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DEVELOPMENT OF THE METHOD OF SELECTING INNOVATIVE IDEAS FOR FOLLOWING COMMERCIALIZATION ON THE BASIS OF THE INNOVATIVE SUPERMARKET

Об'єктом дослідження є інноваційно-інвестиційні процеси на підприємствах України. Одним з найбільш проблемних місць є наявність досить багатьох розрізнених підходів та методів відбору і оцінки інноваційних ідей, що не дозволяє узгодити параметри пропозиції інновацій з параметрами їх попиту та гальмує процеси комерціалізації науки.

В ході дослідження обґрунтовано склад оціночних критеріїв відбору інноваційних ідей для подальшої комерціалізації. За основу було взято методику Державного агентства України з інвестицій та розвитку. Згідно цієї методики Конкурсний комітет з питань відбору інноваційних та інвестиційних проектів для їх фінансування за рахунок коштів Державної інноваційної фінансово-кредитної установи перевіряє на відповідність таким критеріям: науково-технічному, виробничому, ринковому, фінансово-економічному, соціальному та екологічному.

З метою полегшення порівняльної оцінки інноваційних ідей на етапі їх попереднього відбору в роботі запропоновано здійснити інтегральну оцінку ідей на підставі узагальнення одиничних критеріїв відповідності вимогам інноваційного проекту в інтегральний індекс. Задля підвищення рівня обґрунтованості та об'єктивності результатів інтегральної оцінки авторами розроблено систему вагових коефіцієнтів одиничних критеріїв відповідності інноваційних ідей вимогам інноваційного проекту, що дозволяє:

- no-nepшe, отримати ваговий рівень показників, які встановлюються шляхом експертної оцінки значимості відповідних показників у агрегованому оціночному критерії;
- по-друге, на основі врахування ваги кожного критерію системи оцінювання встановити загальний рівень відповідності інноваційного проекту запитам експертів інноваційного супермаркету.

За результатами експертної оцінки відносної важливості одного критерію над іншими було побудовано матрицю попарних порівнянь критеріїв інноваційних проектів на етапі їх попереднього відбору. Запропоновані вагові коефіцієнти забезпечать підвищення точності результатів оцінювання та об'єктивності управлінських рішень, ухвалених на їх підставі.

Запропонована методика дозволяє комплексно оцінити відповідності поданих заявок критеріям практичного впровадження інноваційного супермаркету.

Ключові слова: інноваційний супермаркет, методика відбору інноваційних ідей, оціночні критерії відбору інноваційних ідей.

1. Introduction

Ukraine's desire to acquire the status of a full member of the European community caused the need for a structural reorganization of the domestic economy towards the formation of a competitive economic infrastructure capable of adequately representing Ukraine in the European arena. The solution of this problem requires the introduction of an innovative model for development of the national economy, the priorities of which are the implementation of educational, scientific and scientific and technical activities, the implementation of measures to concentrate investment resources on the implementation of innovative projects.

In modern conditions, there is a lag in the innovative development of Ukrainian enterprises, necessitating the improvement of existing innovative and investment processes, in particular, with the means of an innovative supermarket.

2. The object of research and its technological audit

The object of research is innovative and investment processes at Ukrainian enterprises. Improvement causes the need to consolidate the activities of participants in investment and innovative activities in the form of innovative supermarkets. This allows the inventor and investor to unite in the process of producing competitive products (services, technologies, etc.), as well as searching for its end user. The interaction of inventors, investors and consumers of innovative products in the form of an innovative supermarket allows to agree on the parameters of the supply of innovations with the parameters of their demand. This accelerates the processes of commercialization of science and makes it possible to increase their economic efficiency. The study revealed quite a few disparate approaches and methods for selecting and evaluating innovative ideas [1, 2].

That is why it is necessary to develop a methodology for selecting innovative ideas for their subsequent commercialization and transfer.

3. The aim and objectives of research

The aim of research is development of a methodology for selecting innovative ideas for further commercialization and transfer based on an innovative supermarket.

To achieve this aim, the following tasks are defined:

- 1. To substantiate the composition of the evaluation criteria for selecting innovative ideas for further commercialization and transfer using the innovative supermarket.
- 2. To implement an integrated evaluation of ideas based on the generalization of single criteria for meeting the requirements of an innovative project in an integrated index.
- 3. To develop a system of weight coefficients of single criteria for the correspondence of innovative ideas to the requirements of an innovative project to increase the level of validity and objectivity of the results of an integrated evaluation.
- 4. To conduct approbation of the proposed methodology for the preliminary selection of innovative ideas using the innovative supermarket.

4. Research of existing solutions of the problem

The study of the innovative market and the commercialization of innovative ideas involve many scientists and practitioners who have developed programs for the development of the innovative market and identified promising areas of investment [2–4]. A rather interesting strategic program for technology evaluation [5], however, technology evaluation is due to expert evaluations, which reduces the level of objectivity of the results. Methods for evaluating commercial potential using computer methods of analyzing information [6, 7] do not provide an opportunity to conduct a preliminary selection of innovative ideas. Over the past six years, a comprehensive technology evaluation strategy (STEP) has been developed and is constantly changing to evaluate the commercial potential of environmental technologies. Potential use of the STEP model includes technology screening, technology evaluation and prediction of factors affecting the commercial potential of environmental technologies [8], but it has a very narrow application.

The authors of [9] proposed a method for evaluating the maturity of introducing innovative technological solutions, is certainly a very important stage in the development of the country's innovative economy. [1, 10] substantiate criteria for the preliminary selection of innovative ideas (projects) for further implementation, commercialization and transfer.

However, along with the formation of a system of criteria, it is important to determine the methodology for evaluating innovative projects at the stage of their pre-selection. This requires the development of a comprehensive methodology for selecting innovative ideas for further commercialization and transfer using the innovative supermarket.

5. Methods of research

To achieve this aim, in determining the formulated tasks, their formulation and solution, the following general scientific and special research methods are used:

 methods of analysis, synthesis and logical generalization - to justify the composition of the evaluation criteria for selecting innovative ideas for further commercialization and transfer using the innovative supermarket;

- method for analyzing hierarchies to establish weighted contributions of the evaluation criteria for selecting innovative ideas for further commercialization and transfer using the innovative supermarket;
- method of expert evaluation method of comparisons - to determine the expert group of indices for each of the evaluation criteria:
- economic and mathematical methods to integrate individual indices into a comprehensive evaluation cri-
- method of comparisons to determine whether innovative ideas meet the selection criteria.

6. Research results

In modern conditions, an innovative supermarket acts as a communication network. It generates a powerful synergetic effect due to smoothing the uncertainty of the directions of implementation of proposed innovative projects at the entrance of the chain «invention – implementation – competitive products» and the needs of end-users of innovative products. This is due to the implementation of corrective actions at all stages of the transformation of inventions into the final innovative product.

The starting point of the innovative supermarket is the acquisition and processing by its experts of an innovative idea, in order to determine the suitability for the practical application of an innovative idea from the general list of proposed. An innovative idea should be submitted to an innovative supermarket in the form of an application in writing on standard forms. Such application should contain a description of the idea of the project, the scope of its application, the principle novelty, detailing the production process or technology to provide the subject of an innovative project – goods, services, technology. And also other information necessary for determining the parameters of economic efficiency.

At the stage of verification of the innovative project, specialists of the innovative supermarket should select their ideas and weed out unsuitable for further implementation by testing them for compliance with a set of evaluation criteria.

Even in the case of the authoritativeness of the inventor and the attractiveness of the idea from the point of view of practical application, there are questions of its suitability for mass production. Questions arise of its relevance to the strategic goals of the innovative supermarket, the sufficiency of its resources (temporary, material, personnel, financial, etc.) to transform the idea into a final product.

That is why, it is possible to note the important role of this stage and the need to form an objective set of criteria for preliminary evaluation of innovative projects. At the same time, the further effectiveness of the innovationinvestment process depends on the objectivity of the criteria for evaluating innovative ideas, therefore their choice should be carried out with an appropriate scientific justification.

In practice, there are a number of queries that an innovative proposal should meet, in particular:

- expected volumes of production and sales of products;
- growth of market share;
- degree of penetration to the market is achievable;

- conformity of the product to the used or planned sales channels;
- level of its profitability in the company's overall production program and the like.

But such criteria are inherent in a specific business entity, which plans to introduce an innovative project into mass production. The experts of the innovative supermarket are faced with the task of comprehensive project evaluation in the face of uncertainty of further directions of its commercialization. In these conditions, the range of criteria expands, it is advisable to take into account both the advantages of the project against the background of the proposals of competitors, and the amount of financing, the technical level of the complexity of implementation and the like. Based on the analysis and synthesis of existing research in this field [2, 11], let's suggest using the methodology of the State Agency of Ukraine for Investments and Development as the most complex and objective from the point of view of taking into account the comprehensive aspects of the practical implementation of the innovative project.

Along with the formation of a system of criteria, it is important to determine the methodology for evaluating innovative projects at the stage of their pre-selection, which may include quantitative and qualitative methods, peerreview methods, a matrix of evaluations, a multicriteria evaluation like that. When choosing the optimal method, one should take into account the need to ensure the simplicity and speed of processing applications at the stage of preliminary selection of innovative projects. Therefore, in this study, the most appropriate is the use of the evaluation matrix method, which allows to comprehensively evaluate the phenomenon under study taking into account a number of its individual parameters. This will ensure the objectivity and accuracy of evaluation results as the ultimate goal of preliminary selection of innovative projects by specialists of the innovative supermarket.

The proposed evaluation matrix is constructed as follows: – formed a system of evaluation criteria – for this research the following are selected: scientific and technical, production, market, financial and economic, social and ecological;

- the weighted contribution of a separate criterion to the overall evaluation of the innovative project is established;
- scale of evaluation is determined with the help of which the expert can determine whether the investment project meets each criterion from 1 point (very bad) to 10 points (excellent);
- index of the innovative project for each criterion is calculated by producing the assigned score and the criterion contribution in the overall project evaluation;
- the final result of the evaluation is calculated by the formula:

Integral index of the innovation $project_{(j)} = \sum A_i X_{ij}$, (1) where i – the i-th number of the evaluation criterion; j - j-th number of the innovative project; A_i – contribution of a separate criterion to the overall evaluation of the innovative project; X_{ij} – evaluation of a satisfaction degree of the innovative project j for criterion i.

An important place in the process of evaluating an innovative project is the stage of establishing weight coefficients for selected evaluation criteria that reflect the weight of each criterion in the integral indicator of the innovative project's compliance with the parameters of the preliminary selection of an innovative supermarket.

For this, the method of «analysis of hierarchies» of T. Saaty is applied, which is one of the most accurate and mathematically grounded ways of systematizing disparate indicators into a single evaluation criterion. This method meets the requirements of a strategic analysis of the development of the research object by taking into account the importance of the characteristics of the research object in the aggregated criterion.

The application of the method of hierarchies of T. Saaty in establishing the weight coefficients of the criteria for evaluating innovative projects that are components for calculating the integral indicator of the project's compliance allows:

- first, to obtain a weighted level of indicators, which are established by expert evaluation of the significance of the relevant indicators in the aggregated evaluation criterion;
- secondly, based on the weight of each criterion of the evaluation system, establish the overall level of compliance of the innovative project with the requests of experts from the innovative supermarket.

In this study, experts were selected as experts in the innovative and investment sphere – patent attorneys, employees of engineering divisions of industrial enterprises of the Kharkiv region (Ukraine), experts of banking institutions for investment lending. According to the organizational support of the innovative supermarket, such evaluation is carried out by specialists of the innovative supermarket at the first stage of its activity.

Based on the results of an expert evaluation of the relative importance of one criterion over others, a matrix of pairwise comparisons of the criteria of innovative projects is constructed at the stage of their pre-selection (Table 1).

Table 1

The results of calculating the weight coefficients for the evaluation criteria of the innovative idea using the method of T. Saaty

Criterion	Scien- tific and technical	Market	Ecolo- gical	Indus- trial	Financial and eco- nomic	Social	Product	Root of 6th degree	Vector	Rank
Scientific and technical	1	1/3	1/2	1/4	1/6	1	0.0069	0.4368	0.062	5
Market	3	1	1	1	1/3	2	2.0000	1.1225	0.159	3
Ecological	2	1	1	2	1/4	1	1.0000	1.0000	0.142	4
Industrial	4	1	1/2	1	1	3	6.0000	1.3480	0.191	2
Financial and economic	6	3	4	1	1	4	288.0000	2.5698	0.364	1
Social	1	1/2	1	1/3	1/4	1	0.0417	0.5888	0.083	6
Check consistency of expert evaluation:										
λ_{max}								6.425		
Consistency index								0.08		
Consistency relation							0.06			

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The proposed weighting factors will ensure an increase in the accuracy of evaluation results and objectivity of management decisions taken on their basis.

The adequacy of the results is checked by the level of the consistency index, which shows how far the position in a certain group differs from the position of other groups by the same consistency [12]. The results of the calculations are adequate, since the level of the consistency index is 0.06 at a normative value of 0.1. Proceeding from the foregoing, it seems reasonable to propose a matrix methodology that is based on scores and scales (Table 2).

Matrix of an innovative idea evaluation at a stage of preliminary selection of innovative projects

	Criterion	Score										
Criterion	contribu- tion	1	2	3	4	5	6	7	8	9	10	Index
Scientific and technical	0.062	*	*	*	*	*	*	*	*	*	*	**
Industrial	0.191	*	*	*	*	*	*	*	*	*	*	**
Market	0.159	*	*	*	*	*	*	*	*	*	*	**
Financial and economic	0.364	*	*	*	*	*	*	*	*	*	*	**
Social	0.083	*	*	*	*	*	*	*	*	*	*	**
Ecological	0.142	*	*	*	*	*	*	*	*	*	*	**
Total:	1.000 *					**						

Note: * – expert evaluation; ** – criterion index, which is calculated by the product of the assigned score and the criterion contribution.

So in the future, it is advisable to evaluate the received applications for design of innovative projects on this scale, and to determine their rating. The level of the integral indicator of the compliance of an innovative project with the criteria of an innovative supermarket varies from 1 to 10 and has an interpretation of the values shown in Fig. 1.

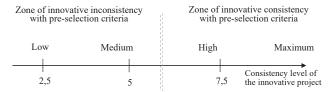


Fig. 1. Scale of innovative consistency evaluation with pre-selection criteria

A set of tools for a methodical approach to the selection of innovative projects for commercialization and transfer using the innovative supermarket is shown in Fig. 2.

Further approbating the methodical approach is offered on the basis of the following received applications — inventions:

- project 1 a method for diagnosing the state of a digital intelligent sensor - belongs to the area of monitoring and diagnosing microprocessor-based engine control systems and can be used to diagnose failures of automotive sensors;
- project 2 a method for cascading the conversion of mechanical energy into electrical energy belongs to the field of electromechanics, in particular the method with the help of keel-rotor generators of inductor type with magnetic and electromagnetic excitation. Can be used on gearless wind power plants and low-pressure hydroelectric power stations;

- project 3 energy efficient electric burner belongs to electric heaters and can be used as a structural element of electric cookers for public catering establishments, in professional kitchens, in canteens, restaurants and the like;
- project 4 coated pearlite granules, the method of their manufacture and methods for manufacturing concrete and parts - belongs to the production of building materials. Can be used in the production of silicate wall products, silicate bricks, tiles, blocks, wall panels, are subjected to autoclave treatment during hardening;

Table 2

project 5 - device for measuring the viscosity of liquid substances - belongs to the laboratory instrumentation, to the means of measuring the viscosity of liquid systems;
 project 6 - business document - concerns the field of advertising and printed materials for special purposes. Can be used to provide services to the user and bring advertising and additional information;
 project 7 - centrifugal pump - belongs to the field of engineering and can be used in pumps for pumping water and other neutral liquids in mine drainage systems

Based on the proposed matrix (Table 2), evaluating the compliance of submitted applications with the criteria for the practical implementation of an innovative supermarket (Table 3).

in the coal and mining industry.

Stage I Justification	Methods of analysis,	Scientific and technical Market									
of the	synthesis,	3. Ecological									
composition of	systemic	4. Production									
the evaluation	generalization	5. Financial and economic									
criteria for	-	6. Social									
selection											
Stage II	Hierarchies	1. Scientific and technical 0.062									
Establishment	analysis	2. Market 0.159									
of weighted	method	3. Ecological 0.142									
evaluated		4. Production 0.191									
contributions		5. Financial and economic 0.364									
		6. Social 0.083									
		1.000									
		1.000									
Stage III	Method of	IP Index =									
Determination	expert	Criterion × Weighing × Score*									
of indices for	evaluation	factor of IP by									
each of the	evaluation	criterion criterion									
evaluation		Criterion Criterion									
criteria by the		* – from 1 (very bad) to 10 (very good)									
		- Irom 1 (very bad) to 10 (very good)									
expert group											
C4 137	Economic	1									
Stage IV Integration	and	Internal in Law C									
of individual	mathematical	Integral index of $= \sum A_i X_{ii}$,									
indices into	mathematical methods	innovative $project_{(j)}$ $-\sum_{A_iA_{ij}}$									
	metnods	where $i - i$ -th number of the evaluation									
a complex evaluation											
criterion		criterion;									
criterion		j-j-th number of the innovative project;									
		A_i – the contribution of a separate criterion									
		to the overall evaluation of the innovative									
		project;									
		X_{ij} – evaluation of satisfaction degree of the									
		innovative project j for criterion i									
Stage V	Comparison	Inconsistency Consistency zone									
Determination	method	zone									
of whether the											
idea meets the		Low Medium High Maximum									
selection		2.5 5 7.5 10									
criteria		Level of correspondence of the innovative									
		idea to the selection criteria									
		-									

Fig. 2. Methods of selecting innovative ideas for further commercialization and transfer

Table 3Evaluation matrix of the declared innovative ideas at the stage of pre- selection of innovative projects

	Criterion Score											
Criterion	contribu- tion	1	2	3	4	5	6	7	8	9	10	Index
Idea No. 1. Me		nosii	ng th	e sta	ite of	a di	gital	intel	ligen	t sen	sor	
Scientific and technical	0.062	-	Ī-	х	-	_	-	_	-	_	_	0.186
Industrial	0.191	-	_	-	-	-	-	_	-	х	_	1.719
Market	0.159	-	-	-	-	х	-	-	-	-	-	0.795
Financial and economic	0.364	-	_	-	-	_	х	_	-	-	_	2.184
Social	0.083	-	_	х	-	_	-	_	-	-	_	0.249
Ecological	0.142	-	_	-	-	_	-	_	х	-	-	1.136
Total:	1.000					-	_					6.269
Idea No. 2. Method for o	ascading the	con	versi	on o	f med	:hani	cal e	nergy	y into	elec	trica	l energy
Scientific and technical	0.062	_	_	_	-	_	_	_	х	_	_	0.496
Industrial	0.191	-	_	_	-	_	х	_	-	_	_	1.146
Market	0.159	-	_	_	-	_	-	_	-	х	_	1.431
Financial and economic	0.364	_	_	_	-	_	_	_	х	_	_	2.912
Social	0.083	_	_	_	-	_	_	х	-	_	_	0.581
Ecological	0.142	_	_	_	-	_	_	_	-	_	х	1.42
Total:	1.000					٠						7.986
	Idea No. 3.	Ener Ener	πv e	ficie	nt ele	ectric	huri	ner				7.000
Scientific and technical	0.062	_	_	_	_	x	_	_	T _	_	_	0.31
Industrial	0.191	_	_	_	-	_	_	_	х	_	_	1.528
Market	0.151		_	_		_	х	_	^			0.954
Financial and economic	0.364	_	_	_	 -	_	_	_	_	x	_	3.276
Social	0.083						_	_	-	_		0.581
Ecological	0.003	-	_	-	-	_	_	х	-	_	_	0.426
Total:	1.000	_	_	х	_	_	_	_	_	_	_	7.075
		1			1 -1 1	hain.						
Idea No. 4. Coated pe	ariite granui manufa							шаст	ure a	ana n	netho	as ior
Scientific and technical	0.062		iy ci	111616		х	11.5	_			_	0.31
Industrial	0.002	_	_	_	-	X	x	_	-	_	_	1.146
Market	0.151	_	_	_	-	_	_	_	-	x	_	1.431
Financial and economic	0.364	_	_	_	 -	_	_	_		_	_	2.912
Social	0.364	_	_	_	-	_	_	_	_ X	_	_	0.332
			_		_ X	_	_	_	Η_	_		_
Ecological Total:	0.142 1.000	_	_	х	-	_	-	_	_	_	_	0.426 6.557
10(11)				ıL_			-1 1:-		LI			0.337
Idea No. 5. Scientific and technical	0.062	neası		ine	Т	ISITY	01 110		SUDSI	ance	S	0.434
		-	_		-	_	-	х	_	_	_	
Industrial	0.191	_	_	_	-	_	_	_	Х	-	_	1.528
Market	0.159	_	_	_	-	Х		_	_	_	_	0.795
Financial and economic		_	_	_	_	_	_	_	-	х	_	3.276
Social	0.083	_	_	Х	-	_	_	_	-	_	_	0.249
Ecological	0.142	_	_	_	Х	_	_	_	_	_	_	0.568
Total:	1.000											6.850
	Idea N	lo. 6.	Bus	ines	s doc	ume	nt					
Scientific and technical	0.062	-	_	-	-	_	-	_	-	-	_	0.186
Industrial	0.191	_	Х	_	-	_	_	_	_	_	_	0.382
Market	0.159	_	_	_	Х	_	_	_	-	_	_	0.636
Financial and economic	0.364	_	_	_	_	_	Х	_	-	_	_	2.184
Social	0.083	_	_	Х	-	_	_	_	_	-	_	0.249
Ecological	0.142	_	_	_	-	_	_	Х	_	_	_	0.994
Total:	1.000											4.631
	Idea	No. 7	7. Ce	ntrifi	ıgal ı	pump)					
Scientific and technical	0.062	_	_	_	_	х	_	_	_	_	_	0.31
Industrial	0.191	-	_	_	_	_	_	х	_	_	_	1.337
Market	0.159	_	_	х	_	_	_	_	-	_	_	0.477
Financial and economic	0.364	-	_	_	х	_	_	_	_	_	_	1.456
Social	0.083	_	L	_	_	_	_	L	_	_	_	0.166
Ecological	0.142	_	_	_	_	_	_	_	_	_	_	0.852
Total:	1.000											4.598
	1											

Systematization of the results of preliminary testing of innovative ideas by evaluating the level of their compliance with the criteria of an innovative supermarket for further practical implementation is presented in Table 4.

Generalization of the results of preliminary testing of innovative ideas by evaluation their consistency level

No.	Innovative idea	Score	Consisten- cy level	Application status	
1	Method of diagnosing the state of a digital intelligent sensor	6.269	High	Comes to operation	
2	Method for cascading the conversion of mechanical energy into electrical energy	7.986	Maximum	Comes to operation	
3	Energy efficient elec- tric burner	7.075	High	Comes to operation	
4	Coated pearlite gra- nules, the method of their manufacture and methods for manufac- turing concrete and parts	6.557	High	Comes to operation	
5	Device for measuring the viscosity of liquid substances	6.850	High	Comes to operation	
6	Business document	4.631	Medium	Eliminated	
7	Centrifugal pump	4.598	Medium	Eliminated	

Thus, according to Table 4 it becomes clear that at the stage of preliminary verification of applications – innovative ideas experts of the innovative supermarket screened 2 applications from 7 submitted for consideration.

So the process of preliminary selection of inventions and innovative ideas is quite complex and provides for a thorough check of the authors' proposed developments for compliance with the main criteria of innovative and investment ability, namely:

- scientific and technical criteria;
- production criterion;
- market criterion;
- financial and economic criteria;
- social criteria;
- ecological criteria.

The proposed set of criteria for the conformity of innovative ideas is consistent with existing methods of selecting innovative projects for the provision of state support. And also it allows to study the ability of innovative developments for commercial use in a complex way and to establish the level of its social utility at the stage of marketing of innovative products obtained as a result of practical development.

7. SWOT analysis of research results

Strengths. The strength of research is the proposed methodology for selecting innovative ideas for commercialization and transfer by means of an integrated evaluation, which, in contrast to existing ones, takes into account:

- set of evaluation criteria for selection;
- weighted contributions of individual criteria to the overall evaluation:
- indices of the innovative idea according to the developed set of criteria;
- procedure for the integrated evaluation of innovative projects based on a set of criteria;
- scale of the correspondence of innovative ideas to the criteria of innovation, which, on the whole, makes it possible to compare innovative applications on a standardized list of diverse criteria.

Weaknesses. The weak side is that the proposed approach to the preliminary selection of innovative ideas is quite complex and time-consuming, which in turn leads to significant costs.

Opportunities. Opportunities for further research are the development of a methodical approach to the rating evaluation of the economic efficiency of innovative projects. Such approach should provide for the systematization of different aspects of the economic efficiency of innovative projects of single indicators in the direction of coverage and the rationale for their generalization into an integral criterion of economic efficiency. This allows to identify the most and least attractive to the investor innovative projects and justify management decisions on investing funds.

Threats. Threats to the results of the conducted research are legislative difficulties in registration of an innovative idea that have passed preliminary selection, determining the scope of its application and establishing the type of protection document as necessary conditions for the formation of an innovative project and its further implementation.

8. Conclusions

- 1. The composition of the evaluation criteria for the selection of innovative ideas for further commercialization and transfer using the innovative supermarket is substantiated. These include: scientific and technical, market, ecological, production, financial and economic, and social. Rationale for conducting on the basis of analysis and synthesis of existing research in this field.
- 2. The proposed integrated evaluation of ideas on the basis of generalization of single criteria of compliance with the requirements of an innovative project in an integrated index in order to facilitate comparative evaluation of innovative ideas at the stage of their pre-selection. This is done by ensuring the simplicity and speed of processing applications.
- 3. The developed system of weight coefficients of single criteria for the correspondence of innovative ideas to the requirements of an innovative project to increase the level of validity and objectivity of the results of the integral evaluation, which allows to take into account the separate contribution of such criteria in the general index. Because it allows: first, to obtain a weighted level of

indicators, which are established by expert evaluation of the significance of the relevant indicators in the aggregated evaluation criterion; secondly, based on the weight of each criterion of the evaluation system, establish the overall level of compliance of the innovative project with the requests of experts of the innovative supermarket.

4. The developed technique of selection of innovative ideas by means of innovative supermarket on the basis of which experts of an innovative supermarket carry out preliminary selection of innovative ideas for their further commercial use. Approbation of the proposed methodology at the stage of preliminary verification of applications – innovative ideas by experts of the innovative supermarket allows to weed out 2 applications from 7 submitted for consideration.

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