



UDK 378.018.43:005.642

DOI <https://doi.org/10.32999/ksu2413-1865/2026-115-17>

THE USE OF THE BENCHMARKING METHOD FOR ENHANCING THE PROFESSIONAL TRAINING OF HIGHER EDUCATION STUDENTS

Perminova Liudmyla Arkadiivna,
Doctor of Philosophy (PhD) in Pedagogical Sciences, Professor,
Acting Head of the Department of Pedagogy, Psychology and Educational Management
named after Prof. Ye. Pietukhov

Kherson State University
Lperminova@ksu.ks.ua
orcid.org/0000-0002-6818-3179

Popova Liudmyla Mykolaivna,
Candidate of Pedagogical Sciences (PhD), Associate Professor,
Associate Professor at the Department of English for Engineering 1
National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»
liudmyla.plm@gmail.com
orcid.org/0000-0003-3764-3870

Relevance of the Study. In the context of globalization, digital transformation of society, rapid technological advancement, and Ukraine's integration into the European Higher Education Area, ensuring the high quality of professional training for higher education students has become an increasingly important issue. The growing demands of employers regarding graduates' professional, digital, communicative, and transversal competencies necessitate the search for effective tools to modernize the educational process. One such tool is the benchmarking method, which involves the systematic study, analysis, comparison, and adaptation of best educational practices, professional training models, and management solutions successfully implemented by leading higher education institutions worldwide. The use of benchmarking not only contributes to improving the quality of educational programs but also ensures that learning outcomes correspond to current labor market trends and societal needs. Purpose of the Study. The purpose of this study is to provide a theoretical justification for the use of the benchmarking method to enhance the professional training of higher education students and to determine its potential for improving the quality of the educational process and developing competitive human capital. **Research Methods.** To achieve the research objectives, a combination of general scientific and specialized methods was employed, including analysis, synthesis, comparison, generalization, and systematization of scholarly literature on educational benchmarking; comparative pedagogical analysis of international experience in applying benchmarking technologies in higher education. **Results.** The article clarifies the essence of the concept of educational benchmarking and characterizes it as a strategic educational quality management tool aimed at identifying and implementing best practices in professional training. The main types of benchmarking applicable in higher education are identified, including internal, competitive, functional, and international benchmarking. The stages of the benchmarking process are substantiated, encompassing the identification of benchmarking objects, the search for exemplary practices, data collection and analysis, adaptation of acquired experience, and evaluation of implementation outcomes. The findings indicate that the application of the benchmarking method contributes to updating educational program content in accordance with international standards, improving teaching methods and technologies, fostering practice-oriented education. Furthermore, benchmarking is shown to be an important tool of academic analytics that **supports evidence-based decision-making and promotes the continuous improvement of educational activities.** **Conclusions.** The study demonstrates that the benchmarking method possesses significant potential for improving the professional training of higher education students and enhancing the quality of educational services. Its systematic implementation facilitates the adaptation of educational programs to contemporary challenges, the development of an innovative educational environment, the strengthening of the international competitiveness of higher education institutions, and the preparation of highly qualified specialists capable of functioning effectively in conditions of dynamic socio-economic change. Future research should focus on developing models for integrating benchmarking into internal quality assurance systems and designing methodological tools for assessing its effectiveness in the professional training of future specialists.

Keywords: *benchmarking, educational benchmarking, professional training, higher education students, quality of higher education, educational programs, competency-based approach, transversal competencies, academic analytics, innovative educational technologies, graduate competitiveness.*



ВИКОРИСТАННЯ МЕТОДУ БЕНЧМАРКІНГУ ДЛЯ ВДОСКОНАЛЕННЯ ПРОФЕСІЙНОЇ ПІДГОТОВКИ ЗДОБУВАЧІВ ВИЩОЇ ОСВІТИ

Пермінова Людмила Аркадіївна,
доктор філософії (PhD) у галузі педагогічних наук, професор,
в.о. завідувачки кафедри педагогіки, психології й освітнього менеджменту
імені проф. Є. Петухова

Херсонський державний університет
Lperminova@ksu.ks.ua
orcid.org/0000-0002-6818-3179

Попова Людмила Миколаївна,
кандидат педагогічних наук (PhD), доцент,
доцент кафедри англійської мови технічного спрямування No 1,
Національний технічний університет України
«Київський політехнічний інститут імені Ігоря Сікорського»
liudmyla.plm@gmail.com
orcid.org/0000-0003-3764-3870

Актуальність дослідження. У сучасних умовах глобалізації, цифрової трансформації суспільства, стрімкого розвитку технологій та інтеграції України до Європейського простору вищої освіти особливої актуальності набуває проблема забезпечення високої якості професійної підготовки здобувачів вищої освіти. Зростання вимог роботодавців до рівня професійних, цифрових, комунікативних і трансверсальних компетентностей випускників зумовлює необхідність пошуку ефективних інструментів модернізації освітнього процесу. Одним із таких інструментів є метод бенчмаркінгу, який передбачає систематичне вивчення, аналіз, порівняння та адаптацію найкращих освітніх практик, моделей професійної підготовки та управлінських рішень, що успішно реалізуються у провідних закладах вищої освіти світу. Використання бенчмаркінгу дозволяє не лише підвищити якість освітніх програм, але й забезпечити відповідність результатів навчання сучасним тенденціям розвитку ринку праці та суспільним запитам. Мета дослідження полягає у теоретичному обґрунтуванні можливостей використання методу бенчмаркінгу для вдосконалення професійної підготовки здобувачів вищої освіти, визначенні його потенціалу у підвищенні якості освітнього процесу та формуванні конкурентоспроможного людського капіталу.

Методи дослідження. Для реалізації поставленої мети використано комплекс загальнонаукових і спеціальних методів дослідження, зокрема аналіз, синтез, порівняння, узагальнення та систематизацію наукової літератури з проблем освітнього бенчмаркінгу; порівняльно-педагогічний аналіз міжнародного досвіду застосування бенчмаркінгових технологій у вищій освіті.

Результати дослідження. У статті уточнено сутність поняття «освітній бенчмаркінг» та охарактеризовано його як інструмент стратегічного управління якістю освіти, спрямований на виявлення та впровадження кращих практик професійної підготовки. Визначено основні види бенчмаркінгу, що можуть застосовуватися у вищій освіті, зокрема внутрішній, конкурентний, функціональний та міжнародний. Обґрунтовано етапи реалізації бенчмаркінгового процесу, які включають визначення об'єктів порівняння, пошук еталонних практик, збір і аналіз інформації, адаптацію отриманого досвіду та оцінювання результатів впровадження. Встановлено, що використання методу бенчмаркінгу сприяє оновленню змісту освітніх програм відповідно до міжнародних стандартів, удосконаленню методів і технологій навчання, розвитку практикоорієнтованої освіти. Доведено, що бенчмаркінг виступає важливим інструментом академічної аналітики, підтримує процес прийняття управлінських рішень на основі доказових даних та забезпечує безперервне вдосконалення освітньої діяльності.

Висновки. Встановлено, що метод бенчмаркінгу має значний потенціал для вдосконалення професійної підготовки здобувачів вищої освіти та підвищення якості освітніх послуг. Його системне впровадження сприяє адаптації освітніх програм до сучасних викликів, розвитку інноваційного освітнього середовища, посиленню міжнародної конкурентоспроможності закладів вищої освіти та підготовці висококваліфікованих фахівців, здатних ефективно діяти в умовах динамічних соціально-економічних змін. Перспективи подальших досліджень пов'язані з розробленням моделей інтеграції бенчмаркінгу до систем внутрішнього забезпечення якості освіти та створенням методичного інструментарію для оцінювання ефективності його застосування у професійній підготовці майбутніх фахівців.

Ключові слова: бенчмаркінг, освітній бенчмаркінг, професійна підготовка, здобувачі вищої освіти, якість вищої освіти, освітні програми, компетентнісний підхід, трансверсальні компетентності, академічна аналітика, інноваційні освітні технології, конкурентоспроможність випускників.



Introduction. In the conditions of rapid globalization, digital transformation, and the intensification of international competition in education and the labour market, *higher education institutions* (HEIs) are experiencing profound changes in their missions, structures, and approaches to training future professionals. Modern universities are no longer limited to the transmission of knowledge; they are expected to ensure the development of complex competencies, including critical thinking, problem-solving skills, digital literacy, intercultural communication, and adaptability to changing professional environments. As a result, the issue of improving the quality of professional training of higher education students has become one of the most urgent priorities of contemporary educational policy and pedagogical research.

One of the key challenges faced by higher education institutions today is the growing gap between traditional educational practices and the real requirements of the labour market. Employers increasingly demand graduates who are not only theoretically well-prepared but also capable of applying knowledge in practice, working in interdisciplinary teams, and responding effectively to dynamic professional situations. This discrepancy creates a need for innovative mechanisms of quality assurance and continuous improvement in higher education systems. In this context, benchmarking emerges as a highly relevant and effective methodological approach.

The benchmarking method, originally developed in the field of management and quality assurance, is now widely recognized as a powerful instrument for institutional development in education. It is based on the systematic comparison of educational processes, performance indicators, and learning outcomes with best practices of leading institutions at national and international levels. Unlike simple imitation, benchmarking emphasizes critical analysis, adaptation, and contextual implementation of successful strategies, allowing universities to improve their performance in a structured and evidence-based manner. The novelty of this research lies in the comprehensive pedagogical interpretation of benchmarking as not only a managerial tool but also a didactic and methodological mechanism for enhancing the professional training of higher education students. The study focuses on how benchmarking can be integrated into curriculum design, teaching strategies, and competence-based assessment systems to ensure higher educational quality and better alignment with labour market expectations.

The relevance of the topic is determined by several interconnected factors.

Firstly, the integration of European educational standards within the framework of the Bologna Process requires universities to continuously monitor and improve the quality of education.

Secondly, the increasing international mobility of students and academic staff intensifies the need

for comparability and transparency in educational outcomes.

Thirdly, the rapid development of digital technologies and artificial intelligence reshapes the structure of professional competencies, making continuous benchmarking essential for timely curriculum updates. Finally, global trends in employability and skills mismatch highlight the necessity of systematic approaches to improving professional training in higher education.

The aim of the study is to investigate the theoretical and practical potential of the benchmarking method as a tool for enhancing the professional training of higher education students and to identify effective strategies for its implementation in modern educational practice. To achieve this aim, the following **research tasks** are formulated: to analyze the conceptual and theoretical foundations of benchmarking in the context of education; to determine the pedagogical significance of benchmarking for competence-based training; to explore the stages and mechanisms of benchmarking implementation in higher education institutions; to examine international experiences and best practices in educational benchmarking; to identify the advantages, limitations, and risks associated with its application in academic environments.

The **methodological basis** of the research includes a combination of theoretical and analytical approaches. In particular, the study employs analysis and synthesis of scientific literature, comparative analysis of educational systems, generalization of international best practices, and system-based interpretation of pedagogical processes. A competence-based approach is used to evaluate the impact of benchmarking on student learning outcomes, while a comparative pedagogical approach allows for the identification of effective models of educational quality improvement across different institutional contexts.

Theoretical Substantiation of the Problem

The logic of presenting the material is structured in a coherent and systematic way. First, the theoretical essence and evolution of the benchmarking method are examined. Second, its application in higher education and its role in improving professional training are analyzed. Third, practical stages of implementation and international experiences are considered. Finally, conclusions are drawn regarding the effectiveness of benchmarking and perspectives its further development in the context of modern educational transformation. Overall, the introduction establishes the conceptual framework of the study and highlights benchmarking as a strategic instrument for ensuring sustainable improvement in higher education quality, enhancing student competencies, and strengthening the competitiveness of graduates in the global labour market.

The problem of benchmarking in education has been widely investigated within the broader fields



of educational management, quality assurance, and competence-based learning. Contemporary scholarly discourse emphasizes that benchmarking is not only a managerial instrument but also a pedagogical strategy aimed at improving institutional performance and student outcomes. A significant body of research has been developed by both international and Ukrainian scholars who analyze benchmarking as a mechanism for continuous improvement in higher education.

One of the foundational contributions to benchmarking theory was made by *Robert C. Camp (1989)*, who is considered a pioneer of benchmarking in management science. In his work *Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance*, Camp defined benchmarking as a systematic process of identifying, understanding, and adapting outstanding practices from organizations worldwide. Although originally applied in business, his conceptual model has been widely adapted in educational contexts.

Another influential scholar is *Michael Spendolini*, who developed a structured approach to benchmarking in his work *The Benchmarking Book (2000)*. He emphasized benchmarking as a continuous, systematic process of measuring products, services, and practices against recognized leaders, which has become a methodological basis for educational quality assurance systems.

In the field of higher education, *Bennett, D., Knight, E., & Dockery, A. M. (2020)* contributed significantly to the adaptation of benchmarking for universities, focusing on performance indicators, institutional effectiveness, and student outcomes. Their research highlighted the importance of data-driven comparison among institutions. *Harvey (2006)* is another key scholar in educational quality assurance. He critically examined benchmarking in higher education, arguing that it should not be reduced to simple ranking systems but should serve as a reflective process aimed at institutional improvement and enhancement of learning quality.

Modern educational researchers increasingly connect benchmarking with competence-based education. *John Biggs (1996)* introduced the concept of constructive alignment, which indirectly supports benchmarking principles by emphasizing alignment between learning outcomes, teaching methods, and assessment. His work is essential for understanding how benchmarking can improve curriculum design. These ideas were developed by *Philippe Perrenoud*, who contributed to the development of competence-based approaches in education, highlighting the importance of aligning educational outcomes with real-life professional requirements. His statements are frequently used in studies that integrate benchmarking with professional training systems. *L. Spencer and S. Spencer*, in their competency-based framework, also influenced benchmarking practices by defining

measurable professional competencies that can be compared across institutions and programs.

In the European context, benchmarking is actively studied within quality assurance frameworks developed by the *European Association for Quality Assurance in Higher Education (ENQA)* and the *European Higher Education Area (EHEA)*. Scholars such as *Sursock and Smidt (2010)* analyzed institutional benchmarking as part of European university reforms, emphasizing its role in promoting transparency and quality enhancement.

Recent studies focus specifically on the role of benchmarking in improving professional training. Researchers such as *T. Bjugstad and J. Thach* highlight that benchmarking helps universities identify gaps between academic preparation and labour market expectations. *M. Stensaker* argues that benchmarking contributes to institutional learning by encouraging universities to reflect on their practices and adopt innovative teaching strategies.

In applied pedagogical research, benchmarking is associated with: improving curriculum relevance; enhancing employability skills; developing international competitiveness of graduates; supporting continuous quality improvement in teaching and learning. The analysis of scholarly literature demonstrates that benchmarking in higher education is a multidimensional concept that integrates management theory, pedagogical innovation, and quality assurance practices. International scholars such as Camp, Spendolini, and Harvey laid the theoretical foundation of benchmarking, while European and Ukrainian researchers adapted it to the context of higher education reform. Overall, contemporary research confirms that benchmarking is an effective tool for: improving the quality of professional training; aligning educational programs with labour market demands; supporting competence-based education; enhancing institutional competitiveness in the global academic environment. At the same time, scholars emphasize the need for critical and contextual application of benchmarking to avoid mechanical copying and to ensure meaningful educational improvement.

The development and institutionalization of benchmarking in higher education has been significantly influenced by contemporary scholars and international organizations that shape global educational policy, quality assurance frameworks, and employability standards. Their contributions can be grouped into three main dimensions: *theoretical development, policy implementation, and practical application in universities*.

The growing demands of the global knowledge economy, digital transformation, internationalization of higher education, and rapid changes in labor market requirements have intensified the need for innovative approaches to improving the quality of professional training in higher education



institutions. Within this context, benchmarking has emerged as one of the most effective mechanisms for educational quality enhancement, institutional development, and continuous improvement. The theoretical foundations of benchmarking in higher education are reflected in the works of numerous scholars and international organizations that emphasize quality assurance, graduate employability, organizational learning, international competitiveness, and evidence-based educational management.

One of the most comprehensive analyses of benchmarking in contemporary higher education is presented by Alexander (2020), who examines the transformation of higher education assessment systems under the influence of globalization and increasing accountability requirements. According to the scholar, benchmarking has evolved from a simple comparative evaluation tool into a strategic instrument for institutional development. Alexander argues that higher education institutions increasingly rely on comparative performance indicators to evaluate educational effectiveness, monitor learning outcomes, and identify areas for improvement. The author emphasizes that benchmarking supports evidence-based decision-making by providing reliable data for strategic planning and quality enhancement. Consequently, benchmarking contributes to the development of more effective professional training systems that are aligned with international educational standards.

The relationship between higher education and graduate employability is extensively discussed by Bennett, Knight, and Dockery (2020). Their research demonstrates that contemporary professional training must extend beyond the acquisition of disciplinary knowledge and include the development of transferable competencies required in modern labor markets. The authors identify employability as a multidimensional concept encompassing professional expertise, communication skills, teamwork, critical thinking, adaptability, and lifelong learning capabilities. Their findings indicate that benchmarking graduate outcomes across institutions enables universities to evaluate the effectiveness of educational programs and implement improvements that enhance students' career readiness. Benchmarking, therefore, serves as an important mechanism for aligning higher education curricula with employer expectations and workforce needs.

The theoretical basis for benchmarking in higher education is further strengthened by the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) developed by the European Association for Quality Assurance in Higher Education (ENQA, 2018). The ESG framework establishes common principles and criteria for internal and external quality assurance processes throughout the European Higher

Education Area. The document emphasizes student-centered learning, transparency, accountability, stakeholder involvement, and continuous improvement. By providing common quality standards, the ESG framework enables higher education institutions to benchmark their educational practices against internationally recognized criteria. Such comparisons facilitate the modernization of professional training programs and contribute to the development of comparable and competitive educational systems.

A significant contribution to understanding benchmarking as a developmental rather than merely evaluative process is made by Foster and Jones (2021). The researchers argue that benchmarking should be viewed as a mechanism of institutional learning that enables universities to acquire, adapt, and implement best practices from other organizations. According to their perspective, effective benchmarking extends beyond performance measurement and becomes a catalyst for innovation, organizational development, and educational transformation. The authors emphasize that institutions benefit most when benchmarking encourages reflective practice, collaborative learning, and knowledge sharing among educators and administrators. Such an approach supports the continuous improvement of professional training by facilitating the adoption of innovative pedagogical methods, curriculum designs, and assessment strategies.

The policy dimension of benchmarking is explored by Jungblut, Vukasovic, and Steinhart (2020), who analyze the evolution of quality assurance systems in European higher education. Their research demonstrates that quality assurance has become a central element of higher education governance and policy development. The authors note that benchmarking supports accountability while simultaneously promoting institutional autonomy and continuous improvement. Through comparative evaluation and performance monitoring, universities can identify strengths and weaknesses within their educational systems and implement evidence-based reforms. This contributes to the enhancement of professional training quality and the achievement of strategic educational objectives.

The internationalization perspective is particularly evident in the work of Knight (2021), who identifies globalization as one of the key drivers of educational transformation. Knight defines internationalization as the integration of international, intercultural, and global dimensions into the purpose and functions of higher education. In this context, benchmarking serves as a tool for comparing institutional performance on a global scale and identifying international best practices. The scholar argues that universities must increasingly benchmark themselves against internationally recognized institutions to remain competitive



and prepare graduates for participation in global labor markets. Consequently, benchmarking contributes to the development of internationally relevant professional competencies and intercultural awareness among students.

Ukrainian researchers have also significantly contributed to the development of this topic. Among them: V. Lugovyi (explores higher education quality assurance and emphasizes benchmarking as a tool for improving institutional performance in Ukrainian universities); S. Kalashnikova (studies competence-based higher education and highlights the importance of international comparison and benchmarking for educational modernization); N. Nychkalo (investigates lifelong learning systems and stresses the importance of benchmarking in aligning Ukrainian education with European standards). L. Popova (2026) (concludes that benchmarking contributes to the modernization of higher education by creating opportunities for evidence-based educational improvement). Through the systematic comparison of educational processes and outcomes with recognized best practices, higher education institutions can enhance the quality of professional training and ensure the comprehensive development of future specialists. The author therefore considers benchmarking not merely as a quality assurance instrument but as a strategic pedagogical tool for fostering both professional and transversal competences.

These scholars collectively emphasize that benchmarking is a key mechanism for integrating Ukrainian higher education into the European and global educational space.

The importance of international comparative indicators is further emphasized in OECD publications. The report *Education at a Glance 2023* (OECD, 2023) provides a comprehensive system of educational indicators that allow countries and institutions to compare educational performance, participation rates, funding mechanisms, graduate outcomes, and labor market integration. These indicators serve as benchmarks for evaluating educational effectiveness and identifying opportunities for improvement. Similarly, the OECD report *Benchmarking Higher Education System Performance* (2021) highlights the role of benchmarking as a strategic instrument for assessing institutional effectiveness and supporting evidence-based educational policymaking. The report proposes methodological approaches for comparing educational systems and emphasizes the importance of data-driven decision-making in improving professional training outcomes.

A critical perspective on benchmarking is offered by Stensaker and Harvey (2018), who examine the tension between accountability and improvement within quality assurance systems. The authors distinguish between benchmarking practices aimed primarily at external

accountability and those designed to support internal organizational development. They argue that benchmarking should not be limited to performance measurement but should instead facilitate institutional learning and educational enhancement. This developmental approach enables universities to focus on improving teaching quality, student learning outcomes, and professional training effectiveness rather than merely satisfying regulatory requirements.

Global educational challenges and future directions are addressed in UNESCO's report *Reimagining Our Futures Together: A New Social Contract for Education* (2022). The report emphasizes the need for education systems to respond to societal transformations, technological innovation, sustainability challenges, and increasing uncertainty. UNESCO advocates for lifelong learning, inclusion, social responsibility, and future-oriented competencies. Within this framework, benchmarking provides an important mechanism for identifying innovative educational practices and evaluating their effectiveness in preparing learners for future professional and social roles.

The alignment of higher education with labor market demands is further highlighted in the World Bank report *The Changing Nature of Work and Skills in Higher Education* (2020). The report identifies significant transformations in employment patterns driven by automation, digitalization, and technological advancement. As a result, higher education institutions must continuously adapt their professional training programs to meet emerging workforce requirements. Benchmarking enables universities to compare educational outcomes with labor market expectations and identify competency gaps that require curricular or pedagogical adjustments. Such alignment enhances graduate employability and strengthens the relevance of higher education.

UNESCO (2022) promotes a global vision of education transformation through its report *Reimagining Our Futures Together*. It emphasizes *equity, inclusion, and sustainability* in education. Within this framework, benchmarking is used to: compare educational accessibility and quality globally; support sustainable development goals (SDG 4); encourage international cooperation in education reform. UNESCO thus positions benchmarking as a tool for global educational responsibility, not only institutional competition. The World Bank focuses on the relationship between education and labour market transformation. It promotes benchmarking as a method for analyzing: skills mismatch between education systems and labour market needs; efficiency of higher education investment; workforce readiness. Its reports strongly influence benchmarking practices in developing and transitional economies, including reforms in higher education systems.



Table 1

Comparative Table of European Practices for Benchmarking Professional Training

Country	Key features of professional training	University–employer cooperation	Practical / work-based learning	Main competencies developed	Benchmarking value for Ukrainian HEIs
Germany	Strong dual education tradition; close integration of theoretical and practical training	Highly developed partnerships between HEIs, companies and professional organisations	Extensive internships, apprenticeships and practice-oriented programmes	Professional, technical, problem-solving, teamwork and communication skills	<i>High</i> – model of systematic integration of theory and professional practice
Netherlands	Strongly practice-oriented higher professional education (HBO)	Employers participate in programme development and assessment	Work-based learning is systematically incorporated into professional Bachelor programmes	Professional, digital, entrepreneurial and transferable skills	<i>Very high</i> – model for integrating employers into curriculum design
France	Increasing use of apprenticeship and alternance models in higher education	Formal partnerships between universities, companies and professional sectors	Apprenticeships, internships and alternating study/ work models	Professional competences, adaptability, autonomy and employability	<i>High</i> – useful model of alternating academic and workplace learning
Finland	Competence-based and student-centred higher education	Strong cooperation with regional employers and organisations	Projects, internships and workplace-oriented assignments	Problem-solving, innovation, collaboration, digital and entrepreneurial skills	<i>High</i> – model for competence-based curriculum and project learning
Denmark	Practice-oriented education and strong labour-market orientation	Close cooperation between educational institutions and employers	Internships, practical projects and workplace learning	Professional, social, communication and entrepreneurial competencies	<i>High</i> – useful for strengthening labour-market relevance
Austria	Strong vocational and dual-training traditions	Extensive cooperation with enterprises and professional bodies	Long-term and paid work-based learning is common	Technical, professional and practical skills	<i>High</i> – model for combining education with employment
Estonia	Practice-oriented professional higher education	Structured cooperation between professional HEIs and employers	Work-based learning is integrated into professional programmes	Digital, professional, entrepreneurial and transferable skills	<i>Very high</i> – relevant for digitalisation and flexible professional training
Sweden	Student-centred and competence-oriented education	Cooperation with employers and public-sector organisations	Internships, projects and workplace-based assignments	Critical thinking, independence, collaboration and innovation	<i>High</i> – model for student autonomy and transferable skills
Ireland	Strong emphasis on employability and skills development	Universities cooperate with industry and professional organisations	Internships, placements and industry projects	Employability, communication, digital and professional skills	<i>High</i> – useful for employability-oriented curricula



The reviewed literature demonstrates that benchmarking constitutes a multidimensional concept that integrates principles of quality assurance, organizational learning, employability development, internationalization, and evidence-based management. The collective contributions of these scholars and organizations establish benchmarking as an effective mechanism for enhancing the professional training of higher education students. By facilitating the identification and adaptation of best practices, benchmarking supports continuous educational improvement, strengthens institutional competitiveness, promotes graduate employability, and contributes to the overall quality and effectiveness of higher education systems.

The comparative analysis of European higher education practices makes it possible to identify three countries that can serve as important benchmarks for improving the professional training of higher education students: *the Netherlands, Germany, and Finland*. Each country demonstrates a specific approach that can be adapted to the Ukrainian higher education context.

The Netherlands can be considered a benchmark for *university–employer cooperation*. Professional higher education institutions actively involve employers in curriculum development and provide students with opportunities for work-based learning, internships, and practice-oriented projects. This approach ensures a closer connection between educational outcomes and labour-market requirements. Germany represents a benchmark

for *dual and work-based education*. Its model combines theoretical preparation with systematic practical training in professional environments. Such integration enables students to apply academic knowledge, develop occupational skills, and gain professional experience before graduation. Finland provides a benchmark for *competence-based and student-centred learning*. Its educational practices emphasise students' autonomy, problem-solving, project work, collaboration, innovation, and transferable skills. This approach contributes to the development of graduates' adaptability and employability.

Thus, the three models complement each other: *the Netherlands – cooperation with employers; Germany – integration of theory and practice; Finland – competence-based and student-centred learning*. Their key principles can be used as benchmarks for evaluating and improving professional training in Ukrainian higher education institutions.

The benchmarking analysis demonstrates that the most effective European approaches to professional training share several common characteristics: close cooperation between higher education institutions and employers, systematic work-based learning, competency-based curricula, project-oriented education, career guidance, digital skills development and continuous assessment of graduate employability. The experience of the Netherlands, Germany, Finland, Denmark, Estonia and other European countries may therefore serve

Table 2

The Main Indicators of the Benchmarking Model

Benchmarking indicator	Best European practice	Possible indicator for Ukrainian HEIs
Work-based learning	Systematic integration into curricula	% of students completing professional practice
Employer involvement	Employers participate in curriculum development	% of programmes developed/revised with employers
Internships	Long-term and professionally relevant placements	Average duration of internship
Dual education	Combination of academic study and employment	Number/% of students in dual programmes
Competency-based education	Learning outcomes linked to occupational standards	% of programmes using competency-based learning outcomes
Project-based learning	Real-world projects commissioned by employers	Number of employer-based student projects
Career guidance	Individual career planning and support	% of students receiving career counselling
Graduate employability	Monitoring employment and career trajectories	Employment rate 6–12 months after graduation
Employer feedback	Regular assessment of graduate competencies	Frequency of employer surveys
Digital competencies	Integration of digital technologies into professional training	% of programmes with digital competency components
International mobility	Erasmus+ and international placements	% of students participating in mobility
Continuous improvement	Regular comparison with national/international benchmarks	Frequency of programme benchmarking

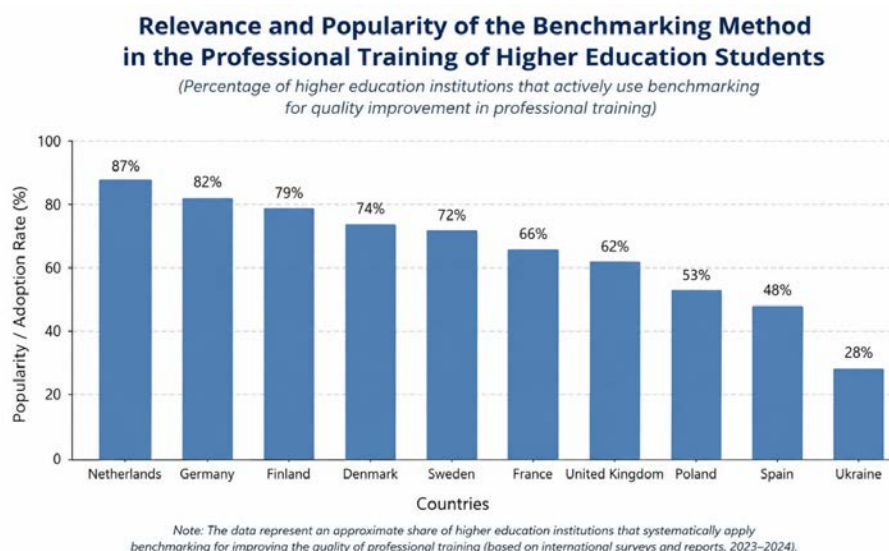


Fig. 1. Estimated level of benchmarking adoption in higher education institutions across selected European countries and Ukraine

as a reference framework for improving professional training in Ukrainian higher education institutions.

Conclusion. Benchmarking should not be understood as the direct transfer of foreign educational models; rather, it should be used as a systematic method for identifying performance gaps, adapting successful practices to the Ukrainian context and establishing measurable targets for institutional improvement. The adoption of benchmarking in universities is the result of a complex interaction between academic research and international policy frameworks. Scholars have developed its theoretical and pedagogical foundations, while global organizations have institutionalized it as a key instrument of quality assurance and educational modernization. Today, benchmarking functions not only as a comparative measurement tool but also as a strategic mechanism for continuous improvement, international competitiveness, and alignment of higher education with societal and labour market needs.

Conflict of Interest: The author is the journal's editor-in-chief. To ensure the independence of the editorial process, the manuscript was handled by a designated editor who was not subordinate to the author and had no conflict of interest. The author did not participate in the selection of reviewers, the peer-review process, or the decision to publish the article. The manuscript underwent the standard double-blind peer review process.

REFERENCES

1. Alexander, F. K. (2020). The changing landscape of higher education assessment and benchmarking. *Higher Education Quarterly*, 74(3), 245–262. DOI:
2. Bennett, D., Knight, E., & Dockery, A. M. (2020). Graduate employability and higher education: Past,

present and future. *Higher Education Research & Development*, 39(5), 1011–1026. DOI: <https://doi.org/10.1080/07294360.2019.1705256>

3. Biggs John B. (1966). Enhancing Teaching Through Constructive Alignment Springer Higher Education <https://doi.org/10.1007/BF00138871>

4. Camp, R.C. (1989). “Benchmarking: the search for industry best practices that lead to superior performance” Quality Press, Quality Resources, p. 299

5. European Association for Quality Assurance in Higher Education. (2018). *Standards and guidelines for quality assurance in the European Higher Education Area (ESG)*. ENQA. URL: <https://www.enqa.eu/publications/esg/>

6. Foster, M., & Jones, P. (2021). Benchmarking in higher education: From performance measurement to institutional learning. *Studies in Higher Education*, 46(9), 1872–1885. DOI: <https://doi.org/10.1080/03075079.2020.1744121>

7. Jungblut, J., Vukasovic, M., & Steinhardt, I. (2020). Higher education policy dynamics and quality assurance in Europe. *European Journal of Education*, 55(3), 350–365. DOI: <https://doi.org/10.1111/ejed.12392>

8. Knight, J. (2021). Internationalization of higher education: New directions, new challenges. *International Higher Education*, 105, 3–5. DOI: <https://doi.org/10.6017/ihe.2021.105.12334>

9. OECD. (2021). *Benchmarking higher education system performance*. OECD Publishing. URL: <https://www.oecd.org/education/>

10. OECD. (2023). *Education at a glance 2023: OECD indicators*. OECD Publishing. URL: <https://www.oecd.org/education/education-at-a-glance/>

11. Popova, L., (2026). Applying of the Benchmarking Method in the Process of Developing Transversal Competences of Future Specialists in Higher Educational Institutions/Педагогічна освіта: теорія і практика. Психологія. Педагогіка. № 45 (1). С. 22–28. DOI: <https://doi.org/10.28925/2311-2409.2026.453>



12. Stensaker, B., & Harvey, L. (2018). Accountability or improvement? The changing role of benchmarking in higher education. *Quality in Higher Education*, 24(1), 1–15. <https://doi.org/10.1080/13538322.2018.1429074>

13. Spendolini Michael J. (2000) *The Benchmarking Book*. AMACOM, 2000. P. 248

14. UNESCO. (2022). *Reimagining our futures together: A new social contract for education*. UNESCO Publishing. URL: <https://unesdoc.unesco.org/>

15. World Bank. (2020). *The changing nature of work and skills in higher education*. World Bank Group. URL: <https://www.worldbank.org/education>

Стаття поширюється на умовах
ліцензії відкритого доступу CC BY 4.0



Дата першого надходження статті до видання: 03.08.2026

Дата прийняття статті до друку після рецензування: 02.09.2026

Дата публікації (оприлюднення) статті: 26.10.2026