

Investigation on Consumer Finance Risk Management in Zhejiang Province

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Abstract—Consumer finance is becoming significantly important nowadays, given the reform of financial system and the development trend of financial internationalization. In recent years, the scale of consumer finance market in China has developed rapidly. Based on the first hand data collection through online questionnaires and conducted interviews, this paper finds out the difficulties in consumer finance risk management in Zhejiang province, including inevitable information asymmetry, high credit information reporting system cost, low-level financial technology, incomplete supervision, insufficient professional talents, and scarce consumer finance products. In order to make contributions to consumer finance research field, this paper simultaneously summarizes corresponding feasible suggestions, such as enhancing the construction of credit reporting system to advance financial risk assessment, combing financial technology efficiently, strengthening government supervision, developing professional talents, building risk management awareness construction, etc.

Keywords—Consumer finance; Financial technology; Credit system

I. INTRODUCTION

Consumer finance refers to the credit provided by banks or other financial institutions to individual consumers based on credit, mortgage, pledge guarantee or general guarantee [1]. Generally speaking, consumer finance is individualized, flexible, small amount, and aimed for consumption. There are three main subjects participated in consumer finance: banks, consumer finance institutions and internet companies. For banks, users are usually highly related to offline banking service with better credit record. Consumer finance institutions, who own advantages in licensing, have more concentration on young people with stable income. For internet companies, most of users are attracted online by e-commerce platform.

Consumer finance risk management is to avoid the situation that consumer borrower cannot pay the interest and even repay the principal, so that the lender may encounter economic loss. Generally, consumer finance risk management is operated similar as finance risk management, which emphasized on three different stages of loan issuing: pre-finance, in-finance, and post-finance [4]. And consumer finance risk management especially focuses on credit risk, market risk, operation risk and liquid risk. As significant growth of consumption, consumer finance will enter into a new period of rapid development and then contribute to economic development largely. This paper illustrates the characteristics of consumer

finance risk management in Zhejiang, China; explores current situation through data collection including questionnaires and interviews; detects possible related difficulties in Zhejiang followed with feasible suggestions.

II. CURRENT SITUATION OF CONSUMER FINANCE RISK MANAGEMENT IN ZHEJIANG PROVINCE

According to Zhejiang Banking Regulatory Bureau (2018), the total loan balance of RMB in Oct by financial institutions in Zhejiang Province was 37341.32 billion yuan, which increased 33.5% over the previous year and increased 0.5% over last month. Consumer finance was 6086.36 billion yuan, increased by 43.5% accordingly. From January to October, a total of 177.896 billion yuan of new consumer finance were added, accounting for 21.2% of the total increase in Renminbi loans, which is 3.5 times over the increase in the same period last year. The proportion of consumer finance has been continuously increasing, effectively promoting the growth of residents' consumption. The development of consumer finance business has already played a positive role in promoting regional consumption growth and improving the lives of residents, focusing on market demand and the reality of all walks of life.

Based on the research in Zhejiang consumer finance field, an increasing number of participants are involved in consumer finance, which has largely stimulated consumption, so that gives a good development prospect of consumer finance in Zhejiang [2]. More importantly, participants of consumer finance have paid more and more attention to this filed, so increased the impact of consumer finance on consumption growth and even economic restructuring, transformation and upgrading. Meanwhile, internet industry as born in Zhejiang, which makes Zhejiang acquire competitive advantages in internet+ field including consumer finance.

III. RESEARCH VIA QUESTIONNAIRES & INTERVIEWS

This paper collects the first-hand data via questionnaires and interviews to simplify the current situations of consumer finance risk management in Zhejiang. Banks, consumer finance institutions and internet companies in Zhejiang are obtained in the survey by Questionnaire stars, with the amount of 153 questionnaires were collected. This paper will analyze the current situation of consumer finance risk management and control in Zhejiang Province by the data collected from questionnaires, interviews, annual reports and other public data.

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For interviews, six banks, three consumer finance institutions and two internet companies in Taizhou, Ningbo and Hangzhou were involved [1]. Our interviews are taken directly with the relevant personnel both through phone call and face-to-face interviews. The banks interviewed face to face in this survey are: 1. China Merchants Bank in Ningbo, one of the most largest commercial banks, who has treated its consumer finance as the most important strategy; 2. Ping An Bank in Ningbo, one of the most feasible commercial banks, which operates consumer finance in car consumption field predominantly; 3. Shanghai Bank in Ningbo, a commercial bank making efforts to combine with the internet companies to build up its own consumer finance ecological chain; 4. Industrial and Commercial Bank of China (ICBC as shorted) in Hangzhou, which is the largest bank in China, promotes consumer finance development based on its advanced financial technology and combination with internet giants advantages ; 5. Tailong Commercial Bank of Zhejiang, a typical local commercial bank, whose headquarter is located in Taizhou,

Zhejiang, has devoted to provide SMEs finance service and consumer finance service; 6. Hangzhou Branch of Minsheng Bank of China, which is well-known for personal finance service, has been ranked second in terms of local counterparts in Hangzhou. Moreover, face-to-face interview has been taken with Hangzhou Bank Consumer Finance Institution, which was founded in July 2015 by Hangzhou Bank, Spanish External Development Bank and Bohai International. So does JieXin consumer finance institution in Ningbo. Furthermore, the internet companies are interviewed by telephone including Ant Financial, the business of Alibaba affiliated companies, located in Hangzhou; SuNing consumer finance institution, which is not only legally licensed but also giant at internet e-commerce platform with advanced consumer finance scene construction.

IV. RESULTS AND ANALYSIS

A. Employees in consumer finance field

TABLE I YEARS OF EMPLOYEES' WORKING

Working years	<=1	2—3	4—5	6—9	>=10
Percentage	25.49%	55.56%	17.65%	0.65%	0.65%

TABLE II PROFESSIONAL DEGREE OF EMPLOYEES IN CONSUMER FINANCE

Education	Secondary specialized school	Specialty	Undergraduate	Graduate student	master	doctor
Percentage	4.58%	9.8%	78.43%	6.54%	0%	0.65%

TABLE III EMPLOYEES' WORK CERTIFICATES IN CONSUMER FINANCE

certificate	Bank Qualification Certificate	Securities Qualification Certificate	Insurance Qualification Certificate	Junior Level Accountant	Other:
Percentage	58.17%	46.41%	39.87%	38.56%	9.15%

From Table 1, Table 2 and Table 3, most employees has been working between 1 and 5 years, with a minority of them working for more than 6 years. In addition, 78.43% of employees are undergraduates. Obviously, undergraduate and graduate students account for the largest proportion, while high level such as master and doctor degree educated personnel account for a small proportion. With regards to professional certificates, most employees in consumer finance have relevant

certificates such as bank qualification certificate, securities qualification certificate, insurance qualification certificate, etc. and half of them have no certificates. The professions of consumer financial services need staff to be able to grasp the current macroeconomic policy, to be able to intelligently judge the trend of macroeconomic, and to be able to manage risks in the field in advance.

TABLE IV EMPLOYEE TASKS REQUIREMENT

	Do employees have a certain amount of consumer finance tasks?
yes	90.2%
no	9.8%

As can be seen from Table 4, 90.2% of the employees in consumer finance have performance requirement indicators from the company, which is conducive to employees' performance evaluation, staff motivation and consumer finance promotion.

B. Employees in consumer finance field

TABLE V CUSTOMER AGE

Age	18- 25	25- 35	35- 45	>45
Percentage	20.26%	54.9%	22.88%	1.96%

Refer to the table 5, customers between 25 to 35 account for 54.9%, whose group is in the golden period of starting a family and starting a business. That is, a large demand of them for consumption. Recently, customers seem to be younger, as 18-25 years old account for a certain proportion, who are born in the era of rapid development of information technology and are more likely to consume in advance. As the increasing

number of this group, they should be paid more attention as they are in their beginning of working in the society, so that their income is usually low and unstable but their consumption is usually with high demand. From the perspective of risk management, consumer finance products should be provided exclusively and risk management approaches should be adopted accordingly especially for this young group.

TABLE VI PREDICTION OF IN TIME REPAYMENT PORTION

In Time Repayment Portion	100% - 95%	95% - 85%	85% - 60%	60% - 30%	30% below
Percentage	9.15%	38.56%	35.95%	13.07%	3.27%

Obviously, the figure illustrates that the most repayment is not absolute in time, but for the portion mainly of 60%-95%. Related to the interview with Minsheng Bank, it is informed that the lower default rate in the older, in female group, in non-real estate group, and in higher income group. The default

rate of borrowers with real estate is 0.98%, and that of borrowers without real estate is 2.17%.

C. Consumer finance business

TABLE VII INSURANCE AND SERVICE SYSTEM FOR CONSUMER FINANCE

	Purchase of Insurance	Good Service System
Yes	71.24%	72.55%
No,	28.76%	27.45%

Table 7 declares that the most consumer finance institutions have purchased insurance for their consumer finance businesses, that is to say, a few of them have failed to use insurance to disperse risks. With regard to service system

supporting consumer finance, most professions in the field think that there is an about perfect service system in the field, which has been made as consciousness that reducing related consumer finance risks.

TABLE VIII CONSUMER FINANCE BUSINESS FIELD

Business Field	housing	automobile	study	Travel	Medical beauty	household electrical appliances	Electronic product	Other
%	82.35	77.12	48.37	33.33	23.53	22.88	26.8	11.76

Generally speaking, housing and automobile business account for the vast majority of consumer finances business, almost 82.35% and 77.12% respectively. It can be seen that personal housing and automobile are the core businesses in Zhejiang. The proportion of student loans is 48.37%, which also accounts for a large proportion. This is related to the advancement in education, so that consumption demand in education is accordingly increasing. Above all, consumer finance business field is covering anywhere. Along with the statistics from Tailong Bank, the personal housing and decoration loan seem to be its core business; the following business is automobile consumption finance, which reached 14.05% as the total amount of loans is 33.24 million yuan.

D. Consumer finance risk management

According to interviews as well as surveys, different consumer finance companies have developed different risk management systems [6]. Minsheng Bank adopts the "consumer finance factory" model covering the whole process of risk management. Specifically, it detects consumers strictly at the very start and makes decisions on the basis of financial technology like big data. The advantage is that it follows the changing data and monitors the data at any moment. At the same time, the operation of PAD credit factory of Zhejiang Tailong Bank realizes the whole process of mobile operation involving card service, loan application, etc. It not only raises the efficiency of business processing, but also improves customer satisfaction. In addition, it enlarges the consumer finance scale for the bank and makes contributions to risk

management. It is reported that the non-performing loan rate is 0.43% at the end of June 2017 [2].

V. SUGGESTIONS

Based on the surveys and interviews, most of consumer finance companies have designed competitive advantages of consumer finance products, and developed their own advanced risk management system. For example, Hangzhou Bank Consumer Finance institution positioned consumer finance products at the very beginning, especially for home market. For Ant Financial company, consumers are chosen by its strict regulation based on the consumption information recorded in its giant e-commerce platform. To sum up, the most important to all the consumer finance companies is to detect the attitude and the ability of customers. It will highly relate to their credit, income, risk attitude, consumption habit.

A. Consumer Finance Risk Assessment

Based on the surveys, it is found that information asymmetry will lead to higher consumer finance risks. At the same time, it causes the higher credit cost [3]. At present, there is imperfect credit reporting system in China. People's Bank of China (PBC) credit reporting system is the most important in credit reporting system construction, along with the developing credit data generated by different consumer finance subjects respectively. So the credit reporting information is not shared transparently, or effectively, or efficiently among different subjects in the field [5]. How to efficiently integrate credit data and how to effectively share among subjects would be solved for the sustainable development of consumer finance.

In summary, it is suggested that firstly to enhance the construction of credit reporting system altogether aimed to advance the consumer finance risk assessment [5]. It includes basic information extraction, big data machine learning, operating systems and laws regulations. That is, the construction includes efforts to build credit reporting system, investigation system, information protection system and management system. Importantly, set up personal customer credit database and accelerate the establishment of an information exchange system among consumer finance financial institutions. Meanwhile, cooperate with the third party to improve personal credit information records, based on the People's Bank of China personal credit information system followed combining financial institutions', political and legal departments', labor management departments', enterprises' and institutions' data. The cooperation among banks, consumer finance institutions and Internet companies can not only reduce the risk of consumer finance, but also promote consumer finance development and achieve win-win situation for all parties.

Additionally, strengthen the combination of financial technology with risk assessment is suggested. Big data, machine learning and artificial intelligence technologies have also been applied in consumer finance risk management [6]. For example, JiuFu consumer finance institution in Beijing has successfully use big data technology and machine learning to run through six stages of consumer finance business: channel, data, credit, anti-fraud, quota and post-service, forming an online + offline, mechanized + artificial, and modular +

specialization risk management framework. Besides, improve the structure of consumer finance business operation and internal control of different departments in consumer finance companies, so that make contributions to consumer finance risk management to a larger extent.

B. Consumer Finance Risk Monitor

With regard to consumer finance risk monitor, the related technology is needed to be mature and upgraded. Consumer finance risk monitor detects most of the problems laid on privacy protection and security [4]. As the data collection on personal location, purchase preferences, health, financial situation, storage & analysis of financial transaction habits, asset distribution, credit status, the credit information infrastructure of financial markets and even the whole society will become more integrated and extroverted, this will pose greater risks to privacy, data security and intellectual property rights. Also, it is necessary to strengthen the government supervisions and enhance the follow ups of consumer finance subjects. According to the report of China Urban Family Wealth and Health Report 2018, nearly 80% of the money in China has used to buy personal housing.

Hence, monitoring consumer finance risk is through strengthening government supervision of consumer finance. Government supervision is to make sure consumer finance development, ensure social order, protect the formal interests of consumers, and minimize the risks brought by credit loans. On one hand, the government should pay attention to the compliance of business operation process and tax issues; on the other hand, it also needs to be responsible to consumers, and strictly supervise the gray areas where consumer financial companies may be out of legal control. On the other hand, enhance the following up of consumer finance subjects as consumer finance is mainly for the purchase of personal consumer goods or services.

C. Consumer Finance Risk Management

Different consumer finance companies have their own comparative advantages. Gradually, consumer finance subjects have deeply developed into the specific specialization [2]. Moreover, considering better done in consumer finance risk management, there is obvious lack of talents in risk management, which is consistent with our surveys and also interviews. In current situation, inefficient professional talents in the field of consumer finance will be seriously negatively related to the following sustainable development; especially the professions in combination of network, finance, marketing and integrated applied talents.

Firstly, make good use of insurance and hopefully insurance market grows rapidly to be more supportive. Based on the investigation discussed above, most of the consumer financial companies have already adopted insurance for risk management. Secondly, strengthen the construction of consumer finance guarantee system. Develop guarantee companies to further improve the consumer finance guarantee system so that directly reduce the risks consumer finance companies are facing, which makes consumer finance business further develops correspondingly. Thirdly, make further use of internet of things, big data, cloud computing, artificial intelligence and other internet technologies to promote the

intelligent upgrading of consumer finance. Provide diversified consumer finance scenes in life and deep investigate more consumer finance products innovatively. For example, pay extra attention to the development of online and offline integration services for community life, digital creative content and services for cultural and entertainment field, and transportation and tourism services for convenient travel. Grasp the current hot consumption industry, excavate users with real consumption needs in multiple life scenarios, and constantly go deep into product innovation for the installment payment for campus, housing rental, car trading, education and training, cosmetic medicine, love, marriage and other consumer scenarios.

Moreover, develop consumer finance secondary market to help the liquidity of consumer finance companies. Especially further innovate consumer finance securitization to strengthen the liquidity of consumer finance companies, diversify the consumer finance risks and build a way for investors. At the same time, try more innovative ways to enhance consumer finance companies' liquidity prudently for the developed secondary market of consumer finance. Furthermore, make great efforts on the risk management awareness construction. Incentives and penalties can be built in the consumer finance repayment process. For customers who repay in time, appropriate welfare preferential policies can be carried out. For those who have overdue repayments or do not repay, according to different circumstances, increase the cost of consumer finance default, strictly follow up the borrowers, warn the possible credit default at any time, and adopt strict legal means on mortgages and pledges; in order to institutionally let borrowers realize that the higher cost of default than the illegal income of default, so as to achieve positive incentives and avoid moral violations.

VI. CONCLUSION

This paper investigates on the current situation of consumer finance department staff, consumer finance customers, consumer finance business and existing risk management of consumer finance in Zhejiang Province, through questionnaires, face-to-face or phone interviews, and literature reviews. With the advantages of internet technologies development in Zhejiang, China, and this paper detects some difficulties in consumer finance risk management, especially in consumer finance risk identification and assessment, consumer finance risk monitor and consumer finance risk management. With regard to these difficulties, this paper proposes some feasible suggestions forward. In terms of risk identification and evaluation, as the difficulty to grasp the specific situation of personnel along with high transaction risk and high credit cost, as well as various credit evaluation methods used and inefficient interconnections achieved among different consumer finance subjects resulting in resources waste and increased costs. So it is suggested that strengthen the construction of personal credit evaluation system and further combine financial technology innovations with consumer finance risk assessment. From the perspective of consumer finance risk monitoring, strengthen the government's supervision of consumer finance, establish professional teams and enhance the following up of consumer finance subjects to make contribution to advancement of monitoring technologies,

security and actual use of consumer finance supervision. For risk management aspect, lack of diversified consumer finance products and lack of professional talents are particularly difficult in the field. It is so proposed to strengthen the construction of consumer loan insurance system and consumer finance guarantee system; strengthen the innovation of consumer finance products and technology, develop multi-level capital market, broaden financing channels of consumer finance companies and tap potential customer needs; strengthen the establishment of developed secondary market of consumer finance to avoid risks; and strengthen consumer finance companies risk management awareness construction to reduce consumer finance risks.

However in recent years, negative words such as "malicious fraud", "excessive consumption" and "usury" have plagued the development of the industry. Some companies have violated regulations, over-credited, lightened auditing, lightened risk, emphasized lending and expansion, which has made residents lack of awareness of the safety and dependence of consumer finance so that affected the healthy development of the market. Under the affordability, residents can buy cars, houses and mobile phones earlier with the help of credit, which shows that consumer finance is the service industry for residents to enjoy a happy life in advance. Facing the huge market scale and the rapid development of financial technologies, consumer finance companies must pay attention to risk management while carrying out consumer finance product innovation and consumer finance service innovation. The results of the survey and interviews show that the vast majority of employees engaged in consumer finance believe that the development prospects of consumer finance are worth looking forward to. At present, the consumer finance industry has just started. As well as promoting the development of consumer finance, the Chinese government is now dedicated to establish a regulatory framework to oversee and supervise consumer finance so as to ensure it health growth and sustainable development. Under the supporting government policies and huge consumption demand, the future development of consumer finance will be vast. And Zhejiang will devote to be a leading province in consumer finance.

REFERENCES

- [1] Espahibodi B (2004). A Survey of Credit and Behavioral Scoring: Forecasting Financial Risk of Lending to Consumer, University of Edinburgh Work paper.
- [2] Evan Oxhorn. (2012) Consumer Finance and Financial Repression in China. University of Pennsylvania East Asia Law Review, Vol.7, pp. 374-427.
- [3] Hilgert, Marianne A., Jeanne M. Hogarth, and Sondra G. Beverly. (2003) Household Financial Management: The Connection between Knowledge and Behavior. Federal Reserve Bulletin, July, pp. 309-322.
- [4] Jing Jian Xiao. (2016) Handbook of consumer finance research. 2nd edition. Springer International Publishing Switzerland.
- [5] Kruppa J, Schwarz A, Arminger G. (2014). Consumer credit risk assessment [J]. Expert Systems with Applications, Vol. 4 (13).
- [6] William R. Emmons. (2014). Consumer-Finance Myths and other obstacles to financial literacy. Saint Louis University public law review. Available at : <<http://www.researchgate.net/publication/5047537>>.