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METHODOLOGICAL TOOLS OF STRATEGIC TRIANGLE IMPLEMENTATION "BUSINESS – EDUCATION – SCIENCE"

In modern business conditions, for various types of entities, an important factor in ensuring their competitive advantages in the market and for sustainable profits is the dynamic development and advancement of the preferences of key stakeholders. Every entrepreneur embodies various innovations and implements the latest technologies in a dynamic environment, which has recently been in an emergency. Currently, the global trend puts on the agenda skills, competencies and qualifications for constant change and renewal. At present, all this is impossible to imagine without fundamental knowledge of theoretical and applied nature. That is why the most important is a strong relationship and continuous improvement of such elements of strategic development as the demands of business structures, the formation of the educational level, the improvement of scientific progress. In our opinion, these imperatives of different spheres of activity should be embodied in the general concept in the formation of the strategic development of the economy of a particular sector and the state as a whole.

In the course of our study, it was determined that the main focus of stakeholders in most cases is to identify and form a relationship given the two-way intersection of components. That is, the issues of the business environment during the formation of competencies in the educational process of applicants, or the development of scientific achievements, formed on the basis of the educational process or implementation of scientific and technical developments without appropriate skills and abilities. But in our opinion, it is worth paying attention to the complex characteristics of the strategic triangle "business – education – science" and all possible intersections of this definition (Figure 5.9).

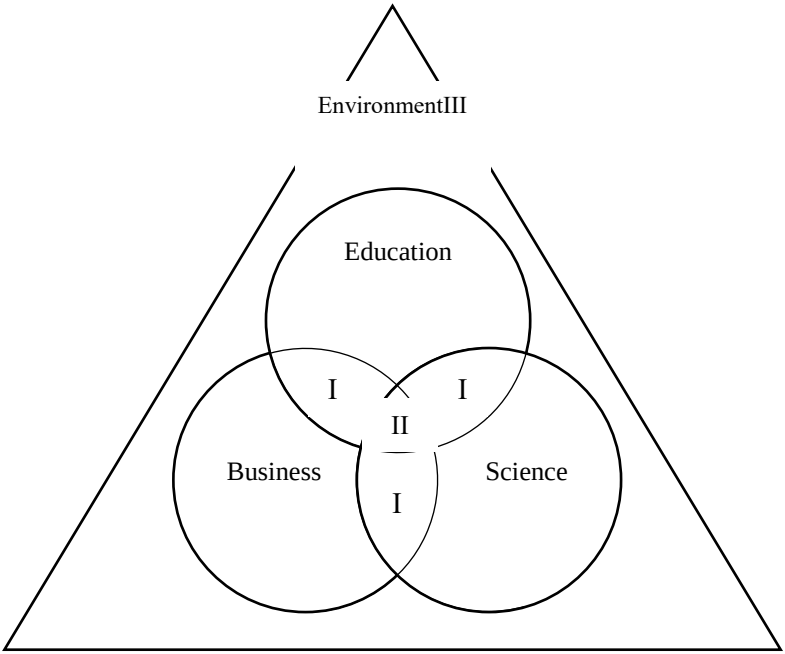

Figure 5.9 Strategic triangle "Business – Education – Science"
Source: generated by the authors

As a result of the study, we determined that the strategic triangle "business – education – science" should be considered a combination of each component and its components, in which there is a mutual division, influence, synergy and implementation of information flow with subsequent impact on each element. In addition, it should be noted that during the interaction of even two components out of three, the results will affect each element. We believe that the three components of the strategic triangle are a complex and basic combination for the successful development of any sector of the economy and the state as a whole.

It should be noted that in a turbulent operating environment of all issuers, the process of complete and complete sequence of penetration of each element cannot often take place. Accordingly, in this case we want to propose and present the levels of interaction of the components of the strategic triangle (Table 5.6).

The presented division of the components of the strategic triangle "business – education – science" at the level includes either two-way or

Table 5.6

Levels of influence of components of a strategic triangle

No.	Level	Name	Elements	Characteristic
1	I	"Basic training"	Business Education	- formation of the basic inquiries of business structures during training; - creation of educational programs from the requirements of business structures.
2		"Basic scientific"	Education Science	- ensuring the introduction of scientific achievements in educational processes; - creation of platforms for scientific development.
3		"Basic innovation"	Business Science	- implementation of the scientific component in economic activity; - development of science in accordance with requests.
4	II	"Advanced"	Business Education Science	- implementation of a general approach to taking into account each element.
5	III	"Professional"	Business Education Science	- creating a synergy effect from constant interconnection and accumulation of experience.

Source: generated by the authors

three-way communication of elements. In our opinion, the third level is the most acceptable, but its achievement is possible only after passing all levels and gaining relevant experience. Yes, paying attention to the first level, it should be noted that the relationship of two of the three elements is still present in our environment, but unfortunately in an informal form.

For example, level I “Basic training” should include such activities as small in volume of information and duration of training courses, training, formalized associations to share experiences, and so on. This type of training is very common and in great demand due to its ease of use and accessibility. That is, there is such a niche in the educational process, which can easily be filled by a small training, which is formed on the requests of business units. Accordingly, as a result we can get the necessary knowledge in theoretical gaps, increase the special competencies of their subordinates, to form a new level of communication in the team through a generalized approach.

But all these advantages are, in our opinion, only a temporary solution to such a global problem as the constant sustainable relationship of business and education in the framework of the constant training of the last necessary personnel (qualified personnel) for economic development in general. In our opinion, to achieve this goal requires a three-way interaction of the strategic triangle, which is solved at the third level of the relationship. In our opinion, the environment itself (direction of activity, type of economic obligations, field of scientific knowledge, interdisciplinary associations, etc.) can fully form the necessary package of all components for the development of each element.

As a result of the analysis of theoretical developments and studying the practice of implementation of the strategic triangle, we can say that the results of the interaction of business, science and education are present at a sufficient level only in countries with sustainable economic development. These conclusions can be drawn from the analysis and evaluation of the reports of the Taoist World Economic Forum, which publishes the results of an international analysis of the growth potential of countries, namely the “Global Competitiveness Report”.

The methodological basis of the above concept, on the basis of which the report is formed, is to determine that any state is able to generate new knowledge and perform their commercialization in the form of technological and innovative products, which is considered a major factor in competitiveness. Therefore, successful countries consider the transformation of established institutions (large corporations, classical universities and research institutions) that promote the development of knowledge and innovation potential, among the priority reform measures. For example, consider the data of the World Forum (Table 5.7), which clearly represent the world leaders and the place of our country among the total number.

Table 5.7

The place of the countries in the world according to the Global Competitiveness Index in the period 2014-2018

Country	2014 – 2015 (from 144 countries)		2015 – 2016 (from 140 countries)		2016 – 2017 (from 138 countries)		2017 – 2018 (from 137 countries)	
	place	index	place	index	place	index	place	index
Switzerland	1	5,7	1	5,76	1	5,81	1	5,86
USA	3	5,5	3	5,61	3	5,70	2	5,85
Singapore	2	5,6	2	5,68	2	5,72	3	5,71
The Netherlands	8	5,5	5	5,50	4	5,57	4	5,66
Germany	5	5,5	4	5,53	5	5,57	5	5,65
Hong Kong	7	5,5	7	5,46	9	5,48	6	5,53
Sweden	10	5,4	9	5,43	6	5,53	7	5,52
England	9	5,4	10	5,43	7	5,49	8	5,51
Japan	6	5,5	6	5,47	8	5,48	9	5,49
Finland	4	5,5	8	5,45	10	5,44	10	5,49
Russia	53	4,4	45	4,44	43	4,51	38	4,64
Poland	43	4,5	41	4,49	36	4,56	39	4,59
Georgia	77	4,2	66	4,22	59	4,32	67	4,28
Serbia	94	3,9	94	3,89	90	3,97	78	4,14
Tajikistan	91	3,9	80	4,03	77	4,12	79	4,14
Brazil	57	4,3	75	4,08	81	4,06	80	4,14
Ukraine	**76**	**4,1**	**79**	**4,03**	**85**	**4,00**	**81**	**4,11**
Butane	103	3,8	105	3,80	97	3,87	82	4,10
Greece	81	4,0	81	4,02	86	4,00	87	4,02
Moldova	82	4,0	84	4,00	100	3,86	89	3,99

Source: compiled by the authors according to the World Economic Forums 2014-2018 [1]

According to the presented data, world leaders occupy established positions and hold their leading positions, which cannot be said about Ukraine. The presented data clearly show the precarious situation of our state and constant fluctuations within the ninth dozen countries. Given the greater retrospective, it should be noted that Ukraine had the best position in 2006-2007 – it is 69th place and the worst in 2009-2010 – it is 89th place. In our opinion, the growth of the competitiveness index was observed in view of the general rise of the economy and the gradual strengthening of the interaction of the strategic triangle "business – education – science".

So far, we have lost several more positions over the last year and rank 85th (out of 141 countries). It is clear that this trend is caused by the global pandemic, as well as the deterioration of domestic economic

factors. Among the main regression values, it is worth noting the decrease to 136th place in the field of finance (deterioration by 19 positions) and to 101st place in health care (decrease by 9 positions).

But among the positive trends are such as the labour market – an increase to 66th from 69th place, education – from 46th to 44th place, the business indicator decreased by 1 position (from 86th to 85th), etc. That is, if we look at the average value of the competitiveness index, then of course it has a negative trend, but the components of this indicator in our opinion are more far-sighted.

Therefore, for example, a positive trend in education and business may manifest itself in a few years, especially when the first level of graduates will have a stable impact on the development of the industry. Or the adjusted direction of admission in the field of education in health care can increase the figure of the same name in 4-5 years. Accordingly, the key component that requires procrastination for good results is education and its stimulation.

In our opinion, to get the best results from the implementation of the strategic triangle "business – education – science" it is necessary to introduce mechanisms for the functioning of the educational process so that it fully meets the staffing needs of business structures and forms a field for scientific potential. Therefore, we propose to achieve this goal through the mechanism of functioning of the strategic triangle (Figure 5.10).

In our opinion, it is education that should unite and harmonize all the components for the production and transfer of knowledge and skills. In order to better adapt higher education to the latest needs of the labour market and wider access of young people to quality jobs, there is a transition from traditional forms of higher education to a competency-based approach to learning. This innovation has the following advantages:

• involvement of employers, which allows to identify regional and national needs of the labour market and to develop adequate training programs that meet these needs;

• the opportunity to study and work at the same time: offers of internships and internships are considered as the first step to further employment;

• allows you to make the right choice: to provide all the necessary information about possible programs and their features for both potential participants and employers;

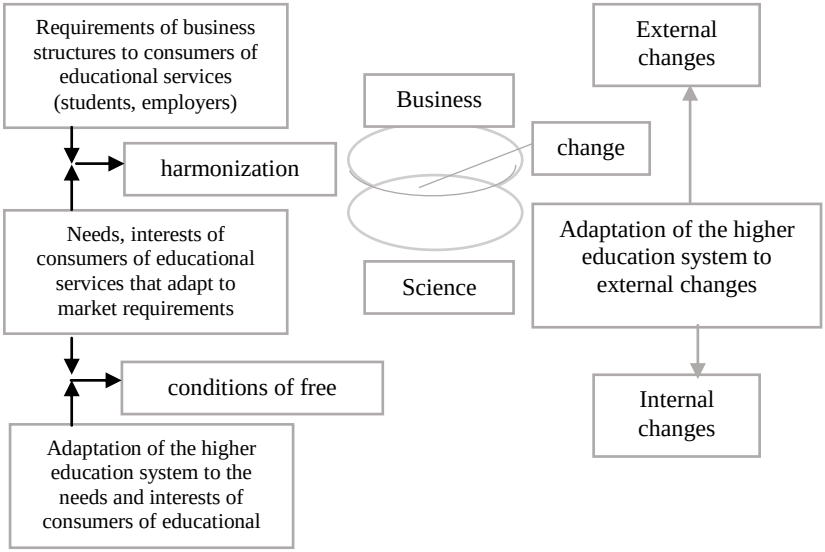

Figure 5.10 The mechanism of functioning of the strategic triangle "business – education – science"

Source: generated by the authors

• removing barriers to specialized vocational training and access to support services and support;

• coordination of joint work of employment centers, local employers, educational institutions and other public and private organizations.

The establishment of a new role, a new status of universities for the needs of regional development is a mechanism of state and regional influence, aimed at overcoming the devaluation and preservation of intellectual capital of the country and the region. As the analysis shows, it is not only universities that need to undergo some transformation and reincarnation.

For a long time now, the weak point has been the innovative development system, which does not sufficiently ensure the commercialization of scientific achievements and technological developments. This leads to a significant discrepancy between the large number of completed scientific developments and the received internal patents and the very low frequency of their commercialization. The reason for this is, on the one hand, that the owners of patents and research results (scientists, teachers, inventors) are not focused on the

specific needs of the enterprise, and on the other hand, there is a very low demand from business structures for innovative developments. Therefore, in our scientific institutions, science often exists for the sake of science without any commercialization. Thus, the need for harmonization of business and society relations, as well as scientific and technological achievements in the format of joint innovation is very significant.

Today we see it expedient to implement the above collaboration through the implementation of a cooperative model of the innovation process, when different stages of the relationship "business – education – science" are combined into a system of organic cooperation of simultaneous scientific and applied work with direct focus on conditions and requirements stages of competitive implementation. It is seen that in this way the probability of commercial success of scientific and technical developments increases significantly.

The results of support and further implementation of the strategic triangle "business – education – science" in more successful and stable countries shows that the above combination and support of elements in creating innovation creates an extraordinary effect of creative environment for mass birth of innovative ideas. This circumstance can be both a "side effect" and the result of which an association of representatives of economic activity, educational process and scientific communities was created and already has a well-established definition, namely "spin off or spillover". In the practice of foreign missions, this is the process of emergence of numerous accompanying additional innovations, which are indirectly formed under the influence of a certain innovation, which is the main object of management action.

Particularly high innovative productivity of spin offs is formed as "creative clusters", which emerged on the basis of university science during the general work of representatives of business structures, teachers, students, customers from the public sector and other stakeholders. This set a new course of development for higher education and initiated changes in the institutional model of education. Against this background, a new type of university appeared – the so-called centres of spatial research and production regional clusters.

So today, the world's leading universities are dynamically carrying out institutional transformation and beyond. New powerful business academic centres are being created, which produce new developments and research and educational products that are rapidly entering the market. The central link of their activity is the generation and transfer of

innovative technologies in the process of commercialization of the results of research work, which becomes an organic part of the educational process. Since universities are interested in obtaining and creating added value from the commercialization of their own scientific and technological developments, they contribute to the development of the project from an idea to an innovative product or high-tech enterprise.

It is important to create in Ukraine special institutional support for the formation of a "cooperative" model of implementation of the strategic triangle "business – education – science", to develop and adopt regulations that will promote self-organization in innovative cooperation of scientific institutions and universities on the one hand and business and government – on the other. In this context, the problem of greater autonomy of universities to be able to carry out such activities in terms of diversification of funding sources – by developing commercial relations with business and government agencies in innovation, as well as to make more flexible and mobile to changes in the external market environment.

From the analysis of the practice of innovation of world-class universities we can also conclude that to initiate new collaborations of the strategic triangle "business – education – science" should start new associations based on university research, licensed on its own behalf of scientific and technical developments and will to form appropriate ecosystems both in the university and in the region and the country as a whole.

References:

1. *The Global Competitiveness Report 2017–2018 / World Economic Forum. 2017. URL: http://www.weforum.org.*