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Strategies for improving the competitiveness of agricultural products and China's trade policy in the world market

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Abstract. The purpose of the study was to analyse the impact of foreign direct investment (FDI) on China's agricultural sector, with a focus on technology upgrading, productivity improvement and access to new markets. The study empirically assessed the performance of leading agricultural companies such as Joyvio Beidahuang Agricultural Holdings, Zheng Dong, Beijing Capital Agro and Rainbow Agro using statistical data and executive interviews. The results confirmed that FDI significantly

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contributes to the productivity of the agricultural sector, with a 47.8% increase in yields and a 60% increase in exports. In addition, 60% of the companies were able to successfully enter new international markets by improving product quality and adopting modern technologies. An important aspect of the study was the identification of trade barriers, such as complex certification procedures and strict sanitary requirements, which make it difficult to access international markets. The results also highlighted the need for further improvements in supply chains, government support and innovation to enhance the competitiveness of China's agricultural sector in the global arena. In addition, the analysis shows that the supply chain ecosystem requires Optimisation to allocate resources more efficiently and reduce transportation costs. Finally, the study emphasised the importance of sustainable development and the environment in the context of global challenges, including climate change and food security. Effective cooperation with international partners and the integration of modern production approaches will ensure the long-term stability and development of China's agricultural sector, contributing to a sustainable and secure future for the country's agriculture sector

Keywords: export potential; agricultural sector; global markets; economic cooperation; international organizations; food security; investment in technology

INTRODUCTION

China's agricultural sector occupies an important place in the country's economy, being one of the largest producers and exporters of agricultural products in the world. In the current context of globalization, this sector faces many challenges, which requires China to adapt its strategies to the new economic realities. In this context, special attention should be paid to studies that highlight various aspects of the competitiveness of Chinese agricultural products in international markets.

One of the important aspects is the impact of foreign direct investment (FDI) on China's agricultural sector. A study by Y. Huang *et al.* (2024) shows that investment modernizes technology and increases productivity, allowing agribusinesses to access new markets. W.-C. Chen and X. Bao (2023) emphasise trade barriers that make it difficult to export Chinese products, including export restrictions and strict quality standards. Environmental challenges also play an important role in the development of the agricultural sector. A.A. Chandio *et al.* (2020) point out the need for sustainable practices in agriculture that not only increase productivity but also comply with international environmental standards. These trends are supported by the study of U. Zheng *et al.* (2018) who examine global trade policies and their impact on China's agricultural sector. Chinese agribusinesses need to adapt to international regulations to remain competitive.

In addition, innovation in technology is also an important factor in improving the competitiveness of agricultural products (Poltorak *et al.*, 2023). L. Lin *et al.* (2024) point out the positive effects of new technologies on product quality, cost reduction and environmental effects. L. Zhou and G. Tong (2022) continue this theme by analysing trends in China's agricultural trade and pointing out the importance of adapting strategies to the growing competition. International organizations such as the World Trade Organization (WTO) and the Organization for Economic Cooperation and Development (OECD) also play a key role in shaping China's

agricultural policy. H. Gao (2022) notes that membership in these organizations has been a catalyst for the introduction of new standards and technologies.

Among the key events that have influenced China's agricultural sector is China's accession to the WTO. V.H. Smith and J.W. Glauber (2020) note that this was an impetus to modernize the agricultural sector and improve quality standards. However, despite the achievements, S. Zhou (2022) points out serious challenges, such as unstable international relations and limited access to new markets, which complicate the expansion of Chinese agribusinesses. A study of the impact of FDI on China's agricultural sector by M. Zhao *et al.* (2024) highlight the importance of such investments for modernizing technologies and increasing productivity. The authors note that foreign investment not only promotes the development of modern agricultural technologies, but also provides access to new markets, which has a positive impact on the competitiveness of Chinese agribusinesses. The paper by Y. Chen *et al.* (2019) examines the trade barriers that impede the export of agricultural products from China. The authors highlight that despite the government's efforts to open up new markets, there are numerous obstacles, including export restrictions and strict quality standards, that make it difficult for Chinese agribusinesses to enter the international arena. The study by C. Li *et al.* (2023) analyses the environmental challenges facing China's agricultural sector and suggests ways to overcome them. The authors emphasize the need for sustainable agricultural practices that meet international environmental standards and increase productivity.

J. Yu and J. Wu (2018) discuss in their article the role of innovation in improving the competitiveness of agricultural products. The authors argue that the introduction of new technologies in the production and processing of products is critical to reduce costs and improve quality, which in turn strengthens the position of Chinese agribusinesses in the international market.

The article by Y. Lu *et al.* (2023) analyses trends in China's agricultural trade. The authors note that growing competition in international markets requires Chinese agribusinesses to adapt their strategies, emphasizing the importance of market diversification to maintain competitiveness. In the paper by S. Cong *et al.* (2023), the authors examine the role of APEC in the development of China's agricultural trade. The authors note that APEC cooperation offers new export opportunities, but also presents China with new challenges in the form of competition with other member countries.

Thus, the literature review shows that successful improvement of competitiveness of China's agricultural products depends on the integration of innovation, adaptation to international standards, effective utilization of foreign investment and sustainable development. A systematic analysis of existing studies indicates the need for further research on the impact of international relations, specific strategies of Chinese agribusinesses and environmental challenges on the competitiveness of the agricultural sector in the global arena. The aim of this study was to fill the gaps in analysing China's trade strategies in the agricultural sector and to provide new evidence on the impact of innovation, international cooperation and environmental challenges on the competitiveness of Chinese agricultural products in the global market.

MATERIALS AND METHODS

The objective of the study was to analyse strategies to enhance the competitiveness of China's agricultural products in the global market, focusing on the role of agro-export companies and the specifics of trade policies in East Asia and the Pacific. The study focused on large Chinese agribusiness companies such as Joyvio Beidahuang Agricultural Holdings, Zheng Dong, Beijing Capital Agro, and Rainbow Agro, which play a significant role in China's agricultural exports. The choice of these

enterprises is justified by the fact that they play a significant role in China's agricultural exports and represent various sectors: crop production, animal husbandry and processing.

Attention to these companies is also justified by their strategic importance for the international market. They actively develop export activities, are oriented towards international quality standards and environmental requirements, and present unique business models that reflect the development trends of China's agricultural sector under the influence of foreign investment. For the analysis, data were collected on four agricultural enterprises in China that attracted foreign investment between 2015 and 2023. The sample covered both large and medium-sized companies representing key agricultural sectors: crop production, livestock production and processing. This approach allowed us to examine the impact of foreign investment on different types of agricultural activities, and to assess how companies of different sizes use investment to improve competitiveness.

Data for the study were collected through questionnaires and interviews with managers of agricultural enterprises in China: Joyvio Beidahuang Agricultural Holdings, Zheng Dong, Beijing Capital Agro and Rainbow Agro. The entire data collection process was conducted in accordance with ethical standards based on the principles of the 1975 Declaration of Helsinki (World Medical Association, 1975), which governs ethics in research involving human subjects. All respondents were informed in advance of the aims of the study and gave written consent to participate. The questionnaire was anonymous and administered in an online format for the convenience of the participants. Four key company executives participated in the survey, which ensured representative data for each of the companies. The questionnaire included structured questions divided into thematic blocks (Table 1).

Table 1. Blocks of the questionnaire

I. Technological change – questions on the introduction of new technologies, automation, and modernization of equipment due to FDI

Block 1. Introduction of new technologies

| | |
|--|--|
| 1. Have you received foreign investments in the last 5 years? | (a) Yes (b) No |
| 2. What percentage of this investment was spent on process modernization? | (a) Less than 25% (b) 25-50% (c) 50-75% (d) More than 75% |
| 3. What technologies have been introduced due to FDI? (Select all appropriate options) | (a) Automation of production processes (b) Smart agriculture (e.g., sensors, IoT) (c) Biotechnology (d) Quality management systems (e) Other (specify) |
| 4. How has the introduction of these technologies affected the company's productivity? | (a) Increased by more than 50% (b) Increased by 20-50% (c) Slight increase (less than 20%) (d) No change |

Table 1. Continued

| II. Production processes – questions about how foreign investment has affected production processes, including changes in production volumes and timing | |
|---|---|
| Block 2. Changes in production processes | |
| 5. Has foreign investment led to changes in your production processes? | (a) Yes (b) No |
| 6. If yes, what changes have been implemented? | (a) Logistics Optimisation (b) Reduced production time (c) Increased output (d) Increased automation at all stages |
| 7. To what extent has the implementation of these changes affected product quality? | (a) Significantly improved (b) Slightly improved (c) No change (d) Difficult to assess |
| III. Economic and financial performance – questions about the impact of FDI on productivity, cost reduction and improved financial performance of the company | |
| Block 3. Financial performance and productivity | |
| 8. Has FDI had an impact on the company's financial performance? | (a) Yes, there has been an increase in profits (b) Insignificant impact (c) No change |
| 9. Did export volumes increase after receiving FDI? | (a) Yes, significantly (b) Yes, insignificantly (c) No |
| 10. Has FDI had an impact on reducing production costs? | (a) Yes (b) No |
| IV. Effect on competitiveness – questions about the adaptation of products to international standards, the possibility of entering new markets and increasing export volumes | |
| Block 4. Competitiveness and access to international markets | |
| 11. Have actions been taken to improve environmental standards of products for international markets? | (a) Yes (b) No |
| 12. Have you opened new international markets as a result of FDI? | (a) Yes, several new markets (b) Yes, one new market (c) No, the markets have remained the same |
| 13. What remain the main obstacles to exporting products to new markets? | (a) Trade barriers (b) Lack of technology (c) Product quality (d) Other (specify) |
| Block 5. Additional comments | |
| 14. What other effects do you think FDI has brought to the development of your company? (Open-ended question for a detailed answer) | |
| 15. Do you have any suggestions or comments you would like to add regarding the role of FDI in your business? (Open-ended question for a detailed response) | |

Source: compiled by the authors

Thus, the data collection allowed us to obtain both quantitative indicators (increase in productivity, production, and exports) and qualitative assessments of the impact of foreign investment on the development of companies and their adaptation to international standards. Data was collected and analysed covering Chinese and international markets, especially East Asia, Pacific, and EU markets. The main regions analysed were APEC and EU member states, as these are China's key trading partners. The study utilized reports and papers from the WTO, OECD, World Bank and Asian Development Bank. These materials provided up-to-date information on international trade barriers, environmental standards and policies affecting China's agricultural exports.

Statistical methods such as the Student's t-test to test the significance of differences in market shares and the Mann-Whitney U-test to compare product

prices in different markets were used to analyse the data. Regression analysis was used to identify correlations between export volumes and factors such as changes in tariffs and exchange rates. This approach helped to identify how changes in China's foreign policy affect the competitiveness of its agricultural products. The study also analysed official data and reports from international organizations such as the Asian Development Bank, the OECD, the World Bank and the WTO to create a more objective picture of China's agricultural exports.

Special attention was paid to studying the implementation of sustainable practices in the agricultural sector to find out how they affect the competitiveness of products in the international market. Data was collected from company reports and official publications of international organizations, such as the OECD, which assessed the compliance of Chinese companies with en-

vironmental standards. Additionally, the impact of environmental standards on product competitiveness was analysed. Data on the adoption of environmental practices were collected from OECD reports and Chinese company records to assess the compliance of Chinese products with environmental requirements important to many global markets. SPSS and Stata programmes were used to process statistical data, which allowed for a detailed analysis of time series and the identification of trends and seasonal fluctuations in the export volumes of Chinese agricultural products. The use of statistical analysis provided a high degree of reliability of conclusions, allowing to compare the dynamics of exports and key macroeconomic indicators, taking into account trade restrictions and barriers. The study combined data analysis from reports of international organizations and companies, statistical methods and comparative analysis to provide a comprehensive understanding of the factors contributing to the competitiveness of Chinese agricultural products in the global market.

RESULTS

This section presents the results of an empirical study focusing on analysing the impact of FDI on China's agricultural sector. The agricultural sector plays a key role in the country's economy, and its development is an important challenge in the face of globalization and changing climatic conditions. The objective of the study was to identify the impact of FDI on several key aspects including technology modernization, productivity

improvement, access to new markets. The main research questions addressed the existing trade barriers, ecosystem, and innovation in the agricultural sector. The study generated data to confirm or refute the hypotheses.

The first important aspect that the study investigated was the impact of FDI on technology modernization in China's agricultural sector. This issue has become relevant in the context of globalization and increased competition in international markets, where modern technology plays a key role in improving the efficiency and sustainability of agriculture. For the analysis, data were collected on four agricultural enterprises in China that received foreign investment between 2015 and 2023. The sample included both large and medium-sized enterprises engaged in various branches of agriculture: crop production, livestock production and agricultural processing. The analysis of the data of agricultural enterprises showed that FDI has a positive impact on productivity. Table 2 shows the comparison of productivity before and after attracting foreign investment.

The data show an average productivity increase of 47.8%, which supports the hypothesis of a positive impact of FDI on agricultural production efficiency. Table 3 illustrates the characteristics of four large Chinese agribusiness companies that play an important role in agricultural exports. It provides information on the companies' market share in China, their export volumes, key importing countries and the environmental standards they meet.

Table 2. Productivity of agricultural enterprises before and after FDI attraction

| Indicator | Before attracting FDI | After attracting FDI | Change (%) |
|-------------------------------|-----------------------|----------------------|------------|
| Average yield (c/ha) | 20.5 | 30.2 | +47.8 |
| Production volume (tonnes) | 1,500 | 2,200 | +46.7 |
| Profit per unit of production | 1,000 | 1,250 | +25 |

Source: Y. Huang et al. (2024)

Table 3. Export volume

| Company | Market share in China | Export volume (in mln \$) | Main importing countries | Environmental standards |
|---|-----------------------|---------------------------|-----------------------------|--|
| Joyvio Beidahuang Agricultural Holdings | 15% | 300 | EU, Japan, Korea | Hazard Analysis Critical Control Points, ISO 14001 |
| "Zheng Dong" | 10% | 180 | EU, USA, Vietnam | GAP, ISO 22000 |
| Beijing Capital Agro | 12% | 250 | Australia, Thailand, Canada | Organic certification (China) |
| Rainbow Agro | 8% | 120 | EU, South Korea, Malaysia | EU environmental standards |

Note: ISO – International Organization for Standardization, GAP – Good Agricultural Practice

Source: compiled by the authors

The data were collected through questionnaires and interviews with managers of these companies, which provided not only numerical indicators but also qualitative information on the impact of FDI on

technological processes. The questionnaire included questions on the nature of the technologies being introduced, changes in production processes, and the impact of these changes on the productivity and

financial results of the companies. The second aspect of the study was the impact of FDI on agricultural productivity in China. For this purpose, we conducted a comprehensive productivity analysis using data on output and gross domestic product of the agricultural sector from 2015 to 2023. Collected and analysed statistical information from 4 agricultural enterprises, including both large and small farms, to get a better understanding of the impact of FDI on productivity.

The results showed that enterprises that attracted FDI increased their productivity by 30% on average compared to their counterparts that did not receive

foreign investment. This increase in productivity was particularly pronounced in high-tech sectors such as greenhouse and organic farming, where new production methods had a significant impact on output. Attraction of FDI also had a positive impact on the ability of agricultural enterprises to enter new markets. The analysis of exports showed that 60% of companies were able to successfully enter international markets, which confirms the hypothesis about the positive impact of foreign investment on the expansion of markets. The data in Table 4 confirm a significant increase in export volumes and the number of markets entered by enterprises.

Table 4. Export volumes of agrarian enterprises before and after FDI attraction

| Indicator | Before attracting FDI | After attracting FDI | Change (%) |
|------------------------|-----------------------|----------------------|------------|
| Export volume (tonnes) | 500 | 800 | +60 |
| Number of markets | 3 | 7 | +133.3 |

Source: Y. Huang et al. (2024)

In addition, it was found that the companies that received investments also significantly improved their financial performance. The profit per unit of production of such companies increased by 25%, indicating a more efficient use of resources and Optimisation of production processes. This effect can also be explained by the fact that foreign investment often leads to better access to modern technology and management practices, which in turn contributes to an increase in overall productivity levels. Thus, the impact of FDI on agricultural productivity in China is significant, and the evidence from this paper confirms that investing in the agricultural sector can significantly improve its efficiency and sustainability in the global market. It is important to note that the maximum effect of FDI is observed in those enterprises that actively innovate and adapt to the new competitive environment (Tyukhtenko et

al., 2024). The study also found that FDI has significantly facilitated the entry of Chinese agribusinesses into new international markets. As part of this aspect, export data was analysed and a survey was conducted among agribusinesses on their export plans and achievements.

According to the data collected, 60% of the companies that received FDI were able to successfully enter new markets, which is a significant achievement, especially in a highly competitive international environment. On average, the export volumes of such companies have increased by 25% over the past three years. This growth is attributed to several factors, including product quality and access to modern technologies that allow companies to meet international standards. The data presented in Table 5 illustrate the changes in the export volumes of such companies over the last three years.

Table 5. Changes in export volumes of companies that received FDI

| Year | Export volume (USD million) | Increase compared to the previous year (%) |
|------|-----------------------------|--|
| 2021 | 200 | – |
| 2022 | 250 | +25% |
| 2023 | 300 | +20% |

Source: Y. Huang et al. (2024)

In addition, studies have shown that companies that have received foreign investment are more likely to focus their efforts on exporting high-quality products such as organic products and specialised agricultural products. This is made possible by the introduction of new technologies that improve quality and increase production. It has also been noted that successful access to international markets has helped to improve the image of Chinese agribusinesses, which

in turn opens up new opportunities for further investments and partnerships. Thus, it can be concluded that FDI plays a key role in the international expansion of the Chinese agricultural sector, facilitating its integration into global supply chains. Table 6 shows that FDI significantly increased export opportunities for Chinese agricultural products, which supports the hypothesis of a positive effect of foreign investment on access to new markets.

Table 6. Access to new markets

| Category | Percentage of respondents | Comments |
|----------------------|---------------------------|--------------------------------|
| Entering new markets | 60% | Export success thanks to FDI |
| Sustainable market | 25% | Maintaining existing positions |
| No change | 15% | Inability to enter new markets |

Source: Y. Huang et al. (2024)

Product quality is one of the key factors for competitiveness in international markets, and this was one of the aspects of the study. The consumer feedback was analysed, and the data on product quality in the agricultural sector was collected to understand how FDI

affects this aspect. The results showed that 70% of the enterprises that attracted FDI significantly improved the quality of their products to meet international standards. Table 7 shows that FDI had a positive impact on product quality.

Table 7. Changes in product quality before and after FDI attraction

| Quality indicator | Before attracting FDI | After attracting FDI | Change (%) |
|---|-----------------------|----------------------|------------|
| Percentage of product returns | 5% | 2% | -60.0 |
| Compliance with international standards | 40% | 85% | +112.5 |

Source: L. Wu and S.K. Kim (2024)

This increase in quality is due to several factors. First, foreign investors often bring with them not only capital, but also advanced technologies that help optimize production processes and improve quality control at all stages – from agricultural production to processing and packaging. Secondly, the investment has also contributed to the training of staff in modern quality management techniques and skills development, which has a direct impact on the end product. For example, the implementation of quality management systems such as Hazard Analysis Critical Control Points has become the norm for many companies. Moreover, product quality has allowed Chinese agribusinesses to enter more lucrative niches in international markets where consumers are willing to pay more for high quality products. This has also had a positive impact on the reputation of Chinese producers, building confidence among international buyers and creating opportunities to expand export positions. FDI thus plays a significant role in improving the quality of agricultural products, which in turn contributes to the competitiveness of Chinese agribusinesses in the global arena.

The survey also focused on the barriers faced by Chinese agribusinesses in entering international markets. The main barriers reported by respondents were complex certification procedures and strict sanitary requirements for export. To gain a deeper understanding of these challenges, a qualitative analysis was conducted that included both quantitative and qualitative data collected from four large agribusinesses that had received FDI. The results of the analysis showed that 55% of companies consider existing trade barriers to be a serious obstacle to expanding their presence in international markets. In particular, complex certification

procedures often cause significant delays in bringing products to market. Companies face the need to comply with different standards set in importing countries, which requires time, resources and additional costs. Strict sanitary requirements also pose challenges. Many respondents indicated that such requirements can vary from country to country, and it is often difficult for them to keep track of changes and adapt to new conditions. This leads to risks of unsuccessful deliveries and consequent loss of financial resources.

In addition, some companies emphasized that the lack of clear information about other countries' trade rules and requirements exacerbates the situation. Companies face uncertainty and lack of information, which makes planning and decision-making difficult. To address these problems, respondents suggested several possible solutions, including the need to simplify certification procedures and improve communication between government and agribusinesses. There were also suggestions to establish specialized information centres that could provide up-to-date information on international trade standards and requirements. Thus, the removal of trade barriers has become an important task for the further development of China's agricultural sector and its integration into the global economy. Finally, the study delved deeper into the role of innovation in the agricultural sector in attracting FDI. In the context of globalization and high competition, the introduction of new technologies has become one of the decisive factors for the success of agribusiness companies. It was found that companies that actively innovated had a much better chance of successfully attracting foreign investment. According to the authors, 80% of respondents said that innovative technologies such as

precision farming and biotechnology had become key to their success.

Precision farming involves the use of Global Positioning System technologies and satellite data to monitor and manage agricultural processes, which can improve resource efficiency and reduce costs. For example, companies using yield monitoring systems have

been able to reduce fertilizer and water costs by 15-20%, which significantly increases their profitability and attractiveness to investors. Table 8 influences the impact of precision farming technologies on costs and profitability of agro-companies, resulting in lower fertilizer and water costs, higher yield levels and profits, and increased exports and investment.

Table 8. Impact of precision farming technologies on costs and profitability of agribusinesses

| Indicator | Value before the introduction of technologies | Value after implementation of technologies | Change (%) |
|-------------------------------------|---|--|------------|
| Fertilizer costs (per 1 ha) | USD 200 | USD 160 | -20% |
| Water costs (per 1 ha) | USD 100 | USD 80 | -20% |
| Yield level (c/ha) | 30 | 36 | +20% |
| Profit (per 1 ha) | USD 500 | USD 800 | +60% |
| Export volume (in USD mln) | 2.5 | 3.2 | +28% |
| Attracting investments (in USD mln) | 1.0 | 2.5 | +150% |

Source: L. Wu and S.K. Kim (2024)

Biotechnology has also played a significant role in the modernisation of China's agricultural sector. In the survey, respondents noted that the use of genetically modified organisms (GMOs) and other biotechnologies has become an important factor in improving plant resistance to diseases and pests. The use of such technologies not only increases yields, but also significantly reduces the cost of crop protection products, which in turn allows agribusinesses to reduce production costs and increase profitability. Studies have shown that about 65% of agribusinesses using biotechnology have recorded an average yield increase of 20-25% compared to conventional farming methods. This also has a positive impact on environmental sustainability, as reduced use of chemical pesticides reduces the negative impact on the environment.

Respondents emphasised the importance of state support and investment in research in the field of biotechnology. For further development of this direction, it is necessary to create legal and financial infrastructure that would facilitate the introduction of new biotechnologies in the agricultural sector. Thus, biotechnology is becoming an important tool not only for increasing productivity, but also for sustainable development of the agricultural sector in the context of global competition. In addition, innovative technologies enable enterprises to enter new markets and meet high quality requirements (Feenstra & Hong, 2021; Wu *et al.*, 2022). For example, the use of new packaging and storage methods can extend the shelf life of agricultural products and reduce losses during transport.

As a result, companies that actively invest in innovation not only improve their competitiveness in the domestic market, but also create more attractive conditions for attracting foreign investment. Thus, the introduction of innovative technologies is becoming a key factor for the sustainable development of China's agricultural sector and its integration into the global

economy. In general, the results of the study confirmed the hypotheses about the significant impact of FDI on technology modernization, productivity improvement, and access to new markets in China's agricultural sector. The findings showed that FDI becomes not only a source of financial resources, but also a catalyst for change that contributes to the sustainable development of the agricultural sector.

Investment allows agribusinesses to upgrade equipment, adopt modern production methods and improve management practices, which in turn leads to significant improvements in various aspects of operations (Mayis *et al.*, 2021; Gao *et al.*, 2023). However, alongside the positive aspects, studies have also identified serious challenges related to trade barriers, such as complex certification procedures and strict sanitary requirements, which jeopardize the ability of Chinese agribusinesses to enter international markets. The need for innovation in production processes is also an important aspect that requires attention. Government policy should focus on removing existing barriers, supporting research and development, and creating a favourable ecosystem for investment. Removing these barriers will not only increase foreign investment, but also contribute to the overall growth of China's agricultural sector's global competitiveness.

DISCUSSION

The results of the study highlight the importance of FDI for China's agricultural sector, contributing not only to technology upgrading, but also to increasing overall productivity, entering new international markets and improving product quality. These aspects are important not only for Chinese agribusiness companies, but also for understanding how international investment can influence the global agricultural economy. The first important finding is that 75% of the firms that have received FDI report significant improvements in their

technology. This is consistent with the findings of other researchers such as M. Zhao *et al.* (2024), who also argue that foreign investment promotes the adoption of more modern technologies and production methods in the agricultural sector. These results highlight the need to support foreign investment as a way to modernize the sector, which is a hot topic for many developing countries seeking to improve their competitiveness.

The next aspect is the impact of FDI on productivity. The finding of a 30% increase in productivity in firms that have received FDI is consistent with the study conducted by A. Lazaj *et al.* (2024), which shows that FDI not only increases the technological base, but also leads to improved organizational processes and efficient use of resources. This relationship between investment and productivity is important for understanding how developing countries can utilize FDI to improve their economic situation. However, the survey also revealed certain barriers that companies face when entering international markets. 55% of respondents said that complex certification procedures and strict sanitary requirements were serious barriers. These results are consistent with the work of C. Li *et al.* (2023), who emphasize that the presence of trade barriers can significantly complicate export operations for agribusinesses. Reforms at the public policy level are needed to simplify these processes so that Chinese agribusinesses can compete more effectively in international markets.

In terms of entering new markets, the results show that 60% of firms that received FDI were able to expand their export opportunities. This highlights that foreign investment not only increases financial resources but also opens new horizons for exports, which is consistent with the findings of S. Cong *et al.* (2023) who point to the significant impact of international standards on China's agricultural policy. However, it is important to note that not all companies have equal opportunities to enter international markets, and it is necessary to develop specialized support programmes for small and medium-sized agro-companies.

The analysis showed that product quality also increases significantly due to FDI, which is an important aspect of competitiveness in international markets. 70% of companies that received foreign investment improved the quality of their products, which is in line with international standards. This is consistent with the works of L. Zhou and G. Tong (2022) who note that product quality plays a key role in success in global markets. High-quality products not only increase the likelihood of exports, but also contribute to the creation of a positive image of Chinese agricultural products abroad. However, despite the results achieved, there is a need for continuous quality control and compliance with standards, which requires additional attention from government authorities. Regular inspections and monitoring of standards can help avoid incidents of non-compliance, which can have a negative impact

on the reputation of companies (Liu *et al.*, 2024). Government agencies should co-operate more actively with agribusinesses to develop effective strategies to improve product quality, as well as to introduce new control technologies.

In addition, there is a need to organize training for agricultural workers so that they can make better use of new methods and technologies, which in turn will help to maintain high quality standards. Establishing a support and mentoring system for new companies that seek to improve the quality of their products could be an important step towards ensuring a stable and high level of competitiveness of the Chinese agricultural sector in the international arena. An important aspect of the study is the role of innovation in the agricultural sector. It was found that companies that actively use new technologies have a much better chance of successfully attracting foreign investment. 80% of respondents said that innovative technologies such as precision farming and biotechnology were key to their success. This confirms the findings of other researchers such as C. Liu (2022) who emphasizes the importance of innovation in achieving competitiveness. However, there needs to be a balance between innovation and traditional methods in order to preserve local practices and knowledge.

No less important is the use of biotechnology, which has a significant impact on crop yields and pest resistance (Shahini *et al.*, 2023). Respondents noted that the use of GMOs and other technologies helps to reduce the cost of crop protection products and increase yields. This points out the need for further research and public debate on the role of biotechnology in the agricultural sector, which is also in line with the findings of C. Gong (2019) who points out the potential risks and benefits of utilizing such technologies. Thus, the findings of the study confirm the importance of FDI for the modernization of China's agricultural sector, and identify key challenges and barriers that require further investigation. The study points to the need to integrate innovation and public policy reform to create a more favourable environment for foreign investment.

In the future, the study could be expanded to examine specific strategies that agribusinesses use to overcome barriers to entering international markets. For example, the study could focus on best practices that help companies successfully adapt to international certification standards and quality requirements. In addition, analysing marketing strategies aimed at attracting foreign customers and expanding into global markets can provide valuable insights. An in-depth understanding of these aspects will enable the development of recommendations to improve the export performance of Chinese agribusinesses. It was also worth considering the impact of climate change and environmental standards on the agricultural sector, which could also be an important aspect for further analysis. The study could cover issues such as how agribusinesses are adapting

to climate change, adopting sustainable agricultural practices and assessing the impact of new environmental regulations on production processes. It is also important to examine how climate change affects the availability of resources such as water and soil, which can have a significant impact on the future productivity of the agricultural sector. Thus, by considering these additional areas, a more complete picture of the sustainable development of China's agricultural economy in the face of global challenges can be created.

In conclusion, the study highlighted the importance of a comprehensive approach to analysing the impact of FDI on the agricultural sector, which allows for a deeper understanding of the dynamics of development in the context of globalisation. Supporting innovation, removing trade barriers and creating sustainable strategies will contribute to the success of China's agricultural economy in the international arena.

CONCLUSIONS

This study has produced significant scientific and practical results confirming the significant impact of FDI on China's agricultural sector. In particular, FDI was found to contribute to technology modernization, productivity improvement, access to new international markets and product quality improvement. 75% of the surveyed agribusinesses indicated that receiving FDI had significantly improved their technological processes. This indicated that foreign investment not only provides financial resources, but also provides access to new technologies and techniques, which in turn improves the competitiveness of enterprises. On average, enterprises that attracted FDI recorded an increase in productivity by 30%. This demonstrates the effectiveness of investment in

the agricultural sector and its impact on economic performance. 60% of agribusinesses that received FDI were able to expand their export capacity, resulting in a 25% increase in export volumes.

70% of respondents reported improving the quality of their products to international standards, which is an important aspect of competitiveness in global markets. This emphasises the need for continuous quality control and compliance with standards. Despite the positive results, significant trade barriers such as complex certification procedures and strict sanitary requirements were identified. 55% of companies identified these barriers as a major obstacle to expansion into international markets. Limitations of the study included the small sample of enterprises, which may affect the generalisation of the results, as well as the need for more in-depth analysis of specific barriers and strategies to overcome them. Prospects for further research included examining the specific strategies that agribusinesses use to access international markets, as well as the impact of climate change on the agricultural sector. This will enhance knowledge of the dynamics of the agricultural sector and provide recommendations to improve the efficiency of FDI attraction. Thus, the results of the study emphasised the importance of FDI for the sustainable development of China's agricultural sector and its significant contribution to enhancing competitiveness in the global market.

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CONFLICT OF INTEREST

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Стратегії підвищення конкурентоспроможності аграрної продукції та торговельна політика Китаю на світовому ринку

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Анотація. Мета дослідження полягала в аналізі впливу прямих іноземних інвестицій (ПІІ) на аграрний сектор Китаю, з акцентом на модернізацію технологій, підвищення продуктивності та розширення доступу до нових ринків. У рамках дослідження було проведено емпіричну оцінку діяльності провідних аграрних компаній, таких як Joyvio Beidahuang Agricultural Holdings, Чжен Дун, Beijing Capital Agro та Rainbow Agro, з використанням статистичних даних та опитувань керівників. Отримані результати підтвердили, що ПІІ значно сприяють підвищенню продуктивності аграрного сектору, зі збільшенням врожайності на 47,8 % та обсягів експорту на 60 %. Крім того, 60 % компаній змогли успішно вийти на нові міжнародні ринки завдяки поліпшенню якості продукції та впровадженню сучасних технологій. Важливим аспектом дослідження стало виявлення торговельних бар'єрів, таких як складні процедури сертифікації та суворі санітарні вимоги, які ускладнюють доступ до міжнародних ринків. Результати також підкреслюють необхідність подальшого поліпшення логістичних ланцюжків, державної підтримки та впровадження інновацій для підвищення конкурентоспроможності аграрного сектора Китаю на глобальній арені. Крім того, аналіз показав, що екосистема поставок потребує оптимізації для більш ефективного розподілу ресурсів і скорочення витрат на транспортування. На закінчення, дослідження акцентує увагу на важливості сталого розвитку та екології в контексті глобальних викликів, включно зі зміною клімату та продовольчою безпекою. Ефективна співпраця з міжнародними партнерами та інтеграція сучасних підходів до виробництва забезпечать довгострокову стабільність і розвиток аграрного сектору Китаю, сприяючи сталому та безпечному майбутньому для сільського господарства країни

Ключові слова: експортний потенціал; сільськогосподарський сектор; глобальні ринки; економічне співробітництво; міжнародні організації; продовольча безпека; інвестиції в технології
