



UDC 339.138:004

CUSTOMER EXPERIENCE: THE IMPACT OF DIGITAL COMMUNICATIONS ON THE PERCEPTION OF HIGHER EDUCATION

Yana Kryvych

Sumy State University,
Sumy, Ukraine
ORCID: 0000-0002-3401-0878

Yevheniia Ziabina

Sumy State University,
Sumy, Ukraine
ORCID: 0000-0003-0832-7932

Mykyta Istomin

Sumy State University,
Sumy, Ukraine
ORCID: 0009-0000-4538-7411

Summary. The article explores customer experience as a strategic factor shaping the perception and competitiveness of higher education institutions in the context of digital communications. The study analyzes contemporary scientific approaches to understanding digital communication channels and their role in building relationships between universities and stakeholders. Particular attention is devoted to clarifying the essence and structural components of customer experience in the higher education environment, as well as to identifying the key digital touchpoints that influence trust, engagement, and satisfaction. The research is based on a comparative assessment of the digital ecosystems of the TOP-5 Ukrainian universities according to the «TOP-200 Ukraine 2024» ranking. The study evaluates institutional websites, social media presence, content strategies, international positioning, and the level of digital innovation. A weighted system of indicators is applied to calculate an integral competitiveness index, enabling a systematic measurement of the effectiveness of digital communication channels from the perspective of customer experience management. The findings demonstrate that universities with integrated digital platforms, interactive services, and consistent content strategies achieve higher levels of perceived accessibility, usability, and loyalty among users. The article substantiates that effective governance of digital customer experience contributes to strengthening institutional reputation, expanding international visibility, and creating sustainable competitive advantages. The results emphasize the necessity of continuous monitoring and strategic coordination of digital channels as a core management function in higher education. The proposed analytical framework may serve as a practical tool for universities seeking to improve digital engagement and adapt to the evolving expectations of modern learners and global educational markets. Furthermore, the study highlights the growing importance of data-driven decision-making in optimizing digital touchpoints and personalizing communication strategies. It argues that the integration of analytical tools and feedback mechanisms enhances responsiveness to stakeholder needs and supports long-term institutional development. The research contributes to the theoretical advancement of digital customer experience management in higher education while offering practical recommendations for strengthening universities' strategic positioning in the global educational environment.

Key words: customer experience, digital communications, higher education institutions, digital competitiveness, digital touchpoints.

Received 16.02.2026

Accepted 01.03.2026

Published 25.06.2026

УДК 339.138:004

КЛІЄНТСЬКИЙ ДОСВІД: ВПЛИВ ЦИФРОВИХ КОМУНІКАЦІЙ НА СПРИЙНЯТТЯ ВИЩОЇ ОСВІТИ

Яна Кривич

Сумський державний
університет, Суми, Україна

Євгенія Зябіна

Сумський державний
університет, Суми, Україна

Микита Істомін

Сумський державний
університет, Суми, Україна

Резюме. Досліджено клієнтський досвід як стратегічний чинник формування сприйняття та конкурентоспроможності закладів вищої освіти в умовах цифрових комунікацій. Проаналізовано сучасні наукові підходи до розуміння цифрових комунікаційних каналів та їхньої ролі у вибудовуванні

взаємовідносин між університетами та стейкхолдерами. Особливу увагу приділено уточненню сутності та структурних компонентів клієнтського досвіду у сфері вищої освіти, а також визначенню ключових цифрових точок взаємодії, що впливають на довіру, залученість і задоволеність. Дослідження ґрунтується на порівняльному оцінюванні цифрових екосистем ТОП-5 українських університетів відповідно до рейтингу «ТОП-200 Україна 2024». Оцінено офіційні вебсайти, присутність у соціальних мережах, контент-стратегії, міжнародне позиціонування та рівень цифрових інновацій. Для розрахунку інтегрального індексу конкурентоспроможності застосовано зважену систему показників, що забезпечує системне вимірювання ефективності цифрових каналів комунікації з позиції управління клієнтським досвідом. Результати дослідження засвідчують, що університети з інтегрованими цифровими платформами, інтерактивними сервісами та узгодженими контент-стратегіями досягають вищого рівня сприйнятої доступності, зручності використання та лояльності користувачів. Обґрунтовано, що ефективне управління цифровим клієнтським досвідом сприяє зміцненню інституційної репутації, розширенню міжнародної видимості та формуванню сталих конкурентних переваг. Наголошено на необхідності постійного моніторингу й стратегічної координації цифрових каналів як ключової управлінської функції у сфері вищої освіти. Запропонована аналітична модель може слугувати практичним інструментом для університетів, які прагнуть підвищити рівень цифрової взаємодії та адаптуватися до змінних очікувань сучасних здобувачів освіти й глобального освітнього ринку. Крім того, підкреслено зростаюче значення ухвалення рішень на основі даних для оптимізації цифрових точок взаємодії та персоналізації комунікаційних стратегій. Обґрунтовано, що інтеграція аналітичних інструментів і механізмів зворотного зв'язку підвищує чутливість до потреб стейкхолдерів і підтримує довготривалий інституційний розвиток. Дослідження робить внесок у теоретичний розвиток концепції управління цифровим клієнтським досвідом у сфері вищої освіти та пропонує практичні рекомендації щодо посилення стратегічного позиціонування університетів у глобальному освітньому середовищі.

Ключові слова: клієнтський досвід, цифрові комунікації, заклади вищої освіти, цифрова конкурентоспроможність, цифрові точки взаємодії.

Дата надходження 02.01.2026

Дата прийняття 01.03.2026

Дата публікації 25.06.2026

Problem statement. In the context of rapid digital transformation, higher education institutions increasingly compete not only through academic quality but also through the customer experience they create across digital communication channels. Prospective and current students interact with universities primarily through websites, social media, learning platforms, messengers, and other digital touchpoints that shape their expectations, trust, and overall perception of the institution [1]. Digital communications should therefore be considered a strategic asset that requires systematic design, coordination, and management in the same way as other key institutional resources.

However, many higher education institutions still treat digital communication as a set of fragmented promotional or informational activities rather than as an integrated experience ecosystem. Insufficient attention to the quality, consistency, and personalization of digital interactions often leads to gaps between institutional positioning and actual user experience. This weakens engagement, reduces satisfaction and loyalty, and negatively affects the perceived value of educational services. Despite growing recognition of the importance of customer experience in the service sector, the mechanisms through which digital communications influence the perception of higher education remain underexplored, which limits the ability of institutions to build sustainable competitive advantages and long-term relationships with their stakeholders.

Analysis of recent research and publications. Among the scholars who have devoted their research to the study of digital communication channels, both international and domestic contributions should be highlighted. In particular, among foreign researchers, it is worth distinguishing the works of Comai A. [2], Kisiołek A., Karyy O., & Kulyniak I. [3], Gómez Sierra C. J. [4], Kusumawati A. [5], and Savita G. and Liyaqat B. [9]. Equally, noteworthy are the studies of Ukrainian scholars, in particular [6–8, 11] and others, which

substantially enrich the theoretical and methodological foundations of digital communications research.

At the same time, despite the considerable body of academic literature on the topic, current trends in promoting higher education communities through digital communication channels remain insufficiently explored. This gap in the literature underscores the need for further systematic research in this scientific field. Overall, the growing role of digital environments in shaping stakeholder perceptions of higher education institutions confirms the relevance of deepening interdisciplinary inquiry into customer experience, communication strategies, and digital engagement models in the educational sector.

Purpose of the study. In the context of digitalization of the educational environment, where higher education institutions invest significant resources in developing digital communication infrastructures and online interaction channels, understanding the nature of customer experience and its influence on institutional perception is becoming increasingly relevant. The formation and maintenance of sustainable competitive advantages through effective management of digital communications and student experience represent a complex task. Therefore, particular importance is attached to clarifying the essence of customer experience in higher education, identifying its structural components, determining the key digital factors that shape stakeholder perceptions, and substantiating the conditions for ensuring effective management of digital communication strategies that strengthen the reputation and attractiveness of higher education institutions.

Statement of the task. The main objectives of the study are: to analyze the official websites of leading Ukrainian universities, including an assessment of their structure, content quality, functionality, and adaptability, based on the TOP-5 institutions in the «TOP-200 Ukraine 2024» ranking; to examine universities' activity in social media by comparing publication frequency, audience reach, and content quality; to evaluate the content strategies of the selected universities, including the use of YouTube, cross-channel content integration, and thematic diversity; to investigate international positioning practices through the use of professional digital platforms for global communication, such as LinkedIn; to assess the level of digital innovation through the implementation of modern technologies, including chatbots, virtual tours, interactive forms, and electronic registration tools; and to develop a comparative ranking of universities in the digital environment according to the defined evaluation criteria.

Statements of the main material of the study. The assessment of the effectiveness of digital communication channels of higher education institutions within this study was carried out based on the latest national university ranking, «TOP-200 Ukraine 2024». The 2024 ranking of Ukrainian universities, compiled using a multi-criteria approach, confirmed the importance of evaluating higher education institutions according to academic research and social indicators. Universities' success in the ranking reflects their ability to adapt to contemporary challenges, including the implementation of the UN Sustainable Development Goals and innovative approaches to teaching and governance [16]. For comparative analysis, the TOP-5 institutions were selected according to this ranking: the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»; Taras Shevchenko National University of Kyiv; Lviv Polytechnic National University; V. N. Karazin Kharkiv National University; and Sumy State University [12–15, 17].

To analyze the digital environment, the study focused on several key dimensions, namely:

- websites: examination of structure, content, and functionality in comparison with other Ukrainian and international universities. The main evaluation parameters included navigation convenience, mobile adaptability, multilingual support, and search engine optimization (SEO);
- social media presence: comparison of activity levels, number of followers, posting regularity, and content quality across social networks (Facebook, Instagram, LinkedIn, Telegram) relative to competitors;

- international positioning: evaluation of the use of platforms for international communication (e.g., LinkedIn) in comparison with other universities;
- innovation: assessment of the implementation of modern digital technologies, such as chatbots, interactive forms, electronic registration systems, and virtual campus tours.

For each competitiveness indicator, weighting coefficients were established (Tabl. 1), determined according to the degree of influence each factor has on the subjective perception of usability, accessibility, trust, and satisfaction.

A university website represents the first and often the most prolonged point of contact between a user and a higher education institution. A structured, adaptive, and user-friendly platform with personal accounts, access to learning materials, and self-service features creates a positive impression and increases loyalty. The website effectively forms the institution's «digital facade».

Social media ensures a continuous emotional connection with the university community. Through social platforms, users receive up-to-date information, answers to inquiries, and exposure to the institution's «human face». These platforms facilitate trust-building and the development of a community around the university brand.

Content oriented toward the interests of target audiences – including video tours, authentic student stories, infographics, and faculty interviews – helps establish value-based engagement, enhances transparency, and increases audience involvement. Clear, honest, and visually appealing content improves satisfaction and supports institutional reputation.

Innovation is expressed through the availability of digital services that significantly increase convenience, reduce time spent on administrative procedures, and create a perception of modernity and technological maturity. This is a critical factor in meeting the digital expectations of younger generations.

International positioning is particularly important for certain stakeholder groups, including international students, research partners, and global donors. The presence of an English-language website and participation in international initiatives strengthen institutional image, although their impact on the everyday customer experience of the average student is comparatively limited.

The total sum of weighting coefficients equals 1.0, ensuring a balanced evaluation of the key components of digital customer experience in the higher education environment.

Table 1. Weighting coefficients of competitiveness indicators in the digital environment*

<i>Areas of comparison</i>	<i>Significance coefficient</i>
Website	0.25
Social Media	0.25
Content Strategy	0.2
International Positioning	0.15
Innovation	0.15
Total	1.0

*Source: compiled by the authors.

Following a comprehensive analysis of the digital environment of the selected universities, the results presented in Table 2 were obtained and an integral competitiveness coefficient was calculated. It should be noted that the evaluation was conducted according to the following scale used by the authors:

- 3 – information fully available;
- 2 – information partially available;
- 1 – minimal amount of information;
- 0 – absence of digital communication channels.

Based on the conducted analysis of the universities' digital environment and taking into account the obtained weighting coefficients of competitiveness indicators in the digital space, an integral competitiveness index of the universities was calculated.

The results of the integral competitiveness index calculation indicate that the leader in the digital environment, from the perspective of customer experience management, is the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» [12], while the second position is shared by Sumy State University and V. N. Karazin Kharkiv National University [17]. The competitive advantages of Igor Sikorsky Kyiv Polytechnic Institute are primarily associated with a well-designed university website and the active implementation of modern interactive technologies, including chatbots, digital registration systems, and virtual campus tours, which significantly enhance usability and user satisfaction.

Table 2. Assessment of the digital environment of the TOP-5 universities in Ukraine and the integral competitiveness index of universities*

Areas of comparison	SumDU		KhNU		KNU		KPI		NU «LP»	
	D	I	D	I	D	I	D	I	D	I
Website	2.8	0.7	3	0.75	2.8	0.7	2.8	0.7	2.8	0.7
Social Media	2.5	0.625	2.7	0.675	2	0.5	2.7	0.675	2.5	0.625
Content Strategy	2	0.4	3	0.6	2	0.4	3	0.6	1	0.2
International Positioning	2	0.3	0	0	0	0	2	0.3	1	0.15
Innovation	3	0.45	3	0.45	2	0.3	1.5	0.225	2.8	0.42
Integral index	2.475		2.475		1.9		2.5		2.095	

*KPI – National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»; KNU – Taras Shevchenko Kyiv National University; NU «LP» – Lviv Polytechnic National University; KNU – V.N. Karazin Kharkiv National University; D – Digital environment assessments; I – Integral competitiveness index.

Source: calculated by the authors.

V. N. Karazin Kharkiv National University demonstrates strong performance through a clear and well-structured website and a content-rich YouTube channel that supports transparent communication and engagement. However, the absence of a LinkedIn presence creates a gap in its international digital communication strategy, which limits its ability to manage customer experience for global stakeholders. Sumy State University reveals substantial potential in shaping a positive customer experience due to its high academic standards, compliance with international benchmarks, developed infrastructure, and active international cooperation. At the same time, institutional challenges such as limited financial resources, talent outflow, and intensified competition from domestic and foreign universities may constrain further digital development.

A more detailed examination of website traffic (Fig. 1) provides additional insights into user engagement patterns.

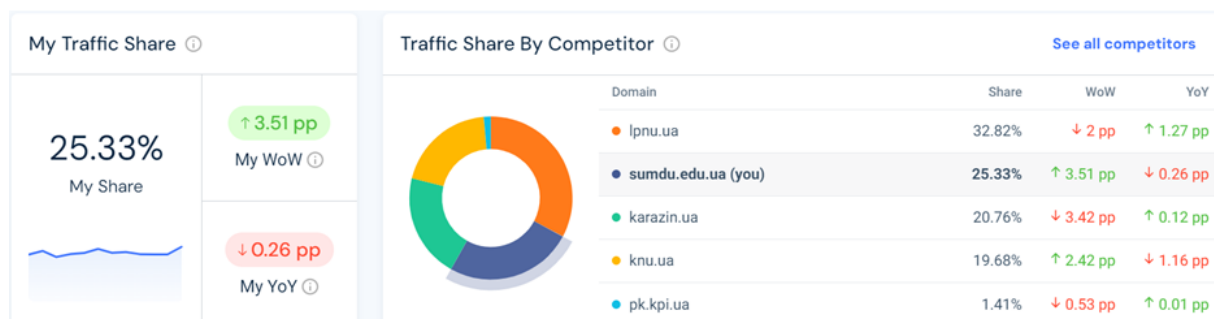


Figure 1. Comparative analysis of the traffic share of the SumDU website and competitors*

*Generated by the authors based on the resource [10].

Lviv Polytechnic National University (lpnu.ua) accounts for 32.82% of total traffic, remaining the leader in traffic share despite a weekly decrease of 2 percentage points. Sumy State

University holds second place with 25.33% and demonstrates positive weekly growth of +3.51 percentage points, indicating increasing user interest. V. N. Karazin Kharkiv National University (karazin.ua) accounts for 20.76% with a weekly decline of 3.42 percentage points. Taras Shevchenko National University of Kyiv (knu.ua) records 19.68%, showing positive weekly growth of +2.42 percentage points but a slight annual decrease of 1.16 percentage points. Igor Sikorsky Kyiv Polytechnic Institute (pk.kpi.ua) represents a comparatively small share of 1.41%, with minimal fluctuations, suggesting stable but limited traffic concentration.

Conclusions. The study confirms that effective management of digital customer experience is becoming a decisive factor in the competitive positioning of higher education institutions. Igor Sikorsky Kyiv Polytechnic Institute emerges as the digital leader due to its integrated website ecosystem and the active adoption of interactive technologies that streamline user journeys. Karazin University distinguishes itself through high-quality multimedia communication but weakens its global customer experience due to insufficient professional networking presence. Sumy State University demonstrates strong alignment with international standards and active cooperation, reinforcing its reputation among external stakeholders.

Overall, the findings highlight the necessity of continuous monitoring and strategic management of digital communication channels as a core component of customer experience governance. Systematic improvement of digital touchpoints enables universities to strengthen trust, increase engagement, enhance perceived service quality, and expand opportunities for international collaboration. In the long term, institutions that treat digital experience as a strategic asset are better positioned to achieve sustainable development and maintain competitive advantage in the global higher education market.

References

1. Dynamika osvity. Tendentsiyi ta prohnozy tsyfrovoho marketynhu vyshchoyi osvity na 2024 rik. [Education Dynamics. 2024 higher education digital marketing trends and forecasts]. Available at: <https://www.educationdynamics.com/higher-education-digital-marketing-trends-and-predictions/> (accessed: 15 December 2025).
2. Comai A. (2024) Faktory, shcho spryayut' ta pereshkody dlya vprovadzhennya tsyfrovoho marketynhu u vyshchyykh navchal'nykh zakladakh Yaponiyi [Enablers and barriers to adopting digital marketing in Japanese higher education institutions]. *Studies in Higher Education*, vol. 49 (9), pp. 1666–1683.
3. Kisiołek A., Karyy O., Kulyniak I. (2022). Kontseptsiya modeli tsyfrovyykh marketynhovyykh komunikatsiy dlya vyshchyykh navchal'nykh zakladiv [The concept of a digital marketing communication model for higher education institutions]. *Intelligent Sustainable Systems: Proceedings of ICISS 2022*. Singapore: Springer Nature Singapore, pp. 75–89.
4. Gómez Sierra C. J. (2020) Vplyv za dopomohoyu instrumentiv tsyfrovoho marketynhu v sotsial'nykh merezhakh ta veb-analityky u vyshchyykh navchal'nykh zakladakh [Impact through digital marketing tools in social networks and web analytics in higher education institutions]. *Materials Science and Engineering Conference Series*, vol. 844 (1), art. 012050.
5. Kusumawati A. (2019). Otsinka roli sotsial'nykh merezh yak dzherela informatsiyi v protsesi pryynyattya rishen' shchodo vyboru vyshchyykh navchal'nykh zakladiv (VNZ) [Evaluation of social media role as an information source in decision-making process of Higher Education Institution's (HEIs) selection]. *Annual International Conference of Business and Public Administration (AICoBPA 2018)*. Atlantis Press, pp. 44–47.
6. Khomenko L., Saher L., Letunovska N., Jasniewski A. (2021) Segmentatsiya yak osnova dlya stratehiy tsyfrovoho marketynhu v sluzhbi krovi: klasternyy analiz dlya klasyfikatsiyi zdorovykh rehional'nykh sub'yektiv [Segmentation as a base for digital marketing strategies in blood service: A cluster analysis for classifying healthy regional subjects]. *E3S Web of Conferences*, vol. 307, art. 03001.
7. Oklander M., Yashkina O., Zlatova I., Cicekli I., Letunovska N. (2024) Tsyfrovyy marketynh u stratehiyakh vyzhyvannya ta zrostantya maloho ta seredn'oho biznesu pid chas viyny v Ukraini [Digital marketing in the survival and growth strategies of small and medium-sized businesses during the war in Ukraine]. *Marketing and Management of Innovations*, vol. 15 (1), pp. 15–28.
8. Letunovska N. Y., et al. (2023). Marketynh u tsyfrovomu seredovyschi [Marketing in the digital environment]. *Sumy State University*.
9. Gupta S., Bashir L. (2018) Anketa vykorystannya sotsial'nykh merezh: rozrobka ta validatsiya v konteksti vyshchoyi osvity Indiyi [Social Networking Usage Questionnaire: Development and Validation in an

- Indian Higher Education Context]. *Turkish Online Journal of Distance Education*, vol. 19 (4), art. 13, pp. 214–226.
10. SimilarWeb (2024) Available at: <https://www.similarweb.com/> (accessed: 15 December 2025).
 11. Solodovnikov S., Bondarenko A., Zhytar M. (2024) Imidzh vyshcheykh navchal'nykh zakladiv: osnovni komponenty ta vyznachal'ni faktory [Image of Higher Education Institutions: Main Components and Determinants]. *Marketing and Management of Innovations*, vol. 15 (2), pp. 162–176. DOI: <https://doi.org/10.21272/mmi.2024.2-12>
 12. Kyyivs'kyy politekhnichnyy instytut imeni Ihorya Sikors'koho [Kyiv Polytechnic Institute named after Igor Sikorskyi] Available at: <https://kpi.ua/> (accessed: 15 December 2025).
 13. Kyyivs'kyy natsional'nyy universytet imeni Tarasa Shevchenka [Taras Shevchenko Kyiv National University] Available at: <https://knu.ua/> (accessed: 15 December 2025).
 14. Natsional'nyy universytet "L'vivs'ka politekhnika" [Lviv Polytechnic National University] Available at: <https://lpnu.ua/> (accessed: 15 December 2025).
 15. Sums'kyy derzhavnyy universytet [Sumy State University] Available at: <https://sumdu.edu.ua/uk/> (accessed: 15 December 2025).
 16. Reytynh universytetiv "TOP-200 Ukrayina 2024" [Ranking of universities "TOP-200 Ukraine 2024"] Available at: <https://osvita.ua/vnz/rating/92375/> (accessed: 15 December 2025).
 17. Kharkivs'kyy natsional'nyy universytet imeni V. N. Karazina [V. N. Karazin Kharkiv National University] Available at: <https://karazin.ua/> (accessed: 15 December 2025).

Список використаних джерел

1. Education Dynamics. 2024 higher education digital marketing trends and forecasts. URL: <https://www.educationdynamics.com/higher-education-digital-marketing-trends-and-predictions/> (дата звернення: 15.12.2025).
2. Comai A. Enablers and barriers to adopting digital marketing in Japanese higher education institutions. *Studies in Higher Education*. 2024. Vol. 49 (9). P. 1666–1683.
3. Kisiołek A., Karyu O., Kulyniak I. The concept of a digital marketing communication model for higher education institutions. *Intelligent Sustainable Systems: Proceedings of ICISS 2022*. Singapore: Springer Nature Singapore, 2022. P. 75–89.
4. Gómez Sierra C. J. Impact through digital marketing tools in social networks and web analytics in higher education institutions. *Materials Science and Engineering Conference Series*. 2020. Vol. 844 (1). Art. 012050.
5. Kusumawati A. Evaluation of social media role as an information source in decision-making process of Higher Education Institution's (HEIs) selection. *Annual International Conference of Business and Public Administration (AICoBPA 2018)*. Atlantis Press. 2019. P. 44–47.
6. Khomenko L., Saher L., Letunovska N., Jasnikowski A. Segmentation as a base for digital marketing strategies in blood service: A cluster analysis for classifying healthy regional subjects. *E3S Web of Conferences*. 2021. Vol. 307. Art. 03001.
7. Oklander M., Yashkina O., Zlatova I., Cicekli I., Letunovska N. Digital marketing in the survival and growth strategies of small and medium-sized businesses during the war in Ukraine. *Marketing and Management of Innovations*. 2024. Vol. 15 (1). P. 15–28.
8. Letunovska N. Y., et al. *Marketing in the digital environment*. Sumy State University. 2023.
9. Gupta S., Bashir L. Social Networking Usage Questionnaire: Development and Validation in an Indian Higher Education Context. *Turkish Online Journal of Distance Education*. 2018. Vol. 19 (4). Art. 13. P. 214–226.
10. SimilarWeb. URL: <https://www.similarweb.com/> (дата звернення: 15.12.2025).
11. Solodovnikov S., Bondarenko A., Zhytar M. Image of Higher Education Institutions: Main Components and Determinants. *Marketing and Management of Innovations*. 2024. Vol. 15 (2). P. 162–176. DOI: <https://doi.org/10.21272/mmi.2024.2-12>
12. Київський політехнічний інститут імені Ігоря Сікорського. URL: <https://kpi.ua/> (дата звернення: 15.12.2025).
13. Київський національний університет імені Тараса Шевченка. URL: <https://knu.ua/> (дата звернення: 15.12.2025).
14. Національний університет «Львівська політехніка». URL: <https://lpnu.ua/> (дата звернення: 15.12.2025).
15. Сумський державний університет. URL: <https://sumdu.edu.ua/uk/> (дата звернення: 15.12.2025).
16. Рейтинг вишів «ТОП-200 Україна 2024». URL: <https://osvita.ua/vnz/rating/92375/> (дата звернення: 15.12.2025).
17. Харківський національний університет імені В. Н. Каразіна. URL: <https://karazin.ua/> (дата звернення: 15.12.2025).