“Strategic management of creative industries: A case study of university information institutions”

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Abstract

The purpose of this paper is to summarize the experience of leading university libraries in attracting and using creative industries implementing strategic management. The study was conducted taking into account the previous experience by analyzing and systematizing the regulatory framework, information, and analytical materials on this issue, and conducting personal interviews with librarians. The results and conclusions were obtained on the example of libraries of seven higher educational institutions of Ukraine, which are included in the QS World University Rankings and the Times Higher Education.

The paper illustrates an extremely unsatisfactory financial situation and insufficient funding for university libraries. But even in such conditions, they are transformed into informational institutions, which not only provide users with a comfortable educational space but also produce innovative information resources and implement creative projects. The most significant projects are analyzed. All seven libraries have development strategies in which their mission is formalized. In three strategies there are no quantitative guidelines for development and, accordingly, the timing of their achievement. In addition, three strategies do not have the understanding of the need for business activities, and their key business processes are not clearly defined. Another three university libraries lack significant international creative projects. Instead, all seven university libraries recognize the need for creative industries and successfully implement creative projects of national importance.

The study emphasizes the need to apply a model of strategic management of creative industries on the example of university libraries.

INTRODUCTION

Practically all over the world, libraries, especially university libraries, have gradually become information institutions, which are a sort of culture conduits. This happened against the background and under the influence of the Internet development, information and communication technologies, globalization of most areas of human activity, movement for open access to knowledge, etc.

Currently, the effective operation of a library is estimated not only by its fund of documents. It also involves the use of fundamentally new opportunities to access information regardless of the time and location of both the document and the user. Libraries make available not only documented knowledge and information stored in their funds and servers. Such libraries move from real space into a virtual one, offering access to information resources belonging to other entities. They also create electronic information resources (databases, collec-
tions of digitized documents, websites, etc.) and provide virtual information search services. They concentrate and distribute information flows (Harahulia, 2014).

New creative industries are transforming traditional, in fact centuries-old, services into a completely new quality of customer service. Such institutions either seek or are forced to take an active part in various international projects and generate creative projects that allow them to meet the challenges of the times, ensure the development of universities and remain competitive on the market of communication and information services.

In developed countries, these processes began long ago and are taking place at an insanely high pace. For example, the United Kingdom has an average period of three years for updating the material base and software of libraries. During this time, spaces are renewed and transformed into more convenient locations where everything encourages people with a creative mindset to create new ideas, transform them into useful models, and later receive professional advice and support for their commercialization.

As for Ukraine, the situation is completely different. It is not just about investing in high-tech equipment, financing the purchase of books and magazines, and access to information databases and resources. There are many obstacles related, for example, to personnel problems with reluctance to accept the very need to, at least, follow the best world practices.

1. LITERATURE REVIEW

Quality education is one of the key areas adopted at the UN Summit on Sustainable Development until 2030 (UN, 2015). Ensuring comprehensive and equitable quality education and promoting lifelong learning opportunities for all is one of the 17 priorities for Ukraine. At the state level, attention is paid to determining the potential for the scientific development of higher education institutions based on assessing indicators of scientific, scientific-educational, scientific-technical, and innovation level, as well as recognition of scientific achievements of institutions.

For the development of science in leading research universities, it is necessary to carry out strategic management of libraries, taking into account both the need to ensure systematic access of creative people to the global scientific information base and the need for modern conditions for creating such information. The issues of using modern mechanisms for organizing the work of university libraries, including the development of strategic plans and taking into account trends in the use of creative approaches in operational processes, are actively discussed by professional librarians, including top managers of such institutions.

The strategic development of university libraries is closely linked to the development of the universities themselves. Unfortunately, today not all universities in Ukraine recognize the need for quality strategic planning (Ponomarenko et al., 2018).

Currently, it is possible to substantiate the need to use effective instruments for forming strategies for the development of university libraries. In particular, Sitnicki (2018a) proposed a model of a digital research university with developed library and information units, which in the future will be the basis for determining the level of international competitiveness of the leaders on the global educational and research market.

Sitnicki (2018b) proposed a creative approach to the network format of development of libraries based on the introduction of the concept of franchising. Serbin and Sitnicki (2018) studied the continuation of the development of new approaches to the strategic management of libraries. New approaches to assessing their effectiveness were proposed and on this basis, the prospects for the development of such information institutions were outlined.

Sitnicki (2020) highlighted the current state and prospects for strengthening the international competitiveness of Ukrainian research universities to ensure their global recognition. The development strategies of research universities of Ukraine including their library and information
departments were analyzed. This laid the foundation for the creation of a comprehensive model of strategic management for the development of creative industries on the example of university information departments.

Brui (2018) presented a case on the implementation of strategic management as a process based on a balanced scorecard in the university library. This approach to strategic management comprehensively outlined the resource base of the library making it possible to focus on the development of its basic potential.

One should mention the international experience of other countries in this matter. For example, Gichohi (2015) studied strategic behavior and practices in academic libraries in 2009-2010 in Kenya. It was found that instability in the library and information branch has led to the need to apply the principles of strategic management in information management. Strategic behavior in academic libraries is rather sluggish, which leads to difficulties in implementing the strategy by management and departments. Measures to involve all stakeholders in the strategic management process can provide an important impetus.

Al Hijji (2014) discussed similar patterns of behavior. A process approach was used to build a multi-level model of the strategic management process for academic libraries, which involves control of the main stages of strategy implementation and its adjustment as a result of deviation from the strategic course.

However, creative entrepreneurship is not only positive for information institutions. Wright et al. (2019) provided examples of the negative impact of non-standard (creative) thinking on strategic management.

The strategic priorities of scientific libraries at research universities and other types of information institutions are formed due to the need for resource provision of the educational process. Xie and Teo (2020) on the example of China outlined the processes that make innovations necessary.

The products that appear in the process of innovative activities cause the emergence of small businesses that are developing around the world around creative entities in libraries. Sinapi (2020) showed the path from the emergence to the commercialization of such startup projects.

The change in the main purpose of university libraries is obvious. Edens and Malecki (2020) noted that libraries have significantly expanded their mission since they provided only traditional scientific services and quiet places to study. Today, academic libraries are increasingly transforming these services and locations and becoming centers of innovation, leaders in supporting entrepreneurial initiatives on campuses. For example, libraries offer house production and co-working spaces, hold events and seminars in an attempt to create an environment that encourages students to collaborate and innovate in new and different ways.

In studying the issues of strategic management of creative industries there is no way to avoid the use of marketing tools, which in itself is also a dynamic force for improving and implementing the work of information institutions.

In the UK, marketing communications play an important role and, as a rule, every information institution has such a specialized department in its structure or uses the services of external marketing consultants to promote their projects on the market and expand the share of library information services on the global information market. The transfer of technologies in universities based on a network approach is widely described by Novikova et al. (2020). Hajdikova and Polanecka (2013) outlined the methods of using marketing technologies in education.

Marketing tools are effectively used not only by traditional methods but also digitally. Kusumawati (2019) revealed modern approaches to the effective use of digital marketing technologies in higher educational institutions.

Peruta and Shields (2018) showed how to organize effective analytics to understand the needs of beneficiaries. Roslan et al. (2019) formed an understanding of data analysis in social networks and their use in the development of entrepreneurship education. Rus-Casas et al. (2020) showed how social networks affect the motivation of students to do business.
In today’s turbulent world management of information flows plays a key role. Horner et al. (2019) raised the issues of strategic management of information flows in universities that produce creative solutions in the space of scientific libraries.

An important manifestation of the effectiveness of creative technologies in the practice of modern libraries at universities is the support and development of start-up movements, organization of mentoring, and introduction of innovations in the educational process. Such features of strategic development are widely discussed. Pano and Gjika (2020) stated that issues addressed by the student audience of research universities are usually socially significant and require systematic support and incubation. Libraries are strategic hubs. They are a bridge between the initial phase of innovation and their diffusion.

Business incubation of student projects is strategically important given the need to lay a solid foundation of the ecosystem where new ideas are generated. This is a kind of investment into the future. Mason et al. (2020) showed what strategic development programs in information departments of universities should be to ensure their sustainable development. First of all, there should be a system for testing technologies and ideas (Kiran & Bose, 2020).

For example, Chinese universities pay considerable attention to innovative ecosystems and invest significant amounts of money into their development (Mei & Symaco, 2020). Probably due to this, the share of Chinese world-class universities in the global architecture of the TOP-25 research universities of the world has increased significantly in recent years.

Trunina et al. (2020) investigated the prospects of academic entrepreneurship in general and their prospects for Ukraine.

According to the Law of Ukraine on libraries and library business, a library is an informational, cultural, and educational institution (establishment, organization) that has an organized fund of documents, access to other sources of information, and the main task of which is to fulfill informational, research, educational, cultural and other needs of users (Verkhovna Rada of Ukraine, 2021). It was adopted in 1995 and its definition has not completely lost its relevance, because here library is considered, on the one hand, as a formal institution that provides access to its documents and other sources of information and, on the other hand, not only as information institution but as educational and cultural one.

That is why in 2016 the Strategy for the development of librarianship until 2025 “Qualitative changes in libraries to ensure sustainable development of Ukraine” was adopted in Ukraine, which provided guidelines for the development of the library and information sphere of Ukraine for a strategic perspective (Verkhovna Rada of Ukraine, 2016).

However, measures to monitor the implementation of this Strategy indicate the transience of the external and internal environment of the industry, which have formed new conditions for the functioning and development of information institutions. The global factor of the COVID-19 pandemic played a particularly important role in the formation of the new order, necessitating a revision of strategic priorities.

Based on this, the purpose of the study is to generalize the experience of the leading Ukrainian information institutions in attracting and using creative industries in the process of implementing strategic management. The main emphasis is placed on university libraries, and the generalization is planned to take into account the processes that take place in world practice. There is a need to develop a model of strategic management for the development of creative industries on the case of university libraries based on the generalization of the best global practices.

2. METHODOLOGY

The qualitative study is conducted by analyzing scientific sources on the problems of strategic management of the development of information institutions and the implementation of their business activities using creative industries. During the study, the content of websites of the leading Ukrainian universities is processed, first of all,
the focus is on such documents as the development strategies of universities and their libraries. An attempt was made to carry out an in-depth analysis and systematization of the content of these documents to identify the understanding of the university library management of strategic planning and the need to take into account the creative industries.

The study investigated 7 universities of Ukraine, which in recent years were included in the QS rankings (QS, 2021) and in World University Rankings (Times Higher Education, 2021), specifically V. N. Karazin Kharkiv National University, Taras Shevchenko National University of Kyiv, National Technical University “Kharkiv Polytechnic Institute”, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, Sumy State University, Lviv Polytechnic National University, and National University of Kyiv-Mohyla Academy.

3. RESULT AND DISCUSSION

At the end of 2020, the network of libraries of higher education institutions, which are part of the methodological association of Ukraine, consisted of 189 information institutions. In 2020, their financial situation (on average) continued to deteriorate. The general fund of libraries is comprised of 110,164,629 copies of various documents, with 1,585,840 users, including 1,075,030 students. The library staff numbered 5,157 (240 employees across the network were laid off during 2020). The number of reading rooms was also reduced by 15 (with 889 remaining). The total area of the premises was also reduced by 4,237 square meters. Ten libraries were not funded for the purchase of new books and periodicals. At the same time, 73 libraries need to be renovated, and 23 of them have rooms in critical condition with a total area of 9,746 square meters.

These indicators are purely formal and characterize the unsightly condition of the material and technical base, the level of personnel, and financial support. Meanwhile, modern challenges and the existing world experience of librarianship encourage Ukrainian libraries to be actively involved in various areas of university activities.

This includes the prospects according to their strategic guidelines.

The analysis of individual development strategies of Ukrainian universities and their library and information departments (Appendices A and B), which have international recognition, has demonstrated the following.

V. N. Karazin Kharkiv National University adopted the university development strategy (V.N. Karazin Kharkiv National University, 2018), which comprehensively takes into account the principles of library development and strategic priorities of the whole university. The peculiarity is that the document is concise and contains several key indicators of the implementation of strategic vision for both the university and its information units. The strategy is enriched with strategic goals for the development of the international activities, which provides the university with leadership positions among Ukrainian higher education institutions in the global rankings of world-class universities.

Taras Shevchenko National University of Kyiv approved a comprehensive document that provides guidelines for strategic progress. (Taras Shevchenko National University of Kyiv, 2018). It provides a set of measures for the transition to an innovative university, which characterizes this university as a research university. In particular, the development of innovations giving a multiplier impetus to the progress of the entire scientific base of the institution. The Maksymovych Scientific Library of Taras Shevchenko National University of Kyiv has its development strategy (Taras Shevchenko National University of Kyiv, 2020), which is focused on providing a favorable space for the implementation of ideas of creative personalities and installation of modern equipment in this space to accelerate the process of approaching the European standards. The library has engaged the leading experts in the management of innovation and investment activities to modernize library and information services and spaces based on the study of the British best practices.

National Technical University “Kharkiv Polytechnic Institute” adopted a strategic development plan (National Technical University “Kharkiv Polytechnic Institute”, 2019), which pro-
vides for the diagnosis of its position in the world, the definition of the mission, and the main indicators of development. This plan is a part of the overall strategy of the university and does not pay full attention to its development.

A positive feature of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” is the intensity of work on the strategy of the university library. This process takes place systematically and is updated following changes in the internal and external environment. The university approved the development strategy of its scientific and technical library (National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, 2021a). This strategy refers to the development of business processes not as a novelty, but as a normal activity. Its main task is its transformation into a comfortable educational space with modern technologies and relevant resources. At the same time a new draft strategy is being discussed (National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, 2021b), which proposes to take into account current trends and prospects. The library has several creative projects and has successfully established its authority among domestic stakeholders. The document that reveals the features of the university strategic management, in general, is the development strategy of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” (National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, 2020). The strategy focuses on the development of fixed assets, intellect, research, and educational activities.

Sumy State University adopted a strategic plan for the development of its library (Sumy State University, 2018), which takes into account the overall analysis of the library potential, diagnosis of its strengths and weaknesses, clearly outlined strategic priorities and organizational action plan for the implementation of the strategy. It is impressive that each strategic priority has its specific goals and actions, which makes the implementation of the strategy realistic. The development of the university as a whole is specified by its strategic development plan (Sumy State University, 2020).

Lviv Polytechnic National University adopted its development program (Lviv Polytechnic National University, 2019), which now systematically reveals ways to achieve key indicators needed to improve the university position in international rankings. The strategic priorities of the library development are indirectly disclosed in the main strategy of the university, which does not make it possible to pay full attention to the library sphere.

National University of Kyiv-Mohyla Academy adopted the strategic plan for the development of the library (National University of Kyiv-Mohyla Academy, 2018). It gives directions to the library development priorities and covers the systemic increase of its main potentials. The development strategy of the university is responsible for its complex development (National University of Kyiv-Mohyla Academy, 2015), which regulates the issues of strategic goals in the field of education, science, internationality, management, and finance.

Considering the reserves of the analyzed strategic documents, it should be noted that there is a dissonance between the strategies of information departments of research universities with the general strategy for the development of the library sphere in Ukraine.

Strategies are written as a plan of dreams of a declarative nature, rather than a specific guide to action, which clearly outlines the timing of strategic guidelines and sources of funding for their implementation.

In their strategic guidelines, not all libraries prescribe clear prospects for the development of international cooperation. This approach, in turn, contradicts the strategic priorities of information institutions and the state strategy of international openness, harmonization, and integration into the European community.

The strategic documents of the past years are copied and new development strategies are re-approved on their basis. As a rule, strategic documents are formed in this way in most universities. This approach is not methodologically correct, because the fundamental principle of forming the strategy of the organization is the preliminary diagnosis of the internal and external environ-
ment of the organization, and then based on the relevant analytical information, strategic, tactical, and operational goals are established and a development strategy to achieve them is formed.

Despite the barriers and difficulties, 130 libraries of higher education institutions participate in the implementation of innovative projects (over 70 projects) that promote the cooperation of information institutions for the formation and implementation of progressive solutions in science, education, and culture. For example, a free online service aimed at prompt answering remote users’ queries related to the search of information is provided in the “virtual help” section of 90 book collections. Exhibitions of new literature and materials are a constant information work to help the scientific and educational processes of higher education. At the same time, many topics are presented on the websites of virtual exhibitions, which are actively used online. Many libraries have an opportunity to allocate a multifaceted communication space for various events of cultural dialogue.

The involvement of creative industries is an important direction in the activity of a modern library. The evidence of this is the participation of libraries in many diverse projects, which in one way or another are characterized as projects of the future in the context of their strategic management. An analytical review of these projects is presented.

The e-VERUM consortium was established in November 2015 by concluding a multilateral agreement (without forming an independent legal entity) by four founders: public association ELibUkr, National Vernadsky Library of Ukraine, Association of users of the Ukrainian scientific and educational network URAN, and Maksymovych Scientific Library of Taras Shevchenko National University of Kyiv.

The main goal of the Consortium is to improve the provision of universities and research institutions of Ukraine with electronic information resources, increase productivity and efficiency of scientists, raise the number of publications in leading scientific journals, and improve the performance of Ukrainian science in international rankings. This leads to the intensification of the exchange of scientific and technical information and provides creative young people with world-class resources and knowledge based on which they create innovative projects.

Electronic libraries are a common phenomenon. For example, ELibUkr – Electronic Library of Ukraine: to create Knowledge Centers in Ukrainian universities – is an innovative project that brings together libraries of higher educational institutions, national libraries, and other organizations in Ukraine. The project aims to provide access to relevant information sources at the global level, create academic resources, as well as integrate Ukrainian science and librarianship into world scientific communication. These resources have become relevant especially in the context of the COVID-19 pandemic and have provided a wide range of users with continuity in creative activities.

Associations of virtual reference services are developing rapidly. ABIS UniLib Users Corporation is an association of virtual reference services for creating abstract and full-text resources, etc. The project operates under agreements on cooperation in various fields of activity with other libraries, organizations, and library collections. This project has great strategic prospects for library and information institutions in the context of data aggregation into a pool of systematized repositories.

Professional information networks are worth mentioning. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions) is a partnership project of university libraries aimed at creating a professional environment (site) for like-minded people to communicate and implement new practices to support research. The philosophy of the project is to share experience, gain knowledge and grow together. The mission of BiblioSynergy is to promote the success of the scientific component of each educational institution and the development of Ukrainian science in general, its integration into the international scientific information space, and strengthening the level of its influence in the world. Project participants are libraries of higher educational institutions and academies of sciences. Libraries are identified that will oversee a separate segment (block) of information voluntarily. The Coordination Council of BiblioSynergy consists of curators of separate segments (blocks).
Such cooperation provides a cumulative effect in the process of exchanging scientific and technical information.

An example of corporate projects is e-Scriptorium (electronic archive of rare publications and manuscripts for science and education). This resource is created by the Central Scientific Library of V. N. Karazin Kharkiv National University. The libraries of Kharkiv National University of Radio Electronics and Kharkiv National Agrarian University named after V.V. Dokuchayev also joined the project. The eScriptorium archive contains complete electronic versions (or fragments) of rare editions and manuscripts and is created for educational and scientific purposes. The electronic versions of the documents placed in the eScriptorium, as well as the originals, are the property of the libraries that provided them. This project is important from the point of view of storage on electronic media of rare publications, the use of which in the original is usually limited.

Given the emergence of different forms of cooperation of libraries, it is relevant to carry out systematization and standardization of the principles of operation. Especially in the context of modern global challenges these information institutions have acquired an important role as a central hub for communication of creative people who develop creative industries without borders.

To ensure the systematic development of this movement, it is necessary to implement strategic management, which will identify the elements of the creative ecosystem in Ukraine and provide a mechanism for its effective functioning. To do this, a model of strategic management for the development of creative industries on the example of university libraries of Ukraine was developed (Figure 1).

Figure 1 shows a model of interaction of the creative ecosystem elements at libraries, which makes it possible to respond to changes and deviations.
in the external and internal environment and ensure the implementation of strategic goals of these organizations. Strategic management should be provided centrally by monitoring the imperatives of the environment and developing appropriate strategies to respond to them with further implementation in the national network.

Figure 1 is characterized by the following features: networking, interconnectedness of elements, systematic approach, cultural diversity, creativity, self-sufficiency, social significance, and managerial synergy.

No one will deny the fact that the use of creative industries fully meets the objectives and goals of a modern library, especially a university library. Absolute progressiveness of such industries and positive results from attracting their capabilities in the context of daily activities are highlighted. With concrete results, librarians transform library services and transform themselves.

However, there is also an opinion about the current transition period from the traditional to the new. Moreover, it is within the framework of this period that it is important to involve the mechanisms of strategic management with the definition of goals and outlining the results.

The analysis of strategic documents of the leading Ukrainian research universities and their libraries showed great differences in strategic approaches to their development. The main problem is the lack of a harmonized vision of the key indicators of libraries of Ukraine, which should ensure the implementation of the overall strategy for the development of the relevant industry in Ukraine.

The isolation of public policy from the strategies of research universities leads to imbalances in strategic management.

This study does not fully pay attention to solving the problem of central cataloging of information institutions, automation of library and information services, and raising the level of digitalization. These are the important issues on which clear strategic guidelines should be given at the state level in the nearest future. In addition, they must be enshrined in official regulations, which will serve as a basis for the institutions to adjust their development strategies.

The lack of a unified vision of strategic development is caused by three main factors:

1) lack of modern expert ecosystem of specialists in strategic management of information institutions;

2) the conflict of generations between the professionals of the traditional library school and the latest creative generation, which creates resistance to technological change;

3) the opposite (lack of a unified) vision of the strategic development of spaces and their filling with modern technological tools of communication of the reader, creative person, librarian, and library.

Prospects for further studies are the search for effective mechanisms for the formation of a modern expert environment to ensure the creation and implementation of a unified state policy of strategic management of information institutions in Ukraine on the basis of creative industries.

CONCLUSION

The goal of the study is to summarize the experience of leading libraries (seven university libraries of Ukraine) in attracting and using creative industries in the process of implementing strategic management. It is established that the dominant trends of strategic development in libraries include: attracting innovative experience in implementing modern technologies in the practice of institutions with traditional services; expanding the range of activities in the context of marketing technologies and approaches to commercialization; carrying out qualitatively new research and conducting appropriate activities aimed at improving the creative industries.
A study of the content of the websites of several best universities in Ukraine (seven universities included in the QS World University Rankings and Times Higher Education were considered) showed that institutions and their libraries have official strategic plans. Most strategies are aimed at shaping the corporate environment of libraries, their philosophy and do not formulate specific goals and measures to implement their mission. At the same time, they implement certain business processes and almost all produce (within these strategies) creative projects. Several state-level projects are implemented jointly by several libraries (e.g., BiblioSynergy, or e-VERUM). As a result, it is necessary to find new creative ideas and bring them to the level of investment projects and mandatory financial support of libraries at a level that would meet modern requirements (not by a leftover principle, but by transferring many centers of university activities to libraries).

AUTHOR CONTRIBUTIONS

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## APPENDIX A

### Table A1. Information about the strategies in leading universities of Ukraine and their libraries

| No. | University                                      | Library strategy                                                                 | University strategy                                                                 |
|-----|-------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1   | V. N. Karazin Kharkiv National University       | Implemented in the university strategy (V. N. Karazin Kharkiv National University, 2018). | Karazin University Development Strategy for 2019-2025 (V. N. Karazin Kharkiv National University, 2018). |
| 2   | Taras Shevchenko National University of Kyiv     | Development program for 2020-2025 (Taras Shevchenko National University of Kyiv, 2020). | Strategic plan for the University development for 2018-2025 (Taras Shevchenko National University of Kyiv, 2018). |
| 3   | National Technical University “Kharkiv Polytechnic Institute” | Implemented in the university strategy (National Technical University “Kharkiv Polytechnic Institute”, 2019). | Strategic plan for development of NTU “HPI” for 2019-2025 (National Technical University “Kharkiv Polytechnic Institute”, 2019). |
| 4   | National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” | Development strategy for 2021-2025 of the scientific and technical library named after H.I. Denisenko of Kyiv Polytechnic Institute (National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, 2021a). | Development Strategy of Kyiv Polytechnic Institute for 2020-2025 (National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, 2020). |
| 5   | Sumy State University                            | SSU Library Development Strategy for 2018-2022 (Sumy State University, 2018).      | Strategic development plan of Sumy State University for 2020-2026 (Sumy State University, 2020). |
| 6   | Lviv Polytechnic National University             | Implemented in the university strategy (Lviv Polytechnic National University, 2019). | The “Lviv Polytechnic – 2025” Development Strategy (Lviv Polytechnic National University, 2019). |
| 7   | National University of Kyiv-Mohyla Academy       | Development Strategy of the National University of Kyiv-Mohyla Academy Scientific Library: 2018-2023 (National University of Kyiv-Mohyla Academy, 2018). | Development strategy (National University of Kyiv-Mohyla Academy, 2015). |
## APPENDIX B

### Table B1. Analysis of strategies of university libraries

| No. | University                                      | Reference to the library management in the university strategy | Presence of mission and/or vision | Availability of quantitative development indicators/ terms of their achievement | Perception of the need for library business processes/ their planning | Examples of creative projects                                                                 | Examples of international cooperation |
|-----|-------------------------------------------------|---------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------|
| 1   | V. N. Karazin Kharkiv National University       | +                                                             | +                                 | +                                                                               | 1. Implementation of modern technologies of personnel management      | 1. Corporate project Book monuments of Ukraine  
http://www.nbuv.gov.ua/node/2425                                                                                       | 1. International project ELibUkr - Electronic Library of Ukraine: creation of Knowledge Centers in Ukrainian universities  
http://www.elibukr.org                                                                                                  | 2. Regional corporate project Metabibliography of the Kharkiv region  
https://korolenko.kharkov.com/proekty-ta-granty/10.html                                                                |...
| 2   | Taras Shevchenko National University of Kyiv    | There is a separate strategy of the library                   | +                                 | –                                                                               | 1. Organization of a food outlet in the main building of the Scientific Library by providing relevant services to the literary cafe BookFood | 2. Consortium e-VERUM  
http://everum.uran.ua                                                                                                     | 1. International project ELibUkr - Electronic Library of Ukraine: to create Knowledge Centers in Ukrainian universities  
http://www.elibukr.org                                                                                                        | 3. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions)  
http://bibliosynergy.ula.org.ua/index.php/pro-proekt                                                                                   | 4. The ‘National Centre for Creative Entrepreneurship Development’ (NCCE), British Council’s ‘Creative Spark: Higher Education Enterprise Programme’.  
http://bibliosynergy.ula.org.ua/index.php/pro-proekt                                                                                   |
| 3   | National Technical University "Kharkiv Polytechnic Institute" | +                                                             | +                                 | –                                                                               | 1. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions)  
http://bibliosynergy.ula.org.ua/index.php/pro-proekt                                                                                   | 1. International project ELibUkr - Electronic Library of Ukraine: to create Knowledge Centers in Ukrainian universities  
http://www.elibukr.org                                                                                                        | 1. Corporate project E-Scriptorium (electronic archive of rare publications and manuscripts for science and education)  
http://escriptorium.univer.kharkov.ua/?locale=uk                                                                                   |
Table B1 (cont.). Analysis of strategies of university libraries

| No. | University | Reference to the library management in the university strategy | Presence of mission and/or vision | Availability of quantitative development indicators/terms of their achievement | Perception of the need for library business processes/their planning | Examples of creative projects | Examples of international cooperation |
|-----|------------|-------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------|-----------------------------------|
| 4   | National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” | There is a separate strategy of the library | + | – | – | 1. Consortium e-VERUM [http://everum.uran.ua](http://everum.uran.ua)  
2. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions) [http://bibliosynergy.ula.org.ua/index.php/pro-proekt](http://bibliosynergy.ula.org.ua/index.php/pro-proekt)  
3. Project Culture of academic integrity: the role of libraries [https://ula.org.ua/255-programi-proekt/3582-kultura-akademichnoi-dobrochesnosti-rol-bibliotek](https://ula.org.ua/255-programi-proekt/3582-kultura-akademichnoi-dobrochesnosti-rol-bibliotek)  
4. Abstract database Scientific Ukraine [http://www.nbuv.gov.ua/node/512](http://www.nbuv.gov.ua/node/512) | – |
| 5   | Sumy State University | There is a separate strategy of the library | + | + | – | 1. Project Culture of academic integrity: the role of libraries [https://ula.org.ua/255-programi-proekt/3582-kultura-akademichnoi-dobrochesnosti-rol-bibliotek](https://ula.org.ua/255-programi-proekt/3582-kultura-akademichnoi-dobrochesnosti-rol-bibliotek)  
2. Consortium e-VERUM [http://everum.uran.ua](http://everum.uran.ua)  
3. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions) [http://bibliosynergy.ula.org.ua/index.php/pro-proekt](http://bibliosynergy.ula.org.ua/index.php/pro-proekt) | – |
| 6   | Lviv Polytechnic National University | | + | + | – | 1. Consortium e-VERUM [http://everum.uran.ua](http://everum.uran.ua)  
2. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions) [http://bibliosynergy.ula.org.ua/index.php/pro-proekt](http://bibliosynergy.ula.org.ua/index.php/pro-proekt) | – |
| 7   | National University of Kyiv-Mohyla Academy | There is a separate strategy of the library | + | – | – | 1. Consortium e-VERUM [http://everum.uran.ua](http://everum.uran.ua)  
2. BiblioSynergy: Supporting Research (partnership project of libraries of higher educational institutions) [http://bibliosynergy.ula.org.ua/index.php/pro-proekt](http://bibliosynergy.ula.org.ua/index.php/pro-proekt)  
3. Public project Digital Library of Kyiv [https://gb.kyivcity.gov.ua/projects/archive/2/show/679](https://gb.kyivcity.gov.ua/projects/archive/2/show/679) | International project ELibUKr – Electronic Library of Ukraine: to create Knowledge Centers in Ukrainian universities [http://www.elibukr.org](http://www.elibukr.org) |