

REVIEW

by the Doctor of Economic Sciences, Deputy Director for
the Educational and Research Institute of Innovation, Environmental Management
and Infrastructure of West Ukrainian National University

Olena Borysiak

on the Ph.D dissertation by Du Wei «Internationalization Strategy of Chinese
Agriculture: Fostering Sustainable Development and Promoting Global
Food Security» in the field of study 05 – Social and Behavioural Sciences,
speciality 051 – Economics

Relevance of the research topic

The relevance of the research is determined by the growing global challenges facing the agricultural sector in the 21st century. Climate change, depletion of natural resources, soil degradation, shortage of arable land, demographic pressure, and increasing demand for food compel the global community to reconsider approaches to agricultural production. In a context where over 800 million people worldwide suffer from hunger and the global population continues to grow steadily, ensuring food security becomes a top priority. In this regard, the internationalization of agriculture serves as an important tool for optimizing resource provision, increasing production efficiency, and strengthening international food cooperation.

China, as one of the leading players in the global agricultural market, faces limited domestic resources, growing internal demand, and the need to strengthen its food self-sufficiency. Therefore, the development of an effective strategy for the internationalization of Chinese agriculture is extremely important both in terms of national economic security and in the broader global context of sustainable development. The study of the mechanisms, challenges, and opportunities of this process allows not only to deepen scientific understanding of transformations in the global agro-sector, but also to formulate practical recommendations for enhancing the effectiveness of international agricultural cooperation, in particular between China and Ukraine. In view of the above, the dissertation by Du Wei on the topic, "Internationalization Strategy of Chinese Agriculture: Fostering Sustainable Development and Promoting Global Food Security" is relevant and timely.

Connection of the dissertation with scientific programs, plans, and themes

The research was conducted within the framework of the scientific research activities of the West Ukrainian National University, specifically: fundamental state budget funding research “Regional Security Model: Economic and Technical Aspects of Sustainable Development and Civil Protection in Wartime” (state registration number 0124U000063); research theme “Goeconomic and civilizational challenges of the development of the global economy” (state registration number 0121U111077); international project “Regional Integration: European Benchmark under the Challenges of Global Fragmentation” (Erasmus+ Jean Monnet Module 101048216 – REFRAG – ERASMUS-JMO-2021-HEI-TCH-RSCH), business funding research “Modern mainstreams of global development: economic, environmental, social and military challenges” (contract No ME-30-2022 dated 13.06.2022).

Justification of scientific provisions, conclusions, and recommendations

The validity of scientific provisions, conclusions and recommendations is based on the use of modern theories and concepts of international economic relations, the works of domestic and foreign scientists. In order to substantiate the results of the study, the author used a set of research methods (theoretical, historical, empirical and others), in particular the method of theoretical generalization - to formulate the theoretical foundations of the internationalization of agricultural activity and sustainable development; methods of analysis and synthesis - to substantiate the system of indicators for assessing the internationalization of the agricultural sector; methods of deduction and induction - to identify the main factors of the development of internationalization processes and build relevant strategic recommendations; cluster analysis - to identify the structure of agricultural development in different regions of China; statistical, tabular and graphical methods - to visualize the main quantitative results of the study; case study method – for in-depth analysis of specific examples of investment projects and trade agreements of China in the field of agriculture.

The author has processed a sufficient number of literary and statistical sources, analytical information on the internationalization of agriculture, sustainable development, food security. The list of sources used includes 256 items, most of which are foreign literature. The main provisions of the dissertation have been tested.

The dissertation explores the ontological principles of global agricultural development and its sustainability, with an emphasis on the interrelationships between food security, environmental, socio-economic factors and their consequences (pp. 21–30). The author argues that the internationalization of the agricultural sector is an inevitable result of modern processes of international cooperation and modernization of agriculture. The dissertation reveals a system for assessing sustainable agricultural development and forms a theoretical basis for the internationalization of the agricultural sector (pp. 22–31). An in-depth analysis of theoretical models of agricultural progress is carried out, including: the theory of comparative advantage, the model of the global value chain, the concept of food sovereignty, the theory of factor supply, the model of agricultural globalization, and the model of sustainable development. Typical characteristics of international agricultural flows are indicated and the relevance of theoretical approaches to China's modern agricultural strategy is assessed (pp. 35–45). The author traces the evolution of global and national strategies for the development of the agricultural sector, in particular through the prism of the "green revolution", the concept of sustainable intensification, the Sustainable Development Goals, and their impact on China's agricultural policy (pp. 48–60). By means of comparative analysis of internationalization strategies of different countries, the multi-subjectivity of the global agricultural governance system is reflected and the transformations of China's strategy are analyzed (pp. 61–68).

The paper analyzes in detail the sectoral and regional features of China's agriculture using the method of hierarchical clustering and Euclidean distance to measure similarities between provinces. Significant regional differences in agricultural and economic activity are identified, determined by factors such as GDP, population density and agricultural specialization, and the transition from traditional to industrialized agricultural systems is described (pp. 73–77). The structure of

China's foreign trade, main trading partners (in particular Ukraine) and trade policy are considered, which made it possible to assess China's role in global agricultural trade and the consequences of trade conflicts and disruptions in supply chains (pp. 93–109). The intensification of China's overseas agricultural investment is analyzed, in particular through FDI, land lease and acquisition, mergers and acquisitions of agricultural enterprises, technological cooperation, as well as public-private partnership (PPP) models (pp. 110–122). It is emphasized that within the framework of the "One Belt, One Road" initiative, Chinese capital is widely integrated into the agricultural infrastructure of Southeast Asian, African and Latin American countries, which contributes to a more rational global redistribution of agricultural resources (pp. 124–126). Global challenges to agricultural development are systematically analyzed, including population growth, resource constraints, climate change and soil degradation. Innovative solutions are proposed: precision agriculture, biotechnology, efficient irrigation systems and international cooperation to increase productivity and resilience to crisis phenomena (pp. 130–139). Based on the national specifics of China, key areas of agrarian transformation are identified: stimulating scientific and technological progress, promoting sustainable practices, financial support, reforms in rural land management, and modernization of the agro-industrial complex to increase competitiveness (pp. 155–165). Based on the acquired practices, a holistic strategy for the internationalization of Chinese agriculture is proposed: a combination of the policy of "going out", government management, corporate investment, technological cooperation, and five strategic directions of government initiatives that will contribute to the implementation of the goals of the strategy (pp. 178–196).

The purpose of the study is fully consistent with the topic of the dissertation. The object and subject of the study are sufficiently covered in the structure and content of the work. The obtained scientific results, conclusions and recommendations are justified and reliable, which is confirmed by the appropriate number of publications in professional publications, as well as the approval of the results at international scientific and practical conferences. The content and structure of the dissertation fully correspond to the topic, goals and objectives of the study. The scientific provisions are presented consistently and logically, and the conclusions and

proposals are based on the results of the study, which have undergone proper scientific testing.

In terms of structure and design, the work meets modern requirements specified by the Order of the Ministry of Education and Science of Ukraine dated January 12, 2017 No. 40 "On Approval of Requirements for the Design of Dissertations". The combination of scientific provisions, conclusions and recommendations set out in the qualification work, as well as their practical significance, give reason to believe that Du Wei's dissertation is a complete, holistic and scientifically sound research.

Scientific novelty of the provisions, conclusions, and recommendations formulated in the dissertation

The most significant results that characterize the scientific novelty of the study include:

- The study proposes an innovative conceptual framework for the internationalization of agriculture in the context of sustainable development, which integrates approaches to development, global cooperation and food security. The author analyzes the transformation processes in the agricultural sector of China, approaches to assessing sustainability and the impact on global agricultural systems.

- The system for assessing sustainable agricultural development and the theoretical model of agricultural progress and internationalization are improved. In particular, the study is based on the theory of comparative advantage, the concept of global value chains, the food sovereignty model, the theory of factor supply, the theory of agricultural globalization and the model of sustainable development.

- The evolution of global and national strategies for agricultural development was traced, a systematic comparative analysis of internationalization strategies in different countries was carried out, which allowed us to fully reflect the multi-subject nature of global agricultural management and the multi-directionality and coordination of international cooperation.

- A cluster analysis of Chinese provinces was conducted using hierarchical methods, as a result of which significant regional differences in agricultural and

economic activity were identified, determined by the level of GDP, population structure and specialization of agricultural production.

– An applied strategy for the internationalization of Chinese agriculture was formulated, taking into account national characteristics. Through the analysis of specific mechanisms for implementing the proposed strategy, the work provides methodological guidelines for national and international agricultural policy actors, investors and other stakeholders in the formation of strategic decisions, investment approaches and sustainable practices in the global environment.

Thus, the main scientific propositions, conclusions, and results of Du Wei's qualification work are distinguished by scientific novelty and a sufficient level of validity.

Completeness of the presentation of the main scientific results of the dissertation in published dissertations

The results of the dissertation work have been published in 9 scientific works with a total volume of 4.82 p. s. (of which the author personally owns 3.46 p. s.), including: 5 publications – in scientific professional publications, 4 – publications of an approbatory nature.

The profile of the publications and the content of the scientific works meet the established requirements for the completeness of coverage of the results of the dissertation work for the degree of Doctor of Philosophy in the field of knowledge 05 – Social and Behavioral Sciences in the specialty 051 – Economics.

Absence (presence) of academic integrity violations

The text of Du Wei qualification dissertation, based on the results of the check textual borrowing, does not contain any unreferenced borrowings and adheres to the principles of academic integrity. All references in the dissertation are made in compliance with the norms of copyright and related rights legislation.

Discussion points and remarks on the content of the dissertation

Along with significant scientific achievements and a positive assessment of the

content and design of the qualification dissertation, it is worth noting the presence of certain comments and discussion points, in particular:

1. In the first chapter, the author thoroughly reveals the ontological foundations of global agricultural development, analyzing in detail the conceptual apparatus and system of indicators – from agrarian development to sustainable agriculture and internationalization. The author convincingly proves that internationalization contributes to a more efficient distribution of world agricultural resources, increasing production and mitigating food security problems. From the historical perspective of the development of agriculture in the world, the author's position on the inevitability of internationalization as a long-term trend is clearly traced. At the same time, it is worth emphasizing what challenges and opportunities the process of agricultural internationalization are different for developed and developing countries.

2. China, as an active participant in the international transfer of agricultural capital, effectively uses the mechanisms of foreign direct investment, technology exports, trade networks and public-private partnerships to modernize the world's agricultural infrastructure. In this context, it is worth specifying China's successful practices in addressing challenges related to resource constraints, trade fluctuations and environmental sustainability – especially for products that are significantly dependent on individual markets (soybeans, corn, meat, etc.).

3. The dissertation provides a comparative analysis of internationalization strategies of different countries: the USA relies on dominance in supply chains and technologies, the EU – on "green standards" as barriers, Japan – on the export of high-tech products with added value. These strategic approaches lead to increased technological and market dependence of developing countries. In this regard, the question is relevant: how can China, as a key player in international financial flows, simultaneously strengthen its competitive position at the global level and stimulate innovation in multilateral cooperation mechanisms, while maintaining a balance between efficiency, fairness and sustainable development?

4. The dissertation pays considerable attention to the formation of strategic approaches to the internationalization of agriculture, however, it would be advisable

to consider the social consequences of this process for the rural population both in China and in partner countries more broadly. In particular, it is worth analyzing how transformations in the agricultural sector affect employment, migration, access to land resources and changes in traditional farming practices, which are important aspects of ensuring inclusiveness and social sustainability of agricultural policy.

5. The author notes that the internationalization of China's agriculture should be based on five strategic objectives adapted to national conditions, with a focus on three driving forces: government management, entrepreneurial capital and technological cooperation. Such a multidimensional model should contribute to the development of transnational cooperation, innovation and standardization, which, in turn, affects global food sustainability. However, it would be advisable to expand the analysis of compliance with the principles of gradualism and regularity to ensure the sustainable implementation of the proposed measures. In general, the above provisions do not reduce the overall high assessment of the dissertation work, its theoretical and practical significance.

Overall, the aforementioned contentious points and remarks do not diminish the overall positive evaluation of the dissertation, nor the significance of the obtained conclusions and practical recommendations.

General conclusion

The qualification dissertation by Du Wei titled "Internationalization Strategy of Chinese Agriculture: Fostering Sustainable Development and Promoting Global Food Security", submitted for the award of the Doctor of Philosophy degree in the specialty 051 Economics, is a completed independent research project that meets the established requirements. The work is conducted at an appropriate theoretical level and holds practical significance. The topic of the dissertation is fully covered.

The analysis of the dissertation allows for the conclusion that the submitted dissertation complies with the requirements of the Ministry of Education and Science of Ukraine Order No. 40, dated January 12, 2017, "On the Approval of Requirements for the Formatting of Dissertations" (as amended), and the "Procedure for the Awarding of the Doctor of Philosophy Degree and the Cancellation of the Decision

of the Single Specialized Academic Council of a Higher Education Institution or Scientific Institution Regarding the Awarding of the Doctor of Philosophy Degree", approved by the Resolution of the Cabinet of Ministers of Ukraine No. 44, dated January 12, 2022. Therefore, its author, Du Wei, deserves the award of the Doctor of Philosophy degree in the field of knowledge 05 – Social and Behavioural Sciences, speciality 051 – Economics.

Reviewer:

Doctor of Economic Sciences,

Deputy Director for the Educational and
Research Institute of Innovation, Environmental
Management and Infrastructure

West Ukrainian National University

Olena BORYSIK

