

REVIEW

Doctor of Economic Science, Professor of the Department of Economics and Entrepreneurship named after Prof. I.M. Bryukhovetskyi

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for Fu Yanjun dissertation on the topic «Management of innovative processes in higher education institutions»,

applied for the degree of Doctor of Philosophy

from the field of knowledge 07 – Management and administration

in the specialty 073 – Management

1. Relevance of the topic of the dissertation.

The changes occurring in modern society, including integration processes, globalization, democratization, and the creation of a unified information space, significantly impact education. Managing the development of an educational institution amidst social, political, and economic transformations becomes a primary formative factor of innovative changes, upon which the institution's further functioning and competitiveness in the educational services market largely depend. This necessitates the formation of an effective state innovation policy.

Innovative activity in an educational institution is grounded in the philosophical doctrine of the unity and struggle of opposites. On one hand, a well-established educational environment, equipped with quality material and technical resources and highly qualified personnel, relies on innovations that disrupt its stability and may not always yield expected results. On the other hand, maintaining high-quality performance indicators and competitiveness in the educational services market is impossible without innovative innovations.

Undoubtedly, the implementation of something new always entails a certain element of risk, but the refusal or ignorance of innovative activity poses an even greater risk. Effective activity and further successful development of an educational institution are possible only through innovations that contribute to improving its operations and opening new opportunities for every participant in the educational process. The ability of an educational institution to carry out stable and effective work is its operational potential. Thus, the management of modern educational institutions should be based on innovative strategies in accordance with the principles of sustainable development. In this case, the topic of the dissertation by Fu Yanjun on «Management of innovative processes in higher education institutions» is timely, relevant, and both theoretically and practically significant.

2. Connection with scientific topics.

The dissertation was carried out in accordance with the directions of research works of the Sumy National Agrarian University: «Development of management in

the context of international integration processes» 2019-2023 (state registration number 0119U001336), within which the author has made an exploratory research on the innovation of university management system; «Formation of a mechanism for managing the innovative development of higher education institutions» 2021-2022 (state registration number 0121U108135) within which the author has made describes the priorities of university management system innovation.

3. Scientific novelty and theoretical significance of the dissertation.

The scientific provisions, conclusions and recommendations presented in the dissertation work are sufficiently substantiated, have a scientific content and significance in the field of knowledge of management and administration. The obtained scientific results are reliable and based on research of theoretical and empirical content. The formulated goal corresponds to the topic of the research, the object and subject of the research meet the scientific and methodological requirements.

The scientific presentation of the content of the dissertation is determined by the combination of the purpose, tasks, scientific novelty and conclusions. The presented dissertation research is a logical, structured and complete scientific work. The orderliness of the stages of work and the systematicity of the research process made it possible to solve the scientific and applied tasks regarding the management of innovative processes in higher education institutions.

The purpose of the study is the substantiate theoretical and methodological principles develop practical suggestions for the management of innovative processes of higher education institutions, and comprehensively expound the proposition that the management system of higher education institutions must be innovative.

The purpose and tasks of the research were achieved by the author using a system of general scientific and special methods. With the help of economics, management, pedagogy, law, and other disciplines, using the method of normative research, the internal management reform of colleges and universities is theoretically analyzed, and the theoretical research framework is built. Graphical and tabular methods were used for visual presentation of the obtained results. Scientific works of foreign scientists on economic theory, systems theory, management, management and administration, change management, project approach, current legislation and regulatory acts became the information base of the research.

The most important research results that reveal the content of the dissertation, characterize its scientific novelty and are presented for defense include the following.

First obtained an innovative application of marketing theory based on the 4I principle of Internet marketing to the study of the university library knowledge service was proposed by creating a micromedia platform, which aims to provide a basis for the library to develop a marketing plan for the knowledge service and plays

an important role in the development and modernization of the librarianship, which, in turn, will contribute to the development and modernization of information services of higher education institutions.

Improved an artificial intelligence-based innovation management system for higher education institutions by changing the basic theory of artificial intelligence, focusing on the research of theories, methods, tools and systems related to artificial intelligence and focusing on first-class talents and high-level think tanks in key fields innovations of artificial intelligence, strengthening of international academic exchange and cooperation of higher education institutions.

Improved regulation of the university administration, which must go through two stages: the administrative management of innovative processes entails an increase in administrative efficiency and success.

Also improved the credit risk management system of private institutions of higher education by recognizing the targeted nature of the use of credit funds and the quasi-community of educational services aimed at improving the work of private educational institutions and the quality of teaching, consists of five levels and is able to provide an effective mechanism for reducing a high degree of risk, which in the future will contribute to the economic growth of the territories in the future.

Further development theoretical principles of creating an effective management system for innovative processes in institutions of higher education, which are based on the main theories of management and provide for their synergistic influence due to considering the size of the educational institution, the distribution of subjects and disciplines, the formation of an organizational system with effective control and coordination at lower levels in order to realize differences between the needs of human capital and the dynamism of the development of economic systems for the development of educational institutions and society as a whole.

Further development methodological approaches to the construction of an effectively functioning system of evaluation of research projects with an innovative focus in higher education institutions based on the use of the Delphi expert evaluation method by selecting 6 indicators of the first level and 20 indicators of the second level, among which the educational technologies occupy the largest share, scientific research achievements are in second place, and educational technologies are in third place.

4. Practical significance of the results of the dissertation.

The scientific significance of the research results lies in the resolution of an important scientific and applied research on the process of management of innovative processes in higher education institutions.

The practical significance of the results obtained in the work lies in the applied application of the proposed complex of methodological principles and applied

proposals in the process of management of innovative processes in higher education institutions. Separate research subjects are recommended for implementation in the activities of Sumy National Agrarian University and Sumy College of Sumy National Agrarian University.

5. The main results obtained personally by the author.

The dissertation is a complete scientific work. His manuscript contains a complete set of structural elements corresponding to the established requirements: abstract, introduction, three sections, conclusions, list of used sources, appendices. The total volume of work is 202 pages. The work contains 36 tables and 10 figures. The list of used literature includes 187 sources.

In the first chapter «*Theoretical and methodological basis management of innovative processes in higher education institutions*» the innovation direction of the university management system under the guidance of the scientific development; the evolution of scientific development concept on the innovative nature of the university management system and modern theories of management of innovative processes in higher education institutions was considered.

In the second chapter «*Analysis of the current state of management of innovative processes in a higher educational institution*» the issue of the peculiarities of state financial support for the development and management of innovative activities of educational institutions, modeling of the success of the development of educational institutions, the marketing and promotion of intellectual services based on the micromedia model as a component of innovative processes in higher education institution.

The third chapter «*Future trends of innovative processes in a higher educational institution*» considers the issue of the strategy of using artificial intelligence as a basis for introducing innovations in the management and development of a higher educational institution, risk management of credit projects in a higher educational institution, and innovations in the management of human resources of higher educational institutions based on the Delphi method.

In terms of content, structure and design, the dissertation fully meets the requirements of the Ministry of Education and Science of Ukraine. The work is written in English, which does not contradict Article 22 of the Law of Ukraine «On Ensuring the Functioning of the Ukrainian Language as a State Language».

An analysis of the plagiarism check report for the presence of textual borrowings (Strike plagiarism program) was carried out. The reviewers concluded that the dissertation work Fu Yanjun on the topic «Management of innovative processes in higher education institutions» is the result of independent research of the recipient and does not contain elements of plagiarism and borrowing in accordance with the resolution of the CMU dated 12.01.2022 No. 44, paragraph 9. Used ideas, results and texts of other authors have a link to the corresponding source.

6. Number of scientific publications.

The scientific provisions of the dissertation work were published by the author in 12 scientific works, of which 2 articles were published in a scientific specialist publication included in the Scopus/WoS database, and 2 articles were published in specialized publications of Ukraine.

List of publications.

1. **Fu Yanjun**, Mykhaylo Heyenko. Analysis of regional differences in government funding performance in higher education – A case study of China. *Investment Management and Financial Innovations*. 2022. № 19(1). P. 106-120. DOI: [http://dx.doi.org/10.21511/imfi.19\(1\).2022.08](http://dx.doi.org/10.21511/imfi.19(1).2022.08) (the author collected data, considered China's experience in state support for the development of higher education institutions)

2. **Fu Yanjun**, Mykhaylo Heyenko. Strategy of marketing and promotion of knowledge services in university libraries from the perspective of micro media: Evidence from China. *Innovative Marketing*. 2022. №18(1). P. 23-37. DOI: [http://dx.doi.org/10.21511/im.18\(1\).2022.03](http://dx.doi.org/10.21511/im.18(1).2022.03) (the author collected data, considered China's experience in forming the marketing strategy of libraries of educational institutions)

3. **Fu Yanjun**. Modern financing tools and their riskiness in the context of innovative directions of development of educational institutions. *Ukrainian Journal of Applied Economics and Technology*. 2022. Volume 7. № 4, pp. 321 – 326. : <https://doi.org/10.36887/2415-8453-2022-4-49>

4. **Fu Yanjun**. Theoretical and methodological bases of the introduction of innovations in the management system of educational institutions. *Ukrainian Journal of Applied Economics and Technology*. 2022. Volume 7. № 3, pp. 311 – 317. : <https://doi.org/10.36887/2415-8453-2022-3-45>

5. **Fu Yanjun**, Mykhaylo Heyenko. University Management Innovation: A Study on the Correlation between University Teachers' Job Burnout and Social Support. *International Journal of Education and Management*. 2022. Vol. 7(1). P. 115-118. (the author considered the issue of social support of university teachers)

6. **Fu Yanjun**, Heyenko Mykhaylo, Wenxi Zhang, Yuanyuan Xia and Lichen Niu. Research on the Promotion of Discipline Development by the Innovation of Management System in Chinese Universities – Take artificial intelligence as an example. *Innovation Management and information Technology impact on Global Economy in the Era of Pandemic: Proceedings of the 37th International Business Information Management Association (IBIMA)*. 30-31 May 2021. Cordoba, Spain, 2019. P. 8042-8050. (the author considered the prospects of introducing innovations into the activities of educational institutions, drew conclusions)

7. **Fu Yanjun**, Heyenko Mykhaylo. Research on the influence of China's accounting system reform on university financial management. *Фінансово-*

економічний розвиток України в умовах трансформаційних перетворень : матеріали Міжнародної наук.-практ. конф., ЛТЕУ, 28 березня 2019 р. м. Львів, 2019. С. 123-124. (the author considered the experience of China in the formation of the financial management system in educational institutions)

8. **Fu Yanjun**, Zhang Wenxi. Research on the effect of Chinese higher education on sustainable economic growth. *Стійкий розвиток національної економіки: актуальні проблеми та механізми забезпечення : матеріали III Міжнародної наук.-практ. інтернет-конф., ДонНУЕТ імені Михайла Туган-Барановського, 26 квітня 2019 р. м. Кривий Ріг, 2019, С.239-242. (the author considered the impact of educational institutions on sustainable economic development, drew conclusions)*

9. **Fu Yanjun**. A comparative study of high education in China and Ukraine. *Менеджмент XXI століття: глобалізаційні виклики : матеріали III Міжнародної наук.-практ. конф., Полтавська державна аграрна академія, 23-24 квітня 2019 р. м. Полтава, 2019. С. 407-409.*

10. Lichen Niu, Oleksandr Nazarenko, Zetao Hu and **Yanjun Fu**. Research on Crowdfunding Strategies of Family Farms in China. *Innovation Management and information Technology impact on Global Economy in the Era of Pandemic : Proceedings of the 37th International Business Information Management Association (IBIMA). 30-31 May 2021. Cordoba, Spain, 2019. P. 9353-9359. (the author collected and processed the data)*

11. Lozynska I., Yang H., Zhang W., **Fu Y.** An analysis of 2017 China's education statistics. *Інновації партнерської взаємодії освіти, економіки та соціального захисту в умовах інклюзії та прагматичної реабілітації соціуму : матеріали III Міжнародної наук.-практ. конф., Подільський спеціальний навчально-реабілітаційний соціально-економічний коледж, 19-20 квітня 2019р. м. Кам'янець-Подільський, 2019. С. 219-220. (the author collected and processed the data)*

12. Wenxi Zhang, Inna Lozynska, **Yanjun Fu** and Hongmin Yang. Research on the Contribution of Higher Education to Economic Growth in the Silk Road Economic Belt. *Innovation Management and information Technology impact on Global Economy in the Era of Pandemic : Proceedings of the 37th International Business Information Management Association (IBIMA). 30-31 May 2021. Cordoba, Spain, 2019. P. 2821-2832. (the author considered the influence of educational institutions on economic development, drew conclusions)*

Scientific publications meet the requirements of clauses 8, 9 of the Procedure for awarding the degree of Doctor of Philosophy and canceling the decision of the one-time specialized academic council of a higher education institution, scientific institution on awarding the degree of Doctor of Philosophy (Decree of the Cabinet of Ministers of Ukraine dated January 12, 2022, No. 44). Acquaintance and detailed

analysis of the presented scientific works makes it possible to assert that the elements of scientific novelty, on which the dissertation is positioned, are fully explained in the articles and theses of the reports. The content of the publications, the characteristics of the publications in which they are placed meet the requirements for the publication of the scientific provisions of the dissertation work. Of the scientific works published in co-authorship, only the author's work was used in the dissertation, as indicated in the list of publications. Thus, there are reasons to claim that the dissertation research contains the author's scientific vision regarding the achievement of the set goal and the solution of the specified scientific and applied task.

Remarks and wishes regarding the content.

Alongside the positive evaluation of the research, certain remarks and discussion points, which have a recommendation nature and serve as a basis for scientific discourse, should be highlighted alongside particular provisions, conclusions, and recommendations outlined in the dissertation.

1. While discussing scientific concepts of managing innovative processes in higher education institutions, the author emphasizes the necessity of creating a democratic management system based on democratic participation, decision-making, management, and supervision of personnel, as well as improving staff assessment and remuneration (Section 2.1). The dissertation would benefit significantly from a more detailed analysis of managing innovative processes in leading educational institutions of the world, rather than solely focusing on educational institutions in China.

2. In Section 2.1 of the dissertation, the author focuses on issues of state financial support for innovative development of higher education institutions in China. Positive dynamics in the effectiveness of state financing from 2008 to 2020 are provided on page 81. A detailed analysis of the assessment methodology and factors that determine the high efficiency of state financial support for the innovative development of higher education institutions in China is important.

3. The author proves for the necessity of implementing a dynamic model of marketing promotion of knowledge services in libraries of higher education institutions based on micro-media platforms (page 106). While supporting the development of library services in higher education institutions, it would be advisable to analyze the impact of university libraries on the effectiveness of training specialists in educational institutions and the place of library services in the overall management system of higher education institutions.

4. The author assessed the risk of using credit funds by higher education institutions in China and developed a corresponding risk management system (Section 3.2). The system based on first and second-order indexes, as mentioned on page 141, requires more detailed justification.

5. The dissertation author's investigation into establishing an evaluation system for the scientific research work of teachers based on the Delphi method is particularly interesting from a practical standpoint. The author notes that a panel of 32 experts was selected, which, after three rounds of surveys, narrowed down to 6 first-level indicators and 20 second-level indicators (pages 154-158). However, the author does not describe how the weighting coefficients for each of the first-level indicators (ranging from 0.02 to 0.45) were determined. Additionally, it would be beneficial to provide examples of the implementation of the proposed indicator system.

Nevertheless, these remarks do not alter the overall positive impression of the dissertation, its quality, thoroughness of the research conducted, and generally do not diminish its scientific-practical significance and the value of the theoretical results and practical conclusions obtained.

8. Correspondence of the dissertation to the specialty and profile of the council.

Fu Yanjun's dissertation on the topic «Management of innovative processes in higher education institutions», which was submitted for defense to the specialized academic council for obtaining the degree of Doctor of Philosophy in the field of knowledge – 07 Management and administration, specialty – 073 Management according to its relevance, scientific-theoretical level, main results of justification, main provisions and results published in professional publications, novelty of the production and practical significance, it meets the requirements of the order of the Ministry of Education and Science of Ukraine №40 from 12.01.2017 «On approval of requirements for the preparation of a dissertation» and Resolution of the Cabinet of Ministers of Ukraine dated from 12.01.2022 №44 «On approval of the Procedure for awarding the degree of Doctor of Philosophy and the cancellation of the decision of the one-time specialized academic council of a higher education, scientific institution on awarding the degree of Doctor of Philosophy» with changes introduced in accordance with Resolution of the Cabinet of Ministers №341 21.03.2022. The content of the dissertation correspondence to the passport of the specialty.

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