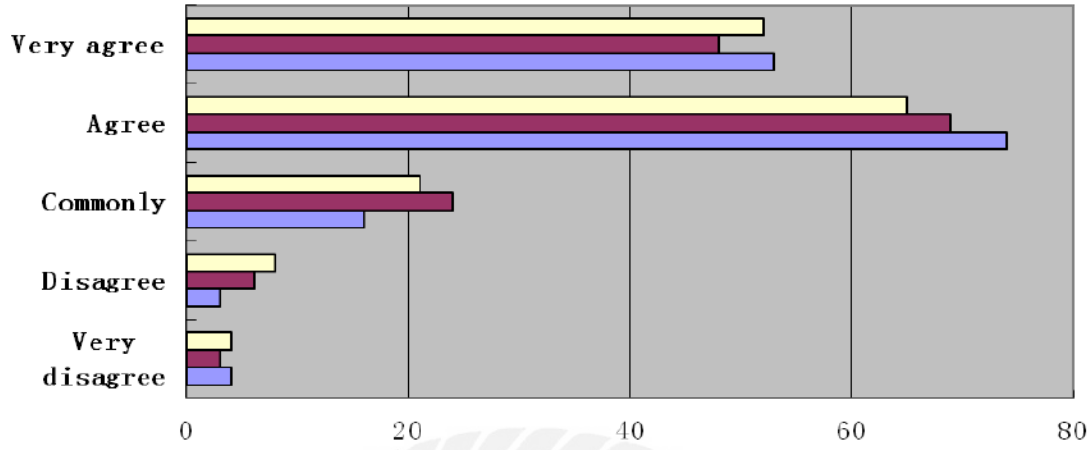


The four types of risk type users have a high degree of consent / very agreement, with a proportion of more than 70%, while the first item "worried about loss of property by cell phone loss" has reached 83.3%, and the number of "very agreed" is the largest in four types, with a proportion of 48.7%. This is consistent with the user rating of mobile payment security in Table 3, which is only 78.6 points.

4.3 Analysis of APP factors for mobile devices

Users' cognitive types of mobile payments are in turn "inconvenient to carry cash bank cards", "can improve transaction efficiency", "save time", such as Figure 7. Statistics show that the three types of users have a high degree of consent / very agreement, with a proportion of more than 80.2%, and the last one considers the mobile branch. The percentage of users who can save time is 84.7%.

Figure 7: User's perception of the usefulness of mobile payment



"Mobile payment is easy to operate and use," "mobile payment is easy to operate and use", "more convenient than online payment", "easy to use mobile payment". The satisfaction data of Figure 7 show that users are more satisfied with the mobility of mobile payment, but not very satisfactory. Compared with the usefulness of payment, the number of "very agree" decreased.

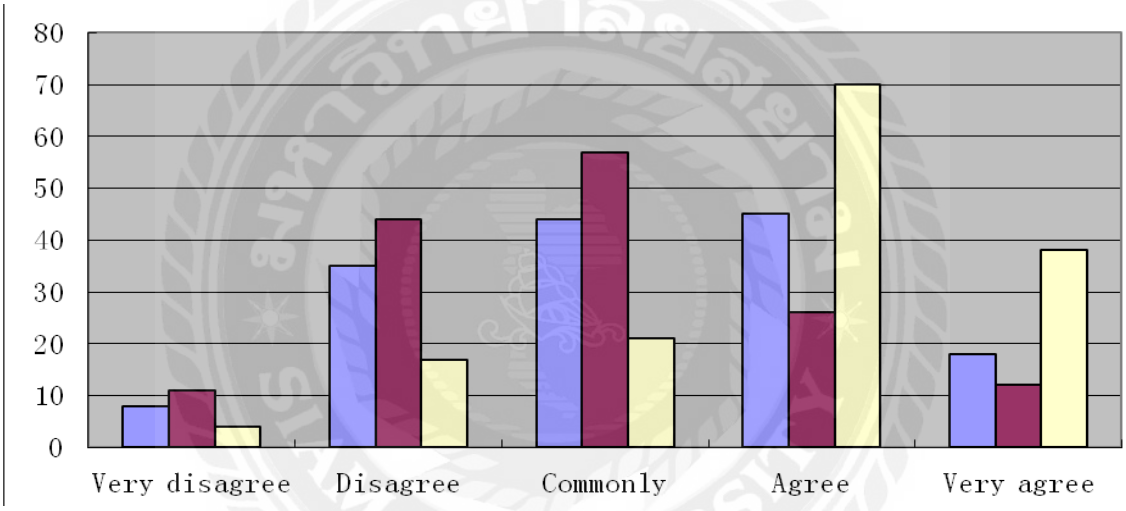
In March 2015, the login verification code of 12306 of the Chinese train ticket booking site became a graphic verification code from the previous character. Because the visual domain of the client authentication code was not very large, the resolution of the picture was also low, and some of the contents of the picture were not recognized by all the people, so they were moved to a wide range. Users' slots and discontent. After the APP experience of the mobile phone, I also feel that the character verification code before the graphic verification code is convenient and fast, the time consuming to choose the picture is obviously longer. If the ticket quantity is tense, it may also affect the success rate of the user's ticket purchase, which will cause the user no longer to use this booking APP to move the ticket, but this is the result. The sample setting will also keep the ticket robbing software out of the door.

As a software provider, the integrity of the system, the controllability of the process and the advanced technology are often paid attention to, but the usefulness and ease of use of the system are ignored. The results show that the user's use of mobile payment is related to the usefulness and ease of use of the mobile payment device, APP, (Wu & Tang, 2014).

4.4 Analysis of social influence factors

External publicity and other people's evaluation of the product will affect the user's behavioral decision. The statistics on social factors in the questionnaire are like figure 8 (the column chart from left to right is in turn "media propaganda inspired me to use mobile payment", "family or relatives will affect me to use mobile", "I use mobile payment by my classmates or colleagues." "The influence". The influence of the students / friends and the media is larger, and the students / friends have the greatest impact on them. These groups are closely related to the users, and the users tend to be affected by their product evaluation before the payment behavior. Besides, young and middle-aged students and office workers, especially young students, are easily influenced by outside propaganda.

Figure 8: Analysis of social influence factors



CHAPTER 5 CONCLUSIONS AND SUGGESTIONS

5.1 Users' mobile payment behavior is related to gender occupation, and has nothing to do with income.

Male users and female users have different emphasis on mobile payment scenarios. Female users, whether online shopping or living shopping, are more than men in the proportion of mobile payments. Therefore, it is necessary to formulate a targeted marketing strategy to study their demand characteristics for women and male users and to put marketing resources into the places where consumers are most concerned, to achieve good publicity and improve the camp. The utilization rate of marketing resources.

5.2 The security of mobile payment is the most worrying factor for users.

This is also one of the important factors that some users do not use mobile payment. If enterprises only pursue the convenience and fluency of the products in the research and development of mobile payment products and do not pay attention to the safety problems, these security problems will become more and more serious, which will affect the development of the enterprises themselves. Privacy for the public is a very sensitive topic, the enterprise to the user's personal information privacy should be put into a certain amount of energy, and business in the transaction should also pay attention to protect the privacy of consumers, so that consumers can rest assured, without concern to pay.

5.3 The ease and usefulness of mobile device APP will also affect users.

For the use of mobile payment, businessmen should provide humanized and convenient operation, improve the consumer's usability cognition and usefulness cognition, and avoid users' rejection of mobile payment due to the overburden of payment means.

5.4 Classmate or colleague and media publicity have some influence on mobile payment behavior of users.

In this survey, 5.3% of the users do not understand the use of mobile payment services, 76% of the users know but not deep enough, and the user's mobile payment behavior will be affected by social factors. Therefore, mobile payment operators should pay attention to the important influence of social network and interpersonal communication on the diffusion of mobile payment. At the same time, the views of the students, colleagues and friends also have an impact on the consumption and use of mobile payment. The operators should be good at using the word of mouth effect, popularize mobile payment services in many ways and channels, and create a good social environment.

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