

On Chinese Online P2P Lender's Model Building on the Macro, Micro and Industry Level

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Abstract. Only in a few years, P2P lending prospered in China, with the annual growth rate over 300 %. But in China, the extension and innovation of P2P industry is not mature yet. Especially, there is little innovation attempting from the lender-side. This paper studies on the macro, industry and micro level to investigate the Chinese lender's preference and its causes and try to dig out the opportunities in the market. On this basis, this paper gives out a typical lender's model in P2P in China. The results are worthwhile for related practitioners to innovate new financing products for lenders in China.

Keywords: Chinese online P2P · Lender-side · Macro level · Micro level · Industry level

1 Background

1.1 Online P2P's Origin and Current Situation

P2P (peer-to-peer) lending is a kind of individual debit and credit behavior besides the governmental financial organizations or systems. With the development of internet and the matureness of credit situation, the linkage of internet makes numerous borrowers and lenders break the offline limits of area and community of acquaintance. The scope of peer-to-peer debtor-creditor relationship largely expanded, coming up with the online credit platforms.

Since 2005, represented by Zopa, Lending Club, Prosper, P2P lending marketplace has grown up in the Occident, followed with the whole industry's upsurge in the world. P2P online credit platform develops rapidly in the Occident while is still at its initial stage in Europe and Asia.

1.2 P2P in China

In May 2006, CreditEase was established, entering the P2P industry from the angle of petty loan. In August 2007, the first real online P2P platform PaiPaiDai was formed. Since 2011, there came up an influx in the P2P industry, with the amount of platforms and annual trading volume rising up 4–5 times per year. In the aspect of industry volume, online P2P in China has already exceeded the one in UK or US [3, 4].

1.3 Extension and Innovation of P2P Industry

As a peer-to-peer lending model, generally P2P lending includes three stakeholders at least, which are borrower, lender and platform.

The extension and innovation of the P2P lending model are conspicuous. For example, in the US, Lending Club appeared as an app on Facebook social media, in order to achieve information and dig its values. Prosper once tried to use the online auction system to match its lenders and borrowers.

In China, in regard of lender, there are different segments, from the acquisition of customers to the design of investment products, as shown in Table 1.

Table 1. Lender-side segmentation in China [2]

Stakeholder		Details	Feature	
Lender-Side	The acquisition of customers	Online	<ul style="list-style-type: none"> • Low acquisition cost • High demands of projecting, publicizing, and promoting 	
		Offline	<ul style="list-style-type: none"> • High acquisition cost • KPI can be easily quantified and copied • Apply to specific groups 	
	The design of investment products	Manual-investment	Lender should choose loan and set investing amount by himself/herself.	<ul style="list-style-type: none"> • Lender has the right to select on his/her own • The operation might be complicated • The loan of excellent quality might be hard to buy
		Auto-investment	Lender sets the investing rules, such as loan type and total investment amount, and entrust the P2P platform to choose the final loans automatically	<ul style="list-style-type: none"> • The operation is simple. • Lender has no right to select on his/her own • The auto-investment model might cause controversy
		Automatic Investment Plan (AIP)	Lender invest automatically in the way of automatic investment plan, by setting standardized loan type, interest rate and investing period	<ul style="list-style-type: none"> • The operation is simpler • There is an implication of tough cashing. • If the platform operates wrongly, there would be controversy of funding pool, and other violation problems

The extension and innovation of P2P industry is not mature yet. Most of the innovating attempts start from the borrower-side or the platform’s turnover itself. There is little innovation attempting from the lender-side.

1.4 Research Necessity

Nowadays, the number of middle class and the rich in China is increasing rapidly. Their demand of managing wealth is becoming stronger and stronger. The contradictory between the product’s homogenization and lender’s strong financing requirements puts the research on lender in the fore. The results are worthwhile for related practitioners to innovate new financing products for lenders in China.

2 Research Methods

2.1 Research Framework

This paper studies on the macro, industry and micro level to investigate the Chinese lender's preference and its causes.

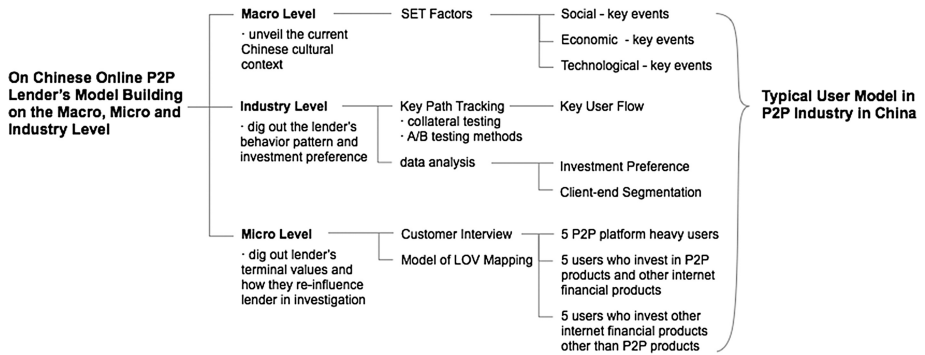


Fig. 1. Research framework

On this basis, this paper gives out a typical lender's model in P2P in China (Fig. 1).

2.2 Macro Level

On the macro level, this paper uses Cagan and Vogel's SET Factors (Social – Eco-nomic - Technological) to unveil the current Chinese cultural context. “The

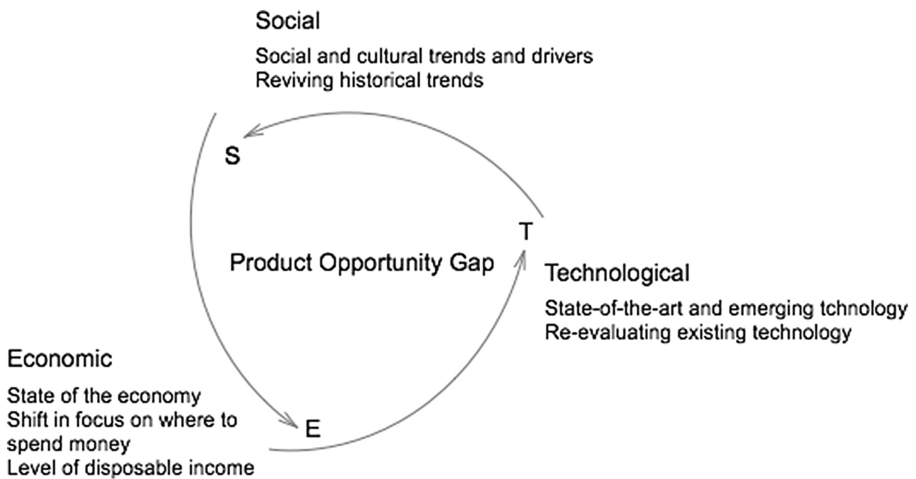


Fig. 2. Scanning SET Factors leads to POGs by Cagan and Vogel [1]

changes in Social, Economics, and Technological Factors that produce new trends and create Product Opportunity Gaps (POGs).” (Cagan, Vogel) (Fig. 2) Table 2 lists part of Social, Economic, and Technological key events and governmental policies happened or announced around 2014.

Table 2. Part of Social, Economic, and Technological key events and governmental policies happened or announced around 2014 in China.

Society	<ul style="list-style-type: none"> • China started the third time of economic census on Jan. 1st 2014, using the modern information technology
	<ul style="list-style-type: none"> • Postal services kept rapid developing. Its volume exceeds 268 billion. Express exceeded 9.2billion times, ranking the 2nd in the world
	<ul style="list-style-type: none"> • The State Council issued <i>Advises on establishing a unified basic endowment insurance system for rural residents</i>, combined the new one for rural residents and the one for city residents, coming out 4 unification in system’s name, policy standards, management services, information system
	<ul style="list-style-type: none"> • The State Council issued <i>Instruction advises on speeding up the productive services accelerate the work of adjusting and upgrading the industrial structure</i>, suggesting that the government will guide the market main body behavior
	<ul style="list-style-type: none"> • On Sep. 19th 2014, Alibaba was listed on the NYSE. The trade became the one of the largest IPO trading in the world
	<ul style="list-style-type: none"> •
Economy	<ul style="list-style-type: none"> • Lenovo and Google reached a significant agreement that Lenovo would purchase Motorola’s smart mobile phone businesss at the price of 2.9 billion USD
	<ul style="list-style-type: none"> • The number of Alipay’s identified real users exceeded 300million. The company became the largest payment company in the world
	<ul style="list-style-type: none"> • The World Intellectual Property Organization Office in China opened in Beijing on Jul. 10th 2014. The Number of international applications received by State Intellectual Property Office of the P.R.C as the receiving office has exceeded Germany
	<ul style="list-style-type: none"> •
Technology	<ul style="list-style-type: none"> • China Gold Association released that China produced gold 428.163 ton, growing to record levels, ranking 1st in the world for seven consecutive years
	<ul style="list-style-type: none"> • The People’s Bank of China published social financing statistics for the first time. Figures showed that Guangdong, Beijing, Jiangsu ranking the first three.
	<ul style="list-style-type: none"> • National Bureau of Statistics announced that the consumer price of the residents nationwide increase 2.6 percent, below the annual target of 3.5%
	<ul style="list-style-type: none"> • China ranked first in global goods trading in 2013, exceeded the US for the first time
	<ul style="list-style-type: none"> • China Securities Regulatory Commission issued the three measures to strengthen the process supervision of IPO
	<ul style="list-style-type: none"> • National Bureau of Statistics showed the narrowing increase trend of Sales Price of Commercial Residential Housing
	<ul style="list-style-type: none"> • Chinese agricultural insurance market ranks 1st in the Asia, 2nd in the world
	<ul style="list-style-type: none"> •

From the above key events, it is obvious that China is keeping a positive trend of modern development. Central Bank continues to follow a slack fiscal policy. Chinese economy is steadily increasing, mainly due to the wealth growth from real estate market and the stock market.

According to Boston Consulting Group [5], Mainland China per capita net worth increase rapidly since 2000, and the number of middle-class has already exceeded

300 million. Financial assets share a high percentage (49 %) of household assets, especially the high savings ratio. As figures from National Development and Reform Committee, China regional economy has shown two positive changes. The one is the Narrowing decline in economic growth in the eastern area. The other is that the central region actively undertakes regional and international industrial transfer on the East Coast area and its fixed-asset investment growth ranks first in all regions.

The three basic laws of Internet provide the technology foundation for the rapid increase of basic internet finance: Moore's Law (more powerful computing search ability), More than Moore (MtM) (more faster information exchange), and Metcalfe's Law (more wider social linkage). All these technology developments make/lead:

- The appearance of internet indirect financing activities. The traditional indirect banking financing is exerted a negative impact while the mode of online P2P is prospering.
- The decrease of information asymmetry of provision and requirement and the weakening of offline financial intermediaries. Moore's Law and MtM led a high decrease in modern information technology cost.
- The decrease of borrower's credit risks by means of Big Data and new credit analysis system. Take Alibaba as an example, it quantizes the data within its own network (customer purchase data, credit data, distribution data, authentication info, competitive data, etc.), combining with third party organization (such as the Customs, taxation, water and electricity.) to get a model of identification and control standards. The default rate gets lower thanks to the credit analysis of data exchange.
- The realization of petty loan and inclusive finance by reducing transaction costs. In the Internet Era, the long tail theory attracts people's attention. Numerous small markets resemble together to compete with the mainstream market. The loan amount of online credit platform is comparatively small, which is propitious to risk control and is the result of focusing on the financing requirements of small and micro businesses. As to lender, the minimum of online investment amount is smaller than any one of the traditional ways ever.

2.3 Industry Level

On the industry level, this paper takes Dianrong.com, a typical P2P lending platform in China, as the research sample, using heatmap, collateral testing and A/B testing methods, via the 3rd party online data analysis tools to dig out the lender's behavior pattern and investment preference. The details are listed as follows:

- Use Google Analytics (GA) to get lender's page flow on web site.
- Use Baidu Fengchao System to observe new lender's click heatmap of main pages to see which parts attracts new lender more.
- Use Optimizely to do A/B testing to eliminate the design causes.
- Use Flurry to do collateral testing on mobile app.
- Use company raw data to make up for the deficiency.

After 5 months' data tracking, this research gets 2,740,373 pieces of data and finishes 15 A/B testing. It came out several obvious conclusions: (Due to Non-Disclosure Agreement, some raw data or graphs might not be listed here, which did not affect obtaining the conclusions.)

1. According to GA, new user's bounce rate is 54.11 %, while old user's bounce rate is 23.00 %. The conversion rate is 4.16 % without promotion. The most successful promotion led to a 23 times higher conversion rate.
2. According to Baidu Fengchao System:
 - Compared with old user, potential new user (who register and become lenders later) stay much longer on the home page and About-Us page.
 - The Leadership Page has the most hits among the information pages, closely following the Partnership Page. New user is more interested in the platform level information such as Platform Operation Mode, Leadership Introduction and News Reports.
 - The hottest part on the home page is Principal Protection Plan, following the Platform Operation Mode.
3. GA shows a most important key-user-flow on the PC Web (shown in the Fig. 3).

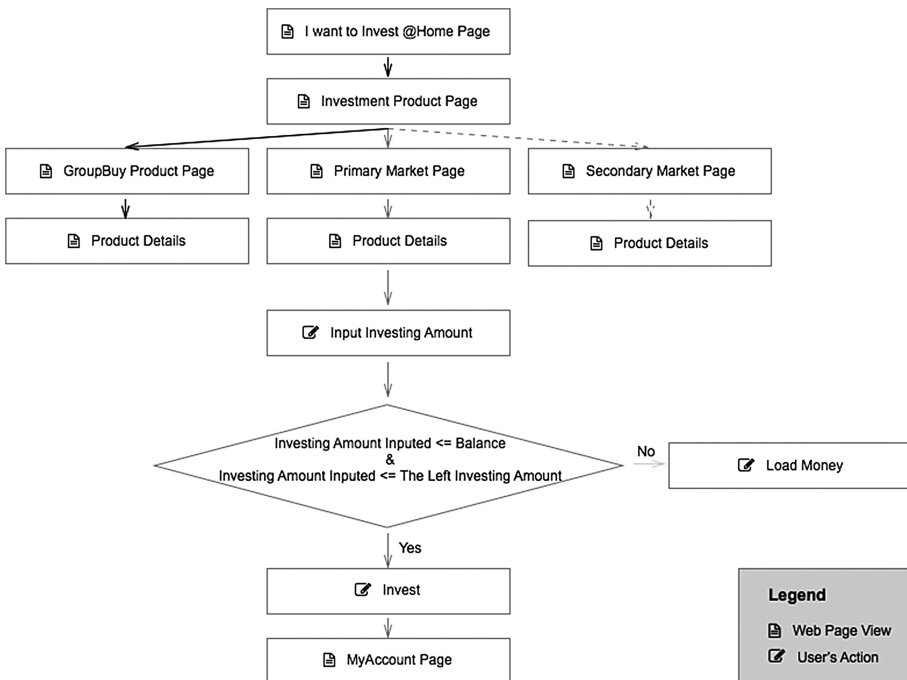


Fig. 3. Key user flow - Investment Flow

4. Data from GA and inside the company show lender's investment distribution in Tables 3 and 4.

Instructions: New-user Group is a kind of product containing a package of loans in Dianrong, which provides a definite annualized return of 7 % and is both principal and interest guaranteed. AB means loans with a safer loan grade with annualized return range from 9.49 % to 13.99 %, usually is principal-guaranteed by a third-party company. CDEF means loans with higher interest rate (14.49 %-23.99 %) but higher risk at the same time.

Table 3. Total investment amount of different loan product (RMB) from Aug. 2014 to Dec. 2014

Month	New-user Group	AB	CDEF
2014-08	4005500	18970800	5989700
2014-09	6027800	14826600	1845100
2014-10	15237100	16202300	1111900
2014-11	43334600	29246300	7400
2014-12	45517300	24965300	700

Table 4. Number of notes invested in different loan product from Aug. 2014 to Dec. 2014

Month	New-user Group	AB	CDEF
2014-08	3284	6635	20172
2014-09	5864	9154	6309
2014-10	5759	8510	4415
2014-11	7708	14794	17
2014-12	12786	15095	3

From above, it is obvious that **New-user Group** enjoys a swift increasing trend. **AB** shares a slower increasing trend. **CDEF** decreases rapidly. Thus, we can come to conclusion that most lenders prioritize security over than higher interest.

Obviously, security factor is more attractive to lender than the interest rate factor.

5. Data from Optimizely and Flurry provided lenders' distribution on client platform (shown in Table 5).

Once H5 is released, the number of unique visitors balloons. According to the collateral testing data collected on Flurry, the subsistence users of the mobile app are exponentially higher than these of the PC web. This might attribute to smart phone's mobility and the convenience of promotion ways, such as pushing notifications accordingly, etc.

Table 5. Unique Visitors in different client-end from Aug. 2014 to Dec. 2014

Month	iOS	Android	PC Web	H5 ^a
2014-08	6419	2016	128472	–
2014-09	11195	7462	153603	–
2014-10 ^b	10613	8124	111884	25
2014-11	17508	15685	219729	13264
2014-12	24209	21230	258149	179565

^aDianRong released H5 website on the last day of November. Before that, user will see PC web if he/she open the website on the mobile.

^bThe little decrease in October might be caused due to the golden week during the China National Day.

2.4 Micro Level

On the micro level, this paper chooses 15 end users, including 5 P2P platform heavy users, 5 users who invest in P2P products and other internet financial products, and 5 users who invest other internet financial products other than P2P products, and separately have one on one deep customer interview on each of them to get the insights of end-users and map them to the model of LOV(List of Values) [6–11] to dig out lender's terminal values and how they re-influence lender in investigation.

Interview Design

Get Customers. First, put a notice on WangDaiZhiJia (The biggest P2P portal website in China) forum to recruit customers who are qualified for the deep customer interview, and then randomly choose 15 end users, including 5 P2P platform heavy users, 5 users who invest in P2P products and other internet financial products, and 5 users who invest other internet financial products other than P2P products (Table 6).

Interview Process. Each interview involves 1 host(author), 1 note-taker, and 1 interviewee, and is taken in a ordinary café. The interview process includes Welcome Interviewee, Collect Demographics, Tell a story(Let interviewee imagine that he/she has some spare money and think what he/she will do with it.); Demo Financing Products(three typical consumer-oriented financing products on www.yooli.com is shown to interviewee, which contain of normal P2P loans, products containing a package of loans, and money fund products), Simulate a Fake Investment, Dig Insights, Documentation;

Analysis and Insights. After documentation, elimination of similar factors, comparing the model of LOV (List of Values) [6], this paper get 45 Attributes, 6 Consequences and 6 Values, listed as follow:

Attributes

1. Animation Effect; 2. Infographic Illustration; 3. Auditing; 4. Auto-investment Products; 5. Bank Card Binding; 6. Charging Fees; 7. Company Brand; 8. Company News;

Table 6. Part of customer interview documentation^a

Interviewee ^b	A1	A2	A3	A4	A5
Gender	female	male	male	male	male
Age	30	27	34	29	32
Job	Designer	Marketing Specialist	Software Developer	Product Manager	Software Architecture
Investing experience	<ul style="list-style-type: none"> • RenRenMoney • Yooli • DianRong 	<ul style="list-style-type: none"> • RenRenDai • iTouZi • YongLiBao 	<ul style="list-style-type: none"> • JimuBox • DianRong 	<ul style="list-style-type: none"> • Yooli • RenRenDai • DianRong • WaCai 	<ul style="list-style-type: none"> • JimuBox • Lufax
Financial habits	put 20 % salary into investment	put a quarter of salary into investment	depend on promotion	diversify his investments on every platform	put 30 % salary into investment, invest more if there is a promotion, the maximum percentage is 50 %
Three main factors considered when they choose a P2P platform	<ol style="list-style-type: none"> 1. Security 2. Interest Rate 3. Investment Period 	<ol style="list-style-type: none"> 1. Company Authentication 2. Guarantee System 3. CRM 	<ol style="list-style-type: none"> 1. Principal Guarantee Plan 2. Platform Operation Mode 3. Loan Details 	<ol style="list-style-type: none"> 1. Company Reliability 2. Loan Details 3. Liquidity 	<ol style="list-style-type: none"> 1. Security 2. Interest Rate 3. Payment Reliability
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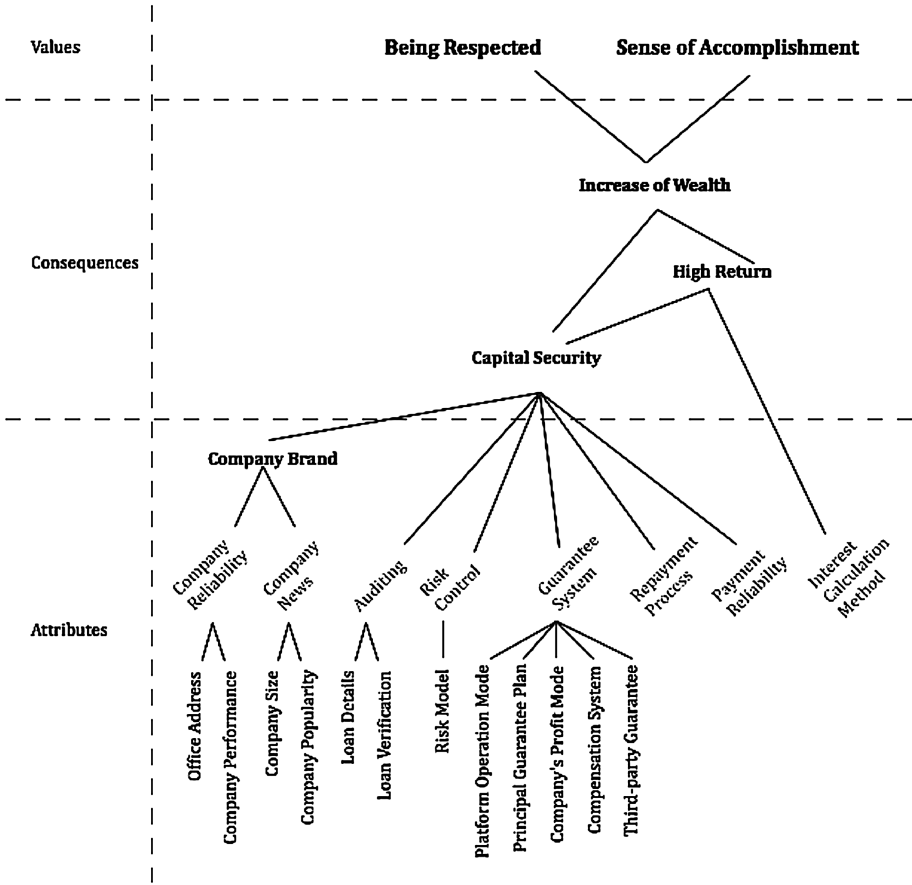
^aThe table only lists part of documentation due to limited paper length.

^bA group members are 5 P2P platform heavy users.

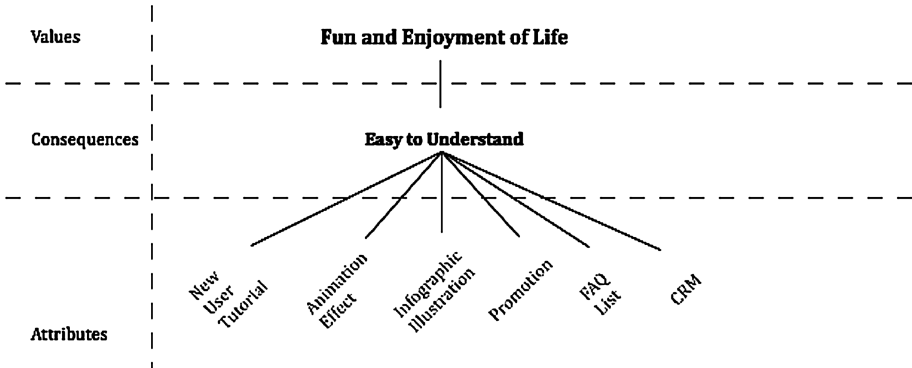
9. Company Performance; 10. Company Popularity; 11. Company Reliability; 12. Company Size; 13. Company’s Profit Mode; 14. Compensation System; 15. CRM; 16. FAQ List; 17. Friend’s Reference; 18. Principal Protection Plan; 19. Highness of Loan Risk; 20. Interest Calculation Method; 21. Interest Rate; 22. Investment Period; 23. Investment Strategy; 24. Liquidity; 25. Loan Amount; 26. Loan Description/Details; 27. Loan Period; 28. Loan Verification; 29. Minimum Investment Amount; 30. New User Tutorial; 31. Company Office Address; 32. Package Investment Products; 33. Payment Reliability; 34. Platform Operation Mode; 35. Policies and Regulations; 36. Principal Guarantee Plan; 37. Promotion; 38. Repayment Method; 39. Repayment Process; 40. Risk Control; 41. Risk Model; 42. Capital Security; 43. Third-party Guarantee; 44. Third-party Payment Channel; 45. Withdraw Time.

Consequences

46. Easy to Operate; 47. Easy to Understand; 48. Increase of Efficiency; 49. Money-Saving; 50. Creativity; 51. Superiority; 52. Increase of Wealth

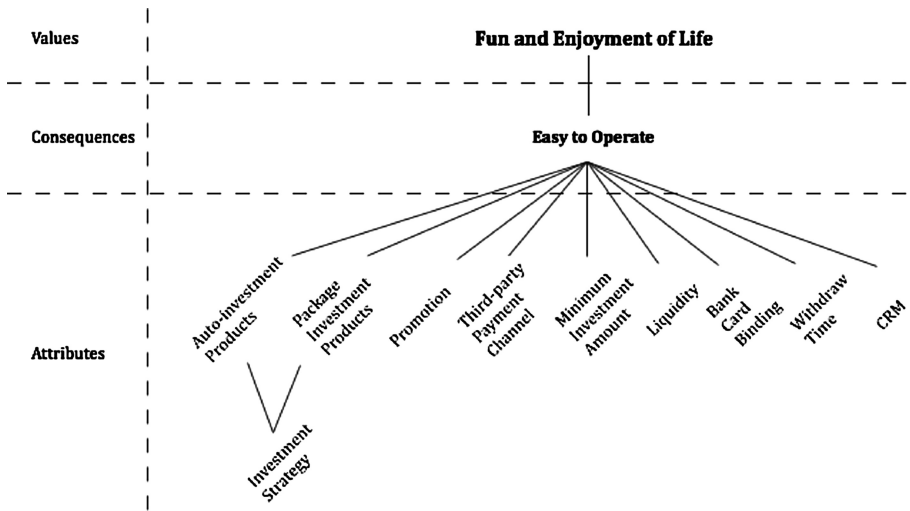


(a)



(b)

Fig. 4. (continued)



(c)

Fig. 4. The three widest chains in the MEC model

Values

53. Self-repect; 54. Being Respected; 55. Self-fulfillment; 56. Security; 57. Fun and Enjoyment of Life; 58. Excitement; 59. Sense of Accomplishment

Then map the factors to the model of LOV via the Means-End Chain methods. During the one on one interview, author try to get how the interviewees meet their self-value via P2P products' attributes. After the interview, author use means-end-method to get the hierarchical value map (HVM) to illustructor these relationships.

The attributes displayed in each chain reveal a certain group's preference. The more often the factor is being mentioned, the wider the chain is. The three HVMs in Fig. 4 show the widest chains in the model.

3 Conclusions and Suggestions

3.1 Conclusions

This paper studies on the macro, industry and micro level to investigate the Chinese lender's preference and its causes. On this basis, this paper gives out a typical lender's model in P2P in China. On the macro level, it comes with inspirations of creating breakthrough products by means of the SET Factors. On the industry level, it turns out obvious preferences and trends of lenders when they do some investment. On the micro level, it finds lender's concerns and deep values. Based on the above results, P2P product strategy maker can refer to the results above to map out the product strategy for lender, including choosing the target market, positioning the final customers, designing a appropriate products for them, etc.

3.2 Suggestions

This research aims at preciseness, but still has some oversights and omissions due to the limitation of time and budget, which needs to be improved further in some aspects. Here lists some suggestions for further researches:

1. Now Chinese government begins to pay attentions to the P2P industry and released 10 regulatory principles on April 2015. It is believed that some related industrial regulatory polices will be introduced soon. On the macro level, researchers should keep a close eye on these industrial polices constantly.
2. On the industry level, this paper only uses one platform as an example, which may not highly cover all kinds of P2P companies in China. For further studies, researchers should choose more platforms and more influential companies as research samples.
3. On the micro level, how to transfer this paper's research results into new products innovation and contribute to higher conversion rate is also worth of study.

Announcement

The author holds the post of User Experience Designer in Shanghai DianRong Financial Information Service LLC.

The paper focuses on the academic research and does not constitute investment advice.

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