Retraction

Retraction: Analysis of How to Meet the Challenges Brought by the Development of Internet Finance and The Era of Big Data (J. Phys.: Conf. Ser. 1792 012041)

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This article has been retracted by IOP Publishing following an allegation that raises concerns this article may have been created, manipulated, and/or sold by a commercial entity. In addition, IOP Publishing has seen no evidence that reliable peer review was conducted on this article, despite the clear standards expected of and communicated to conference organisers.

The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

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Analysis of How to Meet the Challenges Brought by the Development of Internet Finance and The Era of Big Data

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Abstract: With the emergence and development of Internet finance, domestic commercial banks have begun to keep up with the trend of the times and gradually accelerate the pace of informatization. Except to some changes and adjustments made by these commercial banks, the addition of information technology is also very important. Based on previous work experience, this article summarizes the challenges brought by the development of Internet finance and the era of big data. The author discussed the development of Internet finance in the era of big data, from how to establish a big data credit investigation and Internet financial supervision system, optimize the customer management system, organize professional training on Internet finance, expand the scope of Internet finance propaganda, and establish more diversified overall risks these five aspects of the network.

1. Introduction
In general, the combination of Internet technology and the financial industry originated in the United States in the mid-1990s. Since then, the Internet economy with e-commerce as the main body has begun to enter people's field of vision. However, due to the emergence of the Internet bubble, its development has been affected a lot. At this stage, the development of Internet finance is obviously different from before. Internet finance 20 years ago was mainly a continuation of financial functions, with the help of related technological transformations to directly transfer banking business to the Internet. Nowadays, although there are still many unsolved problems, people can use technologies such as big data to perform bank payment, financing and other businesses.

2. The Significance of Big Data Information System to the Development of Internet Finance
The advent of the big data era has brought many new models to economic development, and at the same time it has positive significance for the construction of a new pattern of economic development. The so-called big data, also called huge amount of data, is an abstract concept. Its data volume and complexity are far beyond the scope of traditional data. We also need to use the big data management information system to realize the comprehensive processing of massive data, and do a good job in data analysis operations, and ultimately provide high-quality information for data demanders. In addition, we need to build a big data management information system with the help of Internet information technology, which is of positive significance for the overall development of Internet finance in China. First, we should establish a big data management information system. In this way, not only can a comprehensive analysis of massive information be achieved, but also information can be summarized in Internet financial transactions. We can use this as a basis to classify and summarize the management information system and use this to determine the specific value in the massive information, determine consumer preferences, and consumer needs. Then provide corresponding decision-making information.
for the Internet industry.

Secondly, the construction of a big data information management system can drive the overall upgrade of the Internet financial industry. With the help of cloud computing and other related information processing technologies, we can process massive amounts of information in large quantities and reduce the cost of information processing. In turn, it provides effective decision-making information for Internet financial enterprises' marketing decisions.

Finally, the construction of big data information systems can help Internet financial companies to further expand the market. Generally speaking, massive amounts of information often hide a lot of consumer demand. Except to information collection in the process of processing Internet financial transactions, we can also find other routine data. Moreover, we can use this as a basis to develop new consumer-related businesses and open up new markets. Otherwise, we must also pay attention to information abnormalities, see whether there are potential consumer needs in the data, and do a good job of investigating related financial services to open up new markets.

3. Challenges Brought by the Development of Internet Finance and the era of Big Data

3.1. Challenges to Payment Business

Commercial banks themselves have the function of payment intermediary. With the rise of Internet business models, tripartite payment represented by Internet payment came into being, and its development is also very rapid. Moreover, Internet payments are also trying to get rid of dependence on commercial banks and establish their own closed-loop payment procedures. At the present stage, in addition to having no physical account medium, Internet payment institutions already have business capabilities such as virtual accounts and payment settlement, which are similar to the account functions of commercial banks. Once these Internet payment companies achieve comprehensive management of the reserve fund through effective means and establish a new payment chain, Internet payment is very likely to develop independently of the bank payment and settlement system. This will have a great impact on the payment status of commercial banks.

3.2. Challenges to Financing Business

In recent years, in order to obtain more new development opportunities, many Internet companies have begun to try financing businesses, and then established many new online financing models such as microfinance, crowdfunding, and P2P. Among them, P2P is based on the Internet to create a personal-to-person lending model. Crowdfunding is a form of financing that raises project equity from the public through the Internet. On the whole, the development of Internet financing is huge, but the overall financing scale is still relatively limited, and risk management and control capabilities also need to be improved through practice. Although there is a large gap between the scale of Internet financing and commercial banks, it can be seen from this that its development ideas and models are worth learning. For example, in terms of risk control, e-commerce small loans conduct sales and purchase transactions to small and micro enterprises. Meanwhile, e-commerce small loans are still conducting data mining, and finally decide whether to issue loans through unsecured, unsecured and other credit evaluation methods. This model can adapt to the current economic development and changes. In particular, modern people have a large range of activities, and there are even many companies that have achieved transnational operations. If only relying on traditional business models, it is difficult to grasp the true information of the enterprise. In the design of the approval system, Internet financing mainly relies on cloud computing technology to converge a large amount of information into several points and build a batch approval mode to enhance the efficiency of approval. In contrast, looking at commercial banks, how to use big data to identify risks and establish new credit management models are issues that the entire traditional financial industry needs to consider.

3.3. Challenges to Deposit Business

The direct impact of Internet finance on traditional commercial banks is mainly reflected in the deposit
business. The increase in the flow of Internet platform customers and the scale of funds has promoted the development of Internet financial services in the direction of agency funds and balance financing. This has also created diversion pressure on the basic deposits of commercial banks. The reason for this situation is mainly due to the comprehensive integration of "payment transactions" and "asset appreciation" in innovative Internet financial products, and truly "sporadic funds". In addition, Internet companies have obtained "super-bank" treatment in the market by taking advantage of regulatory gaps. In the implementation of the liability business, it is mainly the impact of the rights of commercial banks. At present, many Internet payment institutions have built virtual account systems and established payment deposit accounts without authenticating their customer identities. In addition, some Internet companies have launched low-threshold, on-the-go and other asset service products, accumulating many users. What's more, Internet financial management has intercepted a large number of low-cost demand deposits in banks, and returned them to the commercial banking system in the form of agreement deposits. This has greatly increased the cost of interest payments on deposits in commercial banks.

3.4. Challenges to Information Resources
Except to payment disintermediation and financing disintermediation challenges, banks also face the problem of information disintermediation. The essence of modern business competition is the competition for information. In other words, business itself comes from information asymmetry. Who can control the resources to the utmost extent can become the leader in the business field. The main competitive advantage of Internet companies is that they can grasp relevant information about merchants and consumers, and use big data to dig out more transaction opportunities from the information. Users can generate transaction information, registration information and other content through online browsing and online communication. Even includes the specific length of time for browsing each product, which can be obtained by e-commerce companies. With the continuous development of Internet companies, business behaviors and consumption habits of companies and users have undergone great changes. This has caused some information that should have been mastered by the bank to become difficult to collect after passing through the e-commerce platform. If a commercial bank can only master some scattered information during the development process, and cannot have a comprehensive understanding of its customers, information "faults" will appear. Users apply for trade financing loans from commercial banks, mainly to pay for purchases. Previously, commercial banks were able to track the whole process. But with an e-commerce platform, commercial banks can only monitor the electronic payment records in third-party payment institutions, and it is difficult to verify the use and authenticity of users' funds.

4. Big Data Brings Opportunities for the Development of Internet Finance
In the Internet, large amounts of data are generated every day. This also includes unstructured data and structured data. It is also with the help of these data that can promote better and faster development of Internet finance. From the perspective of bank development, the development of various businesses needs to rely on data. At a time when the amount of information is increasing rapidly, the application of data processing technology is very important to ensure the overall development of financial services. Data processing technology can not only help staff to carry out various tasks better, but also help staff to do a good job in user needs and risk control, and improve the bank's financial service standards. Secondly, the difference between Internet finance and traditional finance lies in the fact that Internet technology can analyze Internet finance objects from multiple angles and find more suitable investors and customers for them. In this way, banks can fully develop the market and user needs, and formulate related products and services. Besides, people can also use big data technology to share information related to Internet customers, and obtain more user-related information through search engine ranking and retrieval. In turn, users can be reasonably evaluated to avoid more financial risks.
5. Suggestions for the Development of Internet Finance in the Era of Big Data

5.1. Establish Big Data Credit Investigation and Internet Financial Supervision System
In the era of big data, the Internet financial development system is not perfect. Relevant departments should make reasonable changes to the existing system in combination with specific circumstances, especially in the areas of big data credit investigation and Internet financial supervision systems. First of all, we should establish a complete protection system for the credit investigation mechanism of large households, so that the personal information of both parties to the transaction can be kept in a safe state. And then present the advantages of big data to provide more convenient conditions for the people. In order to achieve this, relevant managers must be aware of the importance of corporate and personal information security, fully implement the relevant provisions of big data credit investigation, and be managed by Internet financial information security agencies. And establish a management system for the content of each link of big data credit investigation so that it can be followed. Second, we should thoroughly optimize the legal system for Internet financial supervision. For example, the establishment of regulatory bodies and management boundaries. Although the Internet financial supervision system has established online financial security supervision entities such as the supervisory system with the Securities Regulatory Commission and the Banking Regulatory Commission as the core. However, because the regulatory body is still not clear enough, the regulatory system is prone to problems such as low regulatory efficiency in its operation. At this time, people need to make a comprehensive plan for the regulatory entities and strengthen coordination and cooperation between the entities.

5.2. Optimize the Customer Management System
It can be seen from the development process of the entire financial industry that the most important factor affecting market competition is customers. The actual customer management of the enterprise is mainly to meet the needs of customers. Only in this way can companies improve customer favorability and make customer groups appear more fixed. In turn, maximize the benefits of the enterprise and ensure that the enterprise and users can achieve a win-win situation. In the era of big data, in order to occupy a favorable position in the market, Internet finance companies should do a good job of positioning their own services and clarify their customer base. And formulate specific plans for it to provide effective financial products. In this way, customer funds can become more concentrated, thereby strengthening the utilization of funds. Generally speaking, target customer management mainly includes the following aspects.

5.2.1. Do Customer Classification Operations
After determining the target customers of Internet finance companies, the staff must appropriately classify their customer categories, which is also an important part of the marketing work of the entire Internet finance company. It can formulate service procedures that meet customer requirements to ensure that products and customers can match each other. For those customers with high creditworthiness and assets, it can provide some preferential conditions appropriately. If the opposite is true, more supervision is needed. In addition, we will also actively develop youth user groups. This part of users also grew up in the era of big data. They have a deeper understanding of Internet properties and related technologies and are more likely to accept Internet financial derivatives. In life, third-party payment is more common. In the third quarter of 2019, the total scale of third-party payment transactions reached 56 trillion yuan (the scale of third-party mobile payment transactions from 2018Q1 to 2019Q3 is shown in Figure 1). Among them, more than 80% of users are young and middle-aged, and young users account for 6.5%. It can also be seen from this that the youth user group cannot be ignored. Furthermore, Internet companies also need to increase their attention to SMEs. At this stage, many governments have successively introduced development policies aimed at SMEs. Prompted by this background, the development prospects of SMEs are very impressive.
5.2.2. Develop Financial Products that Meet User Needs

The work of modern financial enterprises mainly focuses on recommending financial products to users, during which they will not have an in-depth understanding of the actual needs of users. With the development of Internet finance, this problem will be solved reasonably. First of all, Internet financial companies need to develop potential user needs. Secondly, modern financial enterprises should provide corresponding financial products for them. Finally, modern financial companies need to fully optimize product and service design. In order to meet the above methods, the Internet can obtain user opinions in a timely manner through questionnaire distribution. And through the analysis of user needs and the overall financial industry development trend comparison, develop more new products and new services. Afterwards, modern financial companies should do a good job in research and development of financial products in accordance with user needs to maximize the utilization of user resources.

5.3. Organize Professional Training on Internet Finance

The staff of Internet finance companies need to have a wealth of professional theoretical knowledge to provide users with high-quality services. For this reason, all Internet companies need to organize employee training regularly and effectively supervise and evaluate the employee training process. In order to better strengthen the training effect, companies can choose to invite some professional training lecturers to pass on some knowledge related to Internet finance, as well as marketing and management experience. In the meantime, this also allows internal staff to actively participate in learning, sub-item their own work experience, and establish a corresponding incentive model to strengthen the cohesion of staff. It should be noted that companies can recruit staff according to market-oriented forms and establish a corresponding talent team. In this way, other social talents can also be attracted to join in, and provide assistance for the follow-up development of the enterprise.

5.4. Expand the Scope of Internet Finance Promotion

Internet finance is developed based on the traditional financial industry. Some staff did not understand it, which greatly hindered the development of Internet finance. Therefore, companies need to present the advantages of big data and the Internet, expand the scope of publicity, and tap more potential customers. Internet finance companies can distribute public flyers locally, and use new media such as Weibo and WeChat to push some short video promotional videos to help users better understand Internet finance. Besides, users can also participate in the experience activities organized by Internet finance companies to further enhance publicity. In this way, different publicity programs can be set up according to user groups. For young users who have accumulated less wealth, we can provide them with more liquid Internet financial products such as third-party payments and currency funds. If it is an elderly customer group, we can provide some financial products with higher thresholds and high...
capital returns to attract more users to participate.

5.5. Build A More Diversified Global Risk Network
Through the application of big data technology, people can fully mine relevant data, determine the correlation characteristics between the data, and avoid some frauds. Simultaneously, people can also combine some technologies such as biological probes and device fingerprints to establish a more targeted mathematical model. After that, we can use machine learning algorithms to do a good job of data analysis and research, to better confirm the relationships and characteristics between the data, and to clarify the law and probability of risks. In turn, users are fully controlled to ensure that risky behaviors can be fully controlled.

6. Conclusion
In summary, under the influence of the era of big data, the Internet finance industry faces many new opportunities and challenges. This is also a process that must be experienced in the development of Internet finance. To this end, the entire Internet financial industry must be aware of the role and importance of big data technology, and make full use of it, and do a good job in related Internet financial risk management. This can make the entire Internet financial system more comprehensive and provide users with good services.

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