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ADVANTAGES AND DISADVANTAGES OF INNOVATION ACTIVITY ON THE SOUTHERN REGION OF UKRAINE

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ABSTRACT

This article is based on the concept of the enterprises' innovation activity in the concept of the current economic situation of Ukraine. It includes the dynamics and evaluation the effectiveness of innovative processes of the Southern region of Ukraine in 2010-2014, as well as analysis of the sales volumes of scientific and technological work, and the sources of their funding. The paper describes the ways for improving the efficiency of innovative activity in the region, which based on the results of the innovation potential of enterprises in 2010-2014.

Keywords: innovation activity, R&D Management, innovation potential, knowledge-based, profitability, internal R&D, external R&D, the coefficient of efficiency of investment, open innovation, profit.

Formulation of the problem. Solving problems of formation of economic development's innovative model in Ukraine requires actively seeking ways to ensure the financial and credit supply and to overcome the low prevailing.

So nowadays the most important tasks of the state's economy is improving the structure and efficiency of all production resources of enterprises, because in the short term great importance is solving macrostructures these problems lag immaterial sphere of production and the formation of qualification and intellectual levels, which include innovation the company. [3, p.94]

Analysis of recent research and publications In the recent years Levchenko, I. and Nosenko, D., Loshchina, L. and Milashenko, V., Tulpa, I. and Sumec, O., Volkov, O. and Grechan, A., Chesbrough H. and etc., who are considered problems of management and implementation of innovation, modern trends in innovation technological transformations in society, boosting innovation in the economic entity as a basic level of industry in the national economy.

But the unresolved issues are the formation of innovative strategies for each region at a State based on the existing economic conditions and without depending on political changes in the country.

Therefore, the main aims of the article are to assess the situation that has developed in the innovative environment of the Southern region of Ukraine and displaying the problems and prospects of innovative activity of the enterprises for further recommendations on increasing the effectiveness of the implementation of innovation.

Methods. During writing the article we used the statistics of innovation activity, financial results, and the total cost of production and total sales for each of the business areas of the Southern region of Ukraine for 2010-2014 years [5-8]. Also, for calculating the innovative capacity of the area, we used the following indicators:

— The coefficient of investment's efficiency of enterprise in innovation activity, which is calculated as the ratio of the volume of all executed scientific and technical work to the total investment in the innovation sphere;

— Share of profit from innovation in total income, which is calculated like the ratio of profit from innovative products to total company profits;

— The rate of government funding sources in R&D, which equals the ratio of public investment to the entire investment amount;

— Knowledge-based output, which shows the amount of internal R & D to the total goods and services produced in the company in terms of money;

— The rate of internal R&D and acquisition of machinery, equipment and software in enterprise's spending, which is determined by the ratio of the amount of internal R&D and acquisition of machinery, equipment and software to all enterprise's spending;

— The profitability of innovation activity, which calculates as the ratio of the financial results of the innovation to the overall cost of it [1, p.138-142; 2].

Results. Implementation of the innovation process in an industrial plant involves the development plans of the research and design work (or R&D), marketing, finance, logistics and staffing and plans for production like one system. The presence of such a relationship is due to the innovation process logic and sequence of stages of the innovation cycle. Because of the complexity of the enterprise is the cause transient conditions determine the need to create a hierarchy of interrelated strategies [4, p.324].

Therefore, before the development of measures to improve the efficiency of enterprise intellectual property must we calculated the dynamics of executed scientific and technical work and the dynamics of their funding sources' amount (Table 1 and Table 2):

How we can see in Table q and Table 2, the dynamics of executed scientific and technical work and the dynamics of their funding sources' amount have a miscellaneous character.

Fundamental research had a positive trend in 2011-2013 and increased on 7748.30 thousand UAH and 229.40 thousand UAH. Also their share in the total volume of work performed amounted to 12.97% and 17.22%, respectively. However, in the end of 2014 the dynamics of this group decreased by 40447.10 and amounted to 104545.90 thousand UAH, which indicates the decline of interest in the theoretical and experimental development of enterprises. Besides in 2011-2012 the dynamics of applied research has increased by 19793.40 thousand UAH,

but in 2012-2014 this figure decreased by 15294.60 thousand UAH and 37311.4 thousand UAH respectively, amounting to 87933.20 thousand UAH to the end of the period. It is indicating a reduction of interest and to the practical application of innovative products and services.

The permanent decline in the growth of volume we can see in the «Scientific and technical services» group, whose amount for the implementation of scientific and technical developments made 62006.30 thousand UAH, while the share in the total volume of work performed only 10.22% across the region in 2014

Table 1

The dynamics of executed scientific and technical work of the Southern Ukraine during 2010-2014

Period	Dynamics of executed scientific and technical work, thousand UAH				
	Fundamental research	Applied research	Design	Scientific and technical services	Total
2011/2010	-6359,10	4057,20	16789,90	31399,00	45887,00
2012/2011	7748,30	19793,40	-109813,60	-30582,60	-112854,50
2013/2012	229,40	-15294,60	435649,80	-9112,00	411472,60
2014/2013	-40447,10	-37311,40	-408636,50	-24921,60	-511316,60

Table 2

Dynamics of the funding sources' amount for scientific and technical work of the Southern region of Ukraine in 2010-2014

Period	Dynamics of the funding sources' amount for scientific and technical work, thousand UAH				
	Own sources	Of domestic investors	Of foreign investors	Another sources	Total
2011/2010	388037,40	6772,70	-42880,20	3923177,50	4275107,40
2012/2011	-82586,70	38469,60	673813,70	-3029439,50	-2399742,90
2013/2012	-596623,50	-40070,50	-128370,70	-634047,10	-1399111,80
2014/2013	473675,30	-1578,90	-493556,80	-306031,50	-327491,90

During the all accounting period only «development» has an unstable dynamics: in 2010-2011 and 2012-2013, the amount of scientific and technical papers increased to 435302.90 thousand UAH and 761139.10 thousand UAH respectively, but in the remaining period of its volume decreased to 109813.60 thousand UAH and 408636.50 thousand UAH, which led to a decrease in the share in the total amount of scientific and technical developments to 46.05% and 58.07%, respectively, in 2011-2012 and 2013-2014.

then at the end of this period, only own funds had a positive trend in their own volumes and increased 473675.30 UAH thousand, while the dynamics of the volume of investment by domestic investors, foreign investors and other sources declined to 1578.90 thousand UAH, 493556.80 thousand UAH and 306031.50 thousand UAH for the same period of time. At

the same time, a group of «other resources» reduced its growth rate since 2011, so as the result its value equaled 11871.50 thousand UAH in monetary terms, while the share in the total amount of investments was only 1.16%.

A similar changes in dynamics had the groups of domestic and foreign investors in 2011-2012 when their performance increased on 38469.60 thousand UAH and 673813.70 thousand UAH. But in 2012-2014 they declined significantly to 3677.20 thousand UAH and 51902.20 thousand UAH in cash (or 0.16% and 5.08% relative) equivalents respectively.

Also we calculated the rate of growth / decline in spending on innovation activities of enterprises for a more accurate analysis of the situation in the innovation of the Southern Ukraine by using the statistics for each of the areas of the territory (Figure 1):

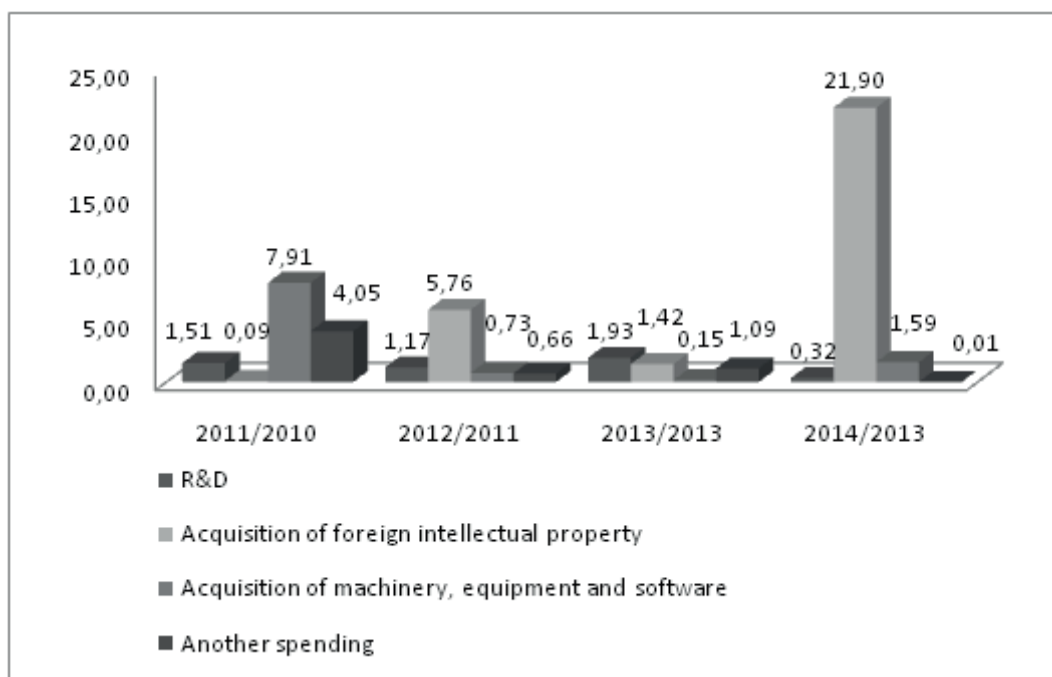


Figure 1. The rate of growth / decline in spending on innovation activities of enterprises on the Southern Ukraine

As we can see on Figure 1, the rate of R&D growth had a positive tendency in 2011-2012 and equaled 1,51, 1,17 и 1,93 respectively. Also the rate of growth of internal investigations also had positive dynamics (2.06 in 2013), and the dynamics of external studies has decreased from 0.77 to 0.39 in 2011-2013. However, in 2013-2014 the growth rates of total R&D expenditures decreased rapidly and equaled 0.32. It is also rapidly decreased and the rate of growth of another spending: in 2011-2012 from 4.05 to 0.66 and from 1.09 to 0.01 in 2013-2014.

The rate of reduction of the acquisition of machinery, equipment and software increased in 2011-2013 and equaled

0.73 and 0.15, respectively, but in 2013-2014 the speaker had the opposite result and amounted 1.59. A similar situation occurred and the cost of foreign intellectual property, the rate of growth which declined from 5.76 to 1.42 in 2012-2013, but increased to 21.9 at the end of 2014.

As a result, the growth rate of total expenses on research and development declined rapidly in 2012-2014 and amounted to 0.74, 0.39 and 0.68, respectively.

To permanently evaluate opportunities in the region to further innovation and feasibility of the new business strategy we calculated the indicators of innovation potential of enterprises for this territory (Table 3):

Table 3

Period	The indicators of innovation potential of enterprises					
	The coefficient of investment's efficiency of enterprise in innovation activity	Share of profit from innovation in total income	The rate of government funding sources in R&D	Knowledge-based output	The rate of internal R&D and acquisition of machinery, equipment and software in enterprise's spending	The profitability of innovation activity
2010	0,89	0,00%	47,25%	0,00%	0,47%	0,00%
2011	0,16	0,00%	45,89%	0,00%	0,34%	0,00%
2012	0,26	1,83%	49,65%	8,92%	1,93%	5,92%
2013	0,83	2,13%	19,36%	29,39%	1,43%	4,93%
2014	0,59	1,67%	0,00%	15,84%	0,46%	8,33%

According to Table 3, the results of innovative potential's indicators of the Southern Ukraine's enterprises were following:

— The coefficient of investment's efficiency of enterprise in innovation activity had a sharp decline and the lowest value in 2011 amounted to only 0.16, but in 2012-2013 it gradually increased and amounted to 0.26 and 0.83 respectively, which

indicates a more efficient of using the total assets of enterprises to create innovative products and technology. At the same time, the average value of this ratio for the entire period amounted to only 0.55 because of its sharp decline in 2014. This means that for 1 UAH venture capital investments create only slightly more than half of the conditions for effective innovation;

— Share of profit from innovation in total income had gradually increased in 2011-2012 and amounted to 1.83% and 2.13% of the profits from all sales. However, in 2014 this figure fell by 0.46% and equaled to 1.67%. The reason for this is the reduction of the previous figure at the enterprises of the Southern region of Ukraine, which resulted in a reduction of output of innovative products and volumes;

— Also the reason of decrease of both indicators of innovative potential of the enterprises at the end of accounting period is the sharp change in the rate of government funding sources in R & D. If in 2012 this parameter had a positive trend and amounted to 49.85%, then from 2013 to 2014 the share of public investment decreased to 0.0%. In addition, for the entire accounting period the average value of the index was equal to 32.43%, indicating that the state interest in the innovative development of the enterprises in the region and insufficient budgetary funds for the implementation of plans;

— Knowledge-based output gradually increased production enterprises in the region from 2011 to 2013 and reached the level of 29.89%, which indicates an increase in the volume of high-tech products, has better quality and bigger life cycle. However, in 2013-2014 this parameter was reduced to 15.84%, which indicates a decrease in the effectiveness of the innovation environment in enterprises;

— The rate of internal R&D and acquisition of machinery, equipment and software in enterprise's spending also had a miscellaneous dynamics: in 2011-2012 it increased from the 0.34% to 1.93%, which meant an increase in interest in the creation of more technological products. However, in 2013 and 2014 the share of these costs decreased and amounted to only 1.43% and 0.46% respectively. These changes could also cause a sharp decline in the effectiveness of the use of existing resources to create new technologies and products, as well as the reduction of the dynamics of scientific and technological research volume;

— The profitability of innovation activity of this territory has decreased by 0.99% and amounted to 4.92% in 2012-2013, but at the end of 2014, this figure increased by 1.69 and amounted to 8.33%, which meant increasing the profitability of this kind of products and projects overall on domestic and foreign markets.

Conclusion. During the calculation and analysis of indicators of efficiency of innovative activity at the enterprises of the Southern region of Ukraine in 2010-2014, we found the following information's deficit:

— the absence of the amount of public investment in innovation enterprises of the Autonomous Republic of Crimea for the entire accounting period, which led to a different calculation of the public investment in R&D across the region;

— the absence of necessary data on the volume of scientific and technical papers, sources of funding and R & D costs for the Autonomous Republic of Crimea in 2014;

— the unstable of innovation capacity's indicators in each of the regions of the Southern region of Ukraine during the accounting period.

Based on our results of innovative activity of the Southern Ukraine enterprises for 2010-2014 years, we can say that the situation is unstable. The coefficient of investment's efficiency of enterprise in innovation activity, knowledge-based output

and the profitability of innovation activity had a positive trend for practically the entire period that tells us about a sufficient level of innovation activity of enterprises and the desire to bring the production to a modified and quality level. Besides on the profitability of innovation activity is not affected even decline in the share of profit from innovation in total income in 2014, reflecting the increased demand for this type of product. Also, the largest amount of scientific and technical work had fundamental research and development of enterprises (in the middle part of the total volume of the work amounted to 55.88% and 17.18%, respectively), which tells about the increased interest not only to the theoretical foundations, aimed at getting new knowledge, but also the desire to create the necessary conditions and equipment to achieve this goal.

At the same time, this Ukrainian region has a dependence on funding from the government (most of all - Odessa, as its average value of the rate of government funding sources in R & D amounted to 47.50%), that in this situation in the State is quite risky, so as the country is an importer and has a large amount of debts on loans to foreign banks, which affects the budget and its distribution by industry. That's why, due to the decrease in the rate of government funding sources in R & D decreased and the coefficient of investment's efficiency of enterprise in innovation activity, and knowledge-based output.

Among other things, the rapid reduction of the dynamics going on in the capital investment by foreign investors, who at the end of 2014 their volume amounted to only 51902,20 thousand UAH in cash and 5.08% in relative equivalents.

Therefore, for improving the innovative capacity of the Southern Ukraine recommended businesses to do the following:

— To implement a new strategy for the effectiveness of innovation, the purpose of which will not be making a profit, and an increase (or stabilization) of profitability in the production. The fact that this company will implement parallel two goals at once - to take steps to increase profits and to find ways to reduce the cost to create a new (or upgrading old) products. And this requires new developments and ideas that will be implemented in the majority of the employees, which can increase the chances of an increase in innovative activity;

— try to find and implement the part of the investment. When the situation in the country and low budget companies must use all available methods to find domestic and foreign investors for the implementation of new products or services (like H. Chesbrough's open innovation, which he told about in 2007). This will give the opportunity to be independent from the economic crisis, as well as increase demand for their products in foreign markets, bringing its production to a new level;

Of course, it is only a small part of what can be done primarily with the innovative activity of the enterprises in the region of Ukraine in foreign and domestic markets sales. The rest of the ways to achieve the required level of innovative potential of each region and each enterprise should implement, both from a geographical basis (climate) features of the territory, and the specification of the enterprises.

References:

1. Levchenko, I. and Nosenko, D. (2009), "Analiz innovatsinoi diyalnosti pidpriemstv". Herald of Khmelnytsky

National University. – Vol.2. – pp. 138-142

2. Loshchina, L. and Milashenko, V. (2015), "Complexna ocinka snnovatcinogo potencialu pidpriemstva: teoretichni pidhodi", available at: http://www.uabs.edu.ua/images/stories/docs/K_TPE/Loshchina_3.pdf [Accessed 10 February 2016].

3. Tulpa, I. and Sumec, O. (2005), "Innovatcini strategii". Kharkiv, Ukraine: Studcenter.

4. Volkov, O. and Grechan, A. (2006), "Innovatcinii rozvitok promislovosti Ukraini". Kyiv, Ukraine: KNT. – pp.492-493

5. The official website of the Main Statistical Office in Crimea (2016), available at: <http://gosstat.crimea.ru/> [Accessed

06 February 2016].

6. The official website of the Main Statistical Office in Kherson (2016), available at: <http://www.ks.ukrstat.gov.ua> [Accessed 03 February 2016].

7. The official website of the Main Statistical Office in Mykolaiv (2016), available at: <http://www.mk.ukrstat.gov.ua> [Accessed 03 February 2016].

8. The official website of the Main Statistical Office in Odessa (2016), available at: <http://www.od.ukrstat.gov.ua> [Accessed 03 February 2016].

FORMATION OF INDUSTRIAL AND TRADE POLICIES OF THE ENTERPRISE AS A TOOL FOR ECONOMIC SECURITY

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ABSTRACT

The economic space globalization, system security of global space globalization of responsible enterprises, is one of the priority challenges to the activity of business managers and owners. It is confirmed by the fact that many enterprises have set up special subdivisions to assure economic security in their structure intended to assure economic security of these economic subjects. However, these services lack elaborated and efficiently functioning system capable to predict the effect of threats to the economic security originated by macro- and microenvironment. The owners of enterprises should elaborate the system of assurance of economic security of their businesses, the components of which are to function in harmony and in combination.

Keywords: economic security; threat to economic security; functional components of economic security; economic globalization, microenvironment, macroenvironment.

Introduction. At present the economic space undergoes an extremely unambiguous full of social and economic consequences, period of transformation characterized by intensifying competition and environment instability. During this period the industrial sector confronts numerous external and internal threats which result in upset economic stability, reduction of effectiveness of economic, production and commercial activity of individual enterprises, hence, to the reduction of economic security of the state [1].

In the latest conditions, the economic security problem acquires the top priority; it becomes the pivotal point of entire economic policy of any state, it outlines the contours of main political decisions. At present the economy of many states faces grave «challenges» of globalization and the need of closer and more efficient incorporation into international economic relations. The effective integration is possible only by creating stable and strong internal economy relying on all range of levers of contemporary economic policy [2].

The scientific publications deal in rather exhaustive fundamental approaches and disclose particular aspects of assuring economic security of enterprises [1,3,4,5,6,8,10,11], however, it is worthwhile to remark that the systematic approach to promoting the economic security of enterprises is underdeveloped to take onto account the branch particulars

destructive factors affecting the economic system state. Hence, a challenging need has emerged to elaborate this problem scientifically and practically, and to develop the tendencies of promoting the economic security of business subjects.

Main part. A special place belongs to the national security structure of any country. It is due to the fact that all sorts of security (demographic, ecological, political, defense, information, social) in this or other way cannot be implemented sufficiently, unless they are economically assured [3,4].

The economic security state of any country depends directly on how the security problems are solved at the level of an individual company where the strategic aims are implemented in particular [5]. In general, the economic security is the state of the most effective utilization of corporate resources to prevent any threat and to assure stable functioning of enterprises at present time and in future [6]. The state of any business structure is affected by the factors, which originate from external and internal environment of any enterprise. The external environment generates negative consequences (external threats), which appear without participation or against will of enterprise or its personnel [7]. Moreover, no manager is able to affect directly this group of factors using the economic knowledge and practical skills in order to adapt to the current situation and minimize likely consequences when