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FACTORS THAT AFFECT DEVELOPMENT SERVICES INNOVATIVE INFRASTRUCTURE

ЧИННИКИ, ЩО ВПЛИВАЮТЬ НА РОЗВИТОК ПОСЛУГ ІННОВАЦІЙНОЇ ІНФРАСТРУКТУРИ

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Abstract. Innovative infrastructure services in a modern economy are one of the dynamically developing sectors on the global, international, national and regional levels of management of the economic system. Rapid growth of the sector services in system management due to a string of socio-economic technical and technological factors, research, generalization and systematization of which are relevant.

Goal. The purpose of the study is to generalize, justify and supplement the factors affecting the development of innovative infrastructure services at different levels of management of economic systems.

Method. Methodical basis work contains general scientific approaches to research services, innovative infrastructure, and factors affecting on their development: systemic analysis, descriptive, dialectical method, method analysis and synthesis, and causal relationships.

The results. The concept of innovative infrastructure service is defined as a combination of traditional and innovative types of services provided by objects of innovative infrastructure to economic entities of different levels of management with the purpose of increasing their innovative activity and accelerating the diffusion of innovations.

The special properties of the sphere are considered services. Characteristic features of services such as elusiveness, failure to save variability quality and inseparability from sources.

Offered classification services of innovative infrastructure, which is an addition to classification services production infrastructure with an accent on species software innovative activity.

Factors that are positive are summarized and systematized, affecting the dynamics of the development of innovative infrastructure services and the factors that hinder their development.

Scientific novelty. The scientific novelty of the research consists of detection and classification factors that shape the managerial influence of innovative infrastructure services due to the addition of such specific characteristics as virtualization of services, heterogeneity, eco-friendly, industrialization, economy, patent law security services, intellectualization, image maker nature of services, moral wear and tear of services, localization, seasonality, internationalization and responsiveness of services.

Practical significance. The practical significance of the conducted research is that the obtained results, in particular in terms of identification and classification of factors affecting the development of innovative infrastructure services, should be used when drawing up plans for the strategic development of innovative infrastructure, forecasting economic development at different levels of economic system management, and making management decisions by state authorities when evaluating the effectiveness of the functioning of both entities and innovative infrastructure services.

Key words: innovation; innovation infrastructure; service sector infrastructure; innovation infrastructure service; innovation activity.

Анотація. Послуги інноваційної інфраструктури в сучасній економіці є одним з секторів, що динамічно розвиваються на глобальному, міжнародному, національному та регіональному рівнях управління економічною системою. Стрімке зростання сектора послуг в системі господарювання зумовлене низкою соціально-економічних та техніко-технологічних чинників, дослідження, узагальнення та систематизація яких є актуальними.

Мета. Мета дослідження полягає в узагальненні, обґрунтуванні та доповненні чинників, що впливають на розвиток послуг інноваційної інфраструктури на різних рівнях управління економічних систем.

Методика. Методичною основою роботи є загальнонаукові підходи до дослідження послуг інноваційної інфраструктури та чинників, що впливають на їх розвиток: системного аналізу, опису, діалектичний метод, метод аналізу та синтезу, причинно-наслідкових зв'язків.

Результати. Визначено поняття послуги інноваційної інфраструктури як сукупність видів традиційних та інноваційних послуг, наданих об'єктами інноваційної інфраструктури суб'єктам господарювання різних рівнів управління з метою підвищення їх інноваційної активності та прискорення дифузії інновацій.

Розглянуто особливі властивості сфери послуг. Визначено характерні риси послуг, такі як невлівимість, незбереження, мінливість якості та невіддільність від джерела.

Запропонована класифікація послуг інноваційної інфраструктури, яка є доповненням до класифікації послуг виробничої інфраструктури з акцентом на видах забезпечення інноваційної діяльності.

Узагальнено та систематизовано чинники, що позитивно впливають на динаміку розвитку послуг інноваційної інфраструктури та чинники, що перешкоджають їх розвитку.

Наукова новизна. Наукова новизна дослідження полягає у виявленні та класифікації чинників, що формують управлінський вплив послуг інноваційної інфраструктури, за рахунок доповнення таких специфічних характеристик як віртуалізація послуг, гетерогенність, екологізація, індустріалізація, економічність, патентно-правова захищеність послуг, інтелектуалізація, іміджетворчий характер послуг, моральне зношування послуг, локалізація, сезонність, інтернаціоналізація та реакційність послуги.

Практична значимість. Практична значимість проведеного дослідження полягає в тому, що отримані результати, зокрема в частині ідентифікації та класифікації чинників, що впливають на розвиток послуг інноваційної інфраструктури доцільно використовувати при складанні планів стратегічного розвитку інноваційної інфраструктури, прогнозуванні економічного розвитку на різних рівнях управління економічною системою, ухваленні управлінських рішень органами державної влади при оцінці результативності функціонування як суб'єктів, так і послуг інноваційної інфраструктури.

Ключові слова: інновації; інноваційна інфраструктура; інфраструктура сфери послуг; послуга інноваційної інфраструктури; інноваційна діяльність.

SETTING THE PROBLEM

Innovative infrastructure services in the modern economy are one of the dynamically developing sectors on the global, international, national and regional level levels of management of the economic system. Rapid growth of the sector services in world system management due to various socio-economic, technical, and technological factors.

The innovative infrastructure services allow its subjects to effectively implement innovative projects and contribute to the economy's transition to the innovative path of development. The integrity and interaction of innovations and subjects of innovation infrastructure in almost all sectors of the economy are characteristic. However, the presence of innovative ideas does not guarantee their successful implementation, due to insufficient efficiency of innovative infrastructure services and lack of balance in its structural composition. There is also a low level of resource provision for projects and the lack of an appropriate level of state, informational, financial, consulting and infrastructural support, as well as the presence of negative factors in the external and internal environment. Focusing on the factors should be investigated not only positive but also detect in time those with them, which hinder the development of innovative infrastructure, that is, they are negative.

ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Question functioning and development of innovative infrastructure, as well as problems management of the innovative component of the service sphere in different areas levels management economic systems, were analyzed in robots domestic and foreign scientists. In Dmytryshyn V. scientific research, the categorical apparatus of the concept of innovative infrastructure was investigated, the degree of its study in the scientific literature was evaluated. In the research of Nosovets O. and Voloshchuk L., the concept of innovative infrastructure is detailed and differentiated according to various approaches. Danyliuk T. highlighted the essence and the importance of the service sector. Bloom N., Genakos S., Sadun R. and Rinen J. summarized the theoretical and practical principles of the functioning of the service sector. Gornyk V. substantiated the main strategic directions and measures of the state policy for the development of Ukraine's service sector to ensure the national economy's competitiveness. Shaposhnyk A. is devoted to studying the phenomenon of services in the innovation sphere and analyzing this concept's legislative and doctrinal definitions. At the same time, in the presence of a large theoretical and methodological array of data, as before, the methodology of management of innovative infrastructure services b synthesized modern achievement science and considered its regularities and

trends in the modern economy. Therefore, it is relevant to generalize and supplement the factors affecting the development of innovative infrastructure services.

SEPARATION OF PREVIOUSLY UNRESOLVED PARTS OF THE OVERALL PROBLEM

Despite the existence of many studies on various aspects of the development of innovative infrastructure and its management, some issues remain understudied and require clarification. In particular, the factors that contribute to or hinder the development of innovative infrastructure services require research, generalization and justification.

The purpose of the study. The study aims to generalize, justify and supplement the factors affecting the development of innovative infrastructure services at different levels of management of economic systems.

METHODS, OBJECT AND SUBJECT OF RESEARCH

Methodical basis work There are general scientific approaches to research services, innovative infrastructure, and factors affecting their development: systemic analysis, descriptive, dialectical method, method analysis and synthesis, and causal relationships.

The object of research is innovative infrastructure services at various levels of management of economic systems.

The subject of research is a set of factors affecting the development of innovative infrastructure services and their management.

BASIC MATERIAL

Forming innovative infrastructure is the basis of developing the economy and its basic industries. Effective interaction of all subjects involved in developing innovative infrastructure and active implementation of innovations by enterprises both in the production process and in the field of service provision allows them to be competitive in the regional and national markets.

According to the legislation of Ukraine, “innovative infrastructure is a set of enterprises, organizations, institutions, their associations, associations of any form of ownership that provide services to ensure innovative activity (financial, consulting, marketing, information and communication, legal, educational etc.)” [1].

Innovative infrastructure is a set of interconnected social and industrial institutions necessary and sufficient for effectively implementing innovative activities and innovations [2].

Rechteta I. defines the innovation infrastructure as an element of the innovation system, which combines a number of structures, the main task of which is to facilitate the implementation of innovations at all stages of the innovation process and obtain a commercial product and a competitive innovative business as a result [3, p. 32].

Dmytryshyn V. summarized and distinguished the following approaches to the definition of innovation infrastructure in scientific literature and legislative and regulatory documents: 1) objective-functional (innovation infrastructure is considered as a set of objects of innovative activity that perform certain functions of service and promotion of innovation processes, or a set of enterprises, organizations, institutions, their associations, associations of any form of ownership, providing services for the provision of innovative activities; 2) a functional approach (innovation infrastructure is defined as an organizational, material, financial and credit, information basis for creating conditions that contribute to the effective accumulation and distribution of funds and the provision of services for the development of innovative activities, technological transfer, commercialization of scientific and technical products in conditions of increased risk; 3) about an objective-target approach, where the purpose of the functioning of the innovative infrastructure is defined as providing services and reducing the cost of interaction of subjects of scientific, technical and innovative activity by ensuring interrelationships of the innovation system by specialized organizational forms [4, p. 79].

Marchenko A. distinguishes two conceptual approaches to defining innovative infrastructure as an economic category: broad and narrow [5, p. 31]. Nosovets O. and Voloshchuk L. summarized the essence of innovative infrastructure based on these approaches. According to the narrow approach, innovation infrastructure is a set of organisations of any form of ownership (both legal entities and individuals) whose activities are aimed at ensuring and promoting the implementation of innovative activities, covering the entire innovation cycle, by providing direct financial, material and technical support, organisational, consulting, information and other assistance to subjects of innovative activity. With a broad approach, innovative infrastructure is considered as a set of interconnected economic subsystems (market, financial and credit, material and production, information and personnel, consulting, marketing) integrated into the innovative (and especially economic) system, which comprehensively contribute to ensuring the operational and effective functioning of innovative processes [6, p. 125]. Also, scientists interpret innovation in infrastructure as an environment for the functioning of subjects of a separate type of economic activity for the provision of innovative services to subjects of an innovative and productive nature of the activity and also as a set of conditions for its implementation [6, p. 128].

Revealing the influence of internal and external factors in the development of innovative infrastructure services, it is expedient to substantiate such concepts as “service sphere” and “service sphere infrastructure” in addition to the classification of factors and conditions affecting the infrastructure itself.

In modern conditions, any economic system needs constant adjustment, which one conditioned changes internal and external environment. The external environment, in boundaries whose enterprises spheres services carry out own activity, continuously changes under the influence of changes in market circumstances, innovative changes, development of new one's technologies, changes in preferences of consumers, etc.

The service sector is a significant component of Ukraine's economy, in which about 60% of GDP is produced, and more than 60% of the population is employed. The sphere of services affects the competitiveness of the country's economy due to the direct growth of the service sector and the impact on the productivity of other sectors of the country's economy [7, p. 7].

The sphere of services is a set of branches, sub-branches and types of activities, the functional purpose of which in the system of social production is expressed in the production and realization of services and spiritual goods for the population [8, p. 11].

Bloom N., Genakos S., Sadun R. and Rinen J. believed that "the sphere of services is something that is elusive, impossible to see and subject to mandatory exchange for any other material value" [9, p. 12].

According to the international quality standards ISO 9004:2018, the service sector is the result of activities achieved between the producer and the consumer to achieve economic benefits and meet the needs of the latter [10].

To the special ones properties spheres services, you can include the following: activities consumer at provided services; connection of the received result with the person (enterprise) providing services, and consumer; diversification species services by types enterprises; many ways service consumers; providing a service with limited rationality, based on information about potential consumer; assessment of quality dependence granting services from subjective factors, which are related to the recipient service.

Danyliuk T. interprets services from different positions: 1) as a type of activity (since services include goods that are offered, as a rule, not in the form of things, but in the form of useful activities); 2) as a field (includes a large group of industries, an important feature of which is the creation of a specific product with appropriate features, which is not always the case); 3) as a cash flow (expresses the monetary equivalent of its exchange, that is, a cash flow that corresponds to the received result of activity in the form of a service); 4) as an economic category (it is gaining more and more importance today with the development of economic ties, which are accompanied by the coverage of all spheres of economic activity by market relations) [8, p. 11].

Service is characterized by elusiveness, failure to save variability quality and inseparability from sources

Service may be perceived as directed actions directly on the consumer; carried out by one person (physical or legal) in the interests of another person's action or activity; good that is provided in form activities; type of goods that can be produced, transferred and to be consumed simultaneously; short-term use of material wealth without the right premature possession of it (lease); activity, carried out by someone instead consumer; activity with production product (material or intangible), carried out on order the client (consumer), together with the client and for the client, with the transfer of the product to the client for the purpose exchange

Shaposhnyk A. notes that services in the innovation sphere include services that ensure the functioning of the innovation sphere and innovation services as a type of innovative product. An innovative service, as a type of innovative product, is a newly created (applied) and (or) improved competitive service provided with the use of new technologies, methods, and tools, passed an innovation examination and qualified by the central executive body that implements state policy in the field of innovation. Services that ensure the functioning of the innovation sphere are services provided to business entities that conduct innovative activities for the purpose of its organizational support, are auxiliary to innovative activities, and are not the object of innovative activities [11, p. 66].

The infrastructure of the service sector is a set of industries, enterprises and institutions that are included in various types of public service and service activities, energy, transport, and communication systems that support their activity [12].

The concept of service sector infrastructure means a set of territorial formations within which its subjects provide both commercial and non-commercial services. The term "service" is a universal category that provides functions' performance and tangible and intangible benefits to a wide consumer audience.

Considering the classification composition of the service sector at the time of the development of scientific and technical progress, innovative economy and information technologies, one cannot fail to consider the importance of its innovative component. Without innovations, further effective development of all branches of the service sphere is impossible. In the service sector, there is a network of consumers and producers, which are connected by intermediary links of the infrastructure. In general, the composition of the infrastructure of the service sector is represented by: 1) research and innovation centers that have scientific developments, a research base and offer innovative ideas in the service sector; 2) legal entities and individuals providing intermediary engineering and reengineering services, consulting services, audit, consulting, legal services, business services (professional and managerial), banking, insurance services, legal services.

The generalized diagram of the infrastructure of the service sector is presented in Fig. 1.

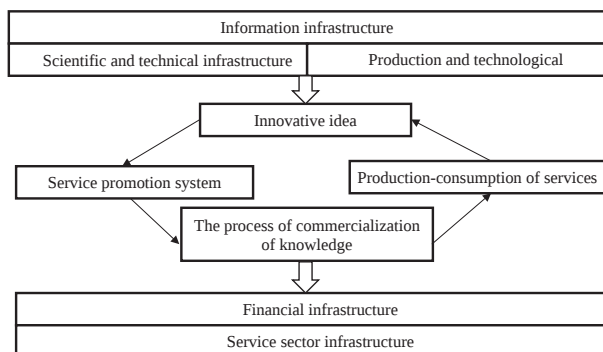


Fig. 1. Scheme of the infrastructure of the service sector

In the official one's classifiers absent category services innovative infrastructure, that determines necessity introducing their classification in scientific and practical activity.

It is advisable to structure innovative infrastructure services by such segments: production and technological, consulting, personnel, informative, financial (Fig. 2).

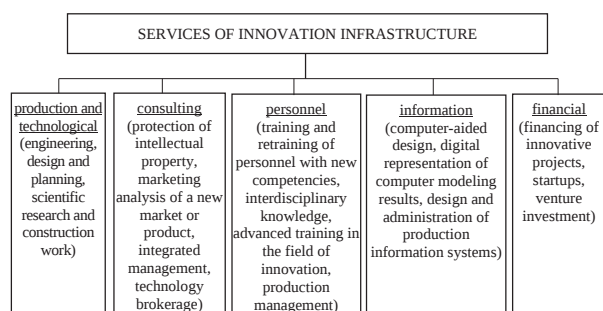


Fig. 2. Components of innovative infrastructure services [suggested by the authors]

Production and technological services of innovative infrastructure are species-related services with engineering, design, designing, 3D modelling, and conducting R&D, which influence the formation and building up of innovative potential of business entities and the creation of innovations.

Consulting services innovative infrastructure directed on protection objects intellectual property innovators, the formation of new markets or market niches for innovative goods, providing communication between needs of the customer and the product developer, which allows identifying needs and requirements for a knowledge-intensive product with side the customer and prove this one information to developers, as well as an integrated management system at each of phases vital cycle product, including suppliers, manufacturers, consumers and mediators.

Personnel services innovative infrastructure aimed at increasing the intellectual component of

production processes, in particular – the formation of new competencies staff, interdisciplinary knowledge, which forms a systemic vision and thinking, contributes reflection trends innovative economy and their use in process implementation innovative activity.

Informational services innovative infrastructure includes administration informative systems that generalize, keep and broadcast information about objects, innovative activities in the chain supply innovative products, and the totality of information and communication technologies supporting innovative processes.

To financial services, innovative infrastructure refers to activity venture capital funds with the financing of startups and others innovative development, management financial streams innovative activity In the above classification services innovative infrastructure for industrial of the complex are displayed all species software innovative activities that contribute build-up innovative activity during maintenance innovative infrastructure, as the main mechanism regulation innovative processes in real sector economy.

So, taking into account all of the above, under the services of innovative infrastructure, we propose to understand the totality of traditional and innovative types of services, providing objects of innovative infrastructure to economic entities of different levels of management with the purpose of increasing their innovative activity and accelerating the diffusion of innovations.

Value services innovative infrastructure for the development of modern economy may be structured by the following aspects: acceleration processes innovative activities; quality infrastructural software production, in particular, innovative activity industrial complex; formation new one's market niche and new ones segments the market; formation of added cost high-tech economy sectors; increase roles intellectual and innovative components in the process creation added value final products; diversification production processes and products; increase efficiency and competitiveness industrial complex; creation conditions for continuous process production and security connection between its cycles; increase equal integration subjects management; optimization processes formation cost of innovation products.

Indicated factors contribute to increased competitiveness and efficiency in the whole economic system, increasing created added cost in high-tech sectors, increasing productivity labor and investment return capital intensive industries.

Systematizing the existing variety of theoretical ideas about the infrastructure component of the service sector and innovative infrastructure services, we classify the following groups of factors that directly affect the development of innovative infrastructure services (Table 1).

We added the fourth block of positive factors shaping the development of innovative infrastructure services. We classify the linguistic block of factors into two parts:

1) factors that synergistically strengthen the development of the infrastructure of the service sector with the help of their homogeneity, i.e. the following as scientific and technical progress, demand and offer on services, globalization of the economy, state policy, the need for innovation;

2) related to factors whose synergy effect is achieved due to their endogeneity.

The characteristics of the proposed factors shaping the development of innovative infrastructure services, the synergy effect of which is achieved due to their own endogeneity and exogeneity, are given in the Table 2.

Identifying the local nature of several factors affecting the development of innovative infrastructure services makes it possible to group them according to one

Table 1. Classification of factors influencing the development of innovative infrastructure services

A group of factors	Blocks of factors	Factors
1. Positive factors affect the dynamics of the development of innovative infrastructure services	Factors affecting the formation of the need for the service	– socio-economic; – demographic; – territorial; – normative; – comparative; – sociological; – regional; – cultural and household; – expert-analytical; – surveys
	Factors affecting the ability of service sector enterprises to carry out their innovative activities	– economic; – administrative; – organizational; – factors of exogenous and endogenous environment
	Factors characterizing the level of competitive advantages of the service	– institutional; – human; – innovative; – marketing; – production and technology; – price
	Factors shaping the development of innovative infrastructure services	– intellectualization; – heterogeneity; – economy; – virtualization; – localization; – internationalization
2. Factors hindering the development of innovative infrastructure services	A “problematic” group of factors, the detection of which will allow timely formation of restorative measures and the establishment of an innovation process	

Table 2. Characteristics of factors shaping the development of innovative infrastructure services

Factors	Characteristics of factors
Virtualization of services	Type of service, which involves virtual (software) presentation (creation) of the product
Heterogeneity of services	This means a high degree of variability in the quality and content of the provided service, that is, the heterogeneity of the service
Greening of services	A system of measures aimed at maintaining the environmental friendliness of the service by maintaining its quality in the conditions activity of aggressiveness of the environment
Industrialization of services	The creation of a technically developed service that meets the modernity of the requirements of the development of scientific and technical progress
Economy of services	Rational properties of the service, which provide for its favorable price range while maintaining a high level of quality or providing such a type of service that has significant price competitive advantages due to its low price
Patent and legal protection of services	Provides certification for the service itself or a certain type of service protected by the legislator from the point of view of copyright, and also as an option provides for obtaining a patent for a certain product or service by one author or several co-authors
Intellectualization of services	This is a type of service that is directly related to the process of production and acquisition of new knowledge, involves high costs for its development, implementation and requires special innovative knowledge
Image-forming nature of services	This is the impression that the company and its employees are able to take on the mass consumer and which is fixed in their minds in the form of certain emotionally colored ideas, judgments
Moral wear and tear of the service	Presupposes its moral ageing due to the emergence of a new type of service and the acceleration of the development of scientific and technical progress; that is, the service still exists but has already lost its relevance due to the appearance of a more advanced, innovation-oriented type of service
Localization of services	Certain types of services provided firstly, in boundaries territorially marked terrain, and secondly, within the dominant sectoral specificity of the sphere services
Seasonality of services	Presupposes the seasonal nature of the services provided, determined by a certain time of the year and the corresponding demand for them
Internationalization of services	Consistent process, which is the result of the mutual action of two distinct from each other, but closely related processes – the process of knowledge development and the process of entering the national market
Responsiveness of the service	The speed of the service, its speed while maintaining the quality of the service, or an instant response to the demand for services that has arisen
Territorial segmentation	It provides for the division of the service area into certain segments, that is, parts depending on the location and territorial location of the service sector

degree of commonality and influence. The main groups of factors are formed by the degree of influence of the exogenous and endogenous environment, as follows:

- political factors (determined by the level of state influence through legislative acts regulating the activities of the service sector);
- infrastructural factors (provide a certain level of support to subjects due to state preferences);
- economic factors that affect the functioning of the entire service sector;
- informational factors, which depend on the degree of awareness about any species services;
- technical factors which depend on development and influence scientific and technological progress;
- social factors taken into account demographic the situation;
- environmental factors (the limitation of some resources may lead to the emergence of a new type of service related to the economical use of the resource component).

Table 3 shows the classification of negative “risk factors” that negatively affect the development of innovative infrastructure services.

Table 3. Classification of “risk factors” that negatively affect the development of innovative infrastructure services

Risk factors of intensive influence, which hinder the development of infrastructure in the field services	Risk factors of an extensive nature which hinder the development of infrastructure in the service sector
– credit crunch, – deepening recession; – radical greening; – demographic crisis; – imperfection of the regulatory and legal framework; – inability of subjects service spheres to introduce innovations; – low quality of services; – decrease income of the population; – deterioration of quality of life of the population	– reputational risks; – the exit of new players on the services market; – changing consumer preferences; – low level of infrastructure development ; – insufficiently developed logistics system; – the risk of inefficient business models; – lack of resources bases; – low qualification and shortage of personnel; – lack of financial resources

Analyzing the list of negative factors, it is advisable to highlight the following: insufficient interaction between science and industry, limited financial resources allocated for the development of innovations. It is particularly important to differentiate between price and non-price factors that negatively affect the development of innovation infrastructure services. As for the price factor, it should be noted that the price of a service depends largely on supply and demand, as well as on the territorial location of the entity and the level of quality of life.

Non-price factors include: ineffective government regulation (i.e., customs tariffs, tax legislation,

distribution of government orders, investments); technical lag; insufficient level of education and training of employees; inefficient allocation of enterprise resources (raw materials, material, labor, financial, intellectual); reduced demand from traditional consumers due to poor quality of services; consumer insolvency; increased competition from foreign competitors; changes in market conditions; transformation of the supply and demand curve (sharp increase or decrease); reduction of the range of services.

Insufficient funding and government assistance remains an urgent problem in the development of innovation infrastructure services. Lacking their own sources of financing, service providers are forced to resort to borrowing from banking institutions, and in the face of economic instability, bureaucratic and administrative barriers, enterprises barely cover the break-even point, unable to actively introduce innovations in the production and consumption of services, developing their innovative component on their own.

The solution to this problem is state aid in the form of development and improvement of such forms as public-private partnerships. However, for the development of innovation infrastructure services, this is not the only way out, since expert consulting forms and cluster development models are also a promising direction of development.

DISCUSSION OF THE RESULTS

Today, economic reforms cannot be carried out without the introduction of innovations and the development of innovation infrastructure. Among the problems of innovation infrastructure development that exist today, the following are particularly acute: despite a sufficient level of state support for innovation infrastructure entities, there is a high level of dependence of these entities on subsidies, grants and allocations of the state; there is a mismatch between the measures of state innovation support for infrastructure and its contribution to the country's economic development, which consequently lays the groundwork for reducing or stopping funding for innovation infrastructure; there is a negative trend of low demand for innovation infrastructure services due to the inconsistency of these services with international quality standards.

CONCLUSIONS

In the development of the economic system, the category of innovation infrastructure services is becoming increasingly important. The purpose of managing innovation infrastructure services is to create favorable conditions for the implementation of innovative activities of its subjects, from the introduction of innovative ideas to the effective commercialization of the most promising projects.

The innovation infrastructure, created to support economic entities engaged in innovative activities, provides various types of both traditional and innovative services to

ensure a certain level of innovation activity at various levels of government. Innovation infrastructure services provide services to business entities in the course of their innovation activities. Innovation infrastructure services provide services

to business entities in the course of their innovation activities. The provision of these types of services relates not only to the industrial complex, but also includes management, information, consulting, and engineering services.

REFERENCES

- [1] The Verkhovna Rada of Ukraine (2002). Zakon Ukrainy «Pro innovatsijnu diial'nist'» vid 04.07.2002 za no. 40-IV [Law of Ukraine “On innovative activity” no. 40-IV dated 04.07.2002]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/40-15#Text> [in Ukrainian].
- [2] Kaminsky A.I. (2012). Infrastrukturne zabezpechennia derzhavnoho upravlinnia rozvytkom rehional'noi innovatsijnoi systemy. [Infrastructural support of public administration by the development of the regional innovation system]. *Derzhavne upravlinnia: udoskonalennia ta rozvytok – Public administration: improvement and development*, Vol. 11. Retrieved from: <http://www.dy.nayka.com.ua/?op=1&z=694> [in Ukrainian].
- [3] Rekhteta I.I. (2016). Katehorial'nyj analiz innovatsijnoi infrastruktury natsional'noi ekonomiky. [Categorical analysis of the innovation infrastructure of the national economy]. *Visnyk ONU imeni I.I. Mechnikova – Bulletin of the I.I. Mechnikov ONU*, Vol. 21, Issue 10 (52), 31-34. Retrieved from: http://visnyk-onu.od.ua/journal/2016_21_10/8.pdf [in Ukrainian].
- [4] Dmytryshyn V.S. (2022). Stvorennia ta funktsionuvannia innovatsijnoi infrastruktury naukovoї ustanovy. [Creation and functioning of the innovation infrastructure of a scientific institution]. *Naukovi innovatsii ta peredovi tekhnologii (Serii «Derzhavne upravlinnia», Serii «Pravo») – Scientific innovations and advanced technologies (Series “Public administration”, Series “Law”)*, Vol. 12(14), 75-86. Retrieved from: <http://perspectives.pp.ua/index.php/nauka/article/view/3048> [in Ukrainian].
- [5] Marchenko O.S. (2010). Natsional'na innovatsijna systema iak in-tehrator znan'. [National innovation system as an integrator of knowledge]. *Visnyk Natsional'noi iurydychnoi akademii Ukrainy imeni Yaroslava Mudroho – Bulletin of the Yaroslav the Wise National Law Academy of Ukraine*, Vol. 2, 31. [in Ukrainian].
- [6] Nosovets O.I. & Voloshchuk L.O. (2019). Mistse innovatsijnoi infrastruktury u vyznachenni rezul'tativ innovatsijnoi diial'nosti. [The place of innovation infrastructure in determining the results of innovation activity]. *Problemy ekonomiky – Problems of economy*, Vol. 3 (41), 123-132. Retrieved from: https://www.problecon.com/export_pdf/problems-of-economy-2019-3_0-pages-123_132.pdf [in Ukrainian].
- [7] Gornyk V. (2023). Rozvytok sfery posluh: derzhavna polityka ta stratehichni zakhody dlia pidvyschennia konkurentospromozhnosti ekonomiky Ukrainy. [Development of the service sector: state policy and strategic measures to increase the competitiveness of the Ukrainian economy]. *Tsyfrova ekonomika ta ekonomichna bezpeka – Digital Economy and Economic Security*, Issue (7(07)), 3-8. Retrieved from: <https://doi.org/10.32782/dees.7-1> [in Ukrainian].
- [8] Danylyuk T.I. (2014). Sfera posluh iak ob'iekt investytsijnoi diial'nosti. [The service sector as an object of investment activity]. *Investytsii: praktyka ta dosvid – Investments: practice and experience*, Vol. 17, 10-12. Retrieved from: http://www.investplan.com.ua/pdf/17_2014/4.pdf [in Ukrainian].
- [9] Bloom N., Genakos C., Sadun R. & Reenen J. (2012). Management Practices Differ across Firms and Countries. *NBER Working Paper*, no. 17850, 48 Retrieved from: https://www.nber.org/system/files/working_papers/w17850/w17850.pdf [in English].
- [10] Derzhavnyj standart Ukrainy ISO 9004:2018 Upravlinnia iakistiu. Yakist' orhanizatsii. Nastanovy schodo dosiahnennia staloho uspihu (ISO 9004:2018, IDT). [State Standard of Ukraine ISO 9004:2018 Quality management. Organizational quality. Guidelines for achieving sustainable success (ISO 9004:2018, IDT)]. Retrieved from: https://online.budstandart.com.ua/catalog/doc-page.html?id_doc=81206 [in Ukrainian].
- [11] Shaposhnyk A. (2018). Do pytannia pro vyznachennia posluh v innovatsijnij sferi. [On the issue of defining services in the innovation sphere]. *Pidpriemnytstvo, gospodarstvo i parvo – Entrepreneurship, Economy and Law*, Vol. 9, 64-67. Retrieved from: <http://pgp-journal.kiev.ua/archive/2018/9/13.pdf> [in Ukrainian].
- [12] Entsyklopedychnyj slovnyk-dovidnyk z turyzmu [Encyclopedic dictionary-reference book on tourism]. Retrieved from: https://leksika.com.ua/16391214/turizm/infrastruktura_sferi_poslug [in Ukrainian].

СПИСОК ВИКОРИСТАНОЇ ЛІТЕРАТУРИ

- [1] Про інноваційну діяльність: Закон України. № 40-IV від 04.07.2002 р. URL: <https://zakon.rada.gov.ua/laws/show/40-15#Text> (дата звернення: 22.09.2024).
- [2] Камінський А.І. Інфраструктурне забезпечення державного управління розвитком регіональної інноваційної системи. *Державне управління: удосконалення та розвиток*, 2012. № 11, 2012. URL: <http://www.dy.nayka.com.ua/?op=1&z=694> (дата звернення: 28.09.2024).
- [3] Рехтета І.І. Категоріальний аналіз інноваційної інфраструктури національної економіки. *Вісник ОНУ імені І.І. Мечникова*. 2016. Т. 21. Вип. 10 (52). С. 31-34. URL: http://visnyk-onu.od.ua/journal/2016_21_10/8.pdf (дата звернення: 15.10.2024).
- [4] Дмитришин В.С. Створення та функціонування інноваційної інфраструктури наукової установи. *Наукові інновації та передові технології (Серія «Державне управління», Серія «Право»)*, 2022. № 12(14). С. 75-86. URL: <http://perspectives.pp.ua/index.php/nauka/article/view/3048> (дата звернення: 05.10.2024).

- [5] Марченко О. С. Національна інноваційна система як інтегратор знань. *Вісник Національної юридичної академії України імені Ярослава Мудрого*. 2010. № 2. С. 31.
- [6] Носовець О.І., Волощук Л.О. Місце інноваційної інфраструктури у визначенні результатів інноваційної діяльності. *Проблеми економіки*, 2019. № 3 (41). С. 123-132. URL: https://www.problecon.com/export_pdf/problems-of-economy-2019-3_0-pages-123_132.pdf (дата звернення: 07.10.2024).
- [7] Горник В. Розвиток сфери послуг: державна політика та стратегічні заходи для підвищення конкурентоспроможності економіки України. *Цифрова економіка та економічна безпека*, 2023. Вип. (7(07)). С. 3-8. URL: <https://doi.org/10.32782/dees.7-1> (дата звернення: 12.10.2024).
- [8] Данилюк Т.І. Сфера послуг як об'єкт інвестиційної діяльності. *Інвестиції: практика та досвід*. 2014. № 17. С. 10-12. http://www.investplan.com.ua/pdf/17_2014/4.pdf (дата звернення: 18.09.2024).
- [9] Bloom N., Genakos C., Sadun R., Reenen J. Management Practices Differ across Firms and Countries. *NBER Working Paper*, 2012. № 17850. 48 p. URL: https://www.nber.org/system/files/working_papers/w17850/w17850.pdf (дата звернення: 01.11.2024).
- [10] ДСТУ ISO 9004:2018 Управління якістю. Якість організації. Настанови щодо досягнення сталого успіху (ISO 9004:2018, IDT). URL: https://online.budstandart.com/ua/catalog/doc-page.html?id_doc=81206 (дата звернення: 22.10.2024).
- [11] Шапошник А. До питання про визначення послуг в інноваційній сфері. *Підприємництво, господарство і право*, 2018. № 9. С. 64-67. URL: <http://pgp-journal.kiev.ua/archive/2018/9/13.pdf> (дата звернення: 22.09.2024).
- [12] Енциклопедичний словник-довідник з туризму. URL: https://leksika.com.ua/16391214/turizm/infrastruktura_sferi_poslug (дата звернення: 12.10.2024).

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