

FEEDBACK
from the official opponent
for dissertation of Liu Ziming
«Management of Sport Industry for Sustainable Development»,
submitted for the degree of the Doctor of Philosophy (PhD)
by specialty 073 – Management

1. Relevance of the research topic.

China's economy has achieved tremendous development in recent years. People's living standards have gradually improved. With economic development, people's pursuit of quality of life is increasing day by day, laying the foundation for developing China's sports industry. At the same time, the development of the sports industry to a certain stage would promote economic growth. For example, in some Western developed countries, the contribution of the sports industry to the economy has far exceeded the traditional industry. It has become a new growth point for economic development. Although China's sports industry has achieved certain development, it is still in its infancy. Compared with Western developed countries, China's sports industry development is still relatively slow.

The critical time is to promote the construction of contemporary sports revitalization as well as the rapid and healthy development of the sports industry at this important historical-critical moment. It is conducive to promoting further development of China's sports industry to accelerate the in-depth development of the supply-side industrial structural restructuring reform and realize high-quality economic development. The sports industry should be based on a certain level of economic development. Therefore, the development of the sports industry has become a new growth point of economic development. Only by actively adjusting the structure of the sports industry, timely formulating strategic plans for the development of the sports industry, and accelerating the reform of the market value and competition mechanism of the sports

industry, the sports industry could play an essential role in economic growth. That's why the topic of the dissertation is relevant and actual.

2. Connection of work with scientific programs, plans, topics.

The dissertation research was conducted in compliance with the research work guidelines of the Department of Management, named after professor L. Mykhailova, at the Sumy National Agrarian University. The department's research work is focused on "Development of management in the context of international integration processes" for the period 2019-2023 (state registration number 0119U001336), within by the author was carried out the topic of Research on Management of Sport Industry for Sustainable Development.

3. The degree of validity and reliability of scientific statements, conclusions and recommendations.

The scientific propositions, conclusions and recommendations set out in the dissertation are sufficiently substantiated, have a deep scientific meaning and are important for the development of economic science. The obtained scientific results are reliable and are based on theoretical and empirical research. The formulated goal corresponds to the research topic, object, scientific and methodological requirements.

The methodology of the dissertation research is based on generally accepted principles of complex scientific research. The theoretical and methodological basis of the dissertation work is literature analysis, theoretical and empirical analysis, and normative and empirical analysis. In the process of specific research and implementation, specific methods such as induction, deduction and comparative analysis will be used, and research methods such as situational analysis and case analysis will be used to study special phases and regions of the development of the sports industry. Induction and analysis of literature data. The sustainability mechanism of the sports industry is

analyzed by combining related literature. Summarize the development curriculum, models, and experiences of the sports industry in representative developed countries. Combining the tools of theoretical and empirical analysis allowed the research evolution and development status of the Chinese sports industry. By sorting out the relevant theories of sustainability in the sports industry and analyzing the various relevant factors that influence and manage the sustainability of the sports industry, this content forms the category of literature analysis methods. Through historical induction and mathematical statistics analysis, this paper discusses the development course and current situation of China's sports industry, analyzes the problems and deficiencies in the development of China's sports industry, and empirically tests various management mechanisms for sustainable development of China's sports industry, which belongs to the category of empirical analysis. Based on theoretical analysis, this paper analyzes the management mechanism of the sustainable development of the sports industry. Based on the theoretical and empirical analysis results, this paper proposes a series of policy implications on how to promote the sustainable development of China's sports industry, which belongs to the scope of normative analysis. Graphical and tabular methods were used for visual presentation of the obtained results.

In a dissertation, the object of the study is to the internal and external mechanisms of management of the sports industry for sustainable development, summarize the relevant theories, and development status of the sports industry, and justify China's sports industry management strategy. Dissertation research is an independent scientific work of the author. The scientific results, conclusions and proposals put forward for defense were obtained by the author personally.

The presented dissertation work of Liu Ziming has a logical structure. The content fully discloses the topic of scientific research. The applicant presented the material competently, logically, using modern English language and style. The content of the dissertation corresponds to its essence. There is a proper relationship between the

sections and subdivisions of the work, all sections contain figures and tables. Links to informational resources are correct. The results presented in the work are confirmed by implementation certificates. Conclusions to the sections of the dissertation and general conclusions are logical and are confirmed by the results of testing at international and all-Ukrainian scientific and practical conferences, publications in scientific specialized publications of Ukraine, international journal indexed in the scientific-metric database Scopus. All of the above allows us to assert sufficient validity and reliability

4. The scientific novelty of the obtained results.

The main theoretical provisions outlined in this work have reached the level of methodological developments and practical recommendations, are used and implemented in management practice. The most important research results that reveal the content of the dissertation, characterize its scientific novelty and are presented for defense include the following.

For the first time:

- the evaluation index system for sustainable development of the sports industry is proposed based on the developmental theory of the sports industry, encompassing an assessment of both internal and external factors as well as evaluating the management capacity for sustainable development in a multi-agent sports industry;

Improved:

- theoretical and methodological foundations of the theory of empirical study of the behavior sports industry multi-agent;

- the index system for a thorough assessment of the sports industry to multi-agent management capabilities, foster sustainable economic development within the sector, and enhance the managerial proficiency for ensuring its sustainable growth;

- the TOPSIS entropy weight model through calculating the weights of the government factor and grassroots governance as primary drivers of economic influence for the sustainable development of the sports industry;

- methodological principles for assessment fundamentally impact the industrial structure the management capacity for sustainable development in the sports industry.

Acquired further development:

- the concept of improving the sustainable development management ability of the sports industry and ensuring the sustainable and balanced development of the sports industry (structure strengthening, structure reconstruction, structure time and space). This help improve the management capabilities of the various management players, solve the tasks facing the sports industry and achieve the management goals set by the state;

- approaches of sustainable development management ability of sports industry by optimizing the main factors of sports industry development management, which is based on correctly promoting the scale of digital economy agglomeration and planning agglomeration areas are the embodiment of the national management ability, which is conducive to improving the quality of sustainable development of the sports industry and achieving the national management objectives.

5. Theoretical and practical significance of the results of the dissertation.

The practical significance of the research results lies in: establishing and enriching the new theory and method principles, putting forward new solutions to scientific problems, and providing a set of scientific provisions and conclusions for demonstrating the sustainable development strategy and practical suggestions of China's sports industry. The practical and methodical proposals put forward were implemented in the activities of the Henan Development and Reform Commission and the sports economy. The main theoretical provisions outlined in this work have reached the level of methodological

developments and practical recommendations, are used and implemented in management practice.

6. The author's personal participation in obtaining the scientific and practical results presented in the dissertation

Approbation of the scientific and practical results presented in the dissertation was carried out by the applicant personally.

In the published works, printed in co-authorship, individual theoretical developments, setting up and conducting of all experimental studies, processing of the obtained results, scientific analysis of research results, formulation of conclusions and proposals belong to the doctoral student.

7. Completeness of presentation of the dissertation material in scientific publications.

The source base of the research includes a significant number of foreign and domestic theoretical studies, analytical works, regulatory and legal documents, statistical information, which make scientific provisions and practical recommendations sufficiently substantiated. The statistical data used in the work are relevant and reliable. The dissertation bibliography forms a clear presentation of the results of the review of the current state of affairs in the chosen field of research.

The main scientific provisions and research results on the topic of the dissertation were published in 15 scientific works, including: 3 articles in specialized scientific publications of Ukraine, all included in international scientometric databases; 2 articles were published in scientific periodicals of the Organization for Economic Cooperation and Development, which are included in the Scopus scientific-metric database; 10 other publications.

List of publications of the acquirer:

Articles in periodical scientific publications indexed in the Web of Science Core Collection and/or Scopus databases:

1. **Ziming, L.** Management of sports industry: moving to economic development. *Marketing and Management of Innovations*, 2021. 4, 230-236.

<http://doi.org/10.21272/mmi.2021.4-18>

2. **Liu Ziming**, Tetiana Kharchenko Innovations in the field of sports industry management: assessment of the digital economy's impact on the qualitative development of the sports industry. *Baltic Journal of Economic Studies*. Vol. 9 No. 3, 2023. Pp. 10-21.

<https://doi.org/10.30525/2256-0742/2023-9-3-10-21>

Articles in scientific publications included in the list of specialized scientific publications "B" category of Ukraine

3. Tetiana Kharchenko & **Liu Ziming** The Relationship between Sports Industry Development and Economic Growth in China. *Oblik i finansy, Institute of Accounting and Finance*. 2021. issue 1 (91), pages 136-140, March.

[https://doi.org/10.33146/2307-9878-2021-1\(91\)-136-140](https://doi.org/10.33146/2307-9878-2021-1(91)-136-140)

5. Liu Ziming, Kharchenko T.O The impact of sport industry on economic development. *Economy and Society*, 2022. (39).

<https://doi.org/10.32782/2524-0072/2022-39-6>

5. **Liu Ziming**, Tetyana O. Kharchenko Under the belt and road background of the new path of sports tourism industry development in China. *Mechanism of an Economic Regulation*, 2022. (1-2(95-96), 127-130.

<https://doi.org/10.32782/mer.2022.95-96.19>

Other publications

6. **Liu Ziming**, Kharchenko T.O. Determining the Degree of Connection between the Development of the Sports Industry and Economic Growth in the Regional Context:

Evidence from 31 Provinces in China. *Economic of development*. Vol.20 No.2 (2021), 8-18.

[https://doi.org/10.57111/econ.20\(2\).2021.8-18](https://doi.org/10.57111/econ.20(2).2021.8-18)

7. **Liu Ziming**, Тетяна Харченко. Research on the development of rural sports industry and sports economy. *Наука онлайн: Міжнародний електронний науковий журнал*. 2021. №3.

<https://nauka-online.com/publications/economy/2021/3/22-2/>

8. **Liu Ziming**, Kharchenko T.O. Research on the countermeasures for the sustainable development of sports economy in Ukraine. *International Journal of Recent and Development*. Vol. 8, Issue, 12 (C), pp.114-116. Online ISSN: 2349-4182, Print ISSN: 2349-597

9. **Liu Ziming**, Kharchenko T.O. Research on the Development Path of Sports Industry in the Context of Belt and Road. *Turkish Journal of Computer and Mathematics Education*. Vol.12 No.14 (2021), 3780-3783.

<https://turcomat.org/index.php/turkbilmat/article/view/11019/8201>

10. **Liu Ziming**. Research on the Relationship between China Sports Industry Added Value and Economic Development Index Based on Grey Correlation Analysis. *Current issues of world and national economy: estimates and development strategies: Proceedings of the international scientific-practical conference (Lviv, March 27, 2021)*. NGO "Lviv Economic Foundation". p. 100-103.

11. **Liu Ziming**. (2021). VAR model parameter estimation of the Relationship between Sports Industry Development and Economic Growth in China. *Modern Movement of Science: abstracts of the 12th International Scientific and Practical Internet Conference (April 1-2, 2021)*, P1. Dnipro. p. 97-100.

12. **Liu Ziming**, Kharchenko T.O. Impact of sports industry development on rural economy. Глобалізація: співвідношення міжнародних та національних економічних інтересів під впливом нових викликів: *матеріали VIII Міжнародної*

науково-практичної конференції (м. Одеса, 9 квітня 2021 р.). МГУ, 2021. С. 60-63.

13. Liu Ziming Analysis on the connectivity of sports industry and economic development. Collection of abstracts XVIII International scientific and practical conference of young scientists (Ternopil, May 6, 2021). p. 48-52.

14. **Liu Ziming**. Research on the countermeasures for the sustainable development of sports economy in Ukraine. *Today economy in the context of global changes in society: a collection of materials of the scientific-practical conference (Zaporozhye, September 4, 2021)*. Zaporozhye: NGO "SIEU", 2021. p. 29-33.

15. Liu Ziming Assessing the impact of the digital economy on the high-quality development of the sports industry. *Матеріали Всеукраїнської наукової конференції студентів і аспірантів, присвяченої Міжнародному дню студента (14-18 листопада 2022 р.)*. Суми, 2022. Р. 273.

8. The structure and content of the dissertation, its completeness and compliance with the established requirements for design.

A dissertation represents a completed scientific study, comprising scientific statements, conclusions, and recommendations derived from personal research endeavors. Published scientific works are independent developments and reflect the main content of the dissertation. In the introduction, the justification of the research topic is comprehensively analyzed, its connection with scientific programs and topics is reflected, the goal and task of the research, the object, the subject are determined, the scientific novelty and practical significance of the results are indicated, the personal contribution of the recipient of the scientific work is determined, the approbation of the results is noted on the topic of the dissertation through participation in conferences and other events.

The first chapter represents the theoretical basis of research on the development of China's sports industry. The author is noted that the sports industry gradually expanding

in size and contributing more and more to economic and social development every year. As part of the positive characteristics of the dissertation should be noted the research's methodological basis of the evaluation process of sustainable development in the sports industry involves establishing a comprehensive set of evaluation indices for the sports system, employing scientific and systematic evaluation methods to estimate the current state and level of the regional sports industry's sustainable development. By conducting a comprehensive analysis of specified factors and how they form an organic whole with specific functions, can develop an evaluation system that reflects both its structure and function for effective management and control. Based on this analysis, identifying factors that impede the industry's sustainability is crucial. This approach aims to provide objective and scientifically sound information to support capacity building and strategic planning within the regional sports industry. Deserves attention, formed by the author, the index system which not only involves specifying indicators but also determining their interrelationships. This index system comprises various elements and includes the conceptual meaning of each index, calculation range, unit of measurement, and the relationships within the structure of the system.

In the second chapter, examines how the sports industry influences and interacts with economic development, and determines the level of connection between them. First of all, the development of the sports industry accelerates the development of the sports industry scale and speed of the sports industry, which will surely drive a high-quality economy with coordinated economy and growth, innovation and opening up, sharing by all people, and a green and sustainable economy. Based on the statistical data from 2010-2020 and the above coupling model, the relationship between the sports industry and high-quality economic development in provinces and cities was calculated. It is divided into economic development levels: eastern region, central region, western region, and northeast region. In finally, from 2010 to 2020, the coupling degree (C) and the coordinated degree of development value (D) values between the sports industry and the

high-quality economic development system of various provinces and cities are steadily increasing year by year, indicating that the correlation and closeness between the systems are getting closer and closer. In terms of the spatial gathering situation, 31 provinces and cities are manifested as the spatial development pattern of the eastern region> western region> northern region> northeast region> western region. In further, this research can be oriented on urban districts of provinces but need to conduct a survey and form of the data from currently selected indicators. Only by constantly optimizing the development mode of China's sports industry and creating a high-quality market operation mechanism can the double development of the sports economy and Chinese economy be realized.

The third chapter examines the optimization path of the sports industry's sustainable development in the context of two main components: internal and external. The base of the first one is the correlation transmission mechanism and effect amplification among the internal components of the sports industry, as well as the enhancement of the coupling level. This approach includes promoting coordinated development within the industry associations and driving advancements in leading sectors. Another component facilitates a favorable cumulative or dynamic state for the sports industry through adjustments to variables related to its external environment. This approach encompasses optimizing sports resource allocation modes, fostering scientific and technological innovation, establishing sustainable development plans for unbalanced regional sports industries, and refining resource endowment strategies. The comparative characteristics of the outlined approaches allowed to determine that a "coordinated development" path among internal components is a more scientifically sound and healthy model for achieving sustainable development, optimization, and upgrading within today's sports industry.

It was carried out an analysis of the plagiarism check report for the presence of textual borrowings (Strike plagiarism program). The reviewer concluded that the

dissertation of Liu Ziming on the topic «Management of Sport Industry for Sustainable Development» is the result of the applicant's independent research and does not contain elements of plagiarism and borrowing in accordance with the Resolution of the CMU dated 12.01.2022 No. 44, Clause 9. Used ideas, results and texts of other authors are linked to the corresponding source.

9. Evaluation of the language and style of the dissertation.

The dissertation is written in competent English, has meaningful integrity, consistency and completeness. The style of presentation of the material corresponds to that accepted in the scientific literature.

10. Remarks and wishes on the dissertation work.

Characterizing the dissertation work of Liu Ziming as a whole, it should be noted that it certainly has relevance, scientific and practical significance. However, in my opinion, it is appropriate to note that there are certain debatable points in the work:

In the relevance of the research topic, the author emphasizes the need to analyze the current situation and problems of China's sports industry, to form the specific mechanism of China's sports industry development based on theoretical analysis and empirical tests, to realize corresponding suggestions. At the same time, it would be worthwhile to determine the main elements of the specific mechanism of China's sports industry development their relationship, and influence which is not properly reflected in the dissertation.

In one of the novelty points about the concept of improving the sustainable development management ability of the sports industry and ensuring the sustainable and balanced development of the sports industry (structure strengthening, structure reconstruction, structure time and space), it is worth specifying which tasks should be

realize by the various management players, to solve the tasks facing the sports industry and to achieve the management goals set by the state.

The dissertation would be significantly improved if the research on the current status and dynamics of sustainable development in the Chinese sports industry (clause 2.1) contained not only a theoretical basis but also an analytical component.

In Chapter 3 and Figure 3.1, it would be advisable to analyze separately all influencing factors of the dynamic diagram of the sports industry sustainable development optimization system, to apply forecasting and modeling methods for visual representation of the strength of their bond.

Analyzing the methodological approach to the optimization of the speed variable and auxiliary variable in the system of the sports industry for sustainable development in China (clause 3.1), the dissertation should focus on the probable methods (methods) of calculating the limit values of the studied indicators and propose an appropriate assessment scale.

11. Conclusion on compliance of the dissertation work with the requirements of the procedure for obtaining a scientific degree.

The dissertation of Liu Ziming «Management of Sport Industry for Sustainable Development», submitted for defense to a specialized scientist council for obtaining the degree of Doctor of Philosophy in the field of knowledge 07 «Management and administration» with a specialty 073 «Management» in terms of its relevance, scientific and theoretical level, main results of validity, main provisions and results published in professional publications, the novelty of the statement and practical significance meet the requirements of the order of the Ministry of Education and Culture of Ukraine № 40 of January 12, 2017 «On approval of requirements for the preparation of a dissertation» and Resolution of the Cabinet of Ministers of Ukraine dated January 12, 2022 № 44 "On approval of the Procedure for awarding the degree of Doctor of Philosophy and

cancellation of the decision of the one-time specialized academic council of a higher education institution, scientific institution on awarding degree of Doctor of Philosophy" with changes introduced in accordance with Resolution of the Cabinet of Ministers № 341 dated 03.21.2022.

Official opponent:

First Vice-Rector

National Academy of Management

Doctor of Economic Sciences

Professor



Iryna SHTULER