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ANALYSIS OF THE STATE OF INNOVATION ENTREPRENEURSHIP DEVELOPMENT IN UKRAINE

The scientific article is devoted to assessing the level of development of domestic innovative entrepreneurship by conducting a SWOT-analysis of innovative activity in Ukraine. Based on the analysis of data presented in the Bloomberg Innovation Index, the Global Innovation Index and the Global Competitiveness Index, the dynamics of changes in Ukraine's positions in these international rankings are investigated and its main competitive advantages in the field of innovation at the global level and obstacles to the development of innovative business are identified. The main indicators of innovation activity in Ukraine for the period from 2010 to 2018 were evaluated. The SWOT-analysis of innovative entrepreneurship in Ukraine is carried out. The basic measures aimed at solving the existing problems and promoting the development of innovative business in the country are proposed.

Keywords: *innovation, innovative activity, innovation-active enterprise, industrial enterprise, indicators of innovative activity of enterprises, rating, SWOT-analysis, measures of promotion of innovative entrepreneurship development.*

Introduction. The innovative type of economic development is one of the most important drivers of its growth. It is through the creation of innovative enterprises and economic mechanisms, which are sensitive to innovations, that the strategic goals of doubling GDP, creating a competitive and socially oriented economy, qualitatively improving the standard of population living can be fulfilled.

At the same time, the current state of the innovation sphere of the Ukrainian economy indicates that there are serious problems in its functioning:

the sufficiently high technical potential of Ukraine during the period of economic reforms has been largely destroyed, the number of scientific personnel has decreased, the material and technical base of science is deteriorating and is aging and morally worn;

there is no significant influence of the state on the development of innovation process in the national economy, tax legislation does not encourage enterprises to innovate.

In such circumstances, an urgent task is to analyze the development of innovative activity in Ukraine. The need for this analysis is caused by the need to identify factors that contribute to or impede the formation and operation of domestic innovative enterprises, the formation of "growth points", creation competitive advantages and increasing the rate of economic growth in the conditions of fierce competition, determining priority areas and developing effective ways of state regulation activities in the country.

Literature review. The research of the essence of innovations and the process of innovative entrepreneurship development is devoted to the work of many domestic and foreign scientists, including: O. Amosha, V. Geyets, R. Grinchenko, P. Druker, V. Koyuda, D. Krykunenko, L. Lysenko, O. Maslak, V. Seminozhenko, J. Schumpeter and other scientists.

Paying tribute to the above-stated research, it should be noted that there is a lack of comprehensive analysis of the current state of innovative entrepreneurship development in Ukraine.

The purpose of the article is to evaluate the level of innovative entrepreneurship development in Ukraine and to identify the main measures to promote it on the basis of conducting a SWOT-analysis of innovative activity in the country.

Results and discussion. The current socio-economic situation in Ukraine is increasingly acquiring innovative features related to the development, implementation and use of innovations. Innovation becomes the inherent quality of enterprises that determine the level of socio-economic development of the country. A new innovative model of socio-economic national development is being formulated, which is a consequence of the transition and dominance of such elements as information and communication technologies. The development of the innovations market and intellectual property, the advancement of knowledge-intensive industries, the increase of the role of intangible forms of wealth (objects of intellectual property) and the increase of the role of the human factor are observed.

It should be noted that Ukraine is just beginning to create conditions for the innovative entrepreneurship development: centers of infrastructure support for innovative enterprises are being formed; national, regional and local development support programs are being implemented; the tax levers of their activity are reviewed and more. However, as it is evidenced by the results of these enterprises activity, these measures are not sufficiently effective and do not give a tangible effect [1, p.35].

In this situation, for today's Ukraine, the need to promote innovative entrepreneurship is increased, on the one hand, by competition from Western firms in terms of high technological level and product quality, and, on the other hand, by competitive Asian countries based on cheap labor. At the same time, according to the data presented in a number of international ratings, Ukraine has a rather low position in the innovative activity development in comparison with the developed countries of the world.

Thus, according to the published by the Bloomberg Agency rating of 60 best innovative economies of the world (The Bloomberg Innovation Index), Ukraine has had a negative tendency to decrease its positions in recent years (Fig. 1).

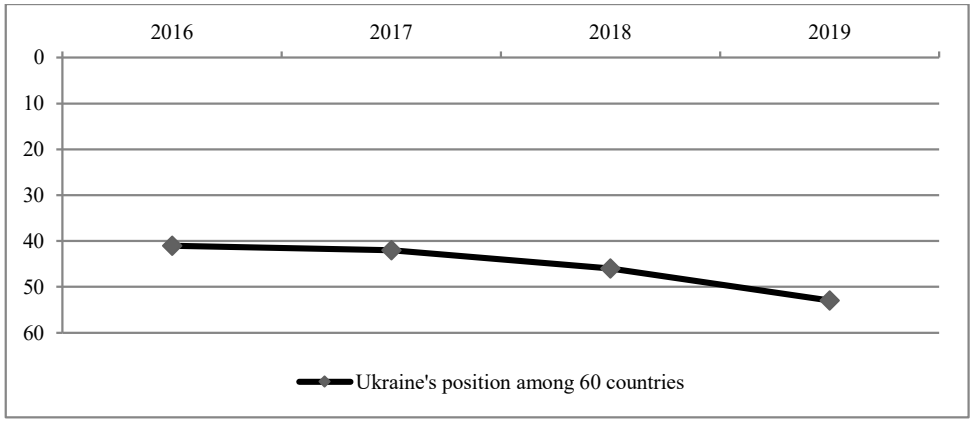

Fig. 1. Ukraine's place in the ranking of innovative economies of the world by version of Bloomberg Agency

Source: built by authors on the data basis [2]

Significant loss of Ukraine's position in the ranking of innovative economies of the world in 2019 due to low productivity (60th place among 60 countries), insufficient intensity of research and development (54th place), low production of goods with high added value (58th place), low concentration research (46 place). At the same time, our country has some potential to improve this situation due to a sufficiently high level of higher education efficiency (28th place), patent activity (35th place) and high technology concentration (37th place).

According to the Global Innovation Index, Ukraine ranked 47th in this ranking in 2019, which is 4 positions down according to the previous year (Table 1).

Table 1

Dynamics of Ukraine's position according to the data displayed in the Global Indices Index

Indicator	2013	2014	2015	2016	2017	2018	2019
Ranking	71 (142)	63 (143)	64 (141)	56 (128)	50 (127)	43 (126)	47 (129)
Sub-indexes:							
Market institutions	105	103	98	101	101	107	96
Human capital and research	44	45	36	40	41	43	51
Infrastructure	91	107	112	99	90	89	97
Market development	82	90	89	75	81	89	90
Business development	79	87	78	73	51	46	47
Knowledge and technological development	45	32	34	33	32	27	28
Creative development	81	77	75	58	49	45	42

Source: built by authors on the data basis [3]

The loss of Ukraine's positions in the above rating is due to a significant deterioration of such indicators as: "Human capital and research" (decrease by 8 positions compared to 2018), "Infrastructure" (decrease by 6 positions). The indicators of “Business Development” and “Knowledge and Technological Development” have weakened their values in 2019 by 1 position. The positive dynamics were reflected by the indicators: "Market institutions" (growth by 11 positions compared to 2018) and "Creative developments" (growth by 3 positions).

It should be noted that the efficiency of innovation activity development in the country is directly dependent on the general state and competitiveness of the national economy, which, in turn, will provide the high level of domestic innovative entrepreneurship necessary for the creation and stable functioning of resources. In this regard, it is advisable to consider the position of the Ukrainian economy in the international ranking of the world countries on the Global Competitiveness Index (Table 2).

Table 2

Dynamics of Ukraine's position according to the data reflected by the Global Competitiveness Index

Indicator	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Ranking	84(148)	76 (144)	79 (140)	85 (138)	81 (137)	85 (141)
Sub-indexes:						
Market Institutions	137	130	130	129	118	104
Infrastructure	68	68	69	75	78	57
Macroeconomic environment	107	105	134	128	121	133
Health and Elementary Education	62	43	45	54	53	101
Higher Education and Training	43	40	34	33	35	44
Commodity Market Efficiency	124	112	106	108	101	57
Labor Market Efficiency	84	80	56	73	86	59
Financial Market Development	117	107	121	130	120	136
Technological Availability	94	85	86	85	81	78
The Size of the Market	38	38	45	47	47	47
Business Development	97	99	91	98	90	85
Innovations	93	81	54	52	61	60

Source: built by authors on the data basis [4]

According to Table 2, Ukraine lost 4 positions in the global competitiveness rankings in 2018-2019 and ranked 85th among 141 countries in the world. The loss of rating positions in 2018-2019 was caused by a sharp deterioration in the performance of individual sub-indexes, which had an overall upward trend since 2015, namely: "Macroeconomic environment" (a decrease of 12 positions compared to the previous period), "Healthy and Primary Education" (down 48 positions), "Higher Education and Training" (down 9 positions), "Financial Market Development" (down 16 positions). At the same time, one of the key indicators that lead to the development of innovation activity in the country, during the study period, have a steady tendency to improve: "Labor market efficiency" (27 positions increase), "Commodity market efficiency" (44 positions increase), "Business Development" (5 position growth), "Technological readiness" (3 position increase), "Innovation" (1 position increase). Overall, Ukraine ranks mediocre positions by the innovation development (60th out of 141 countries), driven by the presence of some of the most problematic factors highlighted by the Global Economic Forum in the Global Competitiveness Report 2018-2019, which impede effective business conduct and, accordingly, creation and development of innovative entrepreneurship in the country (Fig. 2).

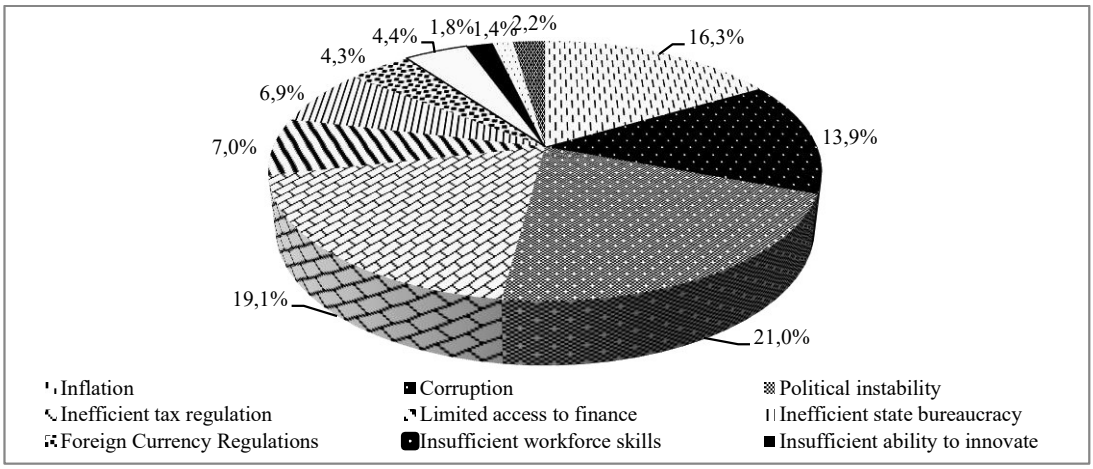

Fig. 2. Factors hindering the development of innovative entrepreneurship in Ukraine in 2018-2019

Source: grouped by authors on the data basis [4]

Thus, given the data on the state of innovation activity development in Ukraine, reflected in the international rankings discussed above, it can be noted that Ukraine's competitive advantages in the field of innovation at the global level consists of the presence and realization of human capital, which makes it possible to create value in the global economic system through the creation of various innovations in the form of ideas, scientific developments, patents, etc. The main obstacles in the innovative activity development in Ukraine, including innovative entrepreneurship, are unstable functioning of the innovation infrastructure, the imperfection of the political and business environment, the inefficient tax policy of the country. For the purpose of monitoring the indicators of innovative activity in the country, as well as for the possibility of their qualitative comparison with the indicators of other European countries in Ukraine, the State Statistics Service (hereinafter - the State Statistics Committee of Ukraine) introduced a statistic observation, which is carried out in accordance with the "Methodological Provisions on the Organization of National Statistical Observations on Enterprise Innovation Activity" [5]. The stated statistical observation consists of two directions [5, p. 6]: observation of innovation activity of enterprises, carried out in the form of the No. TIN (Taxpayer Identification Number) "Survey of Innovation Activity of the Enterprise for the Period 20_ - 20_ years" (once every two years for even years), taking into account the requirements of the European methodology of statistical survey of innovative enterprises [6] and using a special questionnaire - the European Community Innovation Survey (CIS) questionnaire [7]; observation of innovation activity of industrial enterprises, carried out in the form No. 1-innovation "Survey of Innovation Activity of Industrial Enterprise" (once every two years for odd years).

The results of statistical observations in the above areas are published in the relevant sections of the annual statistical collection "Scientific and Innovative Activity in Ukraine" [8-11], and are also displayed on the official website of the State Statistics Committee [12]. The statistics collected by the State Statistics Committee was considered in the light of the international methodology for the first line of statistical observations characterizing the innovation activity of enterprises in all types of economic activity. First of all, the dynamics of change in the quantity of innovative enterprises and their share in the total quantity of enterprises in Ukraine during 2010-2018 by regions will be evaluated (Table 3).

Table 3

Dynamics of the Quantity of Innovative Enterprises in the Regions of Ukraine (according to international methodology)

Region	2010-2012		2012-2014		2014-2016		2016-2018	
	Number of innovation-active enterprises, units	Share in the total quantity of enterprises in the region	Number of innovation-active enterprises, units	Share in the total quantity of enterprises in the region	Number of innovation-active enterprises, units	Share in the total quantity of enterprises in the region	Number of innovation-active enterprises, units	Share in the total quantity of enterprises in the region
Overall in Ukraine	6930	20,37%	4084	14,59%	5095	18,38%	8173	28,06%
Autonomous Republic of Crimea	151	14,77%	-	-	-	-	-	-
Vinnitsa Region	208	24,21%	146	17,32%	123	15,17%	203	24,17%
Volyn Region	135	24,64%	74	13,31%	75	14,40%	143	26,05%
Dnipropetrovsk Region	545	19,05%	343	13,32%	476	18,98%	776	28,99%
Donetsk Region	564	21,29%	45	12,89%	86	11,04%	145	17,92%
Zhytomyr Region	139	16,55%	99	13,92%	137	17,75%	187	23,73%
Zakarpatie Region	100	16,75%	66	11,89%	78	13,83%	149	26,90%
Zaporizhia Regions	338	26,10%	244	18,84%	206	17,50%	352	28,73%
Ivano-Frankivsk Region	178	28,90%	134	21,07%	121	19,71%	177	27,44%
Kyiv Region	455	27,18%	268	18,08%	260	17,70%	520	30,82%
Kirovigrad Region	95	19,08%	84	16,94%	92	19,33%	164	32,80%
Luhansk Region	201	16,07%	6	15,00%	34	12,59%	61	21,79%
Lviv Region	432	21,92%	304	15,92%	336	18,44%	544	29,14%
Mykolaiv Region	181	28,15%	109	16,34%	96	15,36%	133	20,91%
Odesa Region	261	15,01%	215	12,48%	267	16,32%	357	22,65%
Poltava Region	117	12,99%	60	6,64%	157	18,38%	217	23,56%
Rivne Region	171	28,79%	149	0,00%	137	23,78%	105	17,83%
Sumy Region	107	18,54%	65	11,50%	93	17,19%	142	25,40%
Ternopil Region	95	19,63%	78	15,20%	97	19,92%	156	31,58%
Kharkiv Region	596	23,89%	457	20,87%	479	23,39%	670	30,10%
Kherson Region	94	17,50%	73	14,66%	78	16,08%	127	26,08%
Khmelnitsckiy Region	166	23,35%	80	10,90%	86	12,80%	166	23,61%
Cherkassy Region	142	19,22%	85	11,61%	81	11,81%	155	21,71%
Chernivtsi Region	93	23,13%	66	16,42%	36	9,68%	76	20,05%
Chernigiv Region	127	20,82%	101	17,78%	89	16,54%	140	24,39%
Kyiv City	1166	17,68%	733	11,41%	1375	21,41%	2308	33,74%
Sevastopol City	73	23,86%	-	-	-	-	-	-

Source: grouped by authors on the data basis [8, c. 181; 9, c. 83]

According to Table 3, during 2010-2018 there is a positive tendency for the growth of the quantity of innovative enterprises in Ukraine, as evidenced by the increase of their number by almost 8% in 2016-2018 compared to 2010-2012. At the same time, the share of innovative enterprises in the total number of enterprises in the region during 2016-2018 was held by Kirovograd (32,80%), Ternopil (31,58%), Kyiv (30,82%), Kharkiv (30,10%), Lviv (29,14%) regions and Kyiv (33,74%). Outsiders by the same indicator in the same period were Rivne (17,83%), Donetsk (17,92%) and Luhansk (21,79%) regions.

It is worth noting that the increase in the number of innovative enterprises in Ukraine during 2010-2018 was not due to the growth of innovative products production or development of innovative processes, but due to the increase in the number of enterprises with non-technological (marketing and / or organizational innovations), the number of which in 2016-2018 increased by 13,2% compared to 2010-2012 and by 28,4% compared to 2014-2016. At the same time, the number of enterprises with technological innovations decreased in 2016-2018 in total by 28,4% compared to 2014-2016 and by 13,2% compared to 2010-2012 (Fig. 3).

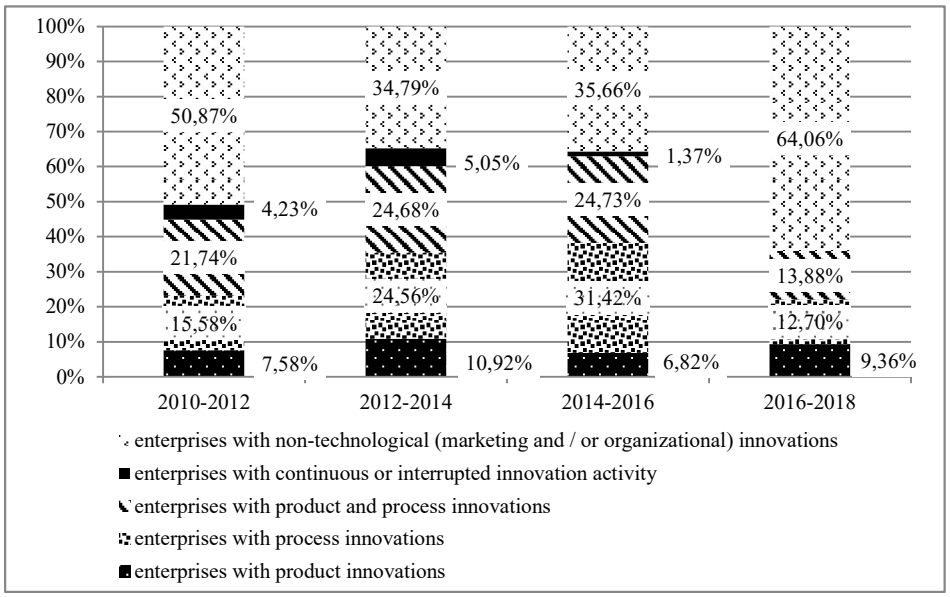

Fig. 3. Percentage distribution of enterprises by type of innovation in the composition of innovation-active enterprises of Ukraine (according to the international methodology)

Source: built by authors on the data basis [8, p. 181-182; 9, p. 83-84]

Among the types of economic activity, that was industry where the largest share of innovation-active enterprises of Ukraine was involved (49.7% in 2016-2016), in the second place there were innovative enterprises engaged in the wholesale trade, except trade in motor vehicles and motorcycles (26.6 % in 2016-2018). The above-mentioned tendency for distribution of innovation-active enterprises by types of economic activity persisted during 2010-2018 (Fig. 4).

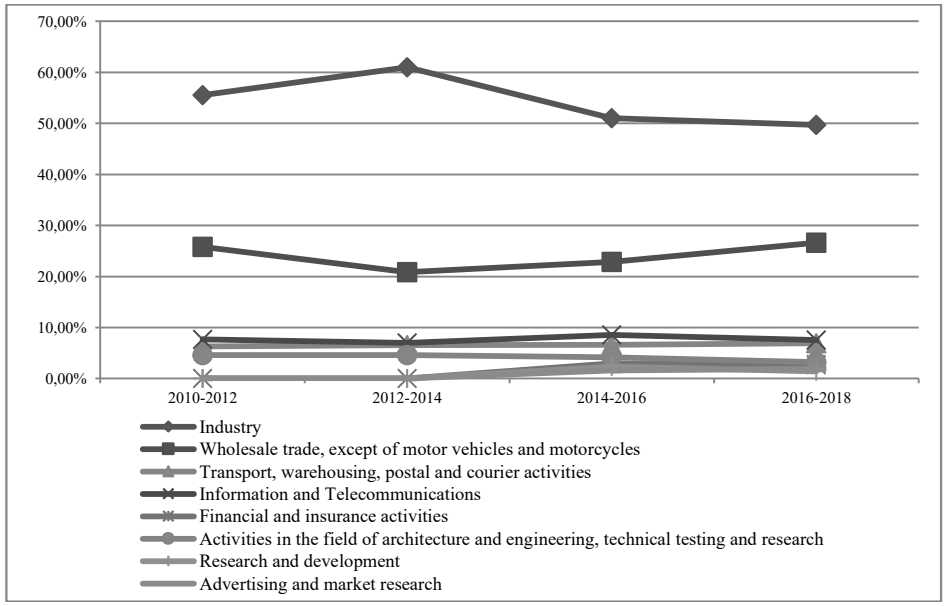

Fig. 4. Percentage distribution of innovation-active enterprises by the type of economic activity (according to the international methodology)

Source: built by authors on the data basis [8, p. 183-184; 9, p. 85-86]

In our opinion, since industrial enterprises occupy the largest share among the innovatively active enterprises of Ukraine, it would be advisable to pay particular attention to the evaluation of enterprises of this sector of the economy. Thus, the overwhelming majority of innovation-active industrial enterprises had manufacturing enterprises (89,3% in 2016-2018), and this distribution was maintained throughout the study period (Fig. 5).

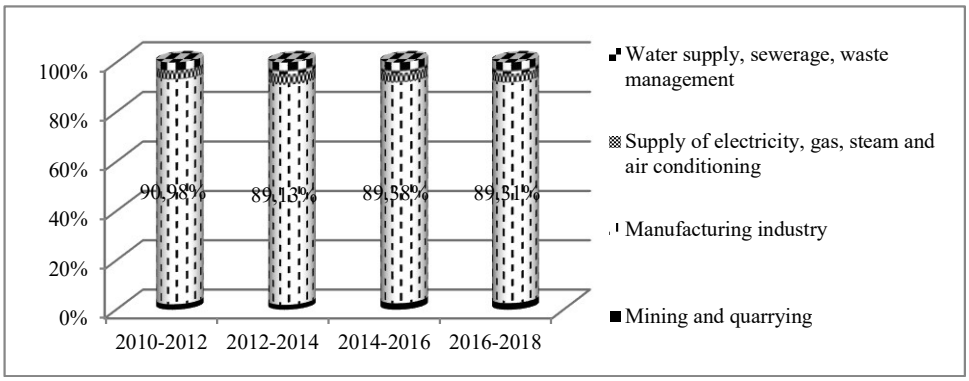

Fig. 5. Percentage distribution of innovation-active industrial enterprises by the type of activity (according to the international methodology)

Source: built by authors on the data basis [8, p. 183-184; 9, p. 85-86]

For a more detailed consideration of the indicators of innovation activity in industry, the statistics collected by the State Statistics Service will be turned to in the second line of statistical observations, which characterizes the innovation activity of enterprises engaged in industrial activity, regardless of the main activity [13, p.12].

First of all, the dynamics of change in the number of innovatively active industrial enterprises in Ukraine during 2010-2018 will be considered (Fig. 6).

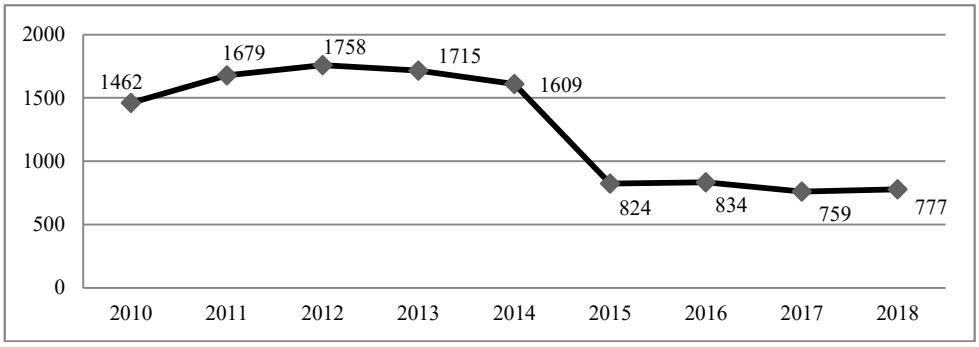

Fig. 6. Dynamics of the number of innovation-active industrial enterprises in Ukraine, units

Source: built by authors on the data basis [9, p. 65]

Based on the information shown in Fig. 6, it can be noted that the number of innovative enterprises decreased sharply in 2017 (by 9,0%), but the data for 2018 reflect a positive upward trend in their number (by 2,4%). At the same time, the number of innovative products introduced into production in 2018 increased by 60,9% and new technological processes (by 9,3%) (Fig. 7).

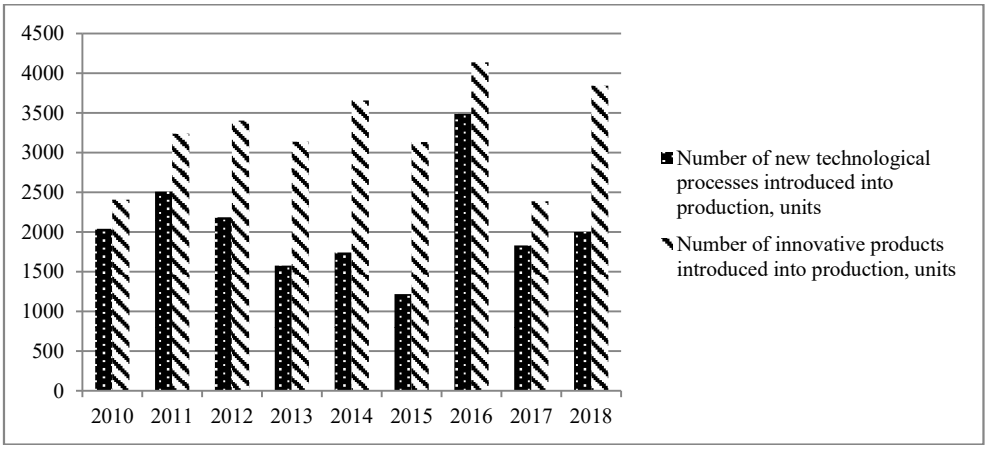

Fig. 7. Number of new technological processes and types of innovative products introduced into production

Source: built by authors on the data basis [12]

An important aspect in ensuring the increase in the number of innovative products and new technological processes introduced is the availability of sufficient sources of financing for innovation activities. As shown in Fig. 8, during 2010-2018, the financing of industrial business activity was carried out mainly at the expense of own funds (88,17% in the structure of sources of cost coverage in 2018). In the second place, the source of financing in 2018 is the state budget (5,3% in the structure of sources of cost coverage), in the third place - loans (3,9% in the structure of sources of cost coverage in 2018). At the same time, own funds retain leading positions as a source of financing for the entire period under study.

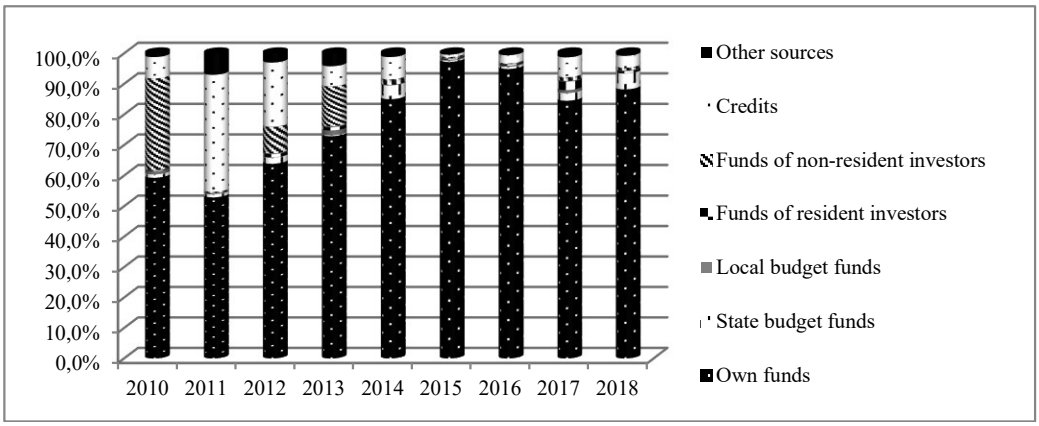

Fig. 8. Structure of sources of financing costs for innovation of industrial enterprises in Ukraine, mln.

Source: built by authors on the data basis [12]

In our opinion, both in industry and in other types of economic activity, the most active innovator is the small business that is a special sector of the modern economy, which largely determines its tendency and susceptibility to various innovations. As the experience of its operation in developed countries shows, small firms successfully create innovative potential for its further implementation in large enterprises. At the same time, knowledge-intensive entrepreneurship encourages scientific and technological progress, taking on the risks of investing in technical projects and developing technical innovations that are not undertaken by large enterprises. The confirmation of the above is shown in Table. 4.

Table 4

Distribution of innovative enterprises in Ukraine by size (according to international methodology)

Period	Industry			Other economic activities		
	Small (from 10 to 49 employees)	Medium-sized (from 50 to 249 employees)	Large (250 employees and more)	Small (from 10 to 49 employees)	Medium-sized (from 50 to 249 employees)	Large (250 employees and more)
2010-2012	1868	1105	875	2302	662	118
2012-2014	1185	769	538	1182	304	106
2014-2016	1237	842	519	1783	565	149
2016-2018	2128	1266	666	2969	874	270

Source: built by authors on the data basis [8, p. 185; 9, p. 87]

According to Table 4, in 2016-2018 the number of innovative small enterprises in industry was 50.4% of the total number of innovative industrial enterprises, in other types of economic activity this indicator was 72.2%. However, despite the overwhelming majority of small innovative enterprises, a large proportion of sales in 2018 are owned by large enterprises (71.0% among industrial enterprises, 56.8% among enterprises engaged in other economic activities) due to the fact that they possess greater production and financial capacity to create and sell goods (Table 5).

Table 5

Distribution of sales volume by size of innovative-active enterprises in Ukraine (according to the international methodology)

(% of total sales of products (goods, services) of enterprises)

Period	Industry			Other economic activities		
	Small	Medium-sized	Large	Small	Medium-sized	Large
2010	16,8	23,3	60,5	20,3	38,0	49,2
2012	16,1	20,7	68,6	21,0	29,6	55,1
2014	13,2	16,7	54,7	13,6	12,9	36,7
2016	The calculation was not carried out					
2018	24,6	29,1	71,0	29,6	40,0	56,8

Source: grouped by authors on the data basis [8, p. 190; 9, p. 90; 11, p. 225]

Regarding the structure of innovation costs, it should be noted that the largest share of funds of enterprises of all sizes during 2010-2018 was directed to the purchase of machinery, equipment and software (Table 6). At the same time, medium-sized enterprises (71,4% among innovative industrial enterprises, 50.5% among enterprises engaged in other types of economic activity) were in the first place in terms of expenditures in this direction. The next largest expenditures in the field of innovation activity were internal research and developments works, at which in 2018 a big share of costs was spent by large enterprises (22,3% among innovative industrial enterprises, 52,7% among enterprises engaged in other types of economic activity). Small enterprises held the leading positions in 2018 in terms of costs of other innovative activities (25,5% among innovative industrial enterprises, 17,6% among enterprises engaged in other types of economic activity).

Table 6

Share of innovation expenditures among small, medium and large enterprises of Ukraine by areas of innovation (according to the international methodology)

(% of total enterprise expenditures)

Areas of innovation activity	Period	Industry			Other types of economic activity		
		Small	Medium-sized	Large	Small	Medium-sized	Large
Internal research and development	2010	23,9	12,5	14,8	10,9	4,1	1,4
	2012	8,0	11,0	17,2	67,7	7,8	13,2
	2014	2,2	7,1	14,7	13,9	5,2	2,3
	2016	15,1	6,5	9,1	5,6	14,5	42,5
	2018	15,2	13,7	22,3	26,9	26,5	52,7
External research development	2010	5,7	5,4	3,7	7,5	6,7	2,2
	2012	4,6	3,6	3,5	2,3	2,3	2,3
	2014	6,8	1,6	2,1	5,1	23,8	0,7
	2016	6,6	7,9	1,3	51,3	18,2	10,1
	2018	1,3	5,5	3,7	8,1	5,2	18,2
Purchase of machinery, equipment and software	2010	69,3	78,4	78,9	80,9	85,2	69,4
	2012	86,7	83,2	78,7	10,6	65,5	56,8
	2014	92,3	86,0	65,7	66,6	50,6	89,9
	2016	42,9	80,7	85,7	34,2	34,9	43,2
	2018	53,1	71,4	68,0	46,2	50,5	23,4
Acquisition of other external knowledge	2010	1,2	3,6	2,5	0,7	4,1	26,9
	2012	0,7	2,1	0,6	19,5	24,3	27,7
	2014	0,9	0,7	1,2	4,2	16,1	6,8
	2016	1,5	0,4	0,3	2,0	6,4	2,2
	2018	4,8	0,5	0,5	1,2	7,4	1,1
Other innovative activities	2010	-	-	-	-	-	-
	2012	-	-	-	-	-	-
	2014	2,9	4,1	10,9	10,2	4,2	0,3
	2016	33,9	4,5	3,6	6,9	21,6	2,0
	2018	25,5	8,8	5,5	17,6	10,3	4,6

Source: built by authors on the data basis [8, p. 203; 9, p. 93; 11, p. 236]

We believe that one of the most important factors influencing the effectiveness of any enterprise, including innovative one, is the availability of sufficient staff to ensure its stable activity [14, p. 229]. The percentage distribution of the number of employees by size of enterprises showed the presence of the overwhelming number of employees in innovation-inactive enterprises in 2016 (Fig. 9). For example, 67,4% more workers worked in innovation-inactive small enterprises than in innovation-active enterprises during the above-mentioned period. Among medium-sized enterprises, the overwhelming number of workers also worked in innovation-inactive enterprises in 2016 (74,0% of the number of all enterprises of this size). However, among large enterprises in this period, a larger share of employees was involved in innovation-active enterprises (51,9% of the number of all enterprises of this size).

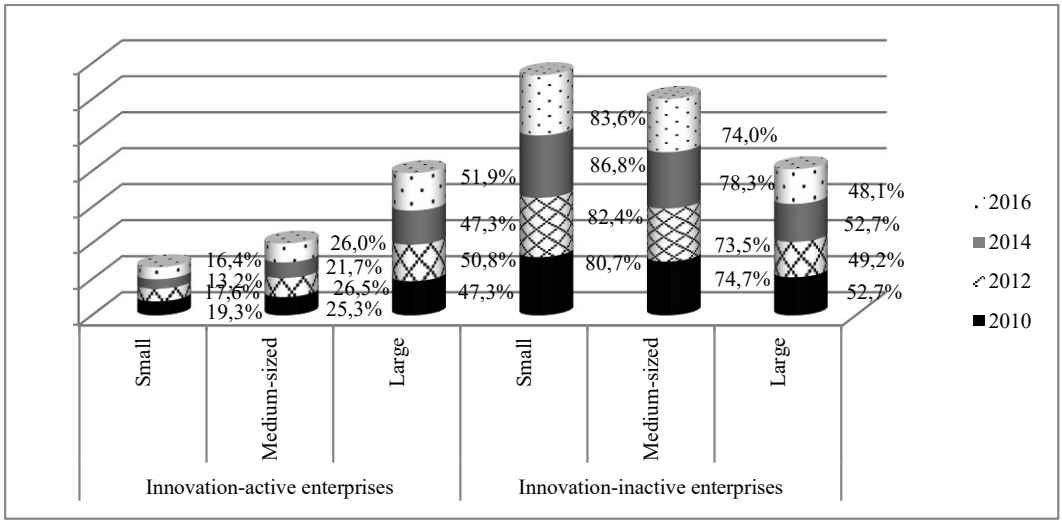

Fig. 9. Percentage distribution of the number of employees by size of enterprises (according to international methodology)

Source: built by authors on the data basis [8, p. 189; 10, p. 222; 11, p. 119]

It is necessary to emphasize that one of the components of effective functioning of innovation-active enterprises, apart from a sufficient number of workers, is the availability of personnel with the appropriate level of qualification and skills for developing and implementing innovations [15, p. 180]. Statistics of the State Statistics Service indicate a rapid reduction of scientific staff in Ukraine (a decrease in the number of researchers by 51,2% in 2018 compared to a similar indicator in 2010) (Fig. 10).

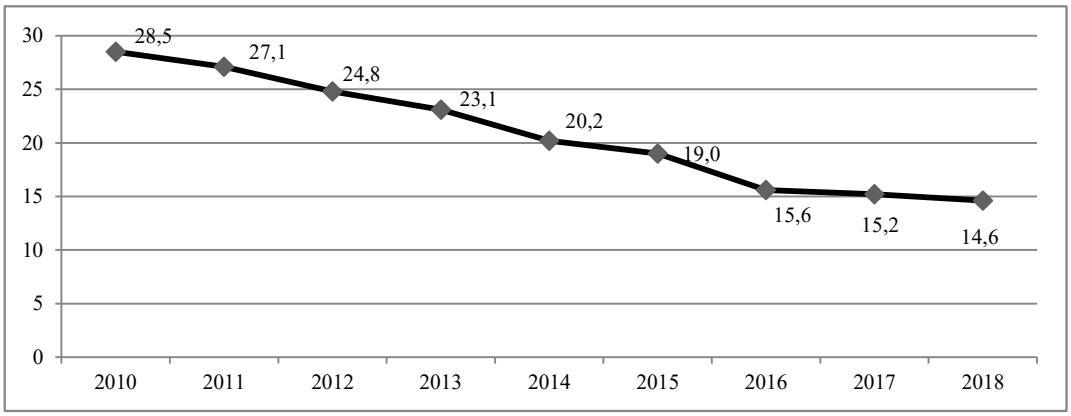

Fig. 10. Number of researchers involved in R&D in the business sector in Ukraine, thousand

Source: built by authors on the data basis [8, p. 44; 9, p. 44; 10, p. 36; 11, p. 36]

According to the statistics of the State Statistics Committee, during 2016-2018 the innovation-active enterprises of Ukraine increased the level of their innovative cooperation both within the country and with the European and other countries (Table 7). This has a positive impact on the level of innovation in the country through the creation and development of joint innovation projects, sharing knowledge and technology, financial support of partners and more.

Table 7

Distribution of innovation-active enterprises of Ukraine involved in innovation cooperation by partner's location (according to international methodology)

(% of total innovation-active enterprises)

Location of the partner of innovative cooperation	Period	Industry			Other types of economic activity		
		Small	Medium-sized	Large	Small	Medium-sized	Large
Ukraine	2010-2012	13,8	16,4	33,1	18,5	22,9	38,7
	2012-2014	9,5	11,0	25,8	17,6	26,5	34,7
	2014-2016	24,2	29,1	43,5	32,7	39,4	45,1
	2016-2018	49,9	51,3	61,2	64,5	66,2	79,6
European countries	2010-2012	2,8	5,5	16,6	4,9	3,9	18,6
	2012-2014	1,3	5,5	14,2	3,4	8,6	13,9
	2014-2016	4,4	9,9	20,8	7,3	9,0	12,7
	2016-2018	6,1	11,2	21,3	5,9	11,9	25,8
Other countries	2010-2012	2,1	3,3	14,9	2,4	6,8	18,6
	2012-2014	0,5	1,4	10,4	2,2	3,3	2,8
	2014-2016	2,8	4,5	14,5	3,9	6,0	10,8
	2016-2018	3,1	6,7	14,0	4,8	5,9	11,8

Source: built by authors on the data basis [8, p. 208; 9, p. 104]

According to Table 7, domestic innovation-active industrial enterprises in 2016-2018 compared to 2014-2016 increased the degree of cooperation with Ukrainian partners by an average of 21,8%, non-industrial enterprises - by 31,0%. There is a much smaller increase in the level of cooperation with international partners. Thus, on average in 2016-2018 compared to 2014-2016 the number of industrial enterprises engaged in cooperation with partners from European countries increased by 3,5% and the number of enterprises engaged in other types of economic activity - by 14.5 %.

It is also worth noting that suppliers of equipment, materials and software components remained the most important partners for innovation cooperation for innovation-active enterprises of Ukraine in 2010-2018 (Table 8).

Table 8

Distribution of innovation-active enterprises of Ukraine involved in innovation cooperation by type of partner (according to the international methodology)

(% of total innovation-active enterprises)

Type of partner on innovative cooperation	Period	Industry			Other types of economic activity		
		Small	Medium-sized	Large	Small	Medium-sized	Large
Within enterprise	2010-2012	26,0	25,1	34,0	36,5	36,9	48,5
	2012-2014	0,4	2,2	8,2	1,3	4,0	6,9
	2014-2016	11,7	11,7	17,5	14,1	19,1	24,5
	2016-2018	28,6	27,3	37,9	30,6	35,2	41,9
Suppliers of equipment, materials, software components	2010-2012	21,0	21,5	27,9	28,7	36,4	37,2
	2012-2014	7,4	9,4	23,7	14,7	23,2	33,3
	2014-2016	18,1	21,8	37,4	28,5	30,1	38,2
	2016-2018	44,3	48,3	54,3	57,7	60,7	77,4
Clients	2010-2012	20,0	17,7	23,9	28,7	22,5	19,9
	2012-2014	4,5	3,0	12,1	7,4	8,6	11,1
	2014-2016	10,2	12,4	18,5	15,1	14,0	15,7
	2016-2018	13,6	12,8	20,8	17,7	22,8	22,6
Higher education institutions	2010-2012	0,5	1,5	4,1	4,3	2,3	4,2
	2012-2014	1,2	1,4	6,3	1,1	4,0	6,9
	2014-2016	1,5	5,8	14,5	4,4	7,5	15,7
	2016-2018	2,6	4,5	12,4	3,3	10,5	18,3
Scientific institutions	2010-2012	2,5	3,7	8,4	6,2	5,2	2,1
	2012-2014	1,3	3,0	12,1	2,0	5,3	6,9
	2014-2016	2,9	8,8	20,3	5,7	10,1	19,6
	2016-2018	5,2	7,3	20,0	8,0	13,7	19,4

Source: built by authors on the data basis [8, p. 211; 9, p. 107; 11, p. 240]

At the same time, in 2016-2018 compared to 2014-2016, there was a rapid increase in cooperation with this type of partner among medium-sized industrial enterprises (by 26,5%) and large non-industrial enterprises (by 39,2%). Simultaneously, the interaction of innovation-active enterprises, especially industrial enterprises, with higher education institutions and scientific institutions, which serve as sources of training of highly qualified personnel and innovative developments, respectively, remains at a rather low level. Thus, cooperation with educational establishments among industrial enterprises in 2014-2018 tended to decrease (medium-sized enterprises - by 1,3% in 2016-2018 compared to 2014-2016, large - by 2,1%), the growth by 1,1% was noticed only among small industrial enterprises. The level of interaction with scientific institutions during the period also had a negative trend among medium-sized enterprises (a decrease by 1.5% in 2016-2018 compared to 2014-2016) and large industrial enterprises (a decrease by 0,3%). However, the number of small industrial enterprises cooperating with scientific institutions in 2016-2018 increased by 2,3%.

According to the results of the analysis of statistical information of the State Statistics Committee on the functioning of innovative entrepreneurship in Ukraine, the low level of innovation activity development can be pointed out. It was caused by significant economic and legislative obstacles that need the development of appropriate measures to overcome them. In order to determine these measures, in our opinion, it is advisable to use SWOT-analysis in order to identify the strengths and weaknesses of national innovative entrepreneurship, to which the measures of state influence will be directed.

The SWOT analysis was proposed by Harvard professor K. Andrews in 1963 [16] and is now widely used to investigate the competitive advantages of micro-business entities. In our view, SWOT analysis can also be applied at the macro level, that is, to act as a strategic analysis and planning method that can be used to evaluate innovative potential that reflects essentially the innovative capabilities of business entities, and endogenous and exogenous factors which affect the level of innovative activity development in Ukraine. Based on the analysis of Ukraine's positions on the level of innovation activity development, reflected in a number of international rankings, as well as statistics from the State Statistics Committee for 2010-2018, the SWOT matrix was proposed (Table 9).

Table 9

SWOT-analysis of innovation entrepreneurship development in Ukraine

Strengths	Weaknesses
- high quality of higher, secondary and professional education; - favorable geographical location of Ukraine for international trade; - high capacity of the domestic market; - the availability of human capital sufficient to create competitive innovation.	- insufficient public funding, especially for small businesses; - low level of innovation infrastructure development; - lack of well-established relationships between scientists and entrepreneurs; - significant tax burden on business and lack of tax breaks for innovative enterprises; - high level of corruption and inefficient state bureaucracy; - insufficient development of venture financing; - low technological infrastructure of domestic innovative enterprises; - reducing the number of scientific staff with the appropriate level of qualification and skills capable of developing and implementing innovations; - low motivation of entrepreneurs to innovate.
Opportunities	**Threats**
- increase in the number of innovative enterprises and growth of innovative activity in the country; - formation of internal and external demand for innovation; - stimulating innovation by reforming tax legislation; - reducing administrative barriers to reforming the national innovation system; - increasing the size of budget of innovative entrepreneurship financing; - growth of sales of domestic innovative products / technologies in the world market.	- dependence on foreign technology exports; - immigration of qualified personnel, scientists, inventors, entrepreneurs; - transfer of innovative business from Ukraine to countries with favorable conditions for its conduct; - loss of attractiveness of domestic innovative enterprises for investing funds of resident investors and non-residents; - low competitiveness of domestic innovative products in comparison with goods of other countries.

Source: proposed by the authors

Thus, innovative entrepreneurship in Ukraine has promising opportunities and resources for stable and harmonious development in the future. However, to use such potential effectively, it is necessary to address the problems and mitigate the threats that are reflected in the SWOT matrix, as well as to develop a comprehensive government regulation mechanism that would allow innovative enterprises to adapt to environmental changes using available resources.

In our opinion, the main measures aimed at solving the existing problems and promoting the innovative entrepreneurship development in Ukraine include the following:

reforming educational programs to meet the needs of entrepreneurship in highly qualified staff capable of creating and using innovation;

increasing the amount of public funding and support for innovative businesses, especially at the initial stage of creating an innovative enterprise and innovative product / technology;

introduction of amendments to the legal acts in order to stimulate the activation of innovative activity in the country;

introduction of tax incentives for innovative enterprises;

use of international positive experience to identify priority areas for the development of science and technology that require priority funding;

ensuring the development of innovative infrastructure;

conducting educational work to increase entrepreneurs' motivation to develop and implement innovations;

facilitating the creation of innovative clusters that would integrate enterprises with scientific institutions, higher and vocational education institutions in order to train potential staff for the needs of a particular enterprise and to provide scientific and methodological support for innovation implementation.

Conclusions. The study concludes that the main obstacle to the sustainable development of innovative entrepreneurship in Ukraine is the lack of effective state regulation of innovation processes in the country's economy. In this regard, for the sustainable development of the Ukrainian economy, it is necessary to provide favorable conditions for the creation and functioning of innovative enterprises, attraction domestic and foreign investors and formation a coherent national innovation system as a whole. In the context of this, an important task of public authorities is to identify problems in the innovative entrepreneurship development on time and to develop appropriate measures aimed at their effective overcoming.

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АНАЛІЗ СТАНУ РОЗВИТКУ ІННОВАЦІЙНОГО ПІДПРИЄМНИЦТВА В УКРАЇНІ

Проблема. *Інноваційний тип розвитку економіки є одним з найважливіших факторів її зростання. Саме через створення інноваційних підприємств і економічних механізмів, які були б чутливі до нововведень, можна виконати стратегічні завдання подвоєння ВВП, створення конкурентоспроможної та соціально орієнтованої економіки, якісного підвищення рівня життя населення. При цьому сучасний стан інноваційної сфери української економіки свідчить про наявність серйозних проблем в її функціонуванні. У таких умовах актуальною задачею стає здійснення аналізу розвитку інноваційної діяльності в Україні. Необхідність проведення зазначеного аналізу викликана потребою у виявленні факторів, що сприяють або перешкоджають формуванню та функціонуванню вітчизняних інноваційних підприємств, формуванні «точок росту», створенні конкурентних переваг і збільшенні темпів економічного зростання в умовах жорсткої конкуренції, визначенні пріоритетних напрямів та розробці ефективних способів державного регулювання інноваційною діяльністю в країні.*

Мета. *Здійснення оцінювання рівня розвитку інноваційного підприємництва в Україні та виділення основних заходів зі сприяння його підвищенню на основі проведення SWOT-аналізу інноваційної діяльності в країні.*

Результати. *На основі проведеного аналізу даних щодо стану розвитку інноваційної діяльності в Україні, відображених у низці міжнародних рейтингів, встановлено, що конкурентні переваги України у*

сфері інновацій на світовому рівні полягають у наявності та реалізації людського капіталу, що дає змогу формувати цінність у світовій економічній системі шляхом створення різноманітних нововведень у вигляді ідей, наукових розробок, патентів тощо. До основних перешкод у розвитку інноваційної інноваційного підприємництва в Україні віднесено нестабільне функціонування інноваційної інфраструктури, недосконаліть політичного та бізнес-середовища, неефективну податкову політику країни. За результатами аналізу статистичної інформації Держстату України за 2010-2018 роки щодо функціонування інноваційного підприємництва в країні зазначено, що наявний низький рівень розвитку інноваційної діяльності обумовлений значними економічними та законодавчими перешкодами, які потребують розробки відповідних заходів з їх подолання. Для визначення зазначених заходів в якості методу стратегічного аналізу і планування, який може бути використаний для оцінювання інноваційних можливостей господарюючих суб'єктів, ендогенних та екзогенних факторів, що впливають на рівень розвитку інноваційної діяльності в Україні, використано SWOT-аналіз. За результатами проведеного SWOT-аналізу запропоновано ряд основних заходів, спрямованих на покращення стану розвитку інноваційного підприємництва в Україні.

***Наукова новизна.** На основі проведеного SWOT-аналізу розвитку інноваційного підприємництва в Україні встановлено основні перешкоди його функціонуванню та запропоновано перелік заходів, спрямованих на підвищення рівня інноваційної активності бізнесу в країні.*

***Висновки.** У сучасних ринкових умовах головною перешкодою на шляху стабільного розвитку інноваційного підприємництва в Україні є відсутність ефективного державного регулювання інноваційних процесів в економіці країни. У зв'язку з цим, важливим завданням, яке постає перед органами державної влади є своєчасне визначення проблем у розвитку інноваційного підприємництва та розробка відповідних заходів, спрямованих на їх ефективне подолання. На нашу думку, до зазначених заходів доцільно віднести наступні: реформування освітніх програм з метою забезпечення потреб підприємництва у висококваліфікованих кадрах, здатних створювати та використовувати інновації; збільшення обсягів державного фінансування та підтримки інноваційного бізнесу, особливо малих підприємств; внесення змін до нормативно-правових та впровадження податкових пільг для інноваційних підприємств; використання міжнародного позитивного досвіду для визначення пріоритетних напрямів розвитку науки і техніки, що потребують першочергового фінансування; забезпечення розвитку інноваційної інфраструктури; сприяння створенню інноваційних кластерів, які б об'єднували підприємства з науковими установами, закладами вищої та професійної освіти.*

***Ключові слова:** інновація, інноваційна діяльність, інноваційно-активне підприємство, промислове підприємство, показники інноваційної діяльності підприємств, рейтинг, SWOT-аналіз, заходи сприяння розвитку інноваційного підприємництва.*

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