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UNIVERSITY AS A SYNERGY OF THE ACADEMIC ENVIRONMENT AND THE BUSINESS MODEL

УНІВЕРСИТЕТ ЯК СИНЕРГІЯ АКАДЕМІЧНОГО СЕРЕДОВИЩА ТА БІЗНЕС-МОДЕЛІ

The article analyses the contemporary transformation of universities, which are increasingly combining their academic functions with strategies characteristic of the business environment. The present study examines the impact of reduced budgetary funding, digitalization, and global competition on the evolution of management models in higher education institutions. This text focuses on the processes of knowledge commercialization, technology transfer, fundraising, and marketing within the university sector. The integration of academic and business logics has been demonstrated to be conducive to the sustainable development of universities. However, this integration also poses risks to academic freedom and fundamental research.

Key words: university, business model, financing, fundraising, commercialization.

У дослідженні обґрунтовано, що сучасний університет перебуває в умовах глибокої трансформації, зумовленої одночасною дією зовнішніх (воєнний стан, глобальна конкуренція, цифровізація) та внутрішніх (дефіцит фінансування, зміна освітніх моделей, потреба в інноваціях) чинників. Традиційна академічна модель, заснована на автономії та суспільній місії, вже не забезпечує достатніх можливостей для стійкого розвитку, що сприяє формуванню гібридної – академічно-підприємницької – моделі університету.

Проаналізовано, що скорочення бюджетного фінансування, зокрема у зв'язку з пріоритетним спрямуванням ресурсів держави на оборону, суттєво посилює потребу у диверсифікації джерел доходів закладів вищої освіти. Університети змушені впроваджувати бізнес-орієнтовані інструменти, що включають проектний менеджмент, маркетингові стратегії, комерціалізацію результатів наукових досліджень, партнерство з бізнесом та створення стартап-екосистем. У цьому контексті фандрейзинг та ендавмент-фонди стають ключовими елементами фінансової стабільності та довгострокового розвитку.

Цифровізація є не лише технологічною вимогою, а її механізмом підвищення конкурентоспроможності, прозорості та ефективності управління. Розбудова цифрових платформ, електронних сервісів та систем аналізу даних трансформує університет на кінталт високотехнологічної організації, здатної функціонувати навіть у кризових умовах війни.

Наголошено, що процеси комерціалізації мають не лише переваги у вигляді підвищення інноваційності, фінансової незалежності та зростання привабливості для міжнародних партнерів, але й низку ризиків: загрозу знецінення академічних цінностей, посилення нерівності між факультетами, потенційні конфлікти інтересів та надмірну орієнтацію на прибуткові напрями досліджень. Це зумовлює потребу у виробленні збалансованої політики, що поєднує принципи академічної доброчесності з ефективністю бізнес-моделей.

Узагальнення результатів дослідження дає підстави стверджувати, що вдосконалення управлінських процесів є критично необхідним елементом стратегії розвитку українських

університетів у період війни та післявоєнного відновлення. Перехід до стратегічно орієнтованого, гнучкого та інноваційного управління підвищує адаптивність ЗВО, змінює взаємодію з бізнесом та громадянським суспільством, розширяє можливості міжнародної кооперації та створює підтримка для формування сучасної, конкурентоспроможної та стійкої системи вищої освіти.

Ключові слова: університет, бізнес-модель, фінансування, фандрайзинг, комерціалізація.

JEL Classification: L26, M10

Introduction. In the 21st century, universities find themselves at the intersection of two coordinate systems: the academic mission of knowledge creation and the market logic of efficiency and competition. The classical university was founded on the principles of autonomy, academic freedom, and social responsibility. However, contemporary trends demand that higher education institutions (HEIs) develop entrepreneurial models, diversify funding sources, and actively engage with the market [1].

The situation in Ukraine is further complicated by the state of war, which has led to reductions in government funding, relocation of universities, a decrease in student enrollment, and the need for extensive digitalization. The Ministry of Education and Science has reported that the budgetary expenditure on higher education decreased by more than 18 % in the 2023–2024 period, while defence spending increased by almost 100 %. Consequently, academic institutions find themselves compelled to adapt by incorporating business management methodologies, seeking external investment, and commercializing the outcomes of research and development initiatives.

Analysis of recent research and publications. Analysis of recent research and publications. The transformation of universities into hybrid institutions that integrate academic and business functions has been increasingly studied by both domestic and foreign scholars. Ukrainian researchers who have addressed issues of entrepreneurial development, financial diversification, and management in higher education include I. Petrenko, L. Koval, and T. Hryhorenko. Attention has also been paid to the impact of the ongoing war on the financial sustainability, digitalization, and strategic management of higher education institutions. Foreign scholars examining theoretical and practical aspects of university management, commercialization of research, and entrepreneurial models include H. Etzkowitz, M. Clark, J. Goddard, D. Bell, and R. Clark. Thus, the issue of developing management models that combine academic and business logics in modern universities remains highly relevant.

Formulation of the article's goals. The purpose of the article is threefold: firstly, to analyse the essence of a modern university as a synergy of academic and business models; secondly, to identify the causes of commercialisation, its risks and prospects; and thirdly, to justify the need to improve management processes and digital development strategies for higher education institutions.

Presentation of the main material. The classical model described by J. Newman and K. Jaspers emphasizes the priority of autonomous scientific activity, the formation of critical thinking, and the education of an intellectual elite. The academic environment is not profit-oriented by nature; its key characteristics are freedom of research, openness, and public access to knowledge [2].

Since the second half of the 20th century, the concept of the “entrepreneurial university” has been developing, emphasizing the active economic role of universities—participation in the innovation market, cooperation with business, creation of startups, and active management of intellectual property [3].

Etzkowitz describes the university as an element of a triple helix: state—business—science, where higher education institutions become a source of technological breakthroughs and an element of economic development [4].

Today, there is a hybrid model that combines academic standards with business processes (fundraising, marketing, management, project management). It does not replace academic logic, but complements it with mechanisms for adapting to modern challenges.

The main prerequisite for the business-oriented transformation of universities is the reduction of budget funding.

Financial pressure is a key factor in changing the logic of university management. According to the World Bank (2024), the share of public spending on education in Ukraine fell from 6.2 % of GDP in 2012 to 4.4 % in 2023. The state of war has only widened this gap.

The overall structure of consolidated budget expenditures by functional classification is shown in Fig. 1.

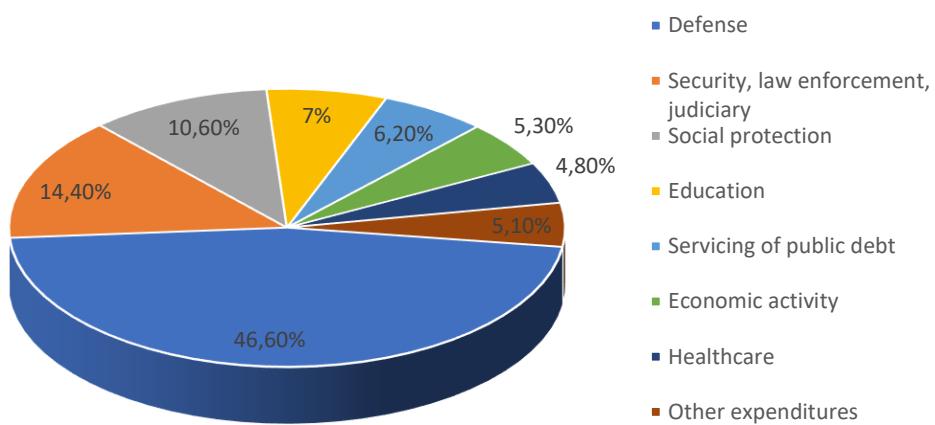


Fig. 1. Overall structure of consolidated budget expenditures in 2024

Source: compiled by the author based on [5]

Compared to 2023, the proportions of expenditures have not changed significantly overall.

In 2024, consolidated budget expenditures on education amounted to UAH 348.4 billion, of which state budget expenditures amounted to UAH 172.0 billion [5].

The disbursement of the funds is outlined as follows:

A budget of UAH 100.9 billion was allocated for the payment of salaries to teachers (educational subsidy), with more than 460,000 teaching staff receiving salaries through the subsidy.

A budget of UAH 46 billion was allocated for the sphere of higher education, including state grants. For the first time, the state provided grants for higher education to 13,000 people, totalling 143.9 million hryvnia from the budget.

The total expenditure was 1.4 billion hryvnia. This was allocated for the publication and purchase of textbooks. As a result of this allocation, 8,944,000 copies of textbooks were published for 7th and 11th grade students, as well as for people with special educational needs. Furthermore, textbooks in Braille were also published.

The financial resources allocated for the construction of shelters in general secondary education institutions amounted to 1.3 billion hryvnia. These funds were earmarked for the construction of shelters in 62 schools located in frontline regions, including Dnipropetrovsk, Zaporizhzhia, Mykolaiv, Odesa, Sumy, Kharkiv, Kherson, and Chernihiv.

The total budget for the programme is 1.1 billion hryvnia, to be allocated towards the provision of meals for one million primary school pupils enrolled in general secondary education institutions.

An additional 1.3 billion hryvnia is earmarked for the implementation of the New Ukrainian School programme, with the objective of enhancing the quality of general secondary education, ensuring its modernity and accessibility.

The total expenditure amounted to 1.0 billion hryvnia, which was allocated for the procurement of 417 school buses.

The financial resources allocated to this initiative amounted to 829.6 million hryvnia. The budget was earmarked for the acquisition of equipment, the establishment and modernisation of canteens (food blocks) within general secondary education institutions. A portion of these funds was

designated for the reconstruction and major repairs of canteens (food blocks) in 173 educational institutions.

The financial provision for the creation of training and practical centres for modern vocational (vocational and technical) education is set at 522.1 million hryvnia, with the objective being the establishment of 88 training and practical centres.

The financial provision for the provision of state support to persons with special educational needs is set at 286.1 million hryvnias. The purpose of this provision is to provide additional psychological, pedagogical, and corrective and developmental services to nearly 48,000 children in various educational institutions.

Thus, only 13.2 % of the consolidated budget allocated to education was spent on higher education.

The dynamics of higher education funding in Ukraine during 2019-2024 are shown in Fig. 2.

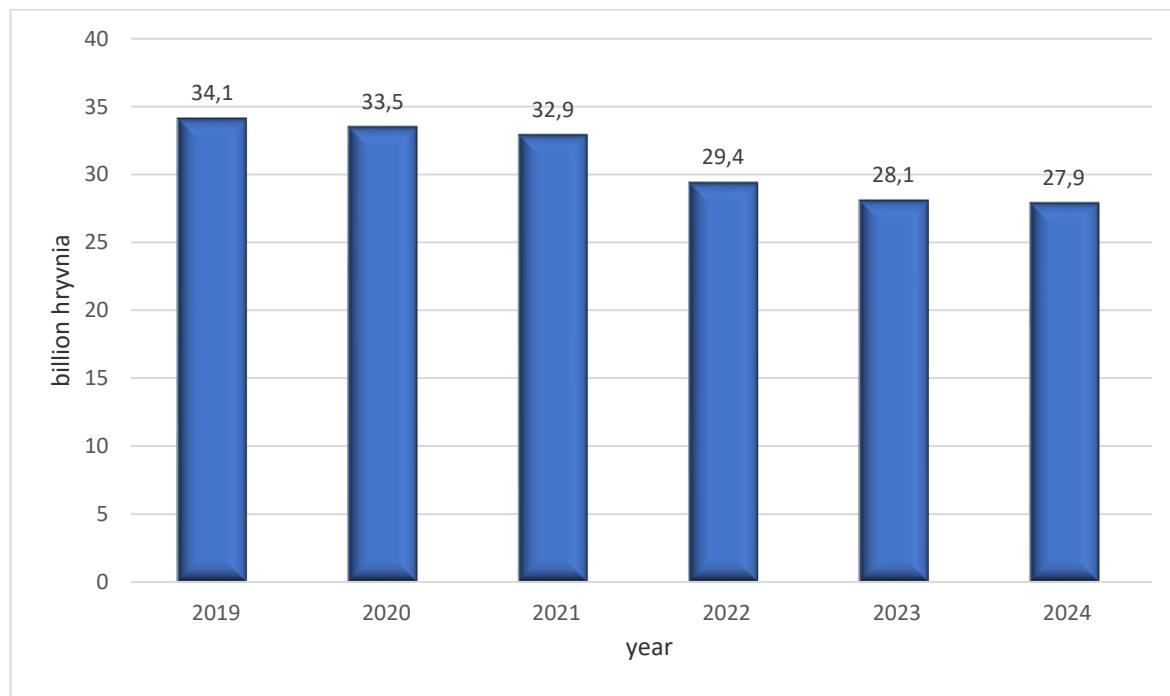


Fig. 2. Dynamics of higher education funding in Ukraine for 2019-2024

Source: compiled by the author based on [5]

Consequently, HEIs are compelled to address the deficit in income by diversifying their financial resources. Diversification can be defined as the practice of not relying on a single source, but rather having several.

In addition to state funding and funds received by the university from contract-based education, the following may be considered: grants from international organisations (Erasmus+, Horizon Europe, USAID, UNDP); business projects, consulting, research funded by companies; paid educational services (short programmes, courses, professional development); donations, charity, patronage; rental of university premises and infrastructure; fundraising campaigns (donors, alumni); university start-ups, commercialisation of intellectual property; joint programmes with foreign universities.

The subsequent prerequisite pertains to the existence of competition within the global and domestic market for educational services. The numerical trend demonstrates a decline in the number of applicants: in 2010, there were over 1.8 million students in Ukraine, and in 2023, this figure was reduced to 1.1 million. This has resulted in a heightened sense of competition among educational institutions for prospective students.

The subsequent phase entails the process of digitisation and the modification of educational models. Following the year 2020, digital technologies were identified as being critical for ensuring continuity of learning. Since 2022, they have been vital in wartime conditions (Smith, 2023).

Digitalization encompasses a range of components, including remote formats, LMS platforms, electronic libraries, digital educational trajectories, and automated management systems.

The fundamental components of digitalisation are illustrated in Fig. 3.

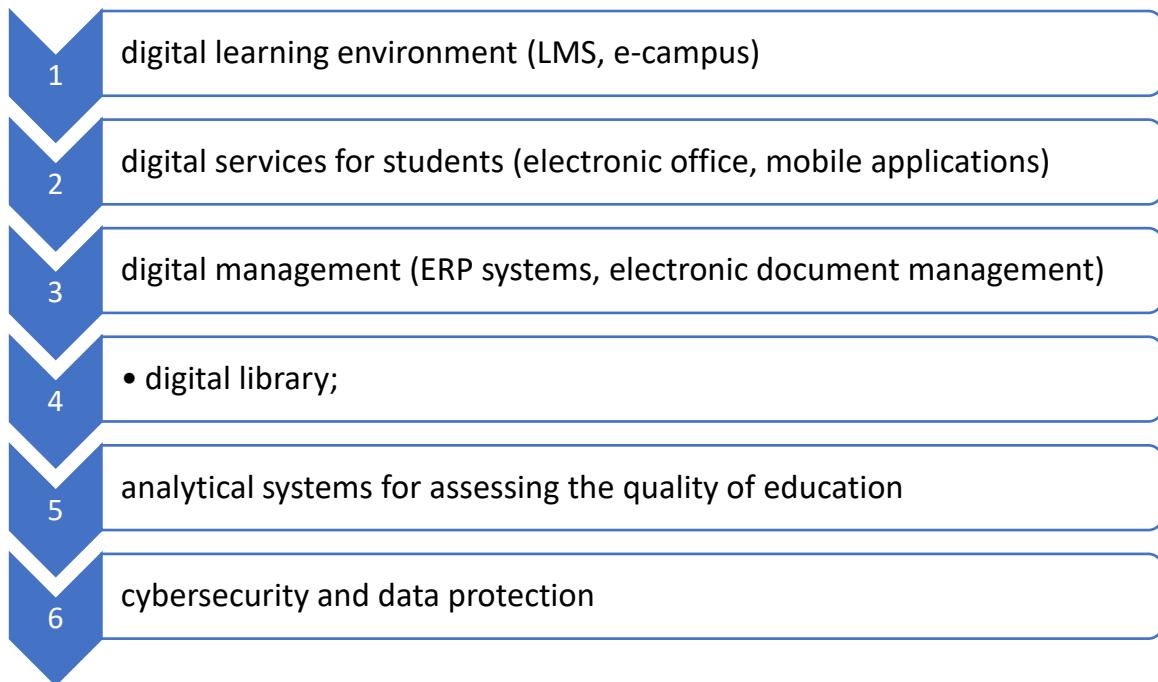


Fig. 3. Structure of the university's digital transformation

Source: compiled by the author based on [1-4]

The advancement of digitalization has resulted in the university's transition towards a high-tech company model, while maintaining its commitment to academic integrity.

Fundraising has emerged as a significant source of financial support. The following elements are encompassed therein:

The following sources of funding may be considered: grants from international organizations; corporate partnerships; charitable contributions; patronage programmes; crowdfunding platforms.

In 2023, more than 62 % of Ukrainian higher education institutions participated in international grant programmes [5].

The integration of fundraising practices within the operations of higher education institutions necessitates the establishment of a comprehensive and long-term policy for the attraction of resources. First and foremost, this encompasses the preparation of high-quality applications and program proposals that explicitly delineate the objectives, anticipated outcomes, and rationale for the necessity of financial support. It is imperative to regard fundraising not as a one-time undertaking, but as an integral component of the university's strategic financial management framework. Concurrently, it is imperative to ensure the professional presentation of projects and to generate interest in them among potential donors, partners, and benefactors. It is equally important to establish effective communication with the public and to identify individuals or organizations willing to provide voluntary financial support based on trust in the institution's mission and values.

The contemporary environment for attracting extrabudgetary resources is characterized by elevated levels of competition and the absence of territorial restrictions: universities compete for grants, charitable contributions, and investments on a global scale. The multi-channel financing mechanism encompasses public and private funds, as well as charitable organizations and the

corporate sector, which collectively constitute a substantial proportion of the financial support for educational and scientific institutions in numerous countries.

The growth in the number of higher education institutions seeking to diversify their financial flows is accompanied by a number of systemic problems. The following challenges have been identified as being of particular significance:

It is evident that the current legislative framework pertaining to tax incentives for philanthropy is inadequate.

A paucity of a philanthropic culture in Ukraine.

An absence of sufficient differentiation between universities.

It is evident that there is a tendency to underestimate the potential of graduates.

The absence of organized, professional fundraising structures is a salient issue.

The present study explores the issue of institutional mistrust between the academic sector and business.

It is evident that endowment funds represent a highly efficacious instrument in the realm of long-term fundraising within the university sector. These funds are accumulated through voluntary contributions or targeted investments, which are strategically allocated to financial instruments with the objective of generating consistent revenue. A salient feature of such funds is that the principal amount of contributions remains untouched, with only investment income being utilised. This approach is intended to ensure the continuity of funding and to facilitate the implementation of long-term development programmes by universities.

It is becoming increasingly evident that universities are registering an increasing number of patents, in addition to creating a growing number of start-ups and licensing their developments. According to the State Intellectual Property Service, in 2022, university patents accounted for 19 % of all patents in Ukraine.

The following forms of commercialization are to be considered: licensing agreements; joint ventures with commercial entities; the provision of consultancy services; the sale of know-how; and student participation in start-ups.

In the contemporary era, the university has evolved into a brand, in addition to its role as an educational institution, and is engaged in a competitive pursuit of reputational capital.

The primary benefits of implementing business-oriented logic in the context of university management can be categorized as follows:

1. The concept of financial stability is of particular relevance in this context. Diversification of income sources is a key factor in reducing reliance on the state budget.

2. It is evident that innovation has been enhanced. The transfer of technology and the establishment of new enterprises have been identified as significant contributors to the development of novel products.

3. The presence of competition in the global market is a key factor in understanding the dynamics of international trade. Marketing and digitalization have been identified as key factors in the increased appeal of higher education institutions to foreign students.

4. The relevance of educational programmes. A collaboration with a commercial enterprise can provide an opportunity to update the content of education.

The risks associated with this process are as follows:

1. This situation constitutes a threat to academic freedom. The process of commercialization has the potential to influence the direction of research, leading to an emphasis on areas that are deemed to be financially viable.

2. The process of education becoming a fungible good. It is evident that students begin to adopt a consumerist mindset, as opposed to that of researchers or citizens.

3. The existence of inequality between faculties is hereby noted. It is evident that the field of applied sciences is receiving a greater proportion of financial resources, while the humanities are experiencing a decline in funding.

4. Conflicts of interest. The execution of commissioned research can be susceptible to the introduction of bias.

It is imperative that universities enhance their management processes, as martial law considerably increases the demand for expeditious decision-making, effective resource utilization, and ensuring operational stability. The repercussions of armed conflict are manifold, encompassing substantial losses with regard to financial, human resource, and infrastructure dimensions. Consequently, higher education institutions are compelled to transition to a more rational, business-oriented management logic, predicated on strategic planning, risk management, and diversification of funding sources. The enhancement of management mechanisms has been demonstrated to engender greater adaptability in higher education institutions in crisis situations. Furthermore, such enhancements have been shown to engender opportunities for the expansion of partnerships, the intensification of fundraising, and the introduction of innovative models for the organization of the educational process. Moreover, a contemporary approach to management has been demonstrated to engender heightened stakeholder confidence, greater transparency of internal procedures, and the establishment of a sustainable competitive position for universities in the education market. This is of critical importance in the period of post-war recovery.

Conclusions. A synthesis of the extant research results indicates that Ukrainian universities are experiencing a period of considerable transformation, precipitated by a confluence of military challenges, budgetary constraints, and mounting demands of the global education market. The integration of business-oriented approaches, the development of fundraising and digital solutions are necessary conditions for increasing the sustainability and competitiveness of higher education institutions. Concurrently, the commercialisation of university activities carries with it inherent risks to academic autonomy and the preservation of scientific priorities, necessitating a balanced management policy. The analysis confirms that the effectiveness of a modern university is determined by its ability to combine its traditional academic mission with innovative management models. Prospects for further research include the study of endowment fund models, mechanisms for university-business interaction in the post-war period, and the development of indicators for assessing the effectiveness of HEI digital transformation. The results obtained can serve as a basis for the formulation of strategies for the development of higher education in Ukraine in conditions of prolonged instability and future reconstruction.

References

- [1] Yurchyshena L.V. (2020) Vyznachennia biznes-modeli universytetu na osnovi syntezu pidkhodiv do biznes modeli pidprijemstva [Definition of the university business model based on the synthesis of approaches to enterprise business models]. *Economics and Organization of Management*, no. 4, pp. 25–34. DOI:10.31558/2307-2318.2020.4.25
- [2] Olesnevych O.M. (2022) Pidprijemnytskyi universytet yak model rozvytku zakladu vishchoi osvity [Entrepreneurial university as a model of higher education institution development] [Electronic resource] // Collection of materials of VI International Scientific and Practical Conference "Strategic Imperatives of Modern Management", October 21, 2022. Kyiv: KNEU, 2022. P. 62-65. Available at: <https://ir.kneu.edu.ua/handle/2010/39051> (accessed: 29 September 2025).
- [3] Olesnevych O.M. (2023) Kontseptualni osnovy formuvannia «pidprijemnytskoho universytetu» [Conceptual foundations for the formation of the "entrepreneurial university"]. *Collection of Scientific Papers "Scientific Notes"*, no. 32(3), pp. 111–128. DOI:10.33111/vz_kneu.32.23.03.10.073.079
- [4] Kazak O.O. (2021) Suchasna kontseptsiia rozvytku pidprijemnytskoho universytetu v Ukrainsi [Modern concept of entrepreneurial university development in Ukraine]. Innovations of higher education of Ukraine and the EU in the modern information society: collection of scientific works. Kyiv, pp. 66–70.
- [5] Ministry of Education and Science of Ukraine. 1.943 billion UAH allocated for financing education and science in 2025. Ministry of Education and Science of Ukraine. Available at: <https://mon.gov.ua/news/1943-mlrd-hrn-vydileno-na-finansuvannia-osvity-i-nauky-u-2025-rotsi> (accessed: 29 September 2025).

[6] Dzhus V.V. (2025) Subiektnist na neortodoksalnykh rynkakh yak konkurentna perevaha pidpryiemnytskoho universytetu [Subjectivity in unorthodox markets as a competitive advantage of the entrepreneurial university]. *Economic Bulletin of NTUU "KPI"*, Vol. 32. DOI:10.20535/2307-5651.32.2025.328550

[7] Gryshyna Y., Pyzhova M. (2022) Upravlinnia zakladom vyshchoi osvity: poshuk efektyvnoi modeli [Management of higher education institution: searching for an effective model]. *Economics and Region*, no. 2(85). DOI:10.26906/EiR.2022.2(85).2623

[8] Radko N., Belitski M., Kalyuzhnova Y. (2023) Conceptualising the entrepreneurial university: the stakeholder approach. *The Journal of Technology Transfer*, Vol. 48, pp. 955–1044. DOI:10.1007/s10961-022-09926-0

[9] Three steps for universities to become entrepreneurial: a case study of entrepreneurial process and dynamic capabilities // *The Journal of Technology Transfer*. 2024. Vol. 49. P. 2035–2055. DOI:10.1007/s10961-024-10099-1

[10] Andriushchenko K., Liezina A., Kuchai O., Petukhova H. (2022) Corporate university as a business accelerator in the field of education. *World*, no. 3, pp. 657–671. DOI:10.3390/world3030036

[11] Zayets S.V. (2023) Pidtrymka studentskoho pidpryiemnytstva v zakladakh vyshchoi osvity: neobkhidnist ta stan realizatsii [Supporting student entrepreneurship in higher education institutions: necessity and state of implementation]. *Transformational Economics*, no. 4. DOI:10.32782/2786-8141/2023-4-7

[12] Tarasenko S.I., Levchuk K.O. (2025) Transformatsiini trendy v osviti ta yikh vplyv na stratehichnyi rozvytok ZVO Ukrayiny [Transformational trends in education and their impact on the strategic development of Ukrainian HEIs]. *Economic Bulletin of Dnipro State Technical University*, no. 1(10), pp. 116-126.

[13] Levchuk K. (2024) Higher education in Ukraine under martial law: challenges and ways of recovery. *Eastern Europe: Economics, Business and Management*, no. 2(43), pp. 87-101.

Список використаної літератури

1. Юрчишена Л. В. Визначення бізнес-моделі університету на основі синтезу підходів до бізнес-моделі підприємства. *Економіка і організація управління*. 2020. № 4. С. 25–34. DOI:10.31558/2307-2318.2020.4.25
2. Олесневич О. М. Підприємницький університет як модель розвитку закладу вищої освіти. Стратегічні імперативи сучасного менеджменту: зб. матеріалів VI Міжнар. наук.-практ. конф., 21 жовт. 2022 р. Київ: КНЕУ, 2022. С. 62–65. URL: <https://ir.kneu.edu.ua/handle/2010/39051> (дата звернення 29.09.2025).
3. Олесневич О. М. Концептуальні основи формування «підприємницького університету». *Collection of Scientific Papers "Scientific Notes"*. 2023. № 32(3). С. 111–128. DOI:10.33111/vz_kneu.32.23.03.10.073.079
4. Казак О. О. Сучасна концепція розвитку підприємницького університету в Україні. *Innovations of higher education of Ukraine and the EU in the modern information society*: зб. наук. праць. К., 2021. С. 66–70.
5. МОН України. 1,943 млрд грн виділено на фінансування освіти і науки у 2025 році. Міністерство освіти і науки України. URL: <https://mon.gov.ua/news/1943-mlrd-hrn-vydileno-na-finansuvannia-osvity-i-nauky-u-2025-rotsi> (дата звернення: 29.09.2025).
6. Джус В. В. Суб'єктність на неортодоксальних ринках як конкурентна перевага підприємницького університету. *Економічний вісник НТУУ «КПІ»*. 2025. Т. 32. № (32). DOI:10.20535/2307-5651.32.2025.328550
7. Gryshyna Y., Pyzhova M. Управління закладом вищої освіти: пошук ефективної моделі. *Економіка і регіон*. 2022. № 2(85). DOI:10.26906/EiR.2022.2(85).2623
8. Radko N., Belitski M., Kalyuzhnova Y. Conceptualising the entrepreneurial university: the stakeholder approach. *The Journal of Technology Transfer*. 2023. Vol. 48. P. 955–1044. DOI:10.1007/s10961-022-09926-0

9. Three steps for universities to become entrepreneurial: a case study of entrepreneurial process and dynamic capabilities. *The Journal of Technology Transfer*. 2024. Vol. 49. P. 2035–2055. DOI:10.1007/s10961-024-10099-1
10. Andriushchenko K., Liezina A., Kuchai O., Petukhova H. Corporate University as a Business Accelerator in the Field of Education. *World*. 2022. Vol. 3, № 3. P. 657–671. DOI:10.3390/world3030036
11. Заєць С.В. Підтримка студентського підприємництва в закладах вищої освіти: необхідність та стан реалізації. *Трансформаційна економіка*. 2023. № 4. DOI:10.32782/2786-8141/2023-4-7
12. Тарасенко С.І., Левчук К.О. Трансформаційні тренди в освіті та їх вплив на стратегічний розвиток ЗВО України. *Економічний вісник Дніпровського державного технічного університету*. № 1 (10). 2025. С.116-126.
13. Levchuk K Higher education in Ukraine under matrial law: challenges and ways of recovery. *Східна Європа: економіка, бізнес та управління*. 2024. №2(43)

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