

Current Status and Future Direction of Internet Financial Ecosystem

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Abstract: Based on mobile Internet technology, Internet finance has broken through the limitations of traditional finance in terms of time and space, and has formed a strong vitality and inclusive characteristics. There is not only independence but also competition and symbiosis among the subjects including multiple subsystems. Moreover, external environment and internal entities interact with each other, but local management cannot result in expected results. Therefore, it is necessary to plan the Internet financial system as a whole. The introduction of biological ecological concepts to the study of Internet finance can more comprehensively consider internal factors and interactions of the entire Internet finance ecosystem. This work first researched on the development status of Internet finance internationally, and then summarized the development direction of the Internet financial ecosystem.

1. Introduction

The Internet financial ecosystem evolved from the financial ecosystem and has similar structures and characteristics to the financial ecosystem. A complete Internet financial ecosystem consists of competitiveness, collaboration, adaptation, connected entities, ecological environment with dynamic balance and self-regulating, and a sound ecosystem law (as shown in Fig.1).

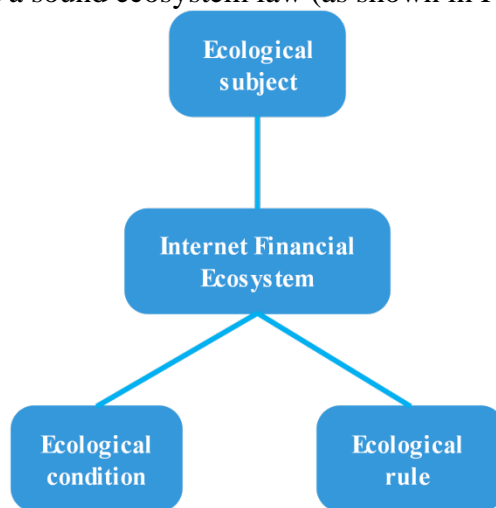


Fig. 1. Schematic diagram of Internet financial ecosystem

The competitiveness and collaboration nature of the Internet financial ecosystem is characterized by healthy competition and collaboration between financial institutions that provide Internet financial products and services. The competitiveness means that each ecological subject, as a rational subject pursuing the maximization of its own interests, competes to obtain scarce financial resources, resulting in the survival of the fittest. There is also a certain cooperative relationship between Internet financial entities. Individuals in a complete ecosystem cannot exist independently, since information and technical exchanges between individuals can effectively enhance individual competitiveness, better serve consumers, and adapt to economic and institutional environments.

2. The Development Status of Internet Finance Internationally

2.1 Overview of Internet finance development in the United States

In 1971, the creation of Nasdaq system marked the development of a new business model of Internet finance from conception to actual operation in the United States. In 1995, three US banks established the world's first online bank, the first safe online bank, on the Internet, marking that Internet finance has entered a stage of rapid development. From the experience of US Internet finance development, it is mainly due to the perfect Internet financial legal system, perfect supervision system and sound credit information system. Internet finance in the United States can be divided into three categories according to its functions: the first type is networking of payment means, including the third-party payment and online banking; the second type is networking of traditional banking services, including sales channels of wealth management products, crowdfunding, P2P and e-commerce loans; the third type is financial institutions that has been completely established based on the Internet. Such institutions have neither physical stores nor branches, such as online banking, online insurance and online brokerages; They can be divided into five categories: online banking, online securities reader, online insurance, online financing and online financial management.

2.2 Overview of Internet finance development in the United Kingdom

The United Kingdom is the birthplace of P2P. In March 2005, the Zopa online lending platform launched in London was able to match the funding provider with the demand side based on risk and interest rate levels. This credit model replaced the credit intermediary function of commercial banks to a certain extent, and reduced the cost of information asymmetry through innovative mechanisms in interest rate pricing, so that both borrowers and lenders benefit. This model has been widely spread on a global scale after being widely recognized and recognized by the market.

2.3 Overview of Internet finance development in Japan

Japan's Internet finance is dominated by e-commerce platforms represented by Lotte. In 1997, Lotte was committed to building an Internet finance business covering financial services such as banking, insurance and securities. Since 2005, Lotte has been involved in the securities industry and credit card industry through acquisitions and establishments, and opened online banks. Up to now, Lotte's financial industry has contributed more than 30% to its group's revenue.

2.4 Overview of Internet finance development in Germany

Development of P2P in Germany is the primary stage, represented by two companies, Auxmoney and Smava established in 2007. Unlike other countries, P2P companies in Germany typically transfer credit risk to consumers, for example, Auxmoney transfers all risks to borrowers, Smava, on the other hand, is co-funded by the borrower as a reserve fund to cover the company's risks. Third-party payments have also developed rapidly in Germany. In 2011 alone, more than one-third of online transactions were completed through third-party payments.

2.5 Overview of Internet finance development in China

The academic world points out that some types of Internet finance are difficult to cover all aspects of the current development of Internet finance. Generally speaking, China's Internet finance is broadly divided into payment calculation, financing, investment and wealth management. From the perspective of participants, it can be divided into traditional financial sectors represented by banks, securities and insurance, financing platforms represented by P2P and crowdfunding, and e-commerce platforms represented by e-commerce. In 2010, the People's Bank of China promulgated the *Measures for the Administration of Payment Services for Non-financial Institutions*. In 2011, it implemented the *Management of Payment Licenses for Non-financial Institutions*, and 27 companies represented by

Alipay and UnionPay obtained “non-financial institution payment business license”, thus becoming the first legally operated third-party payment companies. With the growing number of third-party payment companies, the People's Bank of China has issued more than 230 licenses, and the transaction scale of third-party payment companies has also increased from 5 trillion yuan in 2010 to 20 trillion yuan in 2015.

3. Future Direction of the Internet Financial Ecosystem

3.1 The formation of the Internet financial ecology is not only the combined effect of multiple demands from ecological subjects, but also the inevitable result of resource allocation

Internet finance consumers are the center of financial ecosystem. In the Internet age, individual consumers are pursuing faster payment, lower investment thresholds, stronger liquidity, considerable profitability, and convenient micro-finance. However, improvements in the network environment, continuous improvement of network technology and the application of mobile Internet continue to infiltrate and change consumers spending habits, which brings more opportunities for the Internet to be used in finance. Compared with individual consumers, the needs of institutional consumers show a certain level of hierarchy. From the perspective of financial institutions, customers with large business quotas can effectively reduce operating costs and risk control costs, which are inevitably favored by many financial institutions. The needs of large customers are more reflected in payment settlement, back-end support, data mining, risk control and other financial services. Compared with large customers, the financing needs of small and medium-sized customers are more intense, and the traditional financial institutions represented by banks are obviously insufficient in the product types and service depth of small and medium-sized customers. Under the background of inclusive finance, the coverage of financial consumers is more and more extensive, and the demand is more complex and personalized, which can greatly promote the development and optimization of the Internet financial ecology. From the perspective of market supply, both traditional financial institutions and Internet companies hope to gain more benefits in the financial sector. Internet technology has greatly weakened the level of market information asymmetry, which not only greatly reduces channel costs and transaction costs, but also gets rid of physical outlets restrictions, overcoming geographical restrictions and easily achieving large-scale operations. More prominently, Internet finance has significantly reduced the barriers to entry threshold for standardized financial products and services, so as to attract more Internet enterprises to join and make the ecological subject more diversified.

3.2 Competition and cooperation between ecological entities is a typical feature of the Internet financial ecology development

In the development of the Internet financial ecology, there is fierce competition between ecological subjects, and there is also a division of labor based on comparative advantages. Competition and cooperation are the inevitable trend of the evolution of Internet financial ecology. The innovation of the main business and the competition and cooperation between the main entities constitute an Internet financial ecology that is lively, extraordinary and symbiotic.

The symbiosis and integration of ecological subjects are also becoming more and more obvious. Consumers demand in the Internet era is becoming more diversified and hierarchical. Therefore, all kinds of ecological entities will find their own market segments based on comparative advantages. All kinds of enterprises have fierce competition and a large number of divisions and cooperation based on comparative advantages, furthermore, the penetration of Internet technology will further trigger industry integration. The introduction of new technologies and the continuous innovation of financial models have led to an increase in the cross-border between financial and Internet companies as well as financial sub-sectors, and the ecological entities have clearly shown a trend of convergence. The rise of Internet finance has promoted the transformation of the traditional banking industry, and made up for

the shortcomings of traditional banks in terms of capital processing efficiency and information integration. It also provides sales and promotion channels for insurance, funds and wealth management products, and promotes the full integration of e-commerce industry and traditional financial industry, exploring new service mode and profit mode; while the rise of third-party payments has changed the operation and transmission mechanisms of financial markets through electronic money. In the future, this kind of integrated symbiotic ecology will be more obvious.

3.3 The connection and effect between ecological subjects and ecological environment is closer

The activities of ecological entities are inevitably restricted by the ecological environment. However, the competition-cooperation status of Internet financial ecological subjects, as well as the diversity of Internet financial formats and innovative features will inevitably put forward higher requirements for the ecological environment. A good financial environment can greatly promote the development of Internet finance, while a repressive environment may form a marginal behavior that restricts or motivates the subject.

The ecological environment mainly includes legal environment, credit environment and regulatory environment. In terms of the legal environment, although the laws and regulations of Internet finance in China have not yet been systematic, the essence of Internet finance still belongs to the financial industry. The basic laws and regulations, such as *Commercial Banking Law*, *Securities Law* and *Insurance Law* are still binding. The *Company Law* and the *Contract Law* are generally binding on the establishment of ecological entities. the regulations on Internet finance-related businesses such as third-party payment and online loans are specific guidelines. In terms of credit environment, the credit environment of Internet finance depends on the whole social credit environment, including credit status, credit culture and credit information system. The social credit status is closely related to the credit culture since the credit culture of integrity and law-abiding can greatly reduce moral hazard. There are two main sets of credit information systems in China: one is the central bank's credit information system, and the other is the credit records established by Internet companies and third-party credit bureaus based on massive transaction data or micro-finance records. Unfortunately, the two sets of credit investigation system are not well connected at present. However, due to the cross-border and innovative characteristics of Internet finance, it is sometimes prone to a regulatory vacuum. For example, the P2P online lending platform does not belong to financial institution although it engages in credit business. If it is exempted from strict supervision such as capital adequacy ratio, it may hide a large risk.

4. Summary

The Internet financial ecosystem is a financial ecosystem based on Internet technology. Its function is to provide various financial business and financial services to the market, realizing the effective allocation of financial resources. Its ultimate goal is to promote the economic and social development based on the service of the real economy. In the Internet financial ecosystem, the competition and cooperation between ecological subjects is a typical feature of ecosystem development, and the connection and effect between ecological subjects and ecological environment is closer. Under the background of the growing development of Internet finance, strengthening and improving the construction of Internet financial ecological subjects and ecological environment construction is of great significance for promoting the optimization and benign development of China's Internet financial ecology.

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