Research on intelligent investment advisory of commodity futures based on artificial intelligence and big data technology

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Abstract: Intelligent investment adviser is also known as the robot investment adviser, its main function is according to the actual situation of users, according to their actual needs, to provide them with the best investment plan, so as to achieve intelligent wealth management. Intelligent investment adviser originated in the United States, when the establishment of two considerable scale of intelligent investment advisory companies, through tracking stocks and fixed income, so as to provide automated investment services for the majority of users, to achieve wealth management automation and digitalization. With the continuous development and progress of science and technology, especially the continuous development of big data technology and artificial intelligence technology, a large number of investment companies have been transformed, and began to adopt the operation mode driven by emerging technologies such as big data technology and artificial intelligence technology, transforming traditional automated investment into more advanced intelligent investment, so as to obtain more efficient wealth management effects. In this regard, this article based on artificial intelligence and big data technology of commodity futures intelligent advisory brief analysis, hoping to provide readers with some valuable reference and reference.

Key words: Artificial intelligence: big data technology; Commodity futures; Smart advisors

Introduction

As we all know, every technological development and innovation will bring new challenges and opportunities for the development of enterprises. More and more traditional financial institutions in China have gradually begun to realize the importance of intelligent advisory, and have begun to prevent the use of some foreign investment companies. However, the financial development in China started relatively late, the ETF asset scale is relatively short, the investor concept has serious deviation, and the laws and regulations are not perfect, which seriously affects the development of intelligent advisory. With the continuous improvement of China's economic strength, the continuous improvement of people's living standards, the amount of money that can be controlled is more and more large, the demand for future wealth management continues to increase, and with the continuous improvement and development of big data technology and artificial intelligence technology, intelligent advisory will become the main development trend in China's financial field.

I. Overview of commodity futures and intelligent investment advisory

1. Commodity futures

Commodity futures mainly refer to the trading of a certain amount of a commodity at an agreed price at a specific time and place in the future, taking a bulk commodity as the subject matter. It belongs to the financial derivatives, the contracts traded are called futures contracts, and the markets traded are called futures markets. The development of futures trading in China is relatively slow, the earliest futures exchange was established in the 1990s, up to now, the number of futures exchanges engaged in futures trading in China has developed to four, and the types of futures trading have increased significantly. Futures trading can be divided into two kinds at the variety level, mainly industrial and agricultural products. Among them, industrial products can be divided into metals and energy, such as non-ferrous metals, precious metals, coal and crude oil, while agricultural products can be divided into wheat, corn and agricultural products.

2. Intelligent investment Advisors

Smart advisers, also known as robo-advisors, are widely used in the United States with some success. With the passage of time, it has gradually formed a way to replace human intervention with robot adviser, so as to get the best investment plan. Through the advantages of big data technology and artificial intelligence technology, efficient algorithms are used to provide users with the most effective asset allocation schemes and suggestions. Compared with traditional investment advisers, it has significant advantages. First of all, the investment cost is relatively low. There is no minimum capital requirement, and anyone who wants to invest can enjoy the excellent services of the intelligent investment adviser. Secondly, the operation is relatively simple. All the processes of the smart investment adviser can be completed by smart phones or computers, which is very simple to operate. Finally, the effect is reliable. Intelligent investment adviser mainly uses artificial intelligence technology and big data technology to take advantage of technology to analyze relevant data and quantify financial algorithms, which is more accurate than traditional investment adviser intervention.

II. The development status of intelligent investment advisers in China

1. Increasing demand

At present, China's economic strength continues to improve, the level of national income continues to improve, under this background, China's financial market is also expanding. By 2020, China's total disposable investment will reach 40 trillion US dollars. Such a large investable scale provides a broad stage for the development of intelligent investment advisory. People's demand for wealth management will only continue to increase, but will not decline. Moreover, people pay more and more attention to the effect of investment. Therefore, intelligent investment based on artificial intelligence technology and big data technology will be more advantageous, and at the same time, it

is also increasingly concerned and favored by domestic investors.

2. Big data technology and artificial intelligence technology are becoming mature

The development of big data technology and artificial intelligence technology first originated in the 1990s, and so far, it has successfully passed the initial stage and is moving toward maturity. A variety of emerging technologies such as voice recognition technology, face recognition technology and image technology are being used by more and more enterprises. These emerging technologies, such as big data technology and artificial intelligence technology, have gradually improved the production efficiency of enterprises, enhanced the productivity of enterprises, and gradually become one of the indispensable key factors in the core competitiveness of enterprises. The development of intelligent investment advisory industry also benefits from this.

3. Popularization of financial quantitative cognition

Since 2010, words such as programmatic trading and financial quantification have gradually become one of the hot words in the financial field, and professionals in the investment field have gradually realized the quantitative way and realized the advantages brought by programmatic trading; Very few human subjective intervention, strict and effective investment discipline, more accurate market grasp. Therefore, various financial institutions have begun to devote themselves to the construction of platforms and the research of trading algorithms, which has laid a solid foundation for the development of intelligent investment advisory.

III. Intelligent advisory strategy of commodity futures based on artificial intelligence and big data technology

1. Collecting and processing data to develop effective strategies

By using the advantages of big data technology, data such as trading volume, historical price and news information of futures market are collected, processed and analyzed, and corresponding conclusions are drawn. Through artificial intelligence technology, the collected relevant data are analyzed in detail, including price fluctuations, correlation analysis and other data. In this way, it is convenient for staff to better understand and master the law of futures market and future economic development trend. Based on the above analysis, relevant results are obtained, and on this basis, effective investment strategies are formulated, including entry point, stop loss point and stop profit point, and comprehensive consideration of risk control and asset allocation and other related factors. According to the investment strategy, through the trading system to carry out related operations, such as buying, selling and so on.

2. Integration of investment group,

According to the actual situation of the market and investment performance, timely adjust the investment portfolio, through this way, to achieve the optimization of investment effect. The main advantage of this strategy is the analysis and processing of a large amount of data based on artificial intelligence technology and big data technology, so as to find the market law and accurately predict the future trend. On the basis of ensuring accurate and comprehensive data, this is conducive to improving the efficiency of investment decisions. In addition, the investment strategy formulated by using big data technology and artificial intelligence technology can realize intelligent risk management and automated trading, reduce human intervention, and thus reduce the probability of wrong decisions. In this process, it should be noted that there are many factors affecting the commodity futures market, such as policy, macroeconomic and market sentiment, etc. Therefore, sometimes, even if the way of intelligent advisory can not ensure that it can be profitable. When using this strategy, investors should make reasonable allocation according to their own actual situation and risk tolerance ability, and take it seriously with a rational and prudent attitude.

3. Continuous learning and optimization

Artificial intelligence technology and big data technology are both emerging technologies, which continue to mature with the development of science and technology. Therefore, the intelligent investment strategy of commodity futures based on these technologies should also be continuously optimized and changed. This requires regular adjustment and review of the strategy, through this way, the strategy continues to adapt to the changes of the market, and better meet the actual needs of investors. At the same time, it is necessary to continue to study and analyze related fields to ensure the advancement and effectiveness of the strategy. In addition, although AI technology and big data technology are highly advanced and can provide strong technical support for intelligent investment advisers, the final decision makers need human participation. Therefore, in the process of using intelligent investment advisory, investors should make appropriate adjustment and optimization of investment strategy based on intelligent investment advisory and combined with their own experience. In this way, investors can better avoid risks in the futures market and improve the accuracy and effectiveness of decision making.

4. Comprehensive consideration is required

Commodity futures market is characterized by high risk and volatility. In the process of using intelligent advisory, investors need to fully consider their own risk tolerance and capital control in combination with their actual conditions. If the investor's risk tolerance is low and the amount of capital control is not high, he should choose a more stable and effective investment strategy, or add multiple risk management measures during the implementation of the strategy, in this way, to ensure the effectiveness of the intelligent advisory strategy. In addition, attention should be paid to maintaining transparency and explainability. It is important for investors to understand how their investments are made. Therefore, strategies developed through a smart adviser should be interpretable and transparent. This can help investors better understand the formation process and the basis of the investment strategy, so that they can trust the smart adviser more.

5. Compliance with relevant laws and regulations

When using commodity futures intelligent investment advisory strategies based on big data technology and artificial intelligence

technology, it is necessary to strictly abide by relevant laws and regulations, not only the relevant investment field laws and regulations, but also the relevant industry standards and ethics. Through the past way, the commodity futures intelligent advisory strategy can provide investors with more efficient and intelligent services, help them better avoid investment risks and improve economic returns. At the same time, investors also need to pay attention to related risks and restrictions, and use investment strategies scientifically and reasonably.

6. Monitoring and evaluation

Investors should, according to the actual situation, regularly conduct effective monitoring and regular evaluation of the intelligent investment strategy of commodity futures based on artificial intelligence and big data technology, such as monitoring the transaction records, strategic analysis of returns and risks, etc. If it is found that there are certain defects and deficiencies in the developed strategy, Effective means and methods can be adopted to optimize and adjust it. In addition, although artificial intelligence technology and big data technology will collect a large amount of data, and conduct scientific and effective analysis of it, so as to obtain a lot of useful information, it is necessary for investors to make a comprehensive decision by combining other information, including company financial data, industry reports, macroeconomic data, etc., by analyzing a variety of information, Investors can better understand the risks and future development trends of the futures market, so as to improve the accuracy of decision-making.

7. Make contingency plans

There are also a lot of uncertainties in the commodity futures market, so it is necessary for investors to establish contingency plans to deal with possible risks and surprises in this way. This plan contains many contents, including stop-loss plan, risk control mechanism, and measures to deal with emergencies. By making an emergency plan, you can protect your investment more effectively, avoid related risks, and improve investment returns.

8. Maintain active communication and exchanges

On the basis of big data technology and artificial intelligence technology, the commodity futures investment strategy formulated by the intelligent investment adviser for users also needs to maintain in-depth communication and exchange with investors, which includes regularly reporting the performance of the investment portfolio to investors, answering investors' questions, providing more targeted investment advice, etc. Through this way, Make them better understand the investment strategy and the investment risks they may face, so as to help them make more intelligent investment strategies.

Concluding Remarks

In a word, in the new era, with the continuous development of artificial intelligence technology and big data technology, intelligent investment adviser has achieved remarkable development in the investment field. Its wide application can provide investors with effective suggestions to help them avoid possible risks more effectively and improve investment returns. At the same time, investors also need to pay attention to relevant risks and restrictions. Pay attention to other information in time, make emergency plans, and maintain active communication, so as to make a more intelligent investment strategy.

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