УДК 339.138:09.

APPLICATION OF INTERNET BIG DATA FINANCIAL MODEL IN SECURITIES INDUSTRY

Wang Hu, postgraduate student, midixiaozi@163.com
Kievich A.V., Professor of the Department of Financial Management,
Doctor of Economics, Professor, a.v.kievich@yandex.ru
Polessky State University
Ван Сюй, аспирант
Киевич Александр Владимирович, д.э.н., профессор,
профессор кафедры финансового менеджмента,
Полесский государственный университет

Annotation. The article analyzes the application of the financial model of the Internet of Big Data in the securities industry, emphasizing that all this will help to significantly reduce transaction costs and the costs of searching and processing information, and will contribute to the further development of the securities market.

Keywords: Big data, data storage on the platform, Internet financial models, securities industry, business challenges.

Innovation in the securities industry. It is especially emphasized that the modern securities industry is capital-intensive, information-intensive, intellectually-intensive and technological. And in the era of big digital data - all data and information not only increase dramatically in volume, but also become more diverse and complex in terms of generation, distribution, content, speed, form, etc., increasingly possessing the characteristics of detail, multidimensionality and three-dimensionality, which has a far-reaching impact on the development of the securities market [1].

Compared with other industries, the securities business is more suitable for a big data mindset. In years of computerised operation, the computerised system of securities firms has accumulated a large amount of fragmented standard data, constituting a massive data asset, which will play an important role in data mining and customer service at a later stage. The application of the Internet big data financial

model in the securities industry can significantly reduce transaction costs and information mining and processing costs, while at the same time the massive customer information of securities firms will become a new production factor, further promoting the development of big data in the securities industry [2]. As a result, big data will promote the continued innovation of the securities industry.

In the era of big data, data becomes an important resource that will play an increasingly important role. In order to improve the overall efficiency of the securities industry, the data centre of brokerage firms should firstly move from a semi-closed state to a fully open mode, and such a shift will have a very great impact on the technical architecture, business architecture and management architecture of the securities industry.

Changing the technological architecture.

It should also be noted that in the era of big data, only a small portion of data exists in a structured form, and most data is stored in databases in an unstructured form. Therefore, traditional BI data analysis models are no longer suitable for today's heterogeneous data types, including emails, images, videos, and machine-generated logs. "Our goal is to find a solution that provides search, discovery, and analysis (SDA) across all data stores, providing organizations with timely and cost-effective full access to data and analytics," - said Tan Peilai of Galaxy Securities.

The rapid development of big data technology has made information collection and analysis and feedback in the securities industry more convenient and efficient. Taking Galaxy Securities as an example, starting with applications that provide basic search and mining through business intelligence-like reports, firstly, it provides customers with keyword search plus discovery capabilities (e.g., clustering, suggestions, and classifications) to help them find specific content faster, enabling a combination of big data and real-time point-to-point access to data initiated by actual users who have questions. Secondly, in the big data feasible search technology, powerful keyword search as well as discovery and navigation capabilities will provide enterprises with the ability to conduct deeper data mining and analysis of massive data in a very short period of time, and at the same time use mathematical and statistical knowledge to discover and create more and more value through the accumulation of data over a longer period of time. In addition, the system is also capable of feeding back information from customer searches and corporate analyses for continuous improvement of the system, thus enhancing the overall effectiveness of the system. Of course, this also puts higher demands on the data analysis capability of securities companies.

Changes in business architecture.

In terms of China's information environment, the intermediary function of Chinese brokerages is currently deeply mired in the quagmire of homogeneous competition, which has even led to price wars among brokerages. Under the influence of big data and Internet technology, the financial intermediation function of brokerages will change [3]. If standardized and homogeneous services cannot bring normal profits to brokerages, the optimal choice is either to completely withdraw from competition or change the business idea and turn the original distribution channel into a value-added financial service provider. Therefore, brokerages need to plan in advance to change their function to become a comprehensive financial product provider.

As financial service providers, brokerage firms are faced with changing client needs, market competition, regulatory requirements and the embodiment of their own business value. In the context of big data, brokerage firms will have the ability to quickly collect conduction a large amount of high-quality information in order to design product portfolios that meet customer needs and are constantly adjusted to changes in customer preferences. The closer they are to their clients, the more convenient it will be for them to discover and realise value, and the easier it will be for them to say goodbye to low-grade channel competition, carry out wealth management services, and help their clients grow while realising their own business growth.

Under the impact of big data, the existing business of brokerage firms will be adjusted. Among them, the traditional brokerage business will bear the brunt and will be the first to face transformation pressure. Networking impact will certainly lead to brokerage line of business industry-wide shrinkage, but the first to start sorting out historical customer data and build a standardised service platform for large brokerage firms, is expected to take the opportunity to complete a new round of market share expansion. In addition, the importance of the channel intermediary function of investment banking is gradually weakening, and the profit contribution of IPO (initial public offering) business, which has historically been the core of investment banking revenue, will decline [4]. The investment banking sector needs to transform and

strengthen non-channel services, such as post-IPO tracking services. Lastly, the next explosion point of brokerage management is the pooled wealth management business, asset securitisation and credit business. Big data will further deepen the refinement and specialisation of asset management business and help these segments to get new breakthroughs. In conclusion, with the advent of the era of big capital management, securities, funds and other financial institutions urgently need to open up channel channels and balance the pattern of the channel system, and low-cost and high-efficiency network channels can help securities and funds achieve this goal.

Portfolio Investment Decision Making and Business Model Transformation.

Thus, from the above material, it follows that the availability of information determines the success or failure of investment decisions in securities. Therefore, the impact of information dissemination on the trends of the securities market is a key issue in financial research. For a long time, errors in investment decisions caused by information asymmetry have been the main factor in investment failures, so effective collection and analysis of information, as well as market forecasting, are popular research topics in industry and academia. The rapid development of Internet technology has transformed the securities market from a deficit to an abundance of information, and the rapid growth of information has created valuable opportunities and serious problems for stock analysis and forecasting [5].

On the one hand, the main platform for transferring information and commu-nication is various emerging network social media, such as forums, communities, blogs, microblogs, micro letter and other mobile Internet social media, the massive information on the platform provides rich data support for investment decision-making; on the other hand, the effective analysis and use of big data information is also faced with the challenges and troubles from the Internet. At present, the Internet has become the main channel for stock market investment information dissemination, and it is increasingly common for investors to use the Internet to search for financial information and exchange investment experience with others. At the same time, the way of information dissemination in the capital market has also changed significantly, and the widespread promotion of the Internet can effectively alleviate the problem of information asymmetry in the securities market [6]. At the same time, the new market information structure also affects the behaviour of investors, which in turn affects the pricing of stock assets and the allocation of financial resources.

And here we especially emphasize that already in the near future, traditional financial institutions of the securities industry and the Internet, the use of big data - will accelerate the penetration and integration with other financial institutions in the financial system and Internet companies in a state of mutual penetration, mutual cooperation and competition.

Список использованных источников

1. ULR: [Электронный ресурс] – Режим доступа: https://www.oracle.com /cis/big-data/what-is-big-data/#how – Дата обращения: 25.03.2025 г.

2. Проровский А.Г., Четырбок Н.П. Влияние инноваций на развитие финансового рынка в Республике Беларусь / А.Г. Проровский, Н.П. Четырбок // Современные аспекты экономики. 2021. № 7 (287). С. 6-13.

3. Галкина М.Н., Киевич А.В. Проблемы обеспечения информационной и экономической безопасности государства / М.Н. Галкина, А.В. Киевич // Экономика и банки. 2021. № 1. С. 65-76.

4. Ван С., Киевич А.В. Анализ основных социальных сетей и их возможностей для SMM-продвижения в Республике Беларусь / Ван Сюй, А.В. Киевич // Устойчивое развитие экономики: состояние, проблемы, перспективы : сборник трудов XVII международной научно–практической конференции, Пинск, 28 апреля 2023 г. : в 2 ч. / Министерство образования Республики Беларусь [и др.] ; редкол.: В.И. Дунай [и др.]. – Пинск : ПолесГУ, 2023. – Ч. 1. – С. 13–17.

5. ULR: [Электронный ресурс] – Режим доступа: https://eecs.csuohio.edu /~sschung/cis612/CIS612_Lecture1_IntroBigDataAnalyricsCloud.pdf. – Дата обращения: 28.03.2025 г.

6. ULR: [Электронный ресурс] – Режим доступа: https://www.mokosmart. com/ru/iot-in-industry-4-0/. – Дата обращения: 21.03.2025 г.