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OPTIMISATION OF CROSS-BORDER PROJECT MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS IN THE CONTEXT OF THE IMPACT OF GLOBAL ECONOMIC CRISES

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Abstract. In today's globalized and interconnected world, the impact of global crises poses increasing risks to the economic situation of each country in particular. The study of cross-border cooperation in the context of current crisis processes allows us to identify new risks and ways to minimize them. The purpose of the study is to analyze ways to optimize the management of cross-border projects in the context of the impact of global economic crises. Scenario planning, SWOT analysis, statistical and mathematical research methods are used in the course of the study. The article discusses the peculiarities of managing cross-border projects on the example of the Precarpathian National University in the context of the impact of global economic crises. Using the example of the university, the author analyzes the implementation of cross-border projects for the period of 2020-2022, which occurred during two crises. The first global economic crisis is caused by the COVID-19 pandemic and the second regional crisis is caused by the war in Ukraine. The risks faced by the grantee in implementing international programs are identified. The study analyzed four different cross-border projects, which made it possible to assess all the risks in more detail and identify existing problems. For a detailed analysis, the medium-sized PrePOD project was selected, which operated from 2020 to 2022 and received an average amount of funding. The strengths and weaknesses of cross-border cooperation were assessed. The study pays special attention to the role of the Precarpathian National University, emphasizing the need for financial risk management, effective communication, compliance with the law, and adaptation of national legislation to European standards. The paper formulates strategies for improving the management of cross-border projects in the context of global crises, and proposes to create research centers to improve the management of grant activities. It has been determined that flexibility and communication are the international factors that can reduce the impact of crisis processes on the implementation of international cooperation.

Keywords: global crisis, cross-border projects, management, university, optimization.

JEL Classification: I 29; O 5

1. INTRODUCTION

Rapid changes in the global economic arena, where Ukraine and other countries face the need to adapt to new challenges, necessitate the study of possible changes to optimize certain economic processes. The Ukrainian economy has been affected by global economic, regional and domestic crises in recent decades. During the previous global crisis in 2008, the country managed to avoid a significant blow to the economy thanks to the effective policy of the President. Domestic crises caused by the

revolutionary phenomena became a catalyst for adaptation to economic fluctuations and opened up new opportunities for entrepreneurs and institutions.

In the crisis period of 2020-2022, Ukraine faced serious challenges: economic stagnation in 2020 and the destruction of infrastructure and a sharp drop in economic activity during the war in 2022. These events forced communities and entrepreneurs to turn to crisis management, which has become the main tool for adapting to unstable conditions.

Despite the challenges posed by constant fluctuations in all spheres of public life, Ukraine continues to cooperate in international projects and develop. In this context, it becomes important to study ways to optimize financial mechanisms for managing international donor funding, especially in cross-border projects implemented during times of crisis. The growing interdependence of countries and regions makes it important to analyze the effectiveness and improve financial strategies for managing international cross-border projects.

This area requires more and more new forms of research, depending on the specificity of the work objectives, because in the general context of project management there is a significant amount of information available, when it is in the area of project management on the basis of a certain type of institution, such as a higher education institution, that research is practically not conducted, which once again shows the relevance of this study.

2. RESEARCH METHODS

The purpose of the study is to research and analyze ways to optimize the management of cross-border projects in the context of the impact of global economic crises. The topic of international cooperation in periods of constant instability is addressed by finding ways to optimize the management of cross-border projects.

In the course of the research, we use a variety of methods such as:

- Analysis of literature and historiography, study of available scientific literature and research on cross-border project management and its optimization. In particular, crisis phenomena, cross-border cooperation, and grant activities were analyzed by such scholars as Zadoya, O. (2020), Yevchak Y., Zardi A., Sanchenko A. (2020), Zakharchenko, V.I. (2022), Oldak, L.Y. (2021), Pavlikha, N. V., & Korneliuk, O. A. (2019), Primostka, L.O. (2020) and others.

- Empirical research collecting and analyzing specific financial data from real cross-border projects implemented at Precarpathian National University to assess their performance and identify possible problems.

- An expert survey of specialists and participants in cross-border projects to collect opinions and advice on optimizing management.

- Creating mathematical models for analyzing financial flows, risks, and optimal resource allocation.

- Use of statistical methods to process and interpret data on financial costs and results of cross-border projects.

- Scenario planning is the development of various scenarios to identify optimal strategies for managing financial resources in the face of global economic crises.

- Case studies of specific cases of successful or unsuccessful management of financial aspects of cross-border projects.

We combine these methods to obtain a comprehensive and detailed understanding of the challenges and opportunities for optimizing cross-border project management in the face of global economic crises.

The study proposes to optimize management personnel, improve the legislative framework, and also suggests the creation of research centers by faculty, where graduate students and teachers will be able to consult with experts on the specifics of implementing a particular grant project, in particular in the context of cross-border cooperation. This study contains prospects for implementation at Precarpathian National University and other universities in the western region of Ukraine.

3. RESULTS AND DISCUSSION

In the context of the impact of global economic crises, it is important to consider the management of the financial mechanism of cross-border projects as a complex and necessary area of activity. The growing interdependence of countries increases the vulnerability of the global economy, and global crises, including economic ones, are accompanied by new political and social challenges.

Economic crises are complex phenomena that arise as a result of the interaction of various factors and can take different forms, affecting all spheres of society. Understanding the nature and dynamics of global economic crises is key to developing strategies for managing and minimizing their consequences, particularly in the context of cross-border cooperation.

The scientific novelty of the results obtained is the acquired assessment of cross-border project management on the example of higher education institutions in the context of global economic crises, strengths and weaknesses are assessed.

Ukraine, using a variety of international resources, opens up wide opportunities for the implementation of cross-border projects. It is important to keep in mind that this process is associated with compliance with the regulatory framework and grantors' requirements, which determines an effective control system.

Effective participation in grant programs requires a thorough understanding of the requirements and specifics of each program, as well as prompt updates of information for successful project submission. For universities participating in cross-border projects, it is important to comply with the legal framework, ensure effective financial control, team coordination, and communication with other university departments.

The problems of adapting national legislation to European standards complicate the development of Euro regional cooperation in Ukraine. Harmonization of legislation is becoming critical for creating a favorable environment and increasing Ukraine's attractiveness to European partners.

In general, successful management of the financial mechanism of cross-border projects requires an integrated, innovative, and flexible approach that takes into account global economic crises and ensures the sustainability and effectiveness of projects in a changing global economic environment. In the context of cross-border projects, the main goal of managing the financial mechanism is to achieve efficient use of resources, ensure sustainability, and fulfill project objectives. This requires a comprehensive approach, taking into account the various aspects and uniqueness of each project. It is important in the study to determine the place of the management staff of higher education institutions during the implementation of cross-border cooperation.

On the example of the Precarpathian National University, where each of the administrative departments plays a key role in the implementation of a cross-border project, facilitating interaction with grantors, ensuring proper documentation, controlling legal aspects, conducting competitive selection and personnel management, assisting in planning and financial management, conducting calculations and accounting, performing procurement processes, and disseminating information about the project.

In general, the successful implementation of cross-border projects and enhancing the university's reputation as a reliable international partner requires taking into account the requirements of grantors, compliance with financial performance standards, and flexibility in responding to changes during the project.

Global crises such as pandemics and war have a significant impact on the implementation of cross-border projects. Due to delays, restrictions, and suspensions of some initiatives, this is a challenge for Precarpathian National University, which must seek adaptation strategies and continue to make progress under adverse circumstances. Accordingly, it is the university, as one of the stakeholders, that should look for ways to complete and implement projects in full. A more difficult task in a crisis is the need to attract more and more additional funding due to budgetary constraints. Thus, the very existence of global crises is prompting Precarpathian National University to increasingly look for areas of

additional development and funding for its strategic goals.

One of the key problems for Precarpathian National University is the instability of financial resources due to sharp fluctuations in funding, which can be caused by the completion of individual projects, as well as geopolitical crises. Due to the significant share of requirements for the formation of cross-border agreements in times of instability, the risks of unfunded projects are growing rapidly, and the university itself bears significant risks associated with this situation.

The main problem caused by the instability of financial resources is the need for the university to make advance payments and wait for the last tranches after the project is funded. A similar risk is the need to pay for the costs of its own co-financing, which is used rather than the main grant funding.

This raises the question of where exactly a state-funded higher education institution can generate sufficient revenue, in addition to its core business, to ensure the implementation of cross-border projects and attract new ones. This complicates planning and requires the university to be flexible in managing its budget not only during a crisis but also under normal operating conditions.

Insufficient adaptation of the regulatory framework to international standards. The absence of an improved and unified regulatory framework creates controversial issues during the implementation of a cross-border project. The need to create a unified legal framework is particularly acute in cross-border projects, when EU countries conditionally cooperate with neighboring countries. A similar problem is the diversity of requirements and forms of cross-border cooperation, although these programs are classified in the same way, each form of cooperation has its own individual requirements. This often complicates the process of attracting new projects not only for new grants but also for experienced grantees.

Among the significant challenges of implementing cross-border projects in the context of global and regional crises, it is worth considering the introduction of new regulations, such as CMU Resolution No. 590 "On Approval of the Procedure for Exercising the Powers of the State Treasury Service in a Special Regime under Martial Law" (Resolution No. 590), which limited the possibility of paying expenses from the special fund, leading to the suspension of some projects and complicating the management of financial resources.

The implementation of cross-border initiatives is also influenced by other legal acts such as: Resolution of the Cabinet of Ministers of Ukraine of 11 October 2016 No. 710 "On the Effective Use of Public Funds" (Resolution No. 710); Law of Ukraine of 06 April 2022 No. 848-VIII "On Scientific and Technical Activities" (Law No. 848-VIII); Law of Ukraine of 23.05.2017 No. 2059-VIII "On Environmental Impact Assessment" (Law No. 2059-VIII); Law of Ukraine dated 25.12.2015 No. 922-VIII "On Public Procurement" (Law No. 922-VIII); Resolution of the Cabinet of Ministers of Ukraine of 15 February 2002, No. 153 "On the Creation of a Unified System for Attracting, Using and Monitoring International Technical Assistance" (Resolution No. 153); Law of Ukraine of 24.06.2004 No. 1861-IV "On Cross-Border Cooperation" (Law No. 1861-IV).

Effective communication and the development of mutual understanding between the parties to a transaction are identified as a critical aspect of cross-border project management. A high level of communication between the partners makes it possible to smooth out the "sharp corners" that inevitably arise between the partners, especially when they operate under different regulatory, legal, economic, and social conditions.

The crisis conditions require Precarpathian National University to focus on effective risk management, including taking into account changes in the economic environment to prevent possible problems in project implementation.

These challenges, which have become part of the reality of Precarpathian National University in the midst of the crisis, require not only careful analysis but also improved management and funding strategies to ensure the sustainability and success of the university's cross-border initiatives.

Based on a practical analysis of the management of the financial mechanism of cross-border projects in the context of the impact of global economic crises, we explore practical problems in the

implementation of grants on the example of the Precarpathian National University.

The key risks faced by Ukrainian grantees were exacerbated by additional factors from the war among them: damage to project results in a crisis; relocation of project participants; restrictions on procurement; change of course; problems in cooperation due to constant danger; power outages; restrictions on business trips.

Let's take a closer look at each of the risks faced by Precarpathian National University in the implementation of cross-border projects in the context of global change.

Loss of project results is the possibility of loss or damage to project results as a result of a military conflict or other unforeseen circumstances, including a missile hit, a virus attack on the software. Potential loss of data, documentation, and material resources as a result of hostilities. Threat of destruction or damage to the facilities on which the project is based. Disruptions in infrastructure and communications that may result in the inability to save the results.

Displacement of project participants means the need to evacuate or relocate project participants due to military or security threats. Risk to the personal safety of participants, which may affect their ability to continue working on the project. The need for backup locations and facilities, which may result in additional costs. The need to change project participants and coordinate these changes with the grantor as soon as possible.

Lack of procurement opportunities refers to the restriction of procurement opportunities due to the armed conflict and its consequences, respectively, due to limitations in the regulatory framework. Obstacles in conducting tender procedures and concluding contracts with institutions and organizations located in the conflict zone. Changes in market conditions and availability of resources that may affect the cost of procurement. Impossibility to purchase the necessary goods due to physical destruction of the facility.

Exchange rate changes The impact of exchange rate fluctuations on the financial aspect of the project. Potential losses due to increased procurement costs and other expenses due to the devaluation of the national currency. Complications in project budget planning due to unpredictable changes in exchange rates. Problems during the reporting period, in particular, if the exchange rate is reported at the end of the project, due to the fact that part of the project could be implemented under normal conditions, another part in a crisis, respectively, the cost of the same equipment will differ in relation to the financing currency.

A negative risk is the need to convert the balances into foreign currency and return them, so it is not known how much currency will be returned and it is almost impossible to plan for these risks.

Problems in cooperation due to constant insecurity and difficulties in communication and cooperation between project participants due to the unstable situation in the conflict zone. Delays in information transfer and decision-making due to limited access and fear for the safety of participants. The possibility of misunderstandings and conflicts due to stressful conditions. Accordingly, the impact of frequent air raids limits the conditions for cooperation, as Ukrainian participants are staying in shelters to save their lives and health, where conditions were not suitable for continuing online work in the first months of the war.

Interruptions in power supply, which may adversely affect the project implementation. Possibility of losing access to information technology and equipment. The need for additional resources for backup power and business continuity. Accordingly, this risk overlaps with the previous one due to the lack of necessary support and the ability to purchase the necessary equipment to continue the effective implementation of the cross-border project. Constant power outages pose a risk of damage to the property necessary for the project, including computer equipment and medical equipment.

Restrictions on employee travel or inability to travel for project implementation due to security restrictions. Reduced opportunities for personal visits to project sites and on-site coordination. Impossibility of sending employees of a cross-border project abroad due to restrictions on the departure of citizens. Minimization of planned travel expenses, the need for recalculations. Risks associated with

the implementation of conferences and other events due to the air threat.

In addition to the challenges already mentioned, it is important to consider the impact of the COVID-19 pandemic, which has further complicated the situation for grantees. Measures taken to limit the spread of the virus have led to changes in project plans and implementation, restrictions on research, and additional costs for implementing security measures. The pandemic has also emphasized the need to adapt management strategies to unforeseen circumstances, taking into account the health and safety of project participants. Thus, the financial mechanism of cross-border grants requires constant improvement to effectively cope with the complexity of the current geopolitical and economic environment.

In addition to the above risks, it should be borne in mind that the impact of global economic crises and military conflict exacerbate the difficulties for Ukrainian grantees. Global economic fluctuations can cause exchange rate instability, which complicates the planning and use of grant funds. The military conflict leads to unfavorable conditions for scientific and educational activities, in particular due to restrictions on the movement of participants and the risk of losing project results. Adaptation to changes in the geopolitical environment is becoming an integral part of cross-border grant project management strategies.

The management of the financial mechanism of cross-border projects is an urgent task to improve the functioning in the modern world, especially in times of crisis. Using the example of Precarpathian National University, we can analyze the peculiarities of this process and identify effective strategies for managing resources in a global context.

Universities implementing cross-border projects will face challenges related to changes in exchange rates, financial instability, and other factors that may arise due to crisis situations. Understanding and adapting to these challenges determines the success of projects and ensures the sustainability of the financial mechanism.

In this context, it is important to consider risk management strategies, develop effective financial instruments, and facilitate interaction with partners at the international level. The experience of Precarpathian National University can serve as a valuable source of knowledge for other educational institutions seeking to improve their management of the financial aspects of cross-border initiatives in the current environment of uncertainty and crisis.

Managing the cross-border projects of Precarpathian National University in the face of constant change and unpredictability has proven to be a challenge. An analysis of the costs of cross-border projects has emphasized the need for careful management of resources and adaptation of strategies in the face of global challenges.

Accordingly, the primary task for Precarpathian National University in 2020 was to maintain the implementation of existing projects in the context of the pandemic. The situation dictated new rules in the form of the impossibility of crowding and spreading the disease. Accordingly, one of the first decisions made at the university was to allow management staff to work remotely. This reduced crowds and reduced the incidence of illness.

Due to the pandemic, management has improved in terms of project implementation by optimizing processes and moving most tasks online. Cooperation in the state has simplified bureaucratic processes to minimize the spread of the disease. The Precarpathian National University has created appropriate working conditions at its base that allow remote work for all departments and effective implementation of cross-border projects, which demonstrates its flexibility and ability to adapt in critical conditions.

Thus, in 2020, Precarpathian National University managed to effectively counter the challenges of the pandemic, keeping projects active by introducing remote work and optimizing online processes. The university responded to the crisis flexibly and cooperated with the state to simplify bureaucratic processes. However, the pandemic forced a review of financial strategies and resource allocation, limiting offline activities. The Precarpathian National University has shown its readiness to adapt and manage effectively in the face of uncertainty, although meetings and conferences have been temporarily

suspended due to the circumstances.

During the period of slowdown in the implementation of existing projects in 2020, researchers were able to prepare new relevant applications and attract new projects that began in 2021. Accordingly, in 2021, we observed an increase in both cross-border projects and other international projects, which in turn indicates that the development of international cooperation between scientists did not stop even in the face of the global pandemic and crisis processes. Thus, instead of reducing the indicators of attracting and implementing projects, the Precarpathian National University reorganized its capabilities and managed to maintain its international position in the face of declining global indicators.

In 2021, the risks and challenges remained at the level of the previous year. We observe that there have been no significant changes in the management of the financial mechanism of cross-border projects and the impact of the global crisis caused by the pandemic has not had critical consequences. The risks of disease remained, but all university staff were vaccinated to continue effective work.

When we evaluate the impact of the pandemic as a global crisis on the implementation of cross-border projects, we observe that, in the case of Precarpathian National University, an adaptive approach to risk management and determination to implement existing activities and attract new grants minimized the consequences. Subject to compliance with the grantor's regulatory requirements and the search for alternative cooperation between project staff and university management, the implementation of cross-border grants during the pandemic does not pose significant risks.

Precarpathian National University began 2022 in accordance with pre-crisis conditions, and general activity has resumed. In February, the war begins, which does not bear signs of a global crisis, but rather a regional one, as it affects not only the countries involved but also the neighboring countries.

Accordingly, the country has faced new risks and challenges. Accordingly, we propose to consider how the implementation of cross-border projects within the regulatory framework functioned with the relevant risks on the example of the Precarpathian National University.

The primary risk was the possibility of damage to the project results, so all databases and backups were transferred to removable media to allow data recovery in case a missile hit one of the buildings. The risk of a missile attack was significant, as Ivano-Frankivsk was hit in the first hours of the war. The material results of the research were transferred to storage. One of the projects was to adapt the observatory on Mount Pip Ivan, which carried minimal risk in this context due to its location.

In accordance with the goals set, we first analyze the use of international financing on the example of the Precarpathian National University (Figure 1.1).

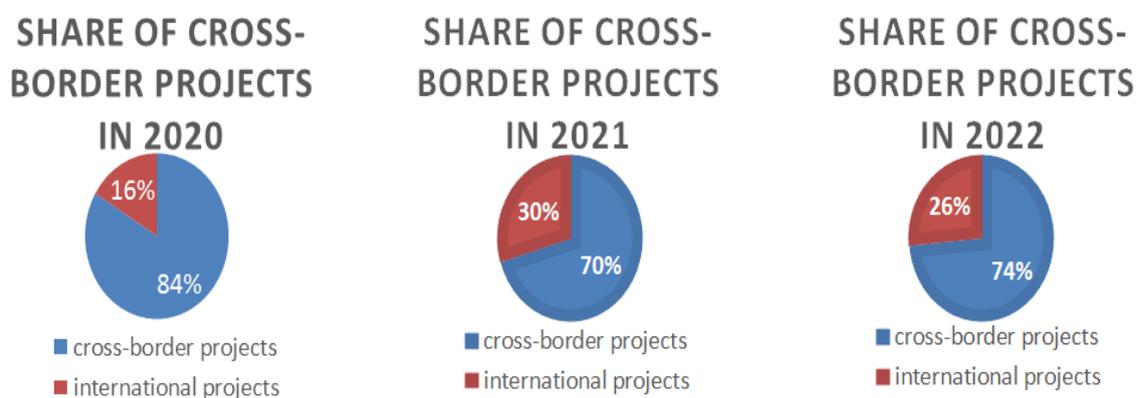


Fig. 1.1. Share of cross-border projects in 2020–2022.

Source: author's own development based on the university's budget statements

According to the analyzed diagrams, we observe that there is a decrease in the use of funding by cross-border projects. The size of the implementation of cross-border projects at the university suggests that the effective execution and implementation of several large-scale projects can provide a greater

advantage than increasing the number of small international grants.

The approach to attracting larger projects will allow the university to develop and bring it to the international arena, and it is also worth remembering in this context about risk diversification, when the simultaneous implementation of several cross-border projects in combination with several smaller international projects will support the development of university initiatives in accordance with its goals under different conditions and will help train highly qualified specialists with experience in implementing projects of different sizes and requirements.

Since the diagrams visualize relative data, we propose to consider in more detail the tables with the volumes of cross-border project receipts and use (see Table 1.1).

Tab 1.1.

Indicators of receipt and use of funds during the implementation of cross-border projects

	2020		2021		2022	
	+ thousand UAH.	-thousand UAH.	+thousand UAH.	-thousand UAH.	+ thousand UAH.	-thousand UAH.
Adaptation of the former observatory on Mount Pip Ivan for the needs of a high-altitude rescue training center	4 981,84	4 979,86	6 938,60	6 693,36	5 783,23	5 195,60
Personalized approaches for the prevention of obesity and diabetes a joint Romanian-Ukrainian program for obtaining and disseminating health knowledge	1 421,15	891,81	1 759,27	1 865,48	630,66	1 045,88
Invisible heritage: Sharing and implementing best practices on access to culture for people with visual impairments	20,90	19,88	322,00	322,71		
Gateway to the Central Gorgany: Intercultural Dialogue and the Promotion of Tourism on the Polish-Ukrainian Borderland			326,88	129,51	303,18	465,31
TOGETHER	6 423,90	5 891,55	9 346,76	9 011,06	6 717,06	6 706,79

Source: author's own development based on the university's budget statements

Based on Table 1.1, we continue to analyze the income and expenses from the implementation of cross-border projects. In 2020, the use of cross-border cooperation funds amounted to UAH 5,892.55 thousand, which was 91.71% of the revenues of the same year. In 2021, this ratio amounted to 96.4% of the use of funding. In 2022, the percentage of effective use of funds raised was 99.85%. Based on these indicators, we can see how the percentage of cross-border project funds used in crisis years is increasing. The priority task worth paying attention to is the need to identify all the risks and prerequisites for project implementation in the period 2020-2022.

According to Table 1.1, we observe that the amount of cross-border funds attracted showed maximum indicators in 2021, despite the ongoing pandemic. We assume that this situation was due to a

number of factors, including the implementation of the large-scale project “Adaptation of the former observatory on Mount Pip Ivan for the needs of the High Mountain Rescue Primary Center”, which is being implemented in the Ukrainian Carpathians and is designed to develop rescue centers in both Ukraine and the Republic of Poland. Thus, despite the pandemic, the project was funded in full, for the effective implementation of a large cross-border project.

At the same critical time, the implementation of the project “Personalized Approaches to Prevent Obesity and Diabetes - Joint Romanian-Ukrainian Program for Health Education and Dissemination” also did not experience a decrease in funding. Although the level of disbursement exceeds the receipt of funds, no arrears arise, as funding can be transferred to another period, but not more than the project implementation period. Unlike domestic projects and funds, which finance projects only for a certain period of time, and the balance of funds cannot be transferred from one closed period to another. This is one of the advantages of implementing cross-border projects.

Based on Table 1.1, we can see that the funding for the project “Invisible Heritage: Sharing and Implementing Best Practices for Access to Culture for the Visually Impaired” stopped in 2021, so the project was fully implemented and is still at the reporting stage. According to the agreements, the balance of funding can be transferred back to the donors or deposited in the accounts of the grantee, in our case, the university.

After analyzing previous projects, we conclude that cross-border projects continued to be successfully implemented at Precarpathian National University in the face of the global crisis. A new qualitative indicator of the university's activities is the fact that, in the conditions in which the entire planet was experiencing, the involvement of a new project demonstrates the effective skills of the university's academic and administrative staff.

Thus, summarizing the analysis of the receipt and use of funds for cross-border projects in 2021, we can conclude that this year was the most effective in the implementation of cross-border projects. Accordingly, based on the above data, we conclude that the global crisis and quarantine did not have negative consequences for the implementation of projects at Precarpathian University.

The figures for 2022 are less encouraging compared to previous years, with the volume of engagement and use dropping to the level of 2020. Let's compare the indicators of the last years of project implementation: the number of implemented projects has not changed; the amount of funding increased by only UAH 293.16 thousand; the volume of funds utilization increased by UAH 815.24 thousand.

We assess this situation as an irreversible impact of the war, which has become a catalyst for the formation of a new regional crisis based on the remnants of the current global crisis. Thus, returning to the theory of pendular economic oscillation, we observe it in practice, when the global crisis did not cause a decline in performance, but, in combination with the military conflict, affected and caused damage.

The decrease in funding is due to the final stages of project implementation. The decrease in the use of funds can also be characterized by the previous context. In the conditions in which Ukraine found itself in February 2022, the implementation of all projects was completely stopped for 3 months, and due to the unstable situation caused by the war, no new projects were involved in the university's activities.

At this stage of the study, we draw attention to Figure 1.2.

In the face of constant change, as none of the years analyzed was stable, Precarpathian National University has developed its own internal effective structure for implementing cross-border projects. To avoid misunderstandings in financial reporting, almost all administrative departments of the university are involved in the implementation of cross-border projects.

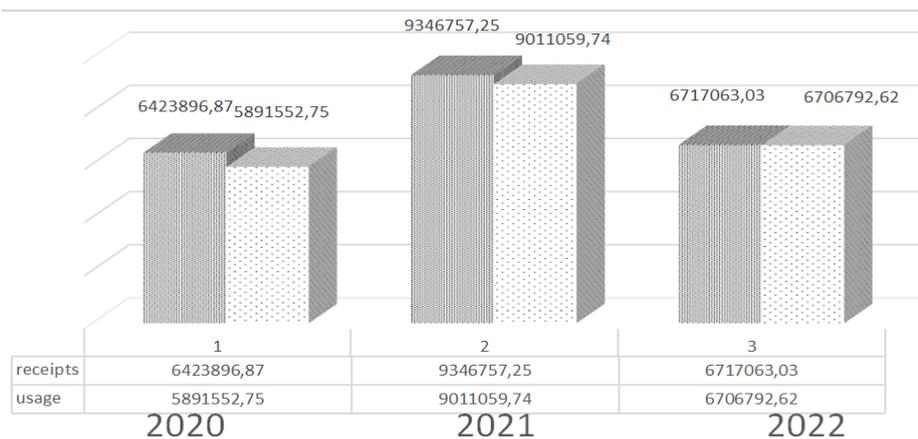


Fig. 1.2. Ratio of attracted financing to the use of funds for 20-22 years.

Source: author’s own development based on the university’s budget statements

At the outbreak of the war, despite the uncertainty of the situation, the university's activities were supported by international partners when they informed us of the possibility of extending the implementation of projects due to the hostilities and, realizing the financial risks, offered to increase funding.

Accordingly, the issue of project implementation was also out of time due to the entry into force of CMU Resolution of 09.06.2021 No. 590 “On Approval of the Procedure for Exercising the Powers of the State Treasury Service in a Special Regime under Martial Law” (Resolution No. 590) on treasury services and financing of exclusively protected items of expenditure, which suspended the possibility of making payments not only from the accounts of the general budget fund but also from the budgetary institutions' own sources of funding. As a result, project implementation was suspended indefinitely. In the context of the war and constant changes, the Cabinet of Ministers amended the resolution to allow payments to be made from the special budget fund following an appeal from grantees.

In the context of the changes that took place in the country during 2020-2022 and based on the data of the Precarpathian National University on the implementation of cross-border projects, we propose to analyze in more detail the management of expenditures in the context of the “Personalized Approaches to Prevent Obesity and Diabetes - Joint Romanian-Ukrainian Program for Obtaining and Disseminating Health Knowledge” (hereinafter referred to as PrePOD) The choice of this project lies in its duration, which falls within the analyzed period, as well as in the involvement of various economic codes.

First of all, let's define the main volumes of expenditures by year (Figure 1.3).

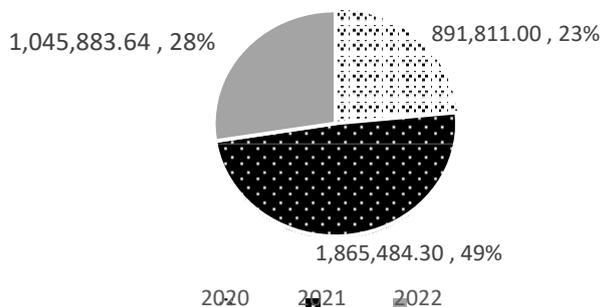


Fig. 1.3. Ratio of PrePOD project costs by year

Source: author’s own development based on the university’s budget statements

Based on Fig. 1.3, we observe that the bulk of project expenditures were made in 2021, which is 49%, for the initial analysis we can assert that the effectiveness of the project is high, and we turn to the data in terms of funding for this project (see Table 1.2), where it is logical to assume that the use is not proportional to the receipt, which distorts our ability to conduct a thorough analysis.

Tab. 1.2.

Ratio of usage and revenue for the PrePOD project.

Year	Usage	Receipts	Indicator of effective use of funds
2020	891 811,00	1 421 152,96	62,75%
2021	1 865 484,30	1 759 271,87	106,04%
2022	1 045 883,64	630 655,48	165,84%
Together	3 803 178,94	3 811 080,31	99,79%

Source: author's own development based on the university's budget statements

Based on the data in Table 1.2, it is logical to assume that the efficiency of the use of funds is divided disproportionately, as mentioned above. The effectiveness of the use of funds in 2020 is the lowest. The primary source of this situation is the period when the project began to be funded, because despite the signing of the partnership agreement, funding did not come immediately. In this example, the cross-border funding was received in November, which limited the ability to implement the project and fully utilize the proceeds.

Let's move the analysis to the next year, where we see that the amount of funds used almost doubled compared to the previous period, which raised the indicator of effective use of funds.

Expenditures in 2022 significantly exceed funding. We assume that the impact of the global pandemic and the war has changed the efficiency of the use of funds.

Accordingly, the project started during the active phase of the pandemic, and communication restrictions and quarantine negatively affected the relationship between research staff and contractors. In 2021, the suspended activities begin to resume, but not to the appropriate extent, because at first glance, we can assume that efficiency has recovered and has outgrown the level of balance between the receipt of funds and their use, but with the full resumption of project activities and the absence of travel restrictions and the legal framework, the efficiency of the use of cross-border project funds should increase to 136%. The calculation is as follows:

$$(1\,421\,152,96 - 891\,811,00 + 1\,865\,484,30) / 1\,759\,271,87 * 100\% = 136,13\%$$

Thus, the impact of the pandemic is actively affecting the use and implementation of the project. We also draw attention to the fact that the initial indicators for 2022 cannot be interpreted as an increase in the effective use of funds, as it is affected by a number of new risks, including the outbreak of war and the end of the project implementation period. Based on the general regional situation, difficulties arise in the implementation of the project, due to the establishment of mutual understanding between the parties, it was agreed to extend the project period, preliminarily for several months for its effective implementation.

It is worth noting that some cross-border projects are characterized by the return of funds to the grantor in the event of balances on the grantee's accounts, as well as the temporary blacklisting of universities due to incorrect project planning.

In order to avoid a situation with the return of funds and their re-conversion as part of the return of funding, the project manager and university staff, in joint cooperation with the grantor, found mutual understanding and effectively utilized the funds. Thus, in this context of implementing a cross-border project, an important task is to establish ways of interaction and communication not only internally within the project, but also between all stakeholders. Only in the process of communication in the context of global changes and upheavals is it possible to come to a common decision and effectively fulfill the goals set, as well as continue future cooperation not only in the context of existing projects but

also in the implementation of new ones.

We propose to dwell on the distribution of costs by KECC and to assess in more detail the factors influencing the decisions made in Table 1.3.

Tab. 1.3.

Use of funds from the cross-border PrePOD project by KVED

Year	2020	2021	2022	Together
2111	178 761,00	904 664,20	351 674,18	1 435 099,38
2120	39 330,00	199 026,15	77 368,34	315 724,49
2210	106 720,00	57 603,00	199 410,00	363 733,00
2240	16 000,00	316 550,70	159 345,00	491 895,70
2250		28 085,25	39 086,12	67 171,37
3110	551 000,00	359 555,00	219 000,00	1 129 555,00
Together	891 811,00	1 865 484,30	1 045 883,64	3 803 178,94

Source: author's own development based on the university's budget statements

According to Table 1.3, we observe that 46% of the project cost is spent on salaries of specialists, 30% on capital expenditures, and the remaining 24% on travel, materials, and services. A more detailed visualization of expenses can be seen in Figure 1.4.

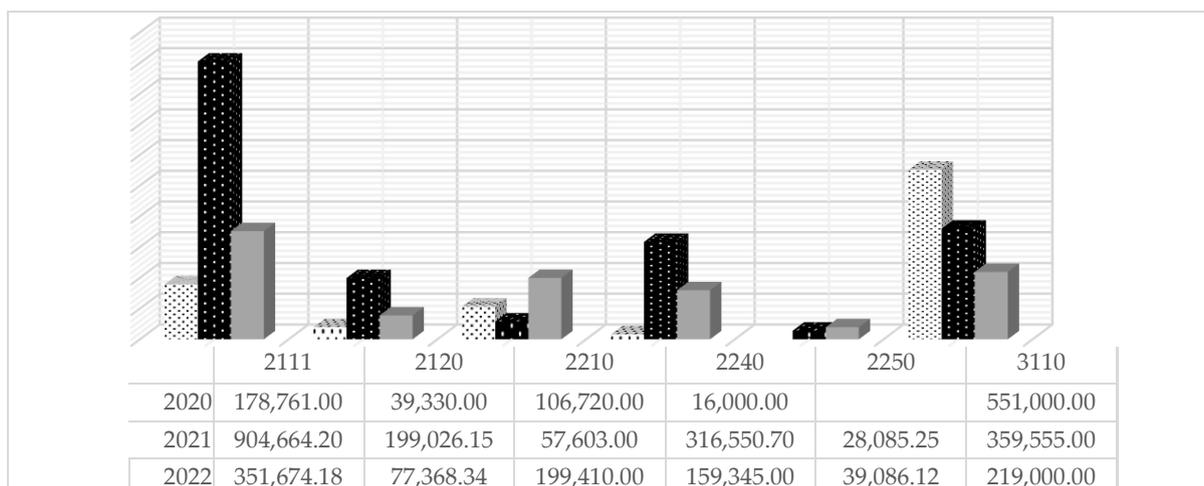


Fig. 1.4. The ratio of PrePOD project costs by KVED

Source: author's own development based on the university's budget statements

Based on the above diagram, we can see confirmation of our previous research, where 2021 is the costliest year, the prerequisites for this situation were mentioned above. So, returning to the essence and features of cross-border projects, in particular in the context of the impact of global economic crises, we observe that during the project implementation, the project managers prioritized capital investment costs, given the instability of the situation, this decision was one of the most rational and consistent with the project calculations.

Travel expenses were adjusted to take into account travel restrictions and the inability to conduct all project activities.

Thus, summarizing the analysis of the factors that affect the management of the financial mechanism of cross-border projects in terms of their use in the current global crisis, we conclude that in the context of effective implementation of cross-border projects, a number of critical aspects arise, including: maintaining communication and developing mutual understanding between the parties to the agreement; setting clear priorities in the formation of project agreements, taking into account possible

future risks; functioning of the project not as a separate link on the basis of the university, but as a component of the

Accordingly, this approach, which is being implemented at Precarpathian National University, makes it possible to effectively implement cross-border projects not only at higher education institutions but also in other institutions.

It is worth noting that the ways to effectively manage cross-border activities were not only to achieve the university's strategic goals, but also to ensure the economic stability of the country. Funds coming from abroad ultimately go to the state budget and support the economic situation. The funding is used to pay the salaries of the project participants' employees, and to pay taxes to the budget, namely personal income tax, military duty, unified social tax, value added tax, and to pay for materials and services in Ukraine.

Thus, through the involvement of cross-border projects, the Precarpathian National University provided financial resources to all parts of the economic system, including the state budget, business support, reimbursement of utilities, and provision of salaries to employees.

In its efforts to resume work on cross-border projects, the university focused on ensuring workplace safety and the effectiveness of staff shelters. An important aspect was the management of staff during the war period, providing them with shelter and the ability to work online. Despite the challenges posed by the power outage, the university decided to continue cooperation and project implementation, showing a high level of determination and commitment to international cooperation.

Additionally, the university has shown flexibility in addressing challenges, such as international travel restrictions and procurement limitations, by changing strategies and adapting to changing regulatory requirements. This demonstrates the high level of adaptation and strategic thinking of the university leadership in the face of the unpredictability of military conflicts and their impact on the implementation of cross-border initiatives.

The key approach for possible activities and adaptation was communication with grantors and constant feedback. International cooperation did not weaken in 2022, but was increasingly improved, enabling the university to implement the above approaches.

Thus, 2022 had the most negative consequences for the implementation of cross-border projects for the entire analyzed period. It is also important to note that Precarpathian National University is one of the higher education institutions located in the rear, but the outbreak of war in the country had a negative impact on the attraction of new international projects, so in 2023 the university did not attract any new cross-border projects, despite the launch of a new cross-border cooperation program Interreg NEXT Poland-Ukraine.

Based on the analysis of the management of the financial mechanism of cross-border projects at Precarpathian National University, it can be concluded that the effectiveness and sustainability of this university in implementing international initiatives in the context of a pandemic and war is the result not only of competent leadership, but also of the flexibility, adaptability, and strategic thinking of the university team.

Ways to improve the management of the financial mechanism of cross-border projects in the context of global economic crises include continuous monitoring of the external environment, strengthening strategic planning, developing innovative approaches, and increasing crisis preparedness. Based on their own experience and paying attention to these aspects, universities can effectively address the financial challenges that arise in times of uncertainty and crisis, ensuring the stability and successful implementation of international initiatives.

Based on the analysis of the implementation of cross-border projects and the observation of effective management, Precarpathian National University is exploring ways to improve the management of the financial mechanism of cross-border projects in the context of global economic crises.

The management of the financial mechanism should be flexible and easily adaptable to changes in the external environment. The ability to respond quickly to new circumstances allows universities to

maintain stability in project implementation.

Effective management involves strategic planning aimed at preventing potential risks and responding to unforeseen situations. Developing clear strategies helps to avoid financial difficulties and maximize the use of resources.

Universities should actively develop cooperation with other educational institutions, government agencies, and grantors. A wide network of partners can provide additional resources and reduce financial risks.

The introduction of modern technologies and innovative approaches to managing financial flows can increase project efficiency and reduce costs.

Taking into account possible threats and developing crisis management strategies allows universities to ensure uninterrupted operations and preserve the results of cross-border projects in unforeseen situations.

It is worth noting that it is almost impossible to calculate the risks that may arise with the onset of a global or regional crisis for the implementation of cross-border projects. This is confirmed by the fact that the global crisis caused by the pandemic did not cause as much damage as the regional one caused by the war.

The primary task for optimizing the mechanism for managing cross-border projects at the state level is to bring the regulatory framework into line with the requirements of the grantor and the characteristics of the grantee. Ensuring tax expenditures, this proposal is more relevant to grantors, because due to problems with financing taxes that must be paid by the grantee, the implementation of cross-border projects becomes quite risky. For example, let's take a budgetary institution that engages in cross-border infrastructure projects, where the amount of VAT can reach a significant share of the institution.

Regulation of these issues at the planning stage will reduce the risks of effective use of funds in the implementation of cross-border projects.

Since misunderstandings between grantors and grantees may arise due to regulatory differences, the best way to solve this problem is for the grantor to involve additional staff members from the participating countries to improve its requirements.

In order to implement changes at the state level and cross-border cooperation, it is necessary to negotiate, study and improve this proposal in more detail. After all, it is necessary not only for Ukraine but also for other countries participating in cross-border projects.

In order to improve the management of the financial mechanism of cross-border projects in the context of global economic crises, a set of problems that may arise due to economic difficulties should be taken into account.

It is proposed to introduce strategic planning aimed at effective risk management and adaptation to unforeseen circumstances. An important element is also the study and analysis of previous crisis periods to improve financial strategies.

In addition, it is recommended to constantly monitor changes in exchange rates and market conditions in order to respond to possible fluctuations in a timely manner. Ensuring the transparency and quality of financial reporting also appears to be a key aspect of financial resource management.

In addition, the introduction of innovative methods is recommended to optimize management in a crisis.

Redirecting our attention, we propose to consider methods of rapid adaptation based on flexibility and communication for grantees, which should be applied in Ukraine first, and can also be extended to other participating countries.

Currently, tasks related to cross-border funding, as well as advising on the specifics of grant activities, are handled by different departments: the research department, the planning and financial department, and the accounting department. This approach can often lead to a decrease in the efficiency of structural units, and also creates the need for more consultations during the intensification of the

processes of submitting competitive applications and preparing final reports.

Based on the example of the Precarpathian National University, where the university's management staff is actively involved in the implementation of cross-border projects, which allows for more effective adaptation of project conditions to constant changes. We propose a new approach to optimizing the university's management functions through the creation of faculty-based research centers. This measure is aimed at improving the availability of administrative services for researchers, which has a positive impact on the efficiency of cross-border projects. These centers would support graduate students and faculty in the process of attracting and implementing cross-border projects.

The centers, organized at the faculty level, provide a wide range of advice and administrative support. They will serve as a source of accessible information for researchers, facilitating their participation in research projects.

We draw attention to the need for a practical basis for these centers. These research centers should consist of: researcher; employees of the accounting and planning and finance departments; lawyer; a leading specialist.

This approach allows us to maintain the efficiency of other departments and create a source of accessible information within specific faculties and institutes.

Each employee has their own job description, respectively:

- the researcher helps in the formation of the idea and its compliance with the grantor's requirements; also among the requirements for a researcher is participation and implementation of at least 5 international projects of different levels, as well as the same number of national projects, and has relevant project management experience, these requirements are formed in accordance with the diversity of projects and their features. Accordingly, the implementation of 3 or fewer projects raises doubts about the competence of the employee and his/her advanced project management skills, i.e., to acquire the necessary management skills and understanding of the peculiarities of international cooperation, it is necessary to implement at least 5 projects (different amounts of funding, different grantors, different implementation periods);
- employees of the accounting and planning and finance departments prepare estimates and accompanying financial documents at the initial stage and during project implementation;
- the lawyer advises on a regular basis on controversial issues and the need to harmonize the regulatory framework;
- a leading specialist assists in the preparation of documents and reports together with a researcher.

The university will be able to optimize the costs of maintaining a large number of departments related to project implementation. The centers themselves will receive salaries from successfully won and implemented projects. Such a mechanism will encourage the centers to develop the university's scientific potential, reduce the burden on administrative units, and optimize management capacity.

The creation of research centers will define a new stage in the development of the university's project activities and will provide a significant impetus for the development of researchers. These centers will be central points for the implementation of innovative ideas, will contribute to the deepening of international cooperation and the development of cross-border projects.

It is expected that this approach will help expand the number of research initiatives, reach out to students, and develop new research areas. Additionally, research centers can act as financial managers of internal projects, helping to optimize budgetary resources.

Structurally, the research centers report to the heads of faculties and institutes and are directly linked to the vice-rector for research. Their main tasks include collecting information on the specifics of research at the level of a particular department, advising research staff and graduate students, and assisting in grant competitions and cross-border cooperation.

This approach will reduce the workload of the research staff, simplify the process of submitting grant applications and implementing projects, and encourage more teachers and graduate students to

engage in research. In particular, it is expected to intensify research and promote the development of the university's scientific community.

The proposed initiative is becoming an important element for those higher education institutions where faculties are located in large areas. This solution helps to improve the organization of work and provides academic staff with the necessary support when participating in international projects. Accordingly, this conditional "decentralization" will allow higher education institutions to better adapt to crisis processes and help them demonstrate more flexible and optimized management processes. By assigning the main responsibilities for conducting cross-border and other projects to research centers, they also bear full responsibility. That is, in the face of new crises or complications of existing ones, research centers will be able to provide local advice to employees involved in project implementation, help maintain communication with grantors, and as intermediaries will be able to convey to university management the specifics of project implementation in the area in which they specialize.

In this way, management personnel will be able to improve the efficiency of their duties and take an active part in minimizing risks, and research centers will work to minimize the risks of cross-border and other projects.

4. CONCLUSIONS

In the context of global economic difficulties, the management of the financial mechanism of cross-border projects was considered as a complex and important area of international cooperation. Within the framework of cross-border projects, the main goal of the study of financial mechanism management was to achieve efficient use of resources, ensure sustainability, and fulfill project objectives. This required an integrated approach, taking into account the various aspects and uniqueness of each project.

Effective assessment of cross-border project financial management through planning and control, risk management, and cooperation with various stakeholders.

As one of the higher education institutions involved in cross-border projects, Precarpathian National University adhered to the legislative framework, exercised effective financial control, and ensured team coordination.

In general, the successful implementation of cross-border projects and enhancing the university's reputation as a reliable international partner required taking into account the requirements of grantors, compliance with financial performance standards, and flexibility in responding to changes during the project.

The key success factors in the crisis were effective risk management, communication, and consideration of legal and regulatory aspects. The stability of the university's internal structure and partnership in the context of the military conflict remained critical to the successful implementation of projects.

In the context of the global economic crises, it has been shown that the management of cross-border projects requires not only competent management, but also flexibility, adaptability, and strategic thinking of the university team. The need to improve the regulatory framework and audit system for optimal project functioning, taking into account the challenges of global and regional crises, is investigated.

The creation of research centers has been proposed as an opportunity to facilitate the provision of administrative services and simplify the work of research supervisors, but it has been found that insufficient adaptation of the legal framework to international standards is a challenge for managing cross-border projects.

The proven experience of Precarpathian National University points to the importance of flexibility, strategic planning, and partnership for the successful implementation of cross-border projects.

The practical application of this research can be realized on the basis of all universities involved in cross-border cooperation through the creation of research centers.

It is important to introduce flexible management of cross-border projects, taking into account the competence of management and the challenges of global and regional crises. Optimization of the management mechanism should be based on cooperation with grantors and a unified regulatory framework for effective financial control. In particular, it is recommended to develop and implement strategies to adapt to unforeseen changes, such as economic crises or pandemics.

Additionally, action plans should be created and implemented to ensure the security of project results during a military conflict. It is also necessary to systematically analyze and use the experience gained in managing cross-border projects to further improve strategies and action plans.

In general, these recommendations are aimed at ensuring effective and stable management of cross-border projects in the face of constant change and unpredictability of global economic crises.

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Григорів Ольга, Михайлишин Лілія, Марусяк Вікторія. Оптимізація управління транскордонними проектами в контексті впливу глобальних економічних криз. *Журнал Прикарпатського університету імені Василя Стефаника*, 10 (4) (2023), 63-80.

У сучасному глобалізованому та взаємопов'язаному світі вплив глобальних криз завдає все більших ризиків для економічної ситуації кожної країни зокрема. Дослідження транскордонного співробітництва у контексті діючих кризових процесів дозволяє визначати нові ризики та шляхи їх мінімізації. Метою дослідження виступає аналіз способів оптимізації управління транскордонними проектами в контексті впливу глобальних економічних криз. У ході роботи застосовуються сценарне планування, SWOT-аналіз, статистичні, математичні методи дослідження.

У статті йдеться про особливості управління транскордонними проектами на прикладі Прикарпатського національного університету у контексті впливу глобальних економічних криз. На прикладі університету проаналізовано реалізації транскордонних проектів за період 2020-2022 років, що припадають на дві кризи. Перша глобальна економічна криза зумовлена пандемією COVID-19 та друга регіональна криза зумовлена війною в Україні. Визначено ризики з якими стикнувся грантоотримувач при реалізації міжнародних програм. У ході дослідження проаналізовано чотири різних транскордонні проекти, що дало змогу більш детально оцінити усі ризики та сформулювати наявні проблеми. Для детального аналізу вибрано середній за показниками проект PrePOD, що за терміном реалізації діяв з 2020 до 2022 року та отримав середній обсяг фінансування. Оцінено сильні та слабкі сторони транскордонного співробітництва.

Особливу увагу у дослідженні приділяємо ролі Прикарпатського національного університету, підкреслюючи необхідність управління фінансовими ризиками, ефективного спілкування, дотримання законодавства та адаптації національного законодавства до європейських стандартів.

У роботі сформовано стратегії поліпшення управління транскордонними проектами в умовах глобальних криз, запропоновано створити наукові центри для покращення управління грантової діяльності. Визначено, що саме гнучкість та комунікація виступають саме тим міжнародним фактором, що дає змогу зменшити вплив кризових процесів на реалізацію міжнародного співробітництва.

Ключові слова: глобальна криза, транскордонні проекти, управління, університет, оптимізація.