

The Impact of Mobile Payments on the Internet Inclusive Finance

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Abstract

Expanding the degree of financial inclusion is one of the important ways to deepen the effect of the Internet. Internet finance in China greatly reduces the information asymmetry and decreases the transaction costs between financial participants, which to some extent promotes the reform of financial systems in China. Besides the elite and center institutional arrangements, some so-called grassroots or civilian financial structures appear. Thus the finance has begun to show a trend of financial disintermediate. This paper selected some variables to build a measure system, based on the 2015 Household Financial Survey. It firstly analyzed the correlation of variables and tested the variance factors through the analysis of use frequency of mobile payment and its transaction amount, meanwhile through the analysis of the impact of family investment structure on the Internet investment transactions. Then it used principal component analysis method to analyze multiple variables in reduced dimensionality. After that it tested ADF unit root and Granger causality of screened indexes, and established a stepwise multivariate linear regression model. Finally, this paper illustrated that the expansion of mobile payment transaction had an impact on the increase in the Internet financial investment transactions based on the empirical analysis and theoretical deduction, and then the paper gave some relevant recommendations.

Keywords: Internet finance, mobile payment, principal component analysis, MLRM

1. Research Background

After more than 30 years of reform and opening up, China's economy has been growing rapidly, and the people's living standard has been continuously improved. During this period, the Internet information technology has progressed rapidly in our country, thus the traditional financial business model is not adapted to the development of the times. Internet finance has emerged and boomed rapidly, representing by the Internet fund and financial products, P2P net loan platform, crowdfunding platform and digital currency. The concept of "Inclusive Finance" was proposed by the United Nations in 2005 International Year of Microcredit for the first time. The connotation of it is that a country's financial system can sustainably provide convenient and affordable financial services for vulnerable groups, industries and disadvantaged areas in the country. Thus, at a certain point, the Internet Inclusive Finance can be understood as services based on the Internet financial to make all sectors and groups of society get convenient, efficient and comprehensive financial services for a reasonable price by strengthening policy support and improving the market mechanism.

This paper assumed that the Internet financial inclusion degree, to a certain extent, can be reflected by household financial asset allocation. Most influence factors of household financial asset allocation are micro factors, such as family and demographic characteristics. But the domestic researches of choice behavior of the household financial asset were mostly based on the macro data or small samples in micro data. Empirical researches on the impact of mobile payments on household financial market participation and asset allocation has been very scarce from a micro perspective.

Therefore, the paper turned macro variables to microcosmic based on the fact that China's low household financial participation rate. It used the data of 2015 Household Financial Survey made by Tsinghua University. It used mobile payment frequency and mobile payment transaction amount to alternate variables of mobile payment development. From a micro perspective, it mainly analyzed the impact of mobile payment on China's household financial participation and asset allocation, namely the impact of mobile payment on Internet financial inclusion.

2. Literature Review

2.1 Researches on the Internet Inclusive Finance

Table 1. The differences between traditional inclusive finance and the inclusive finance in the context of Internet

Types	Inclusive Finance in the Context of Internet	Traditional Inclusive Finance
Service Direction	bidirectional between funding sources and the funds users	unidirectional to the funds users
Data Information	based on large data to reduce information asymmetry	having a certain degree of information asymmetry
Transaction Cost	relatively low	relatively high
Welfare Effect	allowing the public to obtain a various financial services	solving the finance difficulties of poor groups
Business Model	emerging Internet financial products oriented	mainly microfinance

Internet finance is a significant development opportunity for inclusive finance, so that the public can freely have equal access to financial services in a relatively symmetry information condition, thus gradually the expansion of financial inclusion will be realized. Yang (2015) thought that the inclusive financial model in developing countries was more similar to the concept of inclusive finance in a narrow sense. That is to say, it mainly served to the poor or low income class. The inclusive financial model in developed countries was more similar to the broad concept of inclusive finance, not only to serve the poor and low income class, but also to provide financial services to other individuals or organizations. As shown in Table 1, inclusive finance in context of the Internet is more biased in favor of the concept of broad inclusive finance. Ding (2015) thought that there are many conflicts in reality of Internet financial development. The discrimination of internet financial investors deviated from the inclusive of finance, and exclusion phenomenon in Internet finance is similar to the phenomenon in small and medium-sized enterprises and low income groups in traditional financial institutions.

2.2 Research on the Family Financial Asset Allocation

Sun & Li (2014) thought that Internet financial products had a trend of replacing savings deposits. The profits transferred to the Internet financial product buyers from the bank, it showed the properties of inclusive finance. Zhao & Song (2016) thought that with the rapid development of China's financial products, the family enthusiasm of involving in the Internet financial increased, but individual are separated. Families with higher levels of education and financial literacy can control the risk of Internet financial products better, and will have higher profit; on the contrary, families with poor levels of financial literacy have high risk and low profit.

2.3 Research on the Development of Mobile Payment

Sun (2014) thought that there are 3 main business models of mobile payment in China, namely: telecom operators dominant model, the third party payment dominant model, financial institutions dominant model. Third party payment companies were trying to integrate the resources of banks and telecom operators to promote the payment services from PC to mobile terminals, thus they can provide users convenient mobile payment services. Jiao (2014) thought that the mobile payment market was short of a mature profit model. There were lots of mobile payment parties in the market, and they all wanted to occupy the dominant position in the industry chain. It caused the result that many kinds of resources cannot be integrated effectively, thus emerging different industry standards. It directly caused low generality and usability of payment products. Shan (2010) thought that the lack of security, confidentiality, operability and credit system was the main problems restricting the mobile payment, in which lack of security was the main obstacle and "bottleneck" problem to the development of mobile payment.

3. Current Development Situation

3.1 Current Development Situation of Mobile Payment

Mobile payment is also called mobile phone payment, namely using the mobile terminal (usually mobile phone) to pay for goods or services. Companies or individuals realize the function of mobile payment by sending payment instructions directly or indirectly to the bank financial institutions through mobile devices, Internet or close range sensing to conduct currency payment and funds transfer.

3.1.1 Overview of Mobile Payment Development in Domestic

1) Mobile payment business scale of China maintains a rapid growth, showing the features of large transaction quantities but small payment amounts. In 2015, the domestic bank handled mobile payment in a total quantities

of 13.837 billion, the amount of 10.822 billion yuan, the average transaction amount is 7821 yuan; payment institutions handled the mobile payment business in large transaction quantities but small payment amounts.

2) Remote payments constitute majority parts in mobile payment services. Remote payment business is relatively mature, but the near-field payment is subject to the inadequate environment, the less audience and other factors. In 2015 the remote payment and near-field payment in mobile payment accounted for 99.72% and 0.28%.

3) The number of mobile payment users has been increasing steadily. By the end of December 2015, online payment users of China reached 416 million, causing an increase of 112 million over the end of 2014, with the growth rate of 36.8%. It was worth noting that the growth rate of mobile phone online payment was particularly rapid in 2015, the user scale reached 358 million with the growth rate of 64.5%. The proportion of mobile phone online payment enlarged from 39% to 57.7%.

3.1.2 Overview of Mobile Payment Development in Foreign Countries

Developed countries focus on the near-field mobile payment to further enhance the payment experience of customers. Among them, the mobile payment of Japan and South Korea are most mature. The development of near-field mobile payment in Western Europe, the United States and other developed countries is relatively slow.

In developing countries and regions, such as India and Africa, mobile payment mainly uses remote payment by SMS, USSD, so that the residents in less developed areas can use more convenient and economic access to the most basic financial services. By the end of October 2015, India has over 1 billion mobile phone users, becoming the second largest mobile phone market after China in the world. Although the amount is huge, because of the unbalanced development of regional economy, some poor areas such as Bihar, has a penetration rate (the number of people who have mobile phone in 100 people) of only 54%. Africa has nearly 500 million mobile phone users, mobile phone penetration rate is close to 60%. Currently there are more than 40 million people using mobile payment in Africa.

3.2 Mobile Payment Development Problems

Security is always the biggest obstacle in the development of mobile payment. Some traps like Trojans, false refunds, fishing software and other “traps”, greatly reduce the user trust on the process of payment. Specifically, the mobile payment security risks are mainly reflected in the following aspects: First, in the process of payment, there exists high risk of system vulnerabilities and implant risk of Trojan; Second, the lack of dynamic risk management system. Only by means of short message authentication cannot fully guard against risk. Third, the current industry cannot be solved on the security problem of mobile terminal payment. With rapid development of mobile payment industry, there is a lack of construction of the legal system. In the new situation of current electronic payment, policies and regulations still have a lot of gaps. As a new format, the mobile payment supervision of the relevant departments is also in the exploratory stage. There is no relevant experience can refer to and it results cause regulatory deficiencies in a certain degree. Besides, it has not yet formed a mature industry pattern. Compared with other payment methods, the environment of mobile payment industry is complex, and its industrial chain related to multiple industries.

4. Empirical Analysis of Family Financial Inclusion

4.1 Theoretical Analysis and Hypothesis

Deepening financial reform includes not only the related reforms in the financial system of a country, but also the growth of financial system scale. In the theory of financial repression, the suppression of the financial system, to a certain extent, will suppress the scale and diversity of the finance. The lack of scale and efficiency of the financial system will distort the positive role of the financial to economy.

The development of mobile payment provides a feasible solution to this problem. Mobile payment is based on the Internet platform, with lower transaction costs. First of all, through efficient integration of capital, investors can pass the threshold or quasi investment threshold set by the financial structure. Secondly, mobile payment greatly reduces the “Shoe-Leather Cost”, making the ordinary people, especially people with high financial flexibility at the end of the rank, save a lot of time and reduce the difficulty of their financial operations. Then the development of Internet finance, especially the mixed financial products can promote the diversification of Chinese financial products. Under the effect of the marketization of interest rate, interest rate and risk structure among different products will be more diverse, which means that consumers can build more combination in their own risk aversion to achieve maximum utility. Based on the above analysis, the first empirical hypothesis can be established: mobile payments can enhance the diversity of China’s Internet financial consumer groups. The diversity contains two layers of meaning: the growth of amount, and the increase in types of financial business.

4.2 Data Sources and Pretreatment

The main source of data is from 2015 Household Financial Survey, and sources from Zhong Hong database (<http://202.195.149.25/skins/1/edu/index.shtml>), GuoTai'an financial database (<http://www.gtafe.com/>). The original samples of the data are representative, including an amount of 8134, in 20 provinces and municipalities (except Hong Kong, Macao and Taiwan) in the north, southern, east, northwest, northeast areas of China.

4.3 Set up of Variables

This chapter selected 19 variables from the CHFS database. Per_stock, Per_fund, Per_current, Per_save, Estate mainly depict household financial structure. Age, Sex, Marriage, Degree, Hh_hum, Health mainly describe the basic situation of the family. Self_eva, Consult, Fin_know mainly depict the professional knowledge level of investors. In_net_fee, Frequency, Mobile_sum, Internet, per_net_invest mainly depict related variables of mobile payment.

4.4 Empirical Analysis Based on Factor Analysis

Too many variables appear in the process of data analysis, and there is strong correlation or strong information overlap between these 20 variables. Thus direct analysis of the data may lead to model errors, so factor analysis method in SPSS software is used to reduce the dimensionality of multivariables. Without loss of information, fewer independent variables instead of the original variables are used to make further analysis. The result of the analysis is shown in Table 2.

Table 2. KMO and Bartlett test

KMO and Bartlett test		
Sufficient sample of Kaiser-Meyer-Olkin		0.674
	Approximate chi square	937.713
Bartlett test	df	190
	significance	0

From Table 2, the value of KMO is 0.674, which indicates that the factor analysis can be carried out. The Sig. value of Bartlett test is 0, which indicates that the data comes from the normal distribution, and is suitable for further analysis.

Table 3. Total variance explained

component	Initial eigenvalue			Rotating square and loading		
	Total	Variance %	accumulation %	Total	Variance %	accumulation %
1	3.264	16.321	16.321	3.026	15.13	15.13
2	2.511	12.553	28.874	2.383	11.913	27.043
3	2.032	10.16	39.034	2.062	10.308	37.352
4	1.654	8.269	47.303	1.595	7.973	45.324
5	1.468	7.34	54.643	1.512	7.559	52.883
6	1.322	6.611	61.254	1.486	7.429	60.312
7	1.249	6.243	67.497	1.387	6.936	67.248
8	1.126	5.631	73.128	1.176	5.88	73.128
9	0.984	4.921	78.049			
10	0.805	4.023	82.072			
11	0.78	3.901	85.973			
12	0.687	3.434	89.406			
13	0.582	2.909	92.315			
14	0.54	2.702	95.017			
15	0.483	2.414	97.431			
16	0.383	1.914	99.345			
17	0.093	0.467	99.812			
18	0.02	0.099	99.911			
19	0.012	0.06	99.971			
20	0.006	0.029	100			

Extraction method: principal component analysis

Table 3 shows that 8 eigenvalues in the "initial eigenvalues" are greater than 1, so using SPSS to choose the top 8 principal components. "Extraction of square and loading" shows the variance contribution of the first principal

component is 16.321%, the variance contribution of the second principal components is 12.553%, and the variance contribution of the third main components are 10.16%. The first 8 principal components accounted for 73.128% of the variance of all principal components. Thus, the first 8 components have been selected to replace the original variables, for it covers almost all information of the original variable;” rotating square and loading “column shows the extraction results after factor rotation, and they have little difference with results before the rotation.

Table 4. Component score coefficient matrix

	Component							
	1	2	3	4	5	6	7	8
perstock	-0.017	-0.02	0.482	0.001	0.014	-0.008	0.023	-0.015
perfund	-0.001	0.058	0.074	0.088	0.022	-0.016	0.565	-0.09
percurrent	0.037	-0.087	-0.015	-0.083	0.062	-0.064	0.054	-0.63
persave	0.33	-0.016	-0.017	-0.018	0.047	-0.019	0.039	-0.041
self_eva	0.055	0.015	0.022	0.142	0.106	0.415	-0.132	0.13
age	0.015	0.387	0.005	0.012	0.039	0.008	-0.035	0.062
age2	0.017	0.39	-0.004	0.025	0.049	-0.002	-0.014	0.026
sex	-0.06	0.02	0.022	-0.068	-0.087	0.509	0.07	-0.022
marrage	0.037	-0.079	-0.024	-0.034	0.01	0.078	0.371	0.389
degree	0.046	0.059	0.057	-0.422	-0.106	-0.124	0.041	-0.135
hhmen	-0.009	-0.011	0.065	0.385	-0.007	-0.347	-0.035	-0.005
health	0.072	-0.296	0.081	0.209	0.079	-0.105	-0.173	0.151
internet	0.031	-0.005	-0.022	0.381	-0.087	-0.028	0.241	-0.102
consult	0.046	-0.158	0.008	-0.199	0.012	-0.321	-0.02	0.424
fin_know	0.065	0.016	0.017	0.12	0.485	-0.044	-0.195	-0.16
in_net_fee	-0.041	0.042	0.049	0.01	0.46	0.057	0.059	0.111
estate	0.076	-0.056	-0.042	-0.144	0.437	-0.091	0.329	-0.086
frequency	-0.002	-0.027	0.485	-0.045	0.036	0.036	0.067	0.039
mobile_sum	0.335	-0.018	-0.002	-0.038	0.036	-0.03	0.038	-0.03
pernetinvest	0.318	0	-0.013	-0.036	0.011	-0.031	0.003	0.05

Extraction method: principal component analysis
Rotation method: an orthogonal rotation method with Kaiser standardization

Table 4 is the Component score coefficient matrix, the expression of common factors can be directly written by using it. But each variable in the expression is not the original variable but standardized variable. Because of space limitation, it won't be repeated.

4.5 Correlation Analysis of Indexes and Variance Factor Analysis

This chapter takes the family investment structure and mobile payment related variables as the indexes to characterize the degree of financial deepening. Through correlation analysis, a preliminary understanding of the impact degree of different variables on Internet financial deepening is gotten. The correlation matrix shows in Table 5, we assume variable perstock as x_1 , perfund as x_2 , percurrent as x_3 , persave as x_4 , pernetinvest as x_5 , estate as x_6 , frequency as x_7 , mobliesum as x_8 .

Table 5. Correlation matrix

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8
X_1	1							
X_2	0.032	1						
X_3	-0.001	-0.017	1					
X_4	-0.002	-0.027	-0.015	1				
X_5	0.014	0.025	0.016	0.374	1			
X_6	0.220	0.335	0.121	-0.023	0.270	1		
X_7	0.962	0.027	-0.004	-0.006	0.311	0.015	1	
X_8	0.522	0.025	0.008	0.467	0.906	0.028	0.506	1

Table 5 shows that the correlation coefficient matrix describes the relationship among main variables. The frequency of use of mobile payment (frequency) and proportion of stock investment (per_stock) has a strong

positive correlation. Mobile payment amount (mobile_sum) and the proportion of stock investment (per_stock), the proportion of deposits (per_save), Internet investment proportion (per_net_invest), and the frequency of mobile payment use (frequency) has a strong correlation. While the savings proportion (per_save), and stock investment ratio (per_stock), the fund investment ratio (per_fund), cash holdings (per_current) has negative correlation. The result is consistent with the actual situation.

From the correlation coefficient, use frequency and amount of mobile payment influence the family investment structure and the proportion of online investment. To further explore this effect, the study of what effect mobile payment frequency and mobile payment transaction amount made to the ratio of family online investment by using single factor variance test. Results of Single factor variance test are shown in Table 6.

Table 6. Single factor variance test results

factors	differences	SS	df	MS	F	P-value	F crit
mobile_sum	Between groups	1202.625	1	1202.63	26.645	2.55E-07	3.844
	In the group	196967.2	4364	45.1346			
frequency	Between groups	1408403	1	1408403	3354.64	0	3.844
	In the group	1832173	4364	419.838			

Where SS is expressed by the error sum of squares; the degree of freedom is represented by df; the mean square deviation by MS; the significant statistic by F; the value based on the significant level of 0.01 by F crit. Analyzing the two groups of significant test data, in each group the data F is greater than F crit, it shows the difference is significant.

From Table 6, comparing the data by F and F crit, the two groups of data have the Internet investment proportion (per_net_invest) as the dependent variable, because the sample sequence is the same, F critic is the same in "row" block and "column" block. F, the variance between groups of the frequency of use of mobile payment (frequency) is far greater than the mobile payment amount (mobile_sum). It shows that the impact of frequency of use of mobile payment (frequency) on the Internet investment ratio (per_net_invest) is more significant.

4.6 ADF Unit Root Test and Granger Test

The correlation coefficient analysis can only provide a simplified reference, for further testing the hypothesis, multivariate linear regression analysis should be established to analyze the effect of mobile payment to household Internet financial inclusion. Before the establishment of multiple linear regression, ADF test need to be taken on the selected variables to ensure the smooth of sequence. First of all, the cross section data should be built in the Eviews software. This section selects 9 variables: Per_stock, Per_fund, Per_current, Per_save, Per_net_invest, Estate, Frequency, Mobile_sum. The test results are in Table 7.

Table 7. Unit root test of variable Per_Stock

Null Hypothesis: PERSTOCK has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=11)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-11.50527	0.0001
Test critical values:	1% level	-3.498439	
	5% level	-2.891234	
	10% level	-2.582678	

*MacKinnon (1996) one-sided p-values.

From the analysis of Table 7 unit root test, significant P value is far less than 0.01 when the variables in the level of 1%. It shows good stability, and is suitable for multiple regression analysis. The ADF test results of the other 8 variables in table all pass the stationary test. It shows that cross section data has good stability. The data is suitable for multiple linear regression analysis.

Table 8. ADF test results

Variable	ADF	P	1% critical value	5% critical value	Result
perstock	-11.50527	0.0001	-3.49843	-2.89123	stable
perfund	-11.6566	0.0001	-3.49544	-2.89123	stable
percurrent	-8.98754	0	-3.49844	-2.89063	stable
persave	-10.6908	0	-4.49844	-1.74788	stable
pernetinvest	-9.1054	0	-3.49844	-2.89123	stable
frequency	-11.2309	0	-3.65844	-1.89529	stable
mobile_sum	-10.3656	0	-3.48844	-1.09123	stable
estate	-10.7001	0	-5.49094	-2.89123	stable

Granger causality is defined as a causal relationship from the perspective of prediction. In general, because the future is not predictive of the past, if the variable x is the cause of the variable y , then the change in x should precede the change in y . Therefore, in the return of y to other variables (including its own past values). If the past of variable x and lag values are included, and the variable y can significantly change the prediction, it can be said that y is the cause of Granger X . In order to find out the causality among family investment structure, the mobile payment and the Internet financial investment, the Granger causality test on multiple regression model is carried out. Some results are shown in Table 9.

Table 9. Granger causality test result

Null Hypothesis:	F-Statistic	Prob.	result
FREQUENCY does not Granger Cause MOBILE_SUM	3.20384	0.0452	refuse
MOBILE_SUM does not Granger Cause PERNETINVEST	3.71482	0.0281	refuse
PERSTOCK does not Granger Cause MOBILE_SUM	3.97667	0.0221	refuse
PERSAVE does not Granger Cause PERNETINVEST	3.58476	0.0317	refuse
PERSTOCK does not Granger Cause PERNETINVEST	3.16571	0.0468	refuse
PERSTOCK does not Granger Cause PERSAVE	3.45971	0.0356	refuse

When the P value of the Granger test is less than 0.05, the small probability event will occur, that is, the original hypothesis is not true. That is to say, a variable is another variable's Granger reason, otherwise it will accept the original hypothesis. Table 9 analysis shows that ① FREQUENCY is Granger reason of MOBILE_SUM, but not vice versa; ② MOBILE_SUM is Granger reason of PERNETINVEST, but not vice versa; ③ PERSTOCK is Granger reason of MOBILE_SUM, but not vice versa; ④ PERSAVE is Granger reason of PERNETINVEST, but not vice versa; ⑤ PERSTOCK is Granger reason of PERSAVE, but not vice versa.

4.7 Multiple Linear Regression Based on Forward Stepwise Method

In last chapter, the stationary of variables was tested, and the Granger causality analysis was made among different variables. It proved that the variables were suitable for multivariate linear regression analysis, and a causal relationship existed among some variables. There were many variables, thus stepwise regression analysis model should be established. All factors listed in descending order, according to their influence to the explanatory variables, are put into the regression equation in turn. All variables contained in the regression equation will be tested at any time to see whether it is still significant. If not, the variable will be removed. No new variables will be introduced, until all the variables contained in the regression equation were significant.

This chapter takes the significance level of 0.5 as the termination condition of significant test, and chooses step forward method to establish multiple linear regression equation. Using PERNETINVEST as the dependent variable, the other 8 variables as independent variables, the results are shown in Table 10.

Table 10. Multivariate linear regression model parameters

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
MOBILE_SUM	1.059692	0.160820	6.589320	0.0000
PERSAVE	-0.066062	0.065577	-1.007393	0.3163

As can be seen from Table 10, the final selection of variables are MOBILE_SUM and PERSAVE, the coefficient of determination in stepwise regression model is $R^2=0.856001$, to maintain a high significance. The regression equation is

$$PER_NET_INVEST = 1.059692 \times MOBLIE_SUM - 0.066062 \times PER_SAVE$$

The regression equation has further verified the hypothesis that the amount of mobile payment transactions has a greater impact on the proportion of household Internet financial investment, and the household savings ratio has a negative correlation with the Internet investment ratio. This chapter used the Eviews to do model prediction. The left is the forecast analysis chart, the two dotted lines indicate the predicted value's two times the standard error band. The right is some evaluation indexes of the forecast. The error band shows that the regression model is relatively precise, and it closely follows the change of the actual curve. The model's prediction accuracy is high according to the MAPE value of 2.83 in the right, as shown in Figure 1.

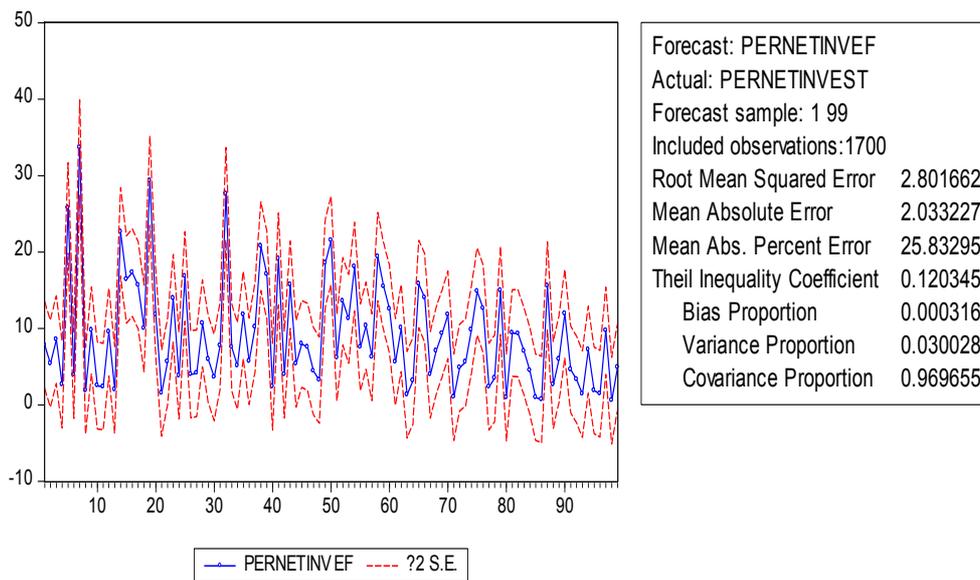


Figure 1. Per_Net_Invest trend forecast

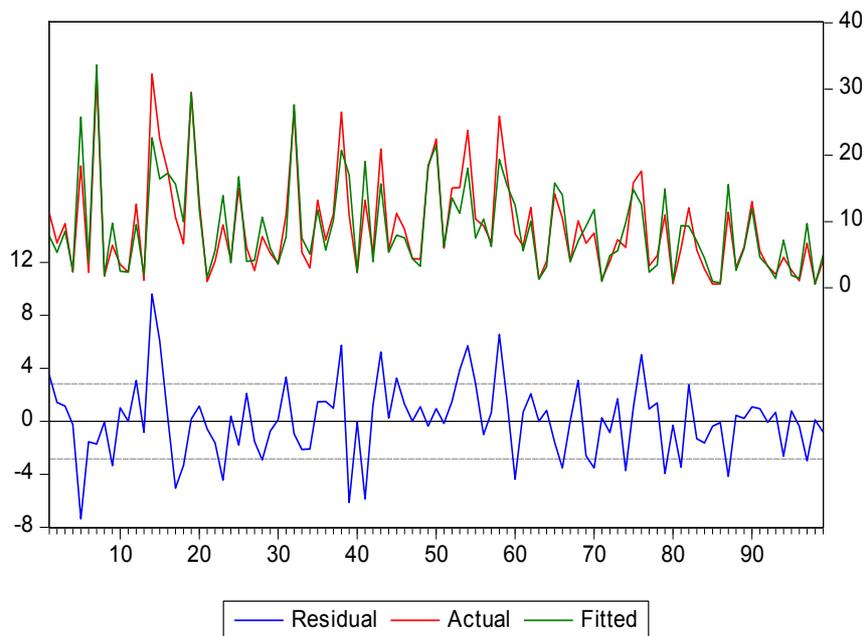


Figure 2. Residual test chart

Based on the empirical analysis and theoretical derivation, the expansion of transaction scale had some effect on the increasing of Internet financial investment. The multi-faceted and instability influence factors of Internet Financial inclusion development implied the necessity of controlling Internet financial risk and standardizing the development of mobile payment.

4.8 Limitation of the Research

However, in the process of empirical analysis, there are some parts that need to be improved. In order to simplify the model, the establishment of the model is more idealise, which may ignore the impact of other variables on the inclusion of Internet Financial. For the means of measurement, limited by the calculated memory capacity, more than 1,700 valid samples were selected in the original 8134 data in a randomly selected manner. So the accuracy of the results of regression testing may be affected to some extent. It also shows that there is a great deal of uncertainty on the impact of mobile payment on Internet finance.

5. Suggestions for Future Research

According to the current situation of China's continuous development, expand the experimental data sources, adding more representative situation of the rural household financial asset allocation into the sample. For Internet inclusive financial, in addition to the study of the family financial asset allocation, increase the variables of financing situation of SMEs, enhance the model's universality and persuasion.

According to the actual situation, take the nonlinear regression model into account, study more accurately about the impact of mobile payments on the Internet inclusive finance.

6. Recommendations

- 1) Development of mobile payment security technology should be sped up, and a unified access mechanism should be established. To speed up the development of efficient and secure mobile payment system, new technologies should be developed. Establishing a unified security authentication mechanism, controlling strictly the access of mobile payment, and to suppress the development trend of mobile phone virus and to curb the rampant copycat APP, thus the security of mobile payments will be improved.
- 2) Financial knowledge and mobile payment should be popularized, thus public awareness of risk and financial efficiency will be promoted. Under the development of various forms of ownership economy in the market economy, consumers should have some financial knowledge to strengthen their management of wealth.
- 3) Financial products of monotonous pattern cannot meet the expanding needs of platforms and investors, so we have to promote the innovation of Internet financial products, encourage securities, banks, funds, insurance and other financial institutions, and expand the Internet payment from online to offline. Transformation and upgrading of traditional financial business and service rely on Internet technology, which leads to the development of new products and services, deepening of the inclusive finance.
- 4) To perfect laws, regulations and industry standards, especially in mobile payment, so that financial services will be improved, and the Internet inclusive finance will have further development.
- 5) In order to promote the popularity of mobile payment and the development of Internet inclusive finance in rural areas, rural banking financial institution system should be established, rural mobile payment business should be applied. Mobile payment will develop vigorously in the new rural construction, new agricultural insurance, new rural cooperative, sightseeing agriculture and other projects.

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