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**MECHANISM CREATING CONDITIONS FOR PERSONAL PROFESSIONAL  
AND PSYCHO-PHYSICAL DEVELOPMENT AND SELF-REALIZATION,  
SOCIAL ACTIVITY AND EMPLOYMENT YOUNG PEOPLE**

*Based on previous studies of the main components of the Hackathon-ecosystem of social integration, taking into account the conditions of the new outbreak of the Covid-19 pandemic; the authors of the article proposed a general mechanism for the integration of the Hackathon ecosystem into the ecosystem of a higher education institution, which will allow organizing a complex interaction of interactive tools of the innovative chain of developing the human potential of youth, improving national security in the context of preventing a new outbreak of the Covid-19 pandemic. In particular, the article proposes an organizational and management complex that ensures the creation and functioning of Hackathon-ecosystems of the university. It was determined that this complex is a system that can be formed by full-time units of the university and provides legal, organizational, managerial, financial, technical and other support to the Hackathon-ecosystem of the university, manifested in the form of the transfer of resources and information. The most significant elements of this complex are considered – the mechanism for creating the Hackathon-ecosystem of the university, the mechanism for supporting its activities, and the mechanism for administrative and managerial control. The study of the mechanism made it possible to identify a set of problems of organizational and managerial support, which may have a negative impact on the activities of the Hackathon-ecosystem of the university. It is suggested that the effectiveness of the University Hackathon-ecosystem functioning should be determined by the scientific, managerial, and material-technical task formed on the basis of the university, which forms and determines the features of the construction of its innovative ecosystem.*

**Keywords:** *Hackathon-ecosystem; university ecosystem; innovation ecosystem.*

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**МЕХАНІЗМ СТВОРЕННЯ УМОВ ДЛЯ ПРОФЕСІЙНОГО ТА ПСИХО-ФІЗИЧНОГО  
РОЗВИТКУ ТА САМОРЕАЛІЗАЦІЇ ОСОБИСТОСТІ, СОЦІАЛЬНОЇ АКТИВНОСТІ  
ТА ПРАЦЕВЛАШТУВАННЯ МОЛОДІ**

*Базуючись на попередніх дослідженнях основних складових Хакатон-екосистеми соціальної інтеграції з врахуванням умов нового спалаху пандемії Covid-19; авторами в статті запропоновано загальний механізм інтеграції Хакатон-екосистеми в екосистему закладу вищої освіти, що дозволить організувати комплексну взаємодію інтерактивних інструментаріїв інноваційного ланцюжка розвитку людського потенціалу молоді підвищення національної безпеки в умовах запобігання нового спалаху пандемії Covid-19. Зокрема, в статті запропоновано організаційно-управлінський комплекс, що забезпечує створення та функціонування Хакатон-екосистеми університету. Визначено, що даний комплекс являє собою систему, яка може бути сформована штатними підрозділами університету та надає правову, організаційну, управлінську, фінансову, технічну та іншу підтримку Хакатон-екосистемі університету, що проявляється у формі трансферу ресурсів та інформації. Розглянуто найбільш значущі елементи даного комплексу – механізм створення Хакатон-екосистеми університету, механізм підтримки її діяльності та механізм адміністративно-управлінського контролю. Дослідження механізму дозволило виділити комплекс проблем організаційно-управлінської підтримки, який може виявитися*

негативним впливом на діяльність Хакатон-екосистеми університету. Запропоновано ефективність функціонування Хакатон-екосистеми університету визначати сформованим на базі університету науковим, управлінським і матеріально-технічним завданням, що формує і визначає особливості побудови його інноваційної екосистеми.

**Ключові слова:** Хакатон-екосистема; екосистема закладу вищої освіти; інноваційна екосистема.

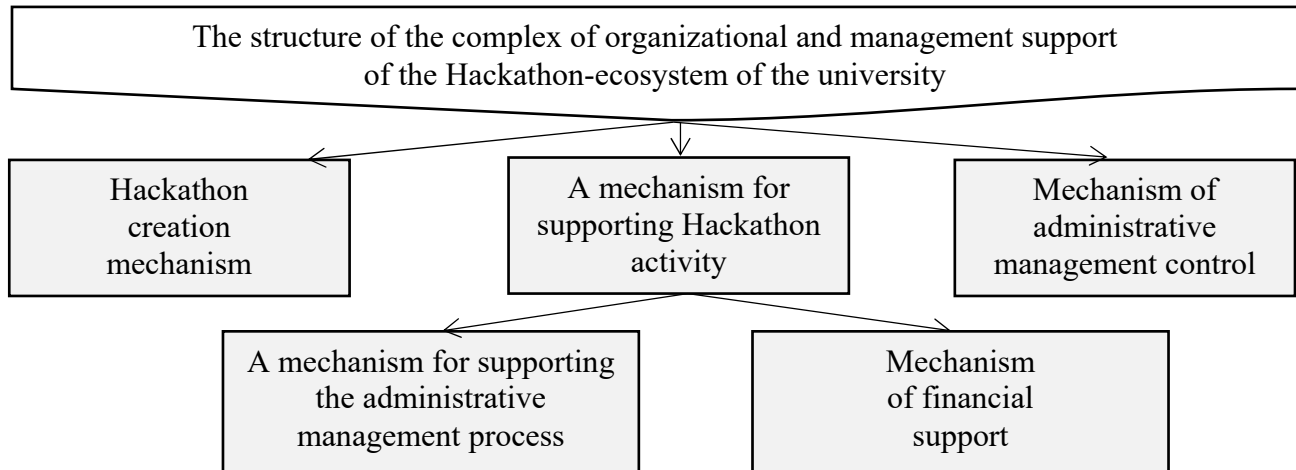
**Formulation of the problem.** The impact of the pandemic on young people is disproportionate, with the rapid and significant increase in unemployment seen since 2020 affecting young women more than young men. In today's turbulent conditions, the pandemic, the war of aggression started by Russia not only deprives young people of employment, but also disrupts education and professional training, and also creates serious obstacles for those who are going to enter the labor market or change jobs.

The above proves that social and professional integration of youth are extremely important tasks for Ukraine today. In the context of the need to solve these problems, a new educational project was developed to create a Hackathon-ecosystem of social integration of youth to strengthen national security in the conditions of preventing the outbreak of the Covid-19 pandemic. This project is aimed at improving approaches to activating the main components of human potential of professional, psycho-physiological, legal and environmental consciousness and awareness of young people, supporting and stimulating their proactive behavior in the labor market to increase national security, taking into account the conditions of the new outbreak of the Covid-19 pandemic. Within the framework of this project, the question arose of researching the mechanism of creating conditions for professional and psycho-physical development and self-realization of the individual, social activity and employment of young people, which determined the purpose of this research.

**Analysis of recent publications on the issue.** The experience of the past decades in the implementation of international programs and projects of socio-economic and professional adaptation of young people testifies to the significant work carried out by international and national charitable organizations, state institutions in the field of student adaptation and indicates that the integration process is interpreted as the active inclusion of the individual in all spheres life activities of society and is realized in interpersonal interaction, joint activity, acceptance of norms, values and standards of society, which generally ensures the unity of the individual and society. These studies mostly cover the problems of integrating students with special needs into the environment of a higher education institution. However, in these studies, the specifics of the integration of young people into the educational environment in the conditions of the Covid-19 pandemic, which would reveal its essence, are not sufficiently covered. The use of the experience accumulated in recent years in new conditions, modern realities of the military-political, economic situation in the country and the Covid-19 pandemic, requires new, more effective and efficient approaches to social-psychological and professional integration, new methods of competency diagnosis, training, assistance in youth employment to ensure national security, mechanisms for creating conditions for professional and psycho-physical development and personality realization, social activity and youth employment.

**Presentation of the main results and their justification.** To understand the general mechanism of interaction of the Hackathon ecosystem with the university ecosystem, we will consider the complex of organizational and managerial support of the Hackathon ecosystem, which is a system formed by the university's full-time units, which provides legal, organizational, managerial, financial, technical and other support to the Hackathon ecosystem, which is carried out in the form of transfer of resources and information. The most significant elements of this complex

are the mechanism for creating the Hackathon, the mechanism for supporting its activity, and the mechanism for administrative and managerial controlling (Fig. 1).

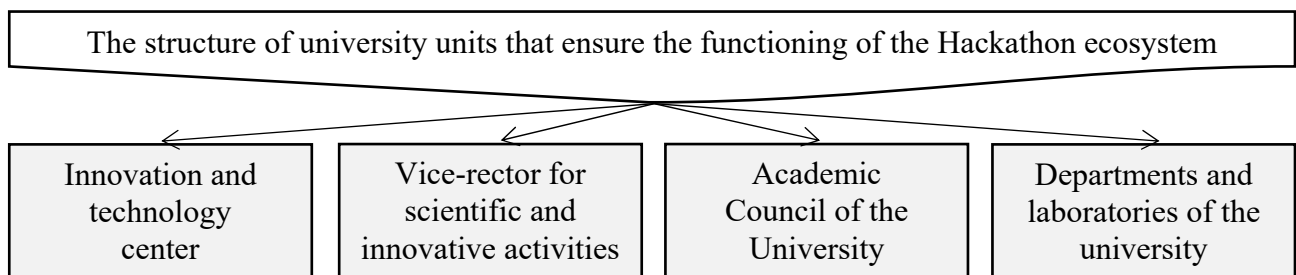


Source: suggested by the authors.

**Figure 1. A typical structure of a complex organizational managerial support of the Hackathon ecosystem of the university**

The principle features of an economic mechanism, according to some scientists [2, 3, 9], are: firstly, the presence of a process is mandatory, since the mechanism is its constituent part and is focused on providing only process functions; secondly, the mechanism cannot have its own management and is waiting for process management; thirdly, the combination of the mechanism with the control system determines the internal content of the process.

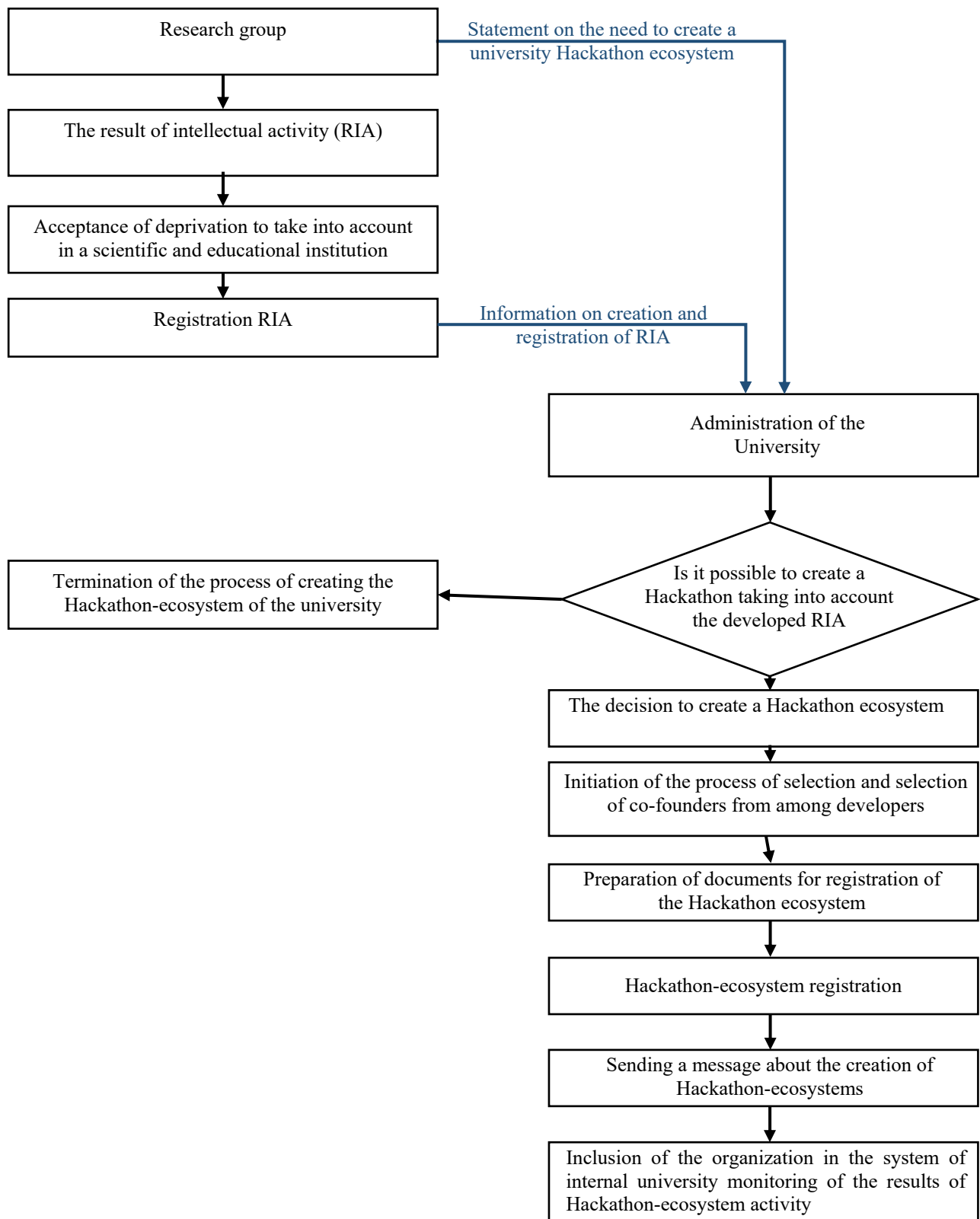
The functioning of this complex is ensured thanks to the functioning of the structural units of the university. The effectiveness of functioning and development of the Hackathon ecosystem depends on the work of these units and their employees. In fig. 2 presents a prototype structure of units that can provide organizational and managerial support for the Hackathon ecosystem of the university.



Source: suggested by the authors.

**Figure 2. A typical structure of the university's divisions that ensure the creation and support of the university's Hackathon ecosystem**

At the first stage, we will consider the algorithm of the process of creating a Hackathon-ecosystem of the university. This algorithm is a starting point and is a system of subject-object relations that arise in the process of creating a Hackathon by the university (Fig. 3).



Source: suggested by the authors.

**Figure 3. Algorithm of the process of ensuring the creation of a Hackathon-ecosystem of the university**

The key process of the algorithm of the process of creating a Hackathon is the decision of the administrative and management system of the university about the necessity and possibility of creating a Hackathon. Also, the initiative to create a Hackathon can come from the research group that created the Results of Innovation Activity. The main reasons for creating a Hackathon are: firstly, the need for the university to fulfill planned indicators (creating a Hackathon for a report); secondly, increasing the components of the innovative potential of students and teachers; thirdly, preparing young people for professional activities; fourth, implementation of the invention (providing a service, performing work) without changes on a permanent basis (*Table 1*). Also, in the *Table 1* presents an assessment of the likely effectiveness of the organizational, managerial and commercial activities of the Hackathon-ecosystem of the university.

*Table 1*

**Evaluation of the reasons for the creation of the Hackathon-ecosystem of the university**

Reasons for creating a Hackathon	Availability of innovation applicable in practice	Need for financial support
Implementation of planned indicators (for the report)	Not necessary	Absent
Promotion of warehouse innovation potential of students and candidates	Necessarily	Partial
Preparation of young people for professional activities	Not necessary	Partial
Implementation of the invention (providing a service, performing work) without changes on a permanent basis	Necessarily	Partial

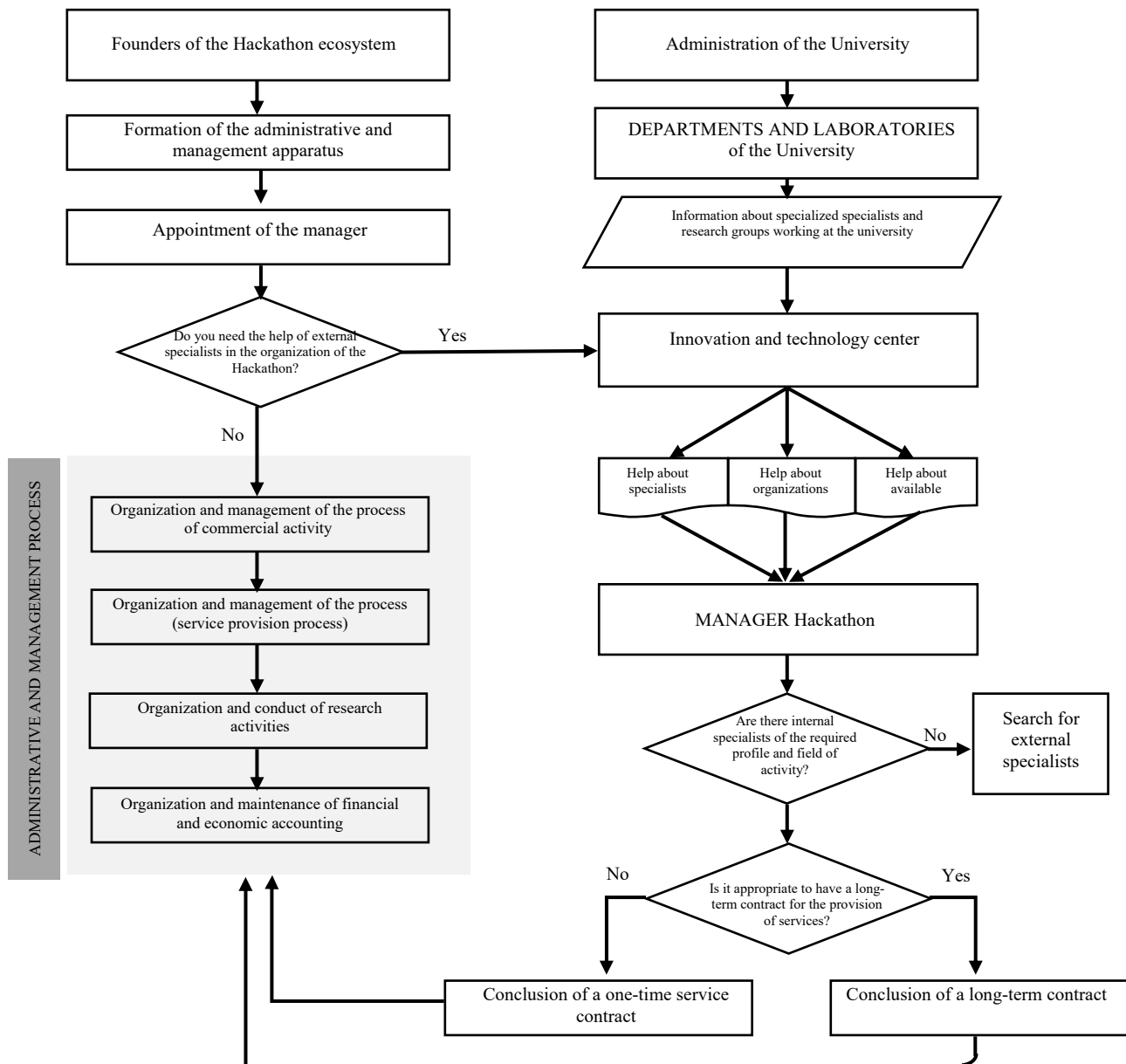
*Source: suggested by the authors.*

The second functional element of the complex of organizational and managerial support of the Hackathon-ecosystem of the university is directly the process of its activity support. This process, in turn, in our opinion, consists of the process of providing administrative and management (*Fig. 4*) and financial support.

A fundamental feature of the process of supporting the administrative and management process is the concentration of information about employees and organizations capable of providing assistance and ensuring the sustainable functioning of the Hackathon-ecosystem of the university. The switch of this process is the innovation and technology center, which also performs control and accounting functions in the field of organizing the work of the University Hackathon. The main task of this center is the accumulation of the most significant and necessary information for ensuring this process, which is provided upon request to all interested parties.

Financial support of the Hackathon-ecosystem to the university, can be done through the mechanism of subcontracting, so that the placement of the company will be carried out on the basis of a number of other specialized jobs, which partly work on various projects, which can be won without in the middle at the university. Order of contracting, as well as the possibility of direct financial support to Hackathon through state-funded funds to the university or transfer from the acquisition of technological possession, necessary for the establishment of activities. A direct financial support to the Hackathon University is seldom and less for the mind.

The fourth functional process is the process of administrative and managerial control. The main task of this process is the accumulation of information about the activity of Hahkaton-ecosystem to the university.



Source: suggested by the authors.

Figure 4. Algorithm of the provisioning process administrative and managerial support of the Hackathon-ecosystem of the university

Especially for the process of administrative and managerial control of the Hackathon-ecosystem of the university, you can choose an analysis of information about the results of the activity of stretching the stars. This information can be accumulated in the innovation-technological center and then given to the vice-rector for scientific and innovative activities on the request.

Follow-up algorithms to the mechanism of organizational and managerial support to Hackathon-University can lead to obvious problems, as far as possible to add to the fundamental problem of the functioning of the Hackathon-ecosystem of the University, and, as a result, effectiveness. At the table 2 presentation of the problem to the complex of organizational and administrative support of the Hakanon-ecosystem university with comments and explanations.

Table 2

**Potential problems of the organizational and management support mechanism of the Hackathon Ecosystem of the university**

Functional area of the complex	Potential Problem	Comment on the problem
Support for the administrative process	The complexity of the administrative and managerial process	The problem of administrative and managerial activity is predetermined by the peculiarity of the functioning of the Hackathon ecosystem due to its conceptual features
	The need to independently search for external specialists	The problem of finding external specialists in order to attract them to work in the organization determines the moment the organization enters the market, as well as the efficiency and effectiveness of their commercial activities.
Financial support	Lack of a unified mechanism for assessing the cost structure	The problem of assessing the actual and prospective costs of doing business can lead to a misunderstanding of its essence and content, which will ultimately lead to the impossibility of further doing business and searching for investors.
Administrative and managerial controlling	Passivity in collecting information about the activities of the Hackathon ecosystem	Passive collection of information creates the problem of the adequacy and timeliness of the decisions of the university administration regarding the activities of the Hackathon ecosystem
	Lack of a system for analytical performance evaluation	The lack of a system for analytical evaluation of the results of the activities of the Hackathon ecosystem can lead to the impossibility of promptly changing the administrative, managerial, production, financial and other policies adopted in the activities of the organization in the event of a crisis.

Source: suggested by the authors.

**Conclusions and prospects for further research.** Submission at the table 2 problems of the mechanism of organizational and managerial support of the Hackathon-ecosystem for the university are considered to be systemic problems, the culmination of which is in line with the problem of functioning and development of the Hackathon University, and, as a result, its effectiveness. Thus, at the initial stage, it is necessary to analyze the aspect of problematic functioning and the development of the Hackathon-ecosystem for the university as an aggregate display.

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