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БАЯНДАМАЛАРЫ

ДОКЛАДЫ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

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PROBLEMS AS METHODOF THE PROFESSIONAL ORIENTATION OF TEACHING MATHEMATICS AT TECHNICAL SPECIALTIES OF HIGHER EDUCTIONAL INSTITUTION

Abstract. The article deals with the problem of the professional orientation of teaching mathematics at technical specialties of a higher educational institution andthe analysis of the resourcesconcerning the solution of problems with professional content, their selection and ranking has been made as well. The article focuses on the didactic conditions that professionally oriented problems must coincide with in training future engineers for their successful application, the classification of problems with professional content, as well as ways to solve such problems. The main requirements for problems with professional content are shown and the problem on the theme "Application of a certain integral to pressure calculation" is considered.

Keywords:problem, complexity level, professional orientation, classification of problems.

The modern development of the economy in our country needs specialists who can construct mathematical models of various processes and phenomena at various levels. The students' mastering of theoretical knowledge in the field of mathematics is not enough to implement the learning objectives. The students need to be able to use their knowledge in various situations. One of the ways to implement this approach is the multidimensional application of the interdisciplinary relations of mathematics with general scientific and major disciplines, that is, the application of applied and professionally oriented problems atmathematics classes. Most researchers studying the problems of the applied orientation of teaching mathematics at the technical specialties of the universitybelieve thatthe most effective method of improving the quality of mathematical education and the process of teaching mathematics is teaching the problems with professional content.

The mathematical model of the applied problem reflects the real situation that arises in reality through mathematical symbols, signs and relations between them. In the process of constructing a mathematical model, the concrete objects of reality are replaced by their mathematical equivalents.

VilenkinN.Ya. [1, p.29] distinguishes the following stages in modeling:

- identifying significant factors and discarding inessential onesin a situation or phenomenon;
- constructing the relationshipscheme of the essential factors of the situation (phenomenon);
- obtaining the required conclusions from the constructed scheme.

Further, VilenkinN.Ya.continues that in orderto implement the described content of the modeling process,one must:

- know some objects, relationships and facts of a certain field of activity;
- be able to discard the inessential factorsand distinguish the main onesin the situation under consideration;

- create a scheme of the situation (phenomenon)on a received basis;
- select the "language" in which the received scheme will be considered;
- get the required conclusions from the scheme, i.e. solve the problem in the selected "language".

Solving problems in teaching is an important stage in the formation of the cognitive activity of a student. In the process of solving problems, abstraction and formalization take place, synthesis, analysis, generalization, etc. are performed, allmental processes are aggravated.

D. Poya [2, p. 56] identifies the following steps in solving problems:

1) tounderstand the condition of the problem assigned;
2) to analyze the problem;
3) to create a mathematical model of the problem;
4) tocarry out the synthesis, i.e. implement the solutionfound;
5) tocheck and assess the result.

A.M. Matyushkin [3, p.36] proposes the structure for solving problems as follows:

1) the “closed” solution, i.e. application of standard solution methods;
2) the “open” solution, i.e. finding non-standard methods;
3) the implementation of the found method of solution;
4) thecheck of the solutionresult.

In our research, we use the term “problem with professional content”.

The problems with professional content must be composed as follows:

1. Formulation of the problemconditions;
2. Initial data for solving the problem;
3. Additionalquestions;
4. Referencedata (appendix).

Theoretical knowledge, skills and abilities acquired for a certain period of time in various disciplines are accumulatedin problems with professional content. The condition for such problem should contain professional elements. Information from courses of physics, chemistry, theoretical mechanics, electrical engineering, etc. can be usedin such a problem. Therefore, the problem with professional contentis integral in its nature, i.e. it combines mathematical theories and knowledge of major disciplines. The integrity of the problem with professional content is one of the pedagogical functions assigned to it.

One of the didactic issues relating to problems with professional content is the *selection of problems* included in the educational and methodical complex.

B.S. Kaplan, N.K. Ruzin, A.A.Stolyar believe that “in particular,learning through problems definesthe thorough selection of problems, their grouping in specific sequences that allow constructing of a solution process like a research process. At the same time, one can reveal the possibilities of generalizing problems, formulating and solving new ones, and achieving a new, sometimes unexpected theoretical result, deepening the meanings of the objects studiedby solving a sequence of problems”.

The selection and making up mathematical problems with professional content havea few stages.

Stage 1.The analysis of normative documentation (standards, standard plans, etc.) andthe requirements for a future engineer in a given area of specialization in future professional activity. The main component here is the professional qualification of the future specialist. At the first stage, the following should be identified:

1. knowledge required to study general scientific, major, technical disciplines;
2. skillsand abilities acquired in solving problems with professional content;
3. quality (moral, professional).

Let us consider the second stage in the formation of a set of problems with professional content.

Stage 2.The determination and systematization of the content of higher mathematicscourse aimed at achieving the goals. The determinationof the goals for studying specific themes, sections required in teaching a series of general scientific and major disciplines.

*Stage*3.The direct formation of a series of applied and professionally oriented problems, taking into account the identified peculiarities, the thematic division of problems and ranking them based on level of complexity. One can divide the content of problems into modules of themes studied.

Based on the analysis of the above mentioned research, we distinguish the key points that determine the quality of the formation of mathematical thinking in solving problems with professional content:

- ability to transform practical problems into a mathematical language (the ability to mathematical modeling);
- logical construction in reasoning;
- ability of spatial mathematical thinking;
- accuracy of symbols when replacing a real research object with its analogue;
- accurateanalysis of the problem;
- search for the best method to solve the problem;
- prediction of a possible result;
- interpretation of the result obtained, i.e. "transformation" into the original "language".
- quality assessment of the result.

The selection of problems with professional content should be aimed at achieving the following goals:

- help the student to master the general principles of the mathematical apparatus as a means of solving the theoretical and practical problems of engineering;
- facilitate the study of a number of important disciplines that form the basis of specialist's education;

As a conclusion, we will define the requirements for problems with professional content for engineering and technical specialties:

- the problem should contain a real situation arising in the professional activities of engineers;
- the numerical data used in the problem must be real;
- the problem must include the interdisciplinary relationship;
- theproblemmust have practical value, the significance of mathematical knowledge should be revealed in it;
- depending on the complexity the problemsmust have different levels, i.e. they must be formed on the principle "from simple to complex".

The ranking of problems is carried out by the lecturer, and students can choose the level corresponding to them at the moment. The first level is aimed at developing skills and abilities in the process of solving problems, the solution algorithm of which is known (algorithmic, training). The second level of the problemcomplexity is the formation of skills and abilities of solving problems when the algorithm is not completely known (reduction to known algorithms or a superposition of a number of known algorithms). The third level of the problemcomplexity is the formation of skills and abilities of solving problems when the algorithm is unknown (research or heuristic). If the student has mastered a lower level of complexity, he can move on to the next. Such differentiated education is the most transparent and objective for students.

The successful application of professionally oriented problems in training of future engineers must meet the following didactic requirements:

- providing an organic connection between the material studied in the program of the mathematical course and professional problems arising in the activities of an engineer;
- practical significance of the selected professionally oriented problem;
- continuity, consistency and systematic application of such problems in teaching mathematics.

In the methodological literature there is no common classification of professionally oriented problems. However, the analysis of studying this issue allows us to classify problems with professional content according to the nature of the knowledge used, didactic principles, the ways of setting the problem conditions, the level of complexity and the methods of solution. Professionally oriented problems can be considered to explain a phenomenon or process; the meansof problems are divided into text, graphic, tabular.

There are two main ways to solve such problems: algorithmic and heuristic. By means of the algorithmic method of solution, the way of solving the problem is known in advance, i.e. there is a ready solution algorithm. On the contrary,the heuristic method of solution requires selection and search of many solutions and is based mainly on mathematical intuition, the experience of previously solved problems, and consideration of previous mistakes.

Let us consider one of the problems on the theme"Application of a certain integral to pressurecalculation".

Problem. Gas under atmospheric pressure is in a cylindrical container withforcer, the height $H = 2m$ and the radius $r = 0.5m$. Find the work that needs to be spent on gas compression with forcer of 1.5m. The gas temperature remains constant.

Solution.

According to the Boyle-Mariotte law, under isothermal compression, the relationship between pressure and volume will be:

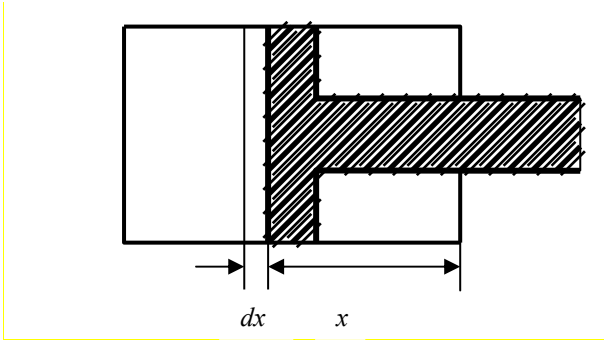
$$Pv = c. \qquad c - const.$$

When the forcer moves at x *m*. (Fig. 4), the gas pressure per unit area is:

$$P(x) = \frac{c}{v(x)} = \frac{c}{S(H-x)},$$

where S - the area of forcer. Then

$$P(x) = \frac{c}{H-x} = SP(x)$$



Figure

Let the function *a (x)* be the work to be spent on the movement of the forcer on$x$ meters. Suppose that when the forcer moves on dx, the pressure on it *P(x)* is constant. Find the approximate differential value of the function *a(x)*

$$\Delta a \approx P(x)dx = \frac{c}{H-x}dx = da$$

Next, we calculate the work when x changes from *0* to *h:*

$$A = c\int_0^h \frac{dx}{H-x} = -cln(H-x)\Big|_0^h = cln\frac{H}{H-h}$$

Wecalculateat$H=2м.,h=1,5м.,r=0,5м.,P_o=10330kg/m^2$ *(atmospheric pressure)*

$$v_0 = \pi r^2 H = 0,5\pi$$

$$c = P_0 v_0 = 5165\pi.$$

We find the work to be spent on gas compression:

$$A \approx 5165\pi \cdot ln\frac{2}{2-1,5} \approx 22494,4\hat{e}\tilde{A}\grave{i} \approx 220175,64 \qquad (\ddot{A}\text{æ})$$

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ЖОО-НЫҢ ТЕХНИКАЛЫҚ МАМАНДЫҚТАРЫНДА МАТЕМАТИКАНЫ ОҚЫТУДЫҢ КӘСІБИ БАҒЫТТЫЛЫҒЫНЫҢ ҚҰРАЛЫ РЕТІНДЕГІ МІНДЕТТЕР

Аннотация: Мақалада ЖОО-ның техникалық мамандықтарында математиканы оқытудың кәсіби бағыттылығы мәселесі қарастырылды, кәсіби мазмұнмен есептер мәселесі, оларды таңдау және саралау бойынша әдебиетке талдау жүргізілді. Болашақ инженерлерді табысты қолдану үшін оқытудағы кәсіби - бағытталған міндеттерге сәйкес келетін дидактикалық жағдайлар, кәсіби мазмұны бар есептерді жіктеу, сондай-ақ осындай міндеттерді шешу тәсілдері көрсетілген. Кәсіби мазмұны бар есептерге қойылатын негізгі талаптар көрсетілген, "қысымды есептеуге белгілі интегралды қолдану" тақырыбы бойынша есеп қарастырылды»

Түйінсөздер: міндеттері, күрделілік деңгейі, кәсіби бағыттылығы

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ЗАДАЧИ КАК СРЕДСТВО ПРОФЕССИОНАЛЬНОЙ НАПРАВЛЕННОСТИ ОБУЧЕНИЯ МАТЕМАТИКЕ НА ТЕХНИЧЕСКИХ СПЕЦИАЛЬНОСТЯХ ВУЗА

Аннотация: В статье рассмотрена проблема профессиональной направленности обучения математики на технических специальностях вуза, проведен анализ литературы по проблеме задач с профессиональным содержанием, их подбору и ранжированию. Показаны дидактические условия, которым должны соответствовать профессионально- ориентированные задач в обучении будущих инженеров для их успешного применения, классификация задач с профессиональным содержанием, а также способы решения таких задач.Перечислены основные требования к задачам с профессиональным содержанием, рассмотрена задача по теме «Применение определенного интеграла к вычислению давления»

Ключевые слова: задача, уровень сложности, профессиональная направленность, классификация задач.

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LONGITUDINAL MAGNETORESISTANCE OF P-TYPE SILICON UNDER UNIAXIAL ELASTIC DEFORMATION

Abstract. An increase in the mobility of holes and electrons at uniaxial stress (compression or tension) was found, that is important in the technology of manufacturing transistors. We present the results of the pyezo resistance phenomenon, which increases the mobility of holes and electrons when uniaxial pressure is applied to the main crystallographic axes. It means the transformation by uniaxial pressure of the isoenergetical surface.

Key words: magneto resistance, pyezo resistance, silicon, uniaxial elastic deformation.

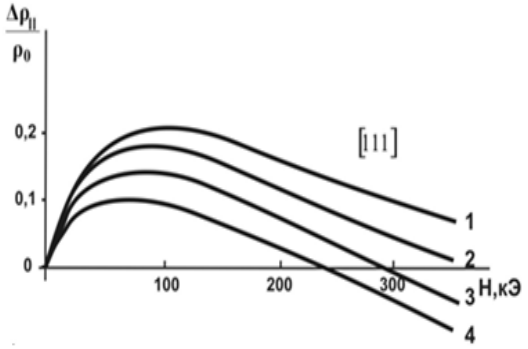
The special character of the change in the spectrum of the silicon valence band under uniaxial elastic deformation opens up new possibilities for studying the processes of current carrier scattering. In this regard, it would be interesting to study the effect of uniaxial elastic deformation on the valence band, since the latter, in addition to degeneration, changes the structure of the valence band and, with sufficient deformation, the gap between the valence subzones of heavy and light holes becomes so large that all charge carriers will be in the lower energy subzone of heavy holes. At the same time, if the measurements are carried out in weak electric fields, it is possible to study the magneto resistance only in one subzone of heavy holes (in the zone $j = \pm\frac{1}{2}$)).

The results of such experimental researches are shown in the figure.1 (at T=77.4 K) for p-type silicon crystals [1-3]. P-type silicon crystals with resistivity $\rho_{300K} = 70 Ом \cdot см$ were studied which were cut by the main crystallographic directions [111] at 77.4 K.

The transition of light holes into the subzone of heavy holes was completely excluded in our researches, because uniaxial pressure splits the subzone so that it becomes impossible to transition without external influence (for example, a strong electric field or powerful light). Since acoustic phonons are the main scattering mechanism for the samples studied by us at 77.4 K, it is natural to assume that negative magneto resistance is due to them, because uniaxial elastic deformation does not affect the scattering mechanism.

To determine the cause of negative magneto resistance, the studied samples were undergone to uniaxial elastic deformation [4]. As seen in figure 1, uniaxial elastic deformation does not remove the decline, but rather slightly increases it, and the magneto resistance gradually decreases with increasing uniaxial pressure and when the reaching the value X=6•103kg/cm2.it stops to depend on the pressure. Such action of p-type silicon magneto resistance was observed by us in our work [5].

In the saturation field of the pyezo resistance, the falling part of the magneto resistance crosses the zero line, forming a negative magneto resistance. In this regard, the saturated part of the magneto resistance in the case of X ‖ J ‖ H ‖ [111] is reduced by two times in size.



$X \cdot 10^3, к\Gamma / см^2$: 1-X=0; 2-1; 3-2; 4-3; 5-4, $\rho_{300K} = 70 Ом \cdot см, T = 77{,}4K$

Figure 1- Dependence of magneto resistance on magnetic field strength at uniaxial deformation along crystallographic axes

This is due to the fact that when a uniaxial elastic compression deformation is applied to the crystal, along with the migration of light holes into the zone of heavy holes, the zone spectrum is rearranged, leading to the fact that with increasing pressure, heavy holes become lighter, their mobility increases, therefore, the magnitude of magneto resistance decreases.

The value of uniaxial elastic deformation achieved by us was sufficient to transform the isoenergetic surfaces of the valence subzones into ellipsoids of rotation (figure 2).

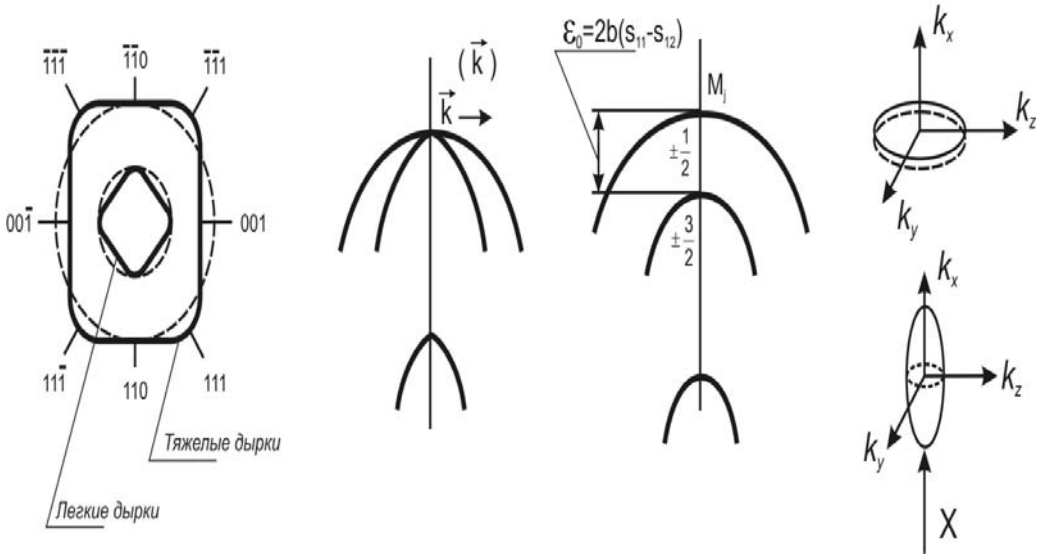


Figure 2 - Zone structure of silicon

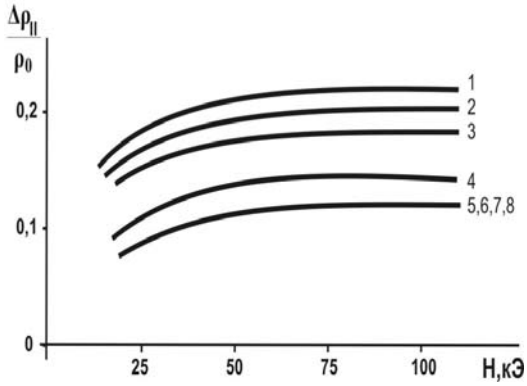
Thus, in fact, we are dealing only with a subzone of heavy holes (in the zone $j = \pm\frac{1}{2}$ is formed flattened, and in the zone $j = \pm\frac{3}{2}$ ellipsoids are formed elongated along the axis of deformation).

Therefore, it is natural to assume that the negative magneto resistance can be caused both by a change in the magnetic field of scattering on acoustic phonons, and not by the parabolicity of the zone.

Negative magneto resistance is observed in all studied silicon crystals with current carrier concentrations less than $10^{15} см^{-3}$ and $T \leq 200$K.

When a uniaxial elastic compression strain is applied to the crystal, along with the migration of light holes into the zone of heavy holes, the zone spectrum is rearranged, leading to the fact that with increasing pressure, heavy holes become lighter, their mobility increases, and the value of pyezo resistance decreases accordingly, therefore, the value of magneto resistance decreases.

This can be seen in figure 3, constructed by measuring the magnetoresistance of silicon p-type $\rho_{300K} = 10 Ом \cdot см$ C, T=77.4 K at different values of uniaxial pressure.



$X \cdot 10^3, кГ/см^2$: 1-0; 2-1; 3-2; 3-3; 4-3; 5-4; 6-5; 7-6,8-7. $\rho_{300K} = 10 Ом \cdot см$, $T = 77{,}4K$

Figure 3-Dependence $\Delta\rho_{II}/\rho_0 = f(H)$ at different values of pressure

In the book [5] of the famous scientist I. M. Tsidilkovsky it is said that if the effective mass of conductivity of charge carriers takes a negative value, then the resistance of the sample will be negative. By placing such a sample in the resonant circuit or cavity of the resonator, continuous stable oscillations in the circuit or resonator can be maintained. Thus, a semiconductor with a negative effective conduction mass of charge carriers can be used as a oscillator.

To do this, some conditions must be fulfilled. In order the effective mass of conductivity to be negative, representing for a complex law of dispersion some averaged value of the component of the inverse mass tensor., it is necessary to concentrate most of the charge carriers in the field of k-space where the effective mass in this direction is negative. According to what was said earlier, in germanium and silicon, for example, the wave vectors of most of the heavy holes must fall into one of the cones of negative effective masses. In this case, in the direction perpendicular of the axis of the cone, the resistance should be negative. As the wave vector and the speed of holes are related to each other, for the occurrence of a negative resistance it is necessary that the directions of the holes\ speed were to a limited extent or, in other words that a bunch of holes was created in the crystal. This is prevented by collisions of holes with irregularities of the crystal lattice. After each collision, the direction of the speed hole is changed. A very important type of interaction between charge carriers in germanium and silicon, namely scattering on acoustic phonons, which is almost elastic and isotropic, should lead to the fact that most of the charge carriers will leave a relatively narrow cone of negative effective masses, and, therefore, the generator in such conditions is impossible to realize.

As it is impossible to completely avoid collisions of charge carriers in the crystal, it is necessary to try to find out which scattering mechanism least prevents the formation of a beam of charge carriers. Two types of collisions could provide this:

1. Collisions, in which the direction of speed is generally changed very little. Such scattering mechanisms in crystals practically do not exist.
2. Collisions, in which the charge carrier almost completely loses energy and impulse, the electric field speeds up it after the collision in the right direction.

Inelastic scattering on optical phonons is just the kind of interaction of charge carriers with the crystal lattice, which is less than others prevents the formation of a carrier beam with negative effective masses. Indeed, after each act of inelastic scattering on optical phonons, the charge carrier loses almost all energy and impulse and then can be speeded up by the electric field in the desired direction (in the field of negative effective masses) until the next collision. Therefore, the predominant scattering on optical phonons should not prevent the creation of an amplifier (generator).

Semiconductors having charge carriers with negative effective masses and which have a high probability of scattering of these carriers on optical phonons are able to serve to amplify or generate (microwave-ultrahigh frequency) oscillations

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БІР ОСЬТІ СЕРПІМДІ ДЕФОРМАЦИЯ КЕЗІНДЕГІ Р-ТИПТІ КРЕМНИЙДІҢ БОЙЛЫҚ МАГНЕТТІК КЕДЕРГІСІ

Аннотация. Бір осьтік кернеу (сығылу немесе созылу) кезінде кемтіктер мен электрондардың қозғалғыш-тығының артуы анықталды, бұл транзисторларды дайындау технологиясында маңызды болып саналады. Бас кристаллографиялық осьтерге біросьті қысымды түсіргенде, кемтіктер мен электрондардың қозғалысы артатынын, пъезокедергі құбылыстарының нәтижелесінде болатынын ұсынамыз. Бұл изоэнергетикалық беттің бір осьтік қысымының өзгеруімен түсіндіріледі.

Түйін сөздер: магниттік кедергі, пъезокедергі, кремний, бір осьті серпімді деформация.

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ПРОДОЛЬНОЕ МАГНЕТОСОПРОТИВЛЕНИЕ КРЕМНИЯ Р-ТИПА ПРИ ОДНООСНОЙ УПРУГОЙ ДЕФОРМАЦИИ

Аннотация. Установлено увеличение подвижности дырок и электронов при одноосном напряжении (сжатии или растяжении), что немаловажно в технологии изготовления транзисторов. Представляем результаты явления пъезосопротивления, которое увеличивает подвижности дырок и электронов при приложении одноосного давления *X* к главным кристаллографическим осям. Этим объясняется преобразование одноосным давлением изоэнергетической поверхности.

Ключевые слова: магнетосопротивление, пъезосопротивление, кремний, одноосная упругая деформация.

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CONCEPT OF DEVELOPMENT OF THE ASTANA BOTANICAL GARDEN

Abstract. To date, the steppe ecosystems of the Republic lacked research institutions that develop theoretical and applied issues of introduction and green construction in the region. The basis for the design of the Botanical garden in the territory of Northern Kazakhstan was the Protocol of the meeting with the participation of the First President of Kazakhstan N. A. Nazarbayev on April 11, 2012. In 2012, the RSE on the ECC "Institute of Botany and Phytointroduction" of the SC at Kazakh MSE presented a natural-scientific justification for the creation of a Botanical garden in Nur-Sultan. The official opening ceremony of the Astana Botanical garden with the participation of the First President of Kazakhstan N. A. Nazarbayev was held on July 2, 2018.

In accordance with the Law "On protected areas" of Kazakhstan (2006), the main activities of the state botanical gardens is the development of scientific fundamentals of preservation, reproduction and use of fauna of Kazakhstan, development of the flora of Kazakhstan, of global significance [article 58]. State Botanical gardens are used in accordance with the established procedure for scientific, cultural, educational and educational purposes.

The developed Concept of development of Nur-Sultan Botanical Garden of is aimed at laying the foundations for its development as a multifunctional leading research, educational, cultural, educational and environmental institution in Northern and Central Kazakhstan. Botanical Garden of our capital should become a testing ground and demonstration of "green technologies", technologies of preservation of the genetic Fund of plants, modern agricultural technologies, training technologies and "mass media" propaganda.

The studies formulated the concept of development of Nur-Sultan Botanical Garden, set objectives, direction and prospects of the Botanical Garden in Nur-Sultan in accordance with the Law "On protected areas" of Kazakhstan (2006), while illustrating effective ways in implementing educational, cultural and social activities.

Keywords: Botanical garden, Nur-Sultan, collections, research direction, social and educational objectives.

Introduction. To date, in North Kazakhstan, and in general in the steppe zone of the Republic, there has been no introduction research institution developing theoretical and applied issues of green construction in the region. The Protocol of the meeting with the participation of the First President of Kazakhstan N.A. Nazarbayev on April 11, 2012 was the basis for the design of the Botanical Gardens of the capital of our Republic.

In 1999, the Ministry of Natural Resources and Environmental Protection of the Republic of Kazakhstan published "The National Plan for Action for the Conservation and Balanced Use of Biological Diversity". This plan included the project 2.2.1 "Development of a scheme for the development of specially protected natural territories and the Establishment of reserves, national parks and of the Botanical garden in the city of Astana." On August 15, 2001, the Resolution of the Bureau of the Mazhilis of the Parliament of the Republic of Kazakhstan "On the Master plan of the city of Astana, providing for the establishment of a botanical garden in the city of Astana" was adopted [1].

In 2003, the Institute of Botany and Phytointroduction of the Ministry of Education and Science of the Republic of Kazakhstan performed the research, titled "Development of Inventory of Green Spaces and of the Integrated Scheme for the Layered Nature Conservation of Astana" (Implemented by S.V. Chekalin,

Ph.D). Based on the results of this research, an opinion was formed that “for the purposes of holding of introduction research of plants the establishment of the botanical garden is Astana is expedient (Report of RSCE “Institute of Botany and Phytointroduction” of the RK MES, 2003). This opinion was taken into account by the SE “Astanagenplan” and the issue of establishment of the botanical garden in the city of Astana was included in the priority design projects for the years 2004-2005. In the 2012 we produced a feasibility report for the establishment of the botanical garden in the city of Astana.

In 07.01.2018 in Nur-Sultan was held on an International Academic and Practical Conference with the participation of leading scientists from Russia, Belarus, Ukraine, Germany, France, “Establishment and development prospects of the botanical garden of Astana in the conditions of the sharply continental climate. "Theory and Practice" at which a decision was made to establish an International Scientific and Technical Council for the development of a new botanical garden. The establishment and opening of a botanical garden are a unique event not only for an individual state, but also an event that has major international implications [2].

The official opening ceremony of the Astana Botanical Garden with the participation of N. A. Nazarbayev, the First President of Kazakhstan was held during the celebration of the 20th anniversary of the new capital of the Republic of Kazakhstan (July 2, 2018).

Land area of Nur-Sultan and its zoning

The total area of the botanical garden is 47.7 hectares. In accordance with paragraph 1 of Article 63 of the Law of the Republic of Kazakhstan "On Specially Protected Natural Territories" the following zones shall be specified in the state botanical gardens:

1) Exposition - for plant cultivation and visitors’ access;

2) Scientific - for the performance of scientific research and preserving collections of the plant gene pool; the zone includes introduction nurseries, plantations of plants for replication, experimental plots and reserve territories for the development of the above-mentioned plantations and collection plots.

3) Public - to serve visitors; the zone includes the parterre of the botanical garden adjacent to the main entrance, the administrative building and the stock greenhouse.

4) Administrative and production and economic zone - the zone includes protective plants, a machine and tractor fleet, a road network of the botanical garden.

At present, the balance of areas broken down by the zones in the botanical garden of Astana has not yet been finally established. Speaking about the use of land, they usually mean its functioning in the field of production [3], the lands of the state botanical gardens of the Republic of Kazakhstan have a special purpose aimed at introducing tests of new plant species and for their further use in landscaping of regions.

Objectives and Focal Areas of Research. In accordance with the Law "On Protected Areas" of the Republic of Kazakhstan (2006) [4], the main activities of state botanical gardens shall include the development of academic fundamentals for the conservation, reproduction and use of the plant world of Kazakhstan, the use of Kazakhstan's flora resources of global importance [Article 58]. The State botanical gardens shall perform academic research on the introduction and selection of natural, cultural, domestic and global flora, as well as on the study, conservation and effective use of the plant world of Kazakhstan ... ”[Article 61]. In the state botanical gardens, there shall be established collection and experimental plots, herbaria, nurseries and seed funds [article 60] ...

The state botanical gardens are used in the established procedure for scientific, cultural, educational and educational purposes. In addition to it, the State Botanical Gardens of Kazakhstan are deemed to be the institutions entrusted with the task of implementing the Global Strategy for Plant Conservation adopted within the framework of the International Convention for the Conservation of Biodiversity, ratified by Kazakhstan in 1994.

The development concept of the Botanical Garden of Astana is aimed at laying the foundations of its development as a leading multifunctional research, educational, cultural, educational and environment protection institution in Northern and Central Kazakhstan. Astana Botanical Garden should become a testing ground for the testing and demonstrating “green technologies”, technologies for preserving the plant genetic pool, contemporary agricultural technologies, educational technologies and “mass media” propaganda.

The provisions of this Concept shall determine the following main focal areas of development of the Astana Botanical Garden:

- studies of the natural flora of Kazakhstan as a whole, and in particular the regional flora of Northern, Central, Eastern and Western Kazakhstan (inventory, taxonomic studies, genotyping);

- introduction of plants of natural and of global flora;

- preservation of plant diversity using all forms and methods: creating a collection of living plants of open and closed soil, in vitro plant collections; development of technologies for long-term storage of seeds in different conditions;

- development of technologies for the conservation and rational use of plant resources of Northern and Central Kazakhstan, the use of genetic resources of the global flora in enhancing and developing the economy of Kazakhstan (not only agricultural issues, but also medicine, industry based on plant materials);

- development of the role of the Botanical Garden in the landscaping of the capital of the Republic of Kazakhstan and of the region as a whole;

- Ecological and botanical education of the population of different age and social groups; increasing the effectiveness of the Botanical Garden as a base for professional training of specialists;

- organization of environmental and recreational activities;

- development of the material and technical base of scientific laboratories of the Botanical Garden.

For ensuring educational work the following shall be necessary:

- The formation of the center of field practices of students of the Faculty of Biology of ENU named after Gumilyov and of other universities of the city of Nur-Sultan;

- development of focal areas of use of the collection and scientific resources of the Botanical Garden in the training of students on bachelor university courses, masters and PHD doctoral students in biological specialties of universities and other educational institutions of higher and secondary special education in the capital of the Republic of Kazakhstan and, possibly, other regions of Kazakhstan;

- development and implementation of new forms of using the resource base of the Botanical Garden for the implementation of additional educational programs, continuing training courses for school teachers, forestry specialists, specialists in green building, etc .;

- Establishment of complexes of teaching materials for various purposes

Improving the effectiveness of the system of environmental education of citizens, including students:

The implementation of “Zhangyru-Yel” programme of the RK President shall allow to improve the work for environmental education and training in the region up to an entirely new, high level, consistent with the needs for sustainable social and economic development of the region.

In doing so, the following is planned:

- introduction of a set of environmental and educational events for various population groups, including thematic guided tours, scientific, methodological and cultural educational seminars and the implementation of training programs;

- Creation of new and replenishment of existing demonstration exhibitions, laying of ecological paths;

- Establishment of the Museum of Nature of the region;

- expansion of work with educational institutions of Nur-Sultan and the region on the formation and study of ex-situ populations of rare plants of local flora in school areas;

- the revival of the SAS (Small Academy of Science for Schoolchildren), the establishment of "Green Schools", the station of young naturalists on the basis of the Astana Botanical Garden, etc.

Organization of environmental and recreational activities

Due to its location in the center of the cosmopolitan city, the Botanical Garden of the capital needs, in addition to implementing its main objectives, to build a certain system of relations with various categories of visitors and direct interaction with the urban population. For guaranteed preservation of collection funds under these conditions, there shall be necessary an effective and reliable system for regulating recreational workload, including:

- adjustment of the functional zoning of the territory of the Botanical Garden and a differentiated approach to zone-making taking into account the modern requirements;

- the establishment in the area with increased frequency of visits (in the public and exhibition areas) of the material and information infrastructure conforming with its objectives (road and path network, fences);

- the establishment of an effective system for the protection of collection funds using modern information technology;

- commercialization of environmental and recreational activities;

- arrangement of the buffer (security) zone of the Botanical Garden to reduce the intensity of recreational and other urbanistic workload related to the specially protected natural area (status not known yet);

- the formation of a system of interaction with the media in the interests of developing environmental and legal and cultural and aesthetic consciousness of citizens.

Currently, the Astana Botanical Garden performs research within the framework of targeted funding for scientific and technical progress: "Implementation by the State Botanical Gardens of Kazakhstan's priority of academic and practical tasks of the Global Strategy for Plant Conservation as a sustainable system for maintaining biodiversity" (2018-2020), aimed at solving methodological issues, related to the creation and laying of collection funds in the state botanical garden of Astana.

A grant project is being implemented: "Academic support for the establishment of a state botanical garden in the city of Astana: development of prospective lists of collection funds of arboreal plants, and mobilization of reproduction material for their establishment" (AR05133161) for 2018-2020.

The activities of the Botanical Garden of Astana shall be an integral component in ensuring sustainable social and economic development of the region. For its effective provision, there shall be necessary the adoption and implementation in 2020-2023 of a special targeted state program ensuring the sustainable development of the botanical garden of the city of Nur Sultan.

Selection of the most suitable and effective administrative and organizational structure of the garden:

- The selection or the availability of administrative structure of the botanical garden must be dictated by a combination of complex interrelated social and practical realities, with the obligatory consideration of potential sources of funding and support from interested parties.

- The organizational structure of the botanical garden must reflect the main directions of the garden: the development of science, education, working with visitors, the maintenance of the territory of the garden and of the collection fund, administrative facilities.

Conformity of the Botanical garden to international quality standards:

At present, an international academic and technical council for the development of the Astana Botanical Garden has been created, which, along with scientists from Kazakhstan, includes leading scientists from Russia, Belarus, Ukraine, Germany, France.

The Botanical Garden of Nur-Sultan is a member of the Council of Botanical Gardens of Kazakhstan and from the first days of its establishment it has maintained and developed cooperation with more than 30 botanical gardens of the world (Russia, Belarus, Ukraine, Botanical Gardens of Central Asia, China, South Korea, USA, France, Germany, Italy, Hungary, Bulgaria). The methodological fundamentals of its activities are determined by the Council of Botanical Gardens of Russia, Belarus and Kazakhstan, and the International Council of Botanical Gardens for Plant Protection (BGCI - Botanic Gardens Conservation International, Kew, U. K.).

The social role of the Botanical Garden on local, regional and national levels:

- aesthetic appeal, accessibility, comfortable environment for visitors;

- creation of new jobs;

- expanding the profitability of ecological tourism with the engagement of the local community (souvenir products and other products based on local crafts, folk phytomedicine, etc.);

- assisting or assisting the local population in fulfilling Kazakhstan's international obligations (for example, implementing environmental education of citizens in the context of "Education for Sustainable Development program" programme)

- development of plant genetic resources for landscaping the region and the city of Nur-Sultan (development of nurseries);

- social and recreational importance for residents and visitors of the city and region; The Botanical Garden - as an object of national and local pride, the participation of the Botanical Garden in the cultural activities of the cosmopolitan city and of the Republic as a whole;

- the availability of information on the activities of the botanical garden for the conservation of plants and their habitats.

The Closest Prospects:

1. In accordance with world trends, the Herbarium Fund, the Seed Bank of Kazakhstan's Natural Flora and paleobotanical collections will be created. The Institute of Botany and Phytointroduction of CS of RK MES is ready to transfer part of these collections, more than 70 thousand samples out of herbarium fund and about 3 thousand samples of seeds.

2. We have a unique paleobotanical collection of plants that were were discovered for the first time in the world in Central Kazakhstan in 1890. Their transfer to the Astana Botanical Garden is symbolic - they will return to their “native land”.

3. Development of introduction research, development of prospective lists and laying of collection funds and expositions of plants of natural and global flora;

4. Creation of scientific laboratories,

5. Creation of an information and educational center. For the development of excursion related activities, a mobile application "Electronic Guide" shall be designed. Astana Botanical Garden should become a place of attraction for citizens where they can not only relax, but also have the opportunity to take master classes and receive training in gardening. The creation of the Botanical Garden in Nur Sultan will increase the prestige of the capital of Kazakhstan as one of the tourist centers.

Medium-term and Long-term Development Prospects:

1. Establishment of collection funds of live plants of natural and global flora;

2. Development of effective range of plants for green planting in Northern and in Central Kazakhstan;

3. Development of new concept of green planting in the city of Astana;

4. 4. Construction in the botanical garden of Astana of a greenhouse with differentiated climatic conditions with the involvement of both public funds and private investment.

5. Construction of the Tourist centre(from Kabanbai batyr street) which will house: a tour desk, a conference room, a library, classrooms for working with schoolchildren and students; Museum of Nature (a steppe biome can become the main line of a museum exposition, which can organized as a story about the history of its formation, as the evolution of steppe species (including animals), the current condition and factors supporting the functioning of the system.

The main provisions of this Concept and the appropriate set of measures aimed at its implementation are aimed at implementing the main objectives of the development of the Astana Botanical Garden:

- development of a comprehensive plan of regional events for the development of the Botanical Garden of Nur-Sultan as a unique multifunctional academic and educational center of Northern and Central Kazakhstan in the system of higher professional and additional education;

- Establishment of a regional center for the conservation of genetic resources of the global and of regional flora in a cultural setting;

- Establishment of a regional educational and academic center for environmental education on the basis of the Botanical Garden;

- commercialization of the results of academic activities of the Astana Botanical Garden for the purposes of ensuring sustainable social and economic development of Kazakhstan.

A little over a year has passed since the opening of the Astana Botanical Garden, but we have already implemented some of the most important objectives of the developed concept:

1. Development and approval of the Master Plan for expositional, collection and academic sites and introduction nurseries of the botanical garden with the determination of the area of each of them;

2. Development of prospective lists of plants for all areas, designed as part of the botanical garden;
3. Mobilization of seed and planting material of plants provided for by prospective lists;
4. Organising introduction nurseries and beginning of performance of initial plant tests on them;
6. The initial formation of collection sites and continuing of primary introduction tests.

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АСТАНА БОТАНИКАЛЫҚ БАҒЫНЫҢ ДАМУ КОНЦЕПЦИЯСЫ

Аннотация. Қазіргі уақытқа дейін Республиканың дала экожүйелерінде жерсіндіру мен жасыл құрылыстың теориялық және қолданбалы мәселелерін құратын ғылыми-зерттеу мекемелері өңірде болған жоқ. Солтүстік Қазақстан аумағында ботаникалық бақты жобалауға 2012 жылғы 11 сәуірдегі Қазақстан Республикасының Тұңғыш Президенті Н. Ә. Назарбаевтың қатысуымен өткен кеңестің хаттамасы негіз болды. 2012 жылы ҚР БҒМ ҒК "Ботаника және фитоинтродукция Институты" ШЖҚ РМК Астана қаласында ботаникалық бақ құрудың жаратылыстану-ғылыми негіздемесін жасады. Қазақстан Республикасының Тұңғыш Президенті Н. Ә. Назарбаевтың қатысуымен Нұр-Сұлтан қаласының ботаникалық бағының ресми ашылу рәсімі 2018 жылдың 2 шілдесінде өтті.

ҚР "ЕҚТА туралы" Заңына сәйкес (2006 ж.) мемлекеттік ботаникалық бақтардың негізгі қызметіне Қазақстанның өсімдіктер дүниесін сақтау, өсіру және пайдаланудың ғылыми негіздерін жасау, әлемдік маңызы бар Қазақстан флорасының ресурстарын игеру жатады [58 бап]. Мемлекеттік ботаникалық бақтар белгіленген тәртіппен ғылыми, мәдени-ағарту және білім беру мақсаттарында пайдаланылады.

Нұр-Сұлтан қаласының ботаникалық бағын дамытудың әзірленген Концепциясы оның Солтүстік және Орталық Қазақстандағы көпфункционалды жетекші ғылыми-зерттеу, білім беру, мәдени-ағарту және табиғат қорғау мекемесі ретінде дамуының негізін қалауға бағытталған. Нұр-Сұлтан қаласының ботаникалық бағы "жасыл технологияларды", өсімдіктердің генетикалық қорын сақтау технологияларын, заманауи агротехнологияларды, "масс-медианы" насихаттау және оқыту технологияларын сынау полигонына айналуға тиіс.

Зерттеу нәтижесінде Нұр-Сұлтан қаласының ботаникалық бағы дамуының Конценциясы тұжырым-*далды, ҚР "ЕҚТА туралы" Заңына сәйкес Нұр-сұлтан қаласындағы ботаникалық бақтың міндеттері, бағыттары мен даму перспективалары анықталды (2006 ж.), білім беру-ағартушылық және мәдени-әлеуметтік қызметті жүзеге асырудың тиімді жолдары көрсетілді.

Түйін сөздер: Ботаникалық бақ, Нұр-Сұлтан қ., коллекциялық қорлар, зерттеу бағыттары, әлеуметтік және білім беру міндеттері.

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КОНЦЕПЦИЯ РАЗВИТИЯ АСТАНИНСКОГО БОТАНИЧЕСКОГО САДА

Аннотация. До настоящего времени в степных экосистемах Республики отсутствовали научно-исследовательские учреждения, разрабатывающие теоретические и прикладные вопросы интродукции и зеленого строительства в регионе. Основанием для проектирования Ботанического сада на территории Северного Казахстана послужил Протокол совещания с участием Первого Президента Казахстана Н.А. Назарбаева от 11 апреля 2012 года. В 2012 году РГП на ПХВ «Институт ботаники и фитоинтродукции» КН МОН РК было сделано Естественно-научное обоснование создания ботанического сада в столице Республики Казахстан. Официальная церемония открытия Ботанического сада в г. Нур-Султан с участием Первого Президента Казахстана Н.А. Назарбаева состоялась 2 июля 2018 г.

В соответствии с Законом «Об ООПТ» РК (2006 г.), к основной деятельности государственных ботанических садов относится разработка научных основ сохранения, воспроизводства и использования растительного мира Казахстана, освоение ресурсов флоры Казахстана, имеющих мировое значение [статья 58]. Государственные ботанические сады используются в установленном порядке в научных, культурно-просветительских и учебных целях.

Разработанная Концепция развития Ботанического сада г. Нур-Султан направлена на то, чтобы заложить основы его развития как многофункционального ведущего научно-исследовательского, образовательного, культурно-просветительного и природоохранного учреждения в Северном и Центральном Казахстане. Ботанический сад столицы должен стать полигоном испытания и демонстрации «зеленых технологий», технологий сохранения генетического фонда растений, современных агротехнологий, технологий обучения и «масс-медиа» пропаганды.

В результате исследований сформулирована Конценпция развития определены задачи, направления и перспективы развития Ботанического сада г. Нур-Султан в соответствии с Законом «Об ООПТ» РК (2006 г.), показаны эффективные пути в осуществлении образовательно-просветительской и культурно-социальной деятельности.

Ключевые слова: Ботанический сад, коллекционные фонды, направление исследований, социальные и образовательные задачи.

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POP PESTICIDES AND RECLAMATION METHODS (REVIEW)

Abstract. A thorough analysis of the foci of pollution with POPs pesticides and the development of methods for the remediation of contaminated areas is one of the key areas of the Kazakhstan Republic strategic development plan. The huge production of POPs pesticides, their over-purchasing by agro-industrial companies, as well as changes in agricultural infrastructure related to the liquidation of collective farms, state farms and land privatization led to their accumulation in warehouses in many CIS countries, including the Republic. When they getinto the environment with rain, wind, as a result of floods, landslides and fires, they pose an environmental hazard to human health and the environment, both locally and globally. In this regard, the article presents a literature review on the problems of POPs pesticides and methods for their reclamation. Modern methods of obsolete pesticides disposal (isolation, burial, immobilization, soil washing, electro-reclamation, heat treatment, etc.) and methods of pesticide-contaminated lands reclamation (bioremediation, phytoremediation, and vermiremediation) are considered. Particular emphasis was placed on phytoremediation technologies for POP pesticides in soil and methods for increasing their effectiveness, since this technology is an economically viable and environmentally friendly technology. The conditions for optimizing the environment using chemicals (low molecular weight compounds, carbon materials (biochar) and nanomaterials) and plant-microbial associations to stimulate the development of the plant organism increase the phytoavailability of POPs pesticides and increase their mobility in soil and water systems are considered in detail.

Key words: POP-pesticides, reclamation, phytoremediation, optimization, environment.

Introduction

Persistent organic pollutants (POPs) are organic compounds of natural or anthropogenic origin, which have a special combination of physical and chemical properties, so that after they enter the environment they do not decompose for long periods of time, because they are highly resistant to photolytic, chemical and biological degradation [1]. POPs are classified into four categories: low mobility POPs; relatively low mobility POPs; relatively high mobility POPs and high mobility POPs (Table 1). The classification is based on three characteristics: vapour pressure of a supercooled liquid at 25°C; octanol-air partition coefficient; the temperature of condensation. Low mobility POPs precipitate and are held close to the source, while high mobility POPs undergo atmospheric dispersion throughout the globe without precipitation [2;3]. POP's can fractionate as they move to the poles because they migrate at different velocities [3].

Most POPs are mobility enough to vaporize and precipitate in air, water and soil at ordinary ambient temperatures. Warm temperatures (tropical areas) promote a potential for atmospheric dispersion of POPs due to increased mobility and rate of degradation than in temperate climates.For the first time in 1974, scientists suggested the possibility of the migration of POPs in the atmosphere in the form of gases, aerosols and condense in areas with low temperature [4].Natural decomposition reactions also slowdown in the cold, allowing POPs to remain intact for longer and become more resistant. Cases of detection the POPs in the tissues of Arctic animals and marine habitats have been regularly recorded since the late 1960s, becoming more frequent by now [5-8].

Table 1 –POP pesticides classification [3]

Low mobility	Relatively low mobility	Relatively high mobility	High mobility
Location			
Fast deposition and retention near the source	Preferential deposition and accumulation in the middle latitudes	Preferential deposition and accumulation in polar latitudes	Atmospheric dispersion in the world, no deposition
Temperature			
> +30°C	from+30°Cto -10°C	from -10°C to -50°C	< -50°C
Chlorobenzenes			
-	-	5-6 Cl	0-4 Cl
PCBs			
8-9 Cl	4-8 Cl	1-4 Cl	0-1 Cl
PCDDs			
4-8 Cl	2-4 Cl	0-1 Cl	-
PAHs			
> 4 rings	4 rings	3 rings	2rings
POPs			
Chlordecones (Mirex & Kelevan), benzo[α]pyrene	DDT and its analogues (Metoxychlor & Dicofol), Cyclodienes (Endosulfan, Aldrin, Dieldrin, Chlordane, Heptachlor, Isobenzan)	HCB, HCH and its isomers	Napthalene

Studies by Russian scientists have established that pesticides are present in the Arctic region [9], and that significant volumes of pesticides (for example, hexachlorocyclohexanes, DDT, chlorobenzenes) are transported to the Arctic by the rivers. In 2002, more detailed information was published from Russian regions, including on the concentration of DDT and toxaphene in the Kara Sea and the surrounding areas, based on which it can be concluded about the continued use of DDT and toxaphene, and (or) leaks from old storage facilities. In 1997, the AMAP working group presented evidence of high pesticides in animals in the Arctic. In the Arctic regions, many air and water transport routes end, so large volumes of persistent pesticides and other pollutants accumulate in them. In the Arctic region, the destruction of pesticides is slow due to low temperatures and, therefore, pesticide residues remain in the environment for a very long time after their planned use.

The biomagnification of POP's is one of the most pressing issues, the deposition of persistent organic compounds on the links of the trophic chain occurs mainly in the liver and adipose tissue, due to the lipophilic nature of pesticides.The first public warnings of potential POP's hazards were related to local environmental impacts in the early 1960sand intensified in the 1970s [10]. POPs have been found in various human matrices, including blood, breast milk and placentain the 1970s. It is known that human health problems, such as endocrine disruptions, cancer, reproductive disorders, cardiovascular diseases and immune system problems are caused or exacerbated by these compounds due to constant exposure and accumulation [11]. Currently, one of the most serious health problems of POPs is their carcinogenic effects. The greatest impact occurs mainly with the use of contaminated agricultural products containing pesticides or their metabolites [12]. Being bioaccumulative POPs even in very low concentrations can cause several generally insignificant effects on human health, fish and wildlife along the food chain [11].

Due to the danger of POPs, the Stockholm Convention on Persistent Organic Pollutants was adopted in 2001and entered into force in 2004. Parties to the Convention have committed to reduce the amount of POPs that could have a negative impact on humans and travel over long distances. The Republic of Kazakhstan signed the Stockholm Convention on POPs on May 23, 2001 and ratified it on June 7, 2007, thereby committing itself to not producing, not using and destroying stockpiles of chemicals recognized as especially life threatening. The jurisdiction of the convention included 12 chemicals, including nine pesticides, namely DDT, aldrin, dieldrin, endrin, chlordane, heptachlor, mirex, toxaphene and hexachlorobenzene. However, the list of POPs is constantly updated with new substances. At the fourth meeting of the Parties Conference, held in 2009, an additional five pesticides (chlordecane, alpha hexachlorocyclohexane, beta hexachlorocyclohexane, lindane, and pentachlorobenzene) and four industrial chemicals (octabromodiphenyl ether, pentabromodiphenyl ether, perfluorooctane sulfonic acid,

and perfluorooctane sulfonyl fluoride) were included. In 2015, brominated flame-retardants (PBDEs, HBCD and HBB) and PFOS and related precursors as first perfluorinated-alkylated substances (PFASs) were included in the list as well [13]. Thus, as of 2013, the list of POPs included 13 items of organochlorine pesticides.Due to Stockholm Convention the POPs have to be destroyed and liquidated [14].

The production and use of POP-pesticides in developed countries, including Kazakhstan is prohibited or restricted. However, widespread production, large purchases of pesticide products by governments, poor stockpile management, and reluctance to make changes and their use after the ban led to their accumulation. They become obsolete and undesirable when they can no longer be used for their intended purpose because they are prohibited [15].Tons of obsolete and undesirable pesticides are accumulating worldwide. A significant amount of these pesticides is included in the POPs group and is of particular concern because of their toxicity, persistence, long-distance transmission and accumulation in the fatty tissues of humans and animals [16]. Obsolete stocks of pesticides not only pose a threat to public health and the environment, but can also pollute natural resources and inhibit socio-economic development [11].Although these prohibitions and restrictions were introduced during the 1970s and 1980s, some countries (India, Africa, South America etc.) still use and produce POP-pesticides for agriculture because of their low cost and versatility in controlling various pests[17].

Unfortunately, so far little attention has been paid to environmental safety at the state level, even though many countries have ratified the Stockholm Convention. According to the "International HCH & Pesticides Association", the exact number of obsolete pesticides in the countries of the former Soviet Union, including Kazakhstan, has not been established and varies widely[13].

According to UNEP [18], because of an inventory of obsolete pesticides in the country, more than 1500 tons of banned, unsuitable for use pesticides and their mixtures of unknown composition were registered. The data of 2008 indicate that their number reached 10000 tons. The Department of Environmental Protection of the Almaty region believes that 87 tons of obsolete pesticides should be disposed of, whereas, according to the Ministry of Agriculture, only 126 tons should be destroyed. According to the Ministry of Agriculture (as of July 2012), Kazakhstan has 22 typical warehouses that store 2231 tons of pesticides; 580 adapted warehouses in which 17049 tons of pesticides are stored. There are 392 operating warehouses in the Republic (the largest number of warehouses is in the Akmola region – 224, and in the East Kazakhstan region – 68). The largest capacity warehouse (for storage of 4700 tons of pesticides) is located in the Shortandy district of the Akmola region. In total, about 6931 tons of obsolete, banned and unusable pesticides are stored in warehouses of various regions [19]. Due to the lack of a full-scale inventory in the Republic of Kazakhstan, the data on the number of the former storehouses, as well as the quantity and quality of obsolete pesticides, are contradictory,that evidenced an imperfect management system and that caused a serious danger for environment and human health[20]. In this regard, the restoration of contaminated soil is one of the priority areas in all regions of the world, because it has social and economic value for restoring soil health and increasing its productivity. The search and use of inexpensive recovery methods that can be implemented by farmers with limited equipment and experience are of great importance.

Remediation (Reclamation) of POP-pesticides

*Ex situ,*physical and chemical methods are traditional approaches to the remediation of contaminated POPs of soils[21, 22].

Physical methods of remediation:

insulation – pesticides are isolated and held by physical barriers, which are used in the manufacture of steel, concrete, bentonite, clay and tile walls;

separation of pesticides from the soil–for separation of pesticides from the soil there are used high frequency heating, electrokinetic processing and soil flushing. After excavation,there are used soil-flushing, extraction by solvent and thermal desorption. Insecticide DDT is successfully removed from contaminated soil under thermal desorption at 450-500°C.

burial – removal of contaminated soil from the contaminated site and pollutants in a special site for backfilling and restoration of the site, which may include backfilling the dug space with clean soil with the subsequent creation of vegetation;

stabilization/immobilization– mixing contaminated soils with hardening materials, such as cement or other pozzolanic materials, such as siliceous or aluminous materials with cementing properties, or thermoplastics or other suitable agents;

soil washing– particle separation method by washing process and the leaching technique using chemical extractants;

electro-reclamation– based on the electrokinetic process that occurs during the flow of direct current between the cathode and anode inserted into the soil. This method is most successfully applied on highly clay soils containing organic or relatively mobile pesticides;

heat treatment– removal of organic contaminants by chemical degradation and volatilization by heating the soil to high temperatures by heating by electrical resistance, radiofrequency/electromagnetic heating, injection of hot air/steam.

hyperthermal combustion of pesticides wastes–liquidation the stokes of obsolete and undesirable POP-pesticides is combustion in specialized high-temperature combustor. The optimal conditions for destroying the POP-pesticides in combustors are 1000°C and period for 2 seconds. Such equipment is on the restricted amount in developed countries (for example, Czech Republic), but this method is not available for developing countries due to their absence. Cement ovens, that are present in developing countries, can be used for combustion the obsolete pesticides stokes, but this approach led to air contamination by toxic substances (furans, dioxides, etc.).

Chemical methods of remediation– treatment of the contaminated soil by KOH, mixes of Ferrum, Aluminium sulfate and vinegar acid. Decay effectiveness of pesticides is 99%; this method is suitable for developing countries.

These technologies are successfully used in developed countries of the world, but they are extremely energy-intensive and require large investments. The burial of POPs in repositories also requires significant financial costs, also, pollutants for many years in the open air were absorbed in high concentrations in the soil and, therefore, it is necessary to remove not only xenobiotics themselves, but also huge volumes of soil. Besides, they are not environmentally friendly.An alternative to traditional technologies is successfully used innovative technologies: bioremediation and phytoremediation.

Biological methods of remediationinvolves various methods, such as biode-gradation using microorganisms in the soil, phytoremediation using plants, or vermi-remediation using earthworms.

*Bioremediation.*Bioremediation agents are bacteria and fungi that use pollutants as a source of nutrients or energy. The microbial diversity of the site is one of the most important parameters of bioremediation, along with the nature of pollutants and some soil properties (pH, moisture content, nutritional status, temperature, redox potential). Bioremediation has been successfully used for the degradation of pesticides, such as lindane, atrazine, diuron, erbutosaline, metalaxyl, DDT, gamma-hexachlorocyclohexane (γ-HCH), dieldrin, aldrin, heptachlor, chlordane, lindane, and lichen*Trametes*, valued at $80 and $120 per ton[23].One of the most important reasons for using bioremediation to eliminate organic pollutants is that bioremediation is a cost-effective and environmentally friendly method that makes it possible to destroy or neutralize organic pollutants using natural biological activity.

Bioremediation consist from bio-augmentation, biostimulation and composting.

Bio-augmentation is the process of inoculation of enriched/acclimatized consortia or strains that decompose individual pollutants. The biodegradation of chlorpyrifos was studied in the mineral medium and soil using a new strain of fungi *JAS1*isolated from rice field soil [24].

Biostimulation - the addition of appropriate nutrients (nitrogen, phosphorus, trace elements) to provide microorganisms with an environment that contributes to the development of metabolic pathways for biodegradation of pollutants. In their study, I. Ortíz [25]and colleagues proved that stimulating the local microbial flora of the soil by adding small amounts of secondary carbon sources enhances the biodegradation/mineralization of DDT and its main metabolites.

Composting - mixing contaminated soil with non-hazardous organic additives (e.g., manure, agricultural waste) suitable for composting, to stimulate the develop-ment of bacteria or other organisms populations, such as fungi, earthworms, etc., that can decompose pollutants in the soil through co-metabolic pathways. T.B.Moorman with colleagues [26] used several organic modifications, including compost, a by-product of corn fermentation, corn stalks, manure, peat, and sawdust to improve the removal of toxic pesticides (atrazine, trifluralin, and metolachlor) from contaminated soils..

*Vermiremediation*is the process of using earthworms to remove contaminants from soils or to decompose unrecycled compounds [27]. Several studies have reported accelerated removal of pesticides by adding earthworms to contaminated soil, but there are other studies that have shown the opposite[28]. The ability of earthworms to alter the structure, biomass, and functioning of microbial communities in soil can indirectly stimulate biodegradation of POPs, which mainly depends on microbial activity[29]. It is well known that the activity of earthworm increases the availability of nutrients (concentrations of water-soluble C and carbohydrates, as well as extracted minerals N and P), which can be used by soil microorganisms as co-metabolites, which leads to an increase in the rate of biodegradation of pesticides [30].

*Phytoremediation***.**Phytoremediation, as a new innovative technology for the restoration of POP-contaminated soils, is beginning to develop rapidly. The difficulty in the widespread adoption of phytotechnology lies in the phytotoxicity of certain pesticides (herbicides). Rhizospheric and endophytic bacteria play the main role in the degradation of POPs of pesticides. The main mechanisms of remediation of soils contaminated with organic xenobiotics are phytoextraction and phytostabilization [31-35]. The market success of phytoremediation is primarily due to the low cost of this technology. One of the reasons for cheapness is that phytoremediation technology does not require expensive equipment and specialized personnel, its methods are simple to use and the technology is suitable for cleaning a wide variety of environmental pollutants, including POPs pesticides.

Phytoremediation (from the Greek *"phyto"* - plant, and from Latin *"remedium"* - clean, restore) is a set of technologies that use different types of plants to localize, decompose, immobilize and extract specific chemical compounds from the soil.

The advantage of phytoremediation over other physicochemical methods of soil cleaning is that phytoremediation does not require special equipment, labor, additional costs and the ability to make in situ remediation. Most importantly, after phytoremediation, the soil does not lose its fertility. Therefore, this technology is environmentally friendly and economically viable [36]. In addition to the overwhelming number of advantages, phytoremediation has some limitations, such as the depth of the plant root system; the duration of the process; inappropriate climate; consumption of contaminated plants; and the use of non-local species can lead to a violation of biodiversity [31; 37]. The right choice of plant species plays an important role in the development of restoration methods (decontamination or stabilization), especially on soils with low or medium pollution [37].

Plants that accumulate toxic substances in their organs are harmful and dangerous for herbivores. The main disadvantages and obstacles to the commercialization of the technology of phyto-extraction of POPs are the length of the process and the lack of disposal technology, contaminated phytomass to reduce the transmission of pollutants through the food chain. It is believed that utilization of plant biomass is more cost-effective than direct disposal of contaminated soils. Currently, there is a way to reduce the amount of contaminated biomass using composting. Reducing phytomass will reduce the cost of transporting biomass and, accordingly, the cost of the technology. It has been established that during composting the biomass decreases to 50% [38].

Phytoremediation of POPpesticides

The first works on the use of phytoremediation for cleaning soils contaminated with POP pesticides were published in 1960-1970: aldrin, heptachlor and dieldrin [39]. Studies of the absorption of POPs by the plant organism root system and their translocation into the aerial part were begun in the 1970s.

These studies were generally studied from an environmental point of view to prevent the transfer of POPs through the food chain in the "plant-animal-human" system. For rehabilitation of soils polluted with POPs by plants possessing the accumulation of POPs and transferring them to the aboveground part, the last decades began to be considered. The first articles on the possibility of using plants for phytoextraction of POPs began to be published only at the beginning of 2000. After the first publications, they began to screen various plant species possessing the accumulation of POPs [32], the use of agrotechnical methods to increase the phytoextraction of POPs [33], and the mechanisms of absorption of POPs by plants. All these studies have shown that the species is *Cucurbita pepo spp. Pepo* is a promising species with phytoextraction and detoxification potential and can be used in remediation work. Scientists of the world emphasized the search for plants that possess high concentrations of POPs in shoots [34]. The authors found that the ability to absorb some compounds of POPs (DDT and their metabolites, aldrin, chlordane,

dieldrin and endrin) in their shoots in high concentrations and the ability to translocate them in the "soil-root-aerial part" systemis represented by two representatives of the *Cucurbita* family - squash and pumpkin.In the articles of W. Aslund with colleagues [34] and B. Zeeb [35] there was identified that along with representatives of the genus *Cucurbita Pepo ssp. pepo* species *Carex normalis* (sedge) and *Festuca arundinaceae* (fescue) also have the ability to accumulate PCBs in their shoots. Moreover, the coefficient of biological absorption of PCBs in *Carex normalis* shoots was lower than unity and varied from 0.29-0.45 [35]. In 2013, S.K Agvebewith colleagues analyzed the concentration of organochlorine pesticides in the roots of *Cryptolepis sanguinolenta*. The analysis was carried out on 14 organochlorine pesticides: β-HCH, δ-HCH, γ-HCH, heptachlor, aldrin, γ-chlordane, α-endosulfan, p,p'-DDE, dieldrin, endrin, β-endosulfan, p,p'-DDD, p,p'-DDT and methoxychlor. The concentrations in the root samples taken during the dry season and the rainy season were compared. The average concentration of the studied POPs ranged from 0.006 mg kg-1 to 0.061 mg kg-1 in the dry season and from 0.001 mg kg-1 to 0.011 mg kg-1 in the rainy season. The total concentration of POPs also ranged from 0.033 mg kg-1 to 0.354 mg kg-1. It has been found that the uptake of organochlorine pollutants by the plant increases during the dry season [40].

From an economic point of view, despite the long recovery period of soils contaminated by POPs, phytoextraction technology is a promising technology. Future research should focus on optimizing conditions of phytoextraction from soils contaminated by POPs using plants and developing methods for the disposal of contaminated phytomass.

Optimization of phytoremediation of soils contaminated with POP pesticides

The effectiveness of phytoremediation depends on the degree of soil pollution, the presence and accessibility of pollutants for rhizospheremicroorganisms, absorption by roots (bioavailability), the ability of a plant and associated microorganisms to intercept, absorb, accumulate and/or destroy pollutants[41]. To increase bioavailability and increase the mobility of sorbed pollutants in soil and water systems, various chemicals areused, such as organic acids, surfactants, nanoparticles, rhamnolipids, biochar,plant-microbial associations. etc. [42-45].

*Low molecular weight compounds***.**Plant roots are known to secrete a wide range of compounds, such as organic acids (succinic, aconitic, tartaric, malic, malonic, oxalic, citric acids), sugars, amino acids and enzymes that are in complex interactions between the two abiotic and biotic components of the rhizosphere. They are distinguished by plant roots in three cases: lack of nutrients, pollutant toxicity, and anoxia [46, 47].

Organic acids are weak acids that exhibit different acidic behavior, and as organic acids dissociates into carboxylic groups, they can carry one or more negative charges, they also play an important role not only in the metabolism of energy production as intermediates in the tricarboxylic cycle but also in most cellular metabolic pathways [48]. For the first time, A.Hülster and H.Marschner [49], and later B.Campanella and R.Paul [50] hypothesized that root excretions contain substances that bind to POP molecules in the soil, forming a hydrophilic complex that can be absorbed by the root, and transported into "root – aboveground'system.B. Campanella and R. Paul [50] found that the *Cucurbita pepo* species exudates the exudates of protein origin, which bind directly to dioxins and furan molecules, thereby enhancing their hydrophilicity and facilitating translocation of their transpiration current to the aboveground part. J.C. White and colleagues [51]observed the effect of the low molecular weight organic acids and the chelating agent EDTAmixture in the different concentration (0.001–0.10 M) on the adsorption of p,p'-DDE by *Cucurbita pepo.* Established thatall organic acids significantly increased the desorption of pollutants by 19-80%: succinic acid – 19%; tartaric acid – 27%; malic acid – 31%; malonic acid – 36%; oxalic acid – 45%; citric acid – 58%; EDTA – 80%.A year earlier, J.C. White and B.D. Kottler [52]published a study on the ability of citrate to enhance absorption by plants (*Trifolium incarnatum, Brassica juncea,Vicia villosa* and *Lolium multiflorum*) p,p'-DDE from the soil. For each culture, a significant decrease in the concentration of p,p'-DDE was observed in the fractions of the soil (near the root and rhizosphere), closely associated with the plant compared to the main soil. The roots of each culture accumulated 2-5 times more pollutants than those present in bulk soil. Citrate (0.05 M) increased the concentration of p,p'-DDE in the roots *Trifolium incarnatum,Brassica juncea,Vicia villosa*by 39% compared with the vegetation that received water. In studies, the desorption of p,p'-DDE was significantly greater in the presence of 0.05 M citrate than water.

These publications indicate that phytoremediation is a controlled process; the addition of low molecular weight organic acids causes a partial dissolution of the soil structure due to the chelation of inorganic structural ions, potentially increasing bioavailability and affecting POP phytoremediation in the soil.

*Surface-active compounds.*Surfactants are chemical compounds that, when concentrated on the interface of thermodynamic phases, cause a decrease in surface tension. Surfactants can increase the possible water solubility of hydrophobic organic compounds, suggesting by encapsulating hydrophobic molecules inside the hydrophobic micelle core [53]. For example, surfactants have increased the solubility of PCBs in the soil-water system [54]. The addition of surfactants as corrections to organic polluted media was mainly used to increase the bioavailability of hydrophobic compounds by enhancing mass transfer from solid soil to the aqueous liquid phase [55].

To optimize phytoremediation conditions there are used surfactants of chemical or synthetic (Tweens, Polysorbate, Surfax, Triton, etc.) and biological origin (rhamnolipids).

M. Gonzalez with colleagues[56]found that the non-ionic surfactant Tween 80 effectively enhances the desorption of p,p-DDT, p,p-DDE and α-cypermethrin. In addition, the anionic surfactant Sodium dodecyl sulfate (SDS) enhances the desorption of p,p-DDT, p,p-DDE, α-cypermethrin, α-endosulfan and endosulfan sulfate.Synthetic surfactants have been tested in desorption experiments on soils contaminated with organic pollutants. M.T.Alcantra with colleagues[57]studied the desorption of polyaromantic hydrocarbons from the soil, testing the potential of five non-ionic surfactants (Brij 35, Tergitol NP10, Tween 20, Tween 80 and Tyloxapol) to increase the solubility of benzanthracene, fluorantene and pyrene as separate and mixed pollutants. Tween 80 removed more than 80% of the three PAHs tested as separate pollutants.

When using rhamnolipids, it was found that they as biologically active substances might be more suitable, since they are usually non-toxic and quickly decompose in the soil. Rhamnolipids are a class of glycolipids produced by *Pseudomonas aeruginosa*. When using rhamnolipid, it was revealed that the substance increases the bioavailability of p,p'-DDE for the hyperaccumulator *Cucurbita pepo ssp. pepo* and non-accumulator *C. pepo ssp. ovifera*. It has been observed that the surfactant significantly increases the biological absorption coefficient of roots, leaves, and fruits for both species. However, the biomass of *C. pepo ssp. ovifera* was reduced to 60% when the contaminated soil was treated with a surfactant and, therefore, the concentration of p,p'-DDE in the vegetative organs was very low, as in control experiments. At the same time, surfactants did not affect the biomass of *Cucurbita pepo ssp. pepo*, therefore, when treating contaminated soil with rhamnolipid, the concentration of pesticide in the vegetative organs of the plant body increased significantly. Opposite data were obtained by A.I. Lunney [58]. He noted that the addition of surfactants to high levels of contaminated soil increases the absorption of DDT by the plant. The author believes that surfactants increase the rate of POP absorption by plants; in the future, it is necessary to determine the optimal dose for various POPs for phytoremediation.

*Carbon materials***.**In recent years, more and more attention has been paid to the use of carbon-rich materials such as charcoal, such as bio-coal and activated carbon (AC), to stabilize *in situ* organic pollutants in sediments and soils [59-61]. It was revealed that the addition of activated carbon and biochar to the soil immobilizes organic pollutants, thereby reducing their bioavailability for plants, invertebrates and fish.Biochar is a charcoal-like material; a charred solid product obtained by pyrolysis in a low oxygen environment [62] and plant residues [63] and animal waste [64], while activated carbon is more a processed form of charcoal that has higher associated costs. Both biochar and activated carbon have high sorption ability due to their chemical structure, high porosity, and large surface area. While AC studies focused on soil and sediment reclamation, it was believed that this product has the strongest sorption potential [61], biochar researches have focused on improving soil quality and carbon sequestration potential. Biochar offers additional agronomic and environmental benefits, such as increased cationic soil exchange capacity, water retention capacity [65] and reduced fertilizer requirements, resulting in higher yields at lower costs. In addition, the carbon component of the biochar is stable and, therefore, can bind carbon in the atmosphere and climate change mitigation functions. A biochar is rapidly gaining popularity, but only a limited number of studies have been published on the use of a biochar to minimize the bioavailability of pollutants [66, 67], and most of these studies are based on laboratory studies. Similarly, there are studies in which AC is applied to soils in a greenhouse, as well as in the field [61] for sorption of

pollutants. However, very few studies compare *in situ* biochar efficacy with AC [68], and most of them use laboratory methods of sorption [69].

It has been shown that biochar reduces the bioavailability of organic and inorganic pollutants [69, 70], as well as inorganic and organic pollutants simultaneously when added to contaminated soil [71]. In a study published in 2012, Y.Chai with colleagues[72] conducted a comparative study of the effects of activated carbon and biochar on the bioavailability of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. There was found that bioavailability increases when biochar is added, and the largest percentage in the sample with regenerated activated carbon is up to 90.7%.O.Denis [73]used activated carbon and biochar on PCB-contaminated soils to minimize the bioavailability of an organic pollutant by a plant. The concentration of PCBs in the tissues of the root of *Cucurbita pepo* was reduced by 74%, 72% and 64%, with the addition of 2.8% activated carbon, Bert's biochar and BlueLeaf biochar, respectively.

Therefore, biochar has an obvious effect on the fate and effects of pesticides and, as has been shown, affects the degradation and theirbioavailability for living organisms [74]. Despite more and more documented studies in recent years regarding the positive effect of biochar on the adsorption of pesticides than on the organic matter of the soil, the effect of biochar on the mechanisms of adsorption and desorption behavior of pesticides as effective agents affecting the bioavailability and toxicological effects of pesticides is given little attention [75-77].

*Plant-microbe associations.*Organic pollutants inhibit the development of plants, thereby reducing the effectiveness of phytoremediation [78]. To overcome development restrictions there are used the plant-microbe partnerships [79].In recent years, there are often works using microorganisms to increase the efficiency of phytoremediation and stimulate the development of a plant organism: endophytic bacteria and rhizobacteria [79]. Rhizobacteria colonize the proximity of the roots, while endophytic bacteria colonize the inside of the plant without causing pathogenicity to the host plant. Endophytic populations, as well as rhizosphere populations, are susceptible to biotic and abiotic factors, but they can be protected from them. Another advantage of endophytes is that degrading bacteria of organic pollutants are more common among endophytic populations. Endophytic bacteria with pathways of degradation of pollutants and metabolic activity can reduce both phytotoxicity and the total evaporation of volatile organic compounds [80]. Since endophytic bacteria colonize the inside of the plant, they can interact more closely with the host plant compared to rhizobacteria. Before entering the plant, endophytes must settle in the rhizosphere and attach to the root surface. Organic compounds, i.e. root exudates, act as signals for the chemotactic movement of bacteria. During the transition from the host rhizosphere to the plant endosphere, colonizing bacteria must be able to quickly adapt to a very different environment (i.e. pH, osmotic pressure, carbon source, oxygen availability). They also need to overcome the protective response of plants to invasion, that is, the production of ROS, which causes stress in invasive bacteria. The most important advantage of using endophytic degradants together with plants during phytoremediation is that any toxic xenobiotic absorbed by the plant can decompose inside the plant, thereby reducing the phytotoxic effect and eliminating any toxic effects on the herbivorous fauna living in or near contaminated sites [81].Endophytic bacteria were first used to clean soil contaminated with organochloride herbicide 2.4-dichlorophenoxyacetic acid.. Endophytic bacteria reduce the accumulation of organic compounds in plant tissues, as well as transpiration [82]. Improved degradation of pollutants correlated with an increase in the number of bacteria that decompose pollutants in plants. Some woody plants, such as poplar and willow, have been used to clean soil contaminated with various organic chemicals.Inoculation of these plants with endophytic bacteria enhanced plant growth and degradation of various organic compounds [83].

Nanoparticles. Nano-remediation is a new area in environmental biotechnology, which implies the ability of Ag, Au, Mg and Fe nanoparticles to cause dehalogenation of halocarbon pesticides. Nanomaterials can either directly react with a pollutant or support the conversion of a pollutant into less toxic forms [84]. Nanoparticles are used worldwide for almost 100% DDT degradation in a very short period of time [85]. Dechlorination of DDT in the aqueous phase containing the biosurfactant was performed by Gautam and Suresh [86] using the Mg/Pd bimetallic system. A high concentration of 100 ppm was successfully decomposed in a very short time, just 1 hour. It was found that bimetallic Ni/Fe nanoparticles are also effective in the degradation of DDT in an aqueous solution under weakly acidic or

alkaline conditions. An acidic environment promotes efficient decomposition of DDT, since the proton production helps to generate hydrogen. Y.S. El-Temsah et al. [87]used nanosized Fe with zero valency for the efficient decomposition of DDT in water and soil. A higher decomposition of DDT (92%) was observed in water than in soil (22.4%) due to soil aging and, consequently, low diffusion rates of DDT.

Zero-valence Fe nanoparticles can completely and quickly decompose lindane within 24 hours to form γ-3.4.5.6-tetrachlorocyclohexane (an unstable intermediate), which ultimately turns into smaller benzene and chloride ions [88]. Lindane was effectively decomposed (100%) in visible light when TiO_2 was doped with nitrogen in a ratio of 16:1 M, while only UV radiation was observed only 37.5% decomposition [89]. Sulfide iron nanoparticles stabilized by biopolymers successfully decomposed lindane with an efficiency of 94% for 8 hours [90]. In 2016, H.P.S.Pillai and J.Kottekottil[91]investigated for the first time applied combined technology, nano- and phytoremediation, to clean soil contaminated with insecticides by endosulfan from the class of organochlorine compounds. Three types of plants, Chittaratha *(Alpinia calcarata)*, Tulsi *(Ocimum sanctum)*, and Lemongrass *(Cymbopogon citratus)*, absorbing endosulfan from the soil in the absence and presence of zero-valence iron nanoparticles (nZVIs) (1000 mg/kg of soil) were used in the experiment. The initial concentration of endosulfan in the soil is 1139.84 ± 0.93 μg/kg. In the experiment, there were the following options: control; control with the addition of zero-valence iron nanoparticles; *Alpinia calcarata* (phytoremediation); *Alpinia calcarata* (nano-phytoremediation); *Ocimum sanctum* (phytoremediation); *Ocimum sanctum* (nano-phytoremediation); *Cymbopogon citratus* (phytoremediation); *Cymbopogon citratus* (nano-phytoremediation). Soil measurements were carried out on the 7^{th}, 14^{th}, 21^{st} and 28^{th} days. *A. calcarata* had better efficacy compared to two other plant species, and the efficiency decreased in the following order: *A. calcarata >C. citratus>O.sanctum*. The initial rate of endosulfan removal was high (82% was removed within 7 days) when nanophytoremediation experiments with *A. calcarata* were performed, but then gradually decreased, probably due to the fact that nZVI activity decreased over time.Thus, the combined technology of nano- and phytoremediation is one of the promising areas for the remediation of organochlorine pesticides.

Conclusion

One of the key areas of the Strategic Plan until 2020 is the green economy and the environment. However, the problems associated with the state of the environment remain unresolved: land degradation, high levels of air and soil pollution. The development and implementation of green technologies remains a priority in environmental biotechnology. In this regard, as part of a doctoral dissertation, the Institute optimizes the technology of phytoremediation of soils contaminated with POPs pesticides using Tween 20 and biochar. The bioenergetic species *Miscanthus sinensis* and *Paulownia tomentosa* are used as an object of study. They are considered as a promising industrially significant cellulose-containing raw material for the production of cellulose, biofuels and chemicals because of their high productivity in order to save forest wealth, and at the same time, they have phytoremediation potential.

Paulownia tomentosa is receiving increasing attention due to its market value for the production of wood and biofuels, due to its rapid growth, high biomass production (150 t/ha per year) and increased resistance to stress.

M. sinensis is a highly productive, frost-resistant species and have ability to restore the contaminated soil by POPs. Nowadays, itis actively considered as a new source of cellulose.

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ТОЛ ПЕСТИЦИДТЕР ЖӘНЕ РЕКУЛЬТИВАЦИЯ ӘДІСТЕРІ (ШОЛУ)

Аннотация. Қазақстан Республикасының стратегиялық даму жоспарының маңызды бағыттарының бірі ТОЛ-пестицидтерімен ластанған ошақтарын мұқият талдау және ластанған топырақтарды қалпына келтіру әдістерін жасау болып табылады. ТОЛ пестицидтерінің өндірісінің көптішілігі, оларды агроөнеркәсіптік

компанияларымен артық сатып алынуы, сонымен қатар колхоздар мен совхоздардың таратылуы және жерді жекешелендіруімен байланысты ауылшаруашылық инфрақұрылымдағы өзгерістер көптеген ТМД елдерінде, соның ішінде республикамыздың қоймаларында олардың жиналуына әкеліп соқты. Олар қоршаған ортаға жаңбырмен, желмен, сутасқыны, көшкін және өрт салдары кезінде, жергілікті және бүкіл әлем деңгейінде адам денсаулығына және қоршаған ортаға экологиялық қауіпті өндіреді.

Осыған байланысты мақалада ТОЛ-пестицидтерімен күресу мәселелері және топырақтың құнарлылығын қалпына келтіру әдістері туралы әдеби шолу ұсынылған. Ескі пестицидтерді жоюдың заманауи әдістері (оқшаулау, көму, иммобилизация, топырақты жуу, электро-рекльтивация, термиялық өңдеу және т.б.) және пестицидтермен ластанған топырақтың құнарлылығын қалпына келтіруәдістері (биоремедитация, фиторемедитация, вермиредитация) қарастырылған. Топырақтағы ТОЛ пестицидтерін фиторедитациялау технологияларына және олардың тиімділігін арттыру әдістеріне ерекше назар аударылды, өйткені бұл технология экономикалық тұрғыдан тиімді және экологиялық таза технология. Өсімдік ағзасының дамуын ынталандыру, ТОЛ пестицидтерінің фитоқолжетімділігін және топырақпен су жүйелерінде қозғалғыштығын арттыру үшін химиялық заттармен (төмен молекулалық қосылыстар, көміртекті материалдар (биочар) және наноматериалдар) өсімдік-микробтық бірлестіктерді қолдана отырып, қоршаған ортаны оңтайландыру шарттары жан-жақты қарастырылды.

Түйін сөздер:ТОЛ-пестицидтер, рекультивациялау, фиторемедиация, оңтайландыру, қоршағанорта

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СОЗ-ПЕСТИЦИДЫ И СПОСОБЫ РЕКУЛЬТИВАЦИИ (ОБЗОР)

А**ннотация**. Тщательный анализ очагов загрязнения СОЗ-пестицидами и разработка методов рекультивации загрязненных территорий является одним из ключевых направлений стратегического плана развития Республики Казахстан. Огромное производство СОЗ-пестицидов, чрезмерная закупка их агропромышленными компаниями, а также изменения инфраструктуры сельского хозяйства, связанные с ликвидацией колхозов, совхозов и приватизацией земель привело к их накоплению в складах во многих стран СНГ, в том числе Республике. Они, попадая в окружающую среду с дождем, ветром, в результате наводнений, оползней и пожаров представляют экологическую опасность для здоровья человека и окружающей среды, как на местном, так и на глобальном уровне. В связи с этим, в статье представлен литературный обзор о проблемах СОЗ-пестицидов и способах их рекультивации. Рассмотрены современные способы утилизации устаревших пестицидов (изоляция, захоронение, иммобилизация, промывка почвы, электро-рекультивация, термическая обработка и др.) и методы рекультивации пестицид-загрязненных земель (биоремедиация, фиторемедиация, вермиремедиация). Особый акцент в статье уделили технологии фиторемедиации СОЗ-пестицидов в почве и методам повышения их эффективности, так как данная технология является экономически выгодной и экологически безопасной технологией. Подробно рассмотрены условия оптимизации среды, с помощью химических веществ (низкомолекулярные соединения, углеродные материалы (биочары) и наноматериалы) и растительно-микробных ассоциации для стимуляции развития растительного организма, повышения фитодоступности СОЗ-пестицидов и увеличения их подвижности в почвенных и водных системах.

Ключевые слова: СОЗ-пестициды, рекультивация, фиторемедиация, оптимизация, окружающая среда

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FORMS AND METHODS FOR LABOR INCENTIVE IN MODERN CONDITIONS

Abstract: This article proposes the classification of the factors influencing motivation system, which consists of two groups: external (objectively existing and not depending on the company's management) and internal (generated and dependent on the management of the enterprise); and the influence of these factors in the context of the Republic of Kazakhstan. This study also revealed the basic principles of building effective incentive system and reviewed its types-economic and non-economic. The conclusion about the need for a more flexible approaches to determining the level of basic salary and variable part of the salary, the need to link pay with performance as an employee, and all structural subdivision, and the enterprise as a whole.

Keywords: management, motivation, motivation, personnel management.

Introduction. Incentive as a method of managing personnel behavior is advisable to use when it is necessary to achieve excess performance from an employee. When developing a labor incentive system in an enterprise, the following requirements should be met:

1. Complexity - when developing incentive systems, various types of incentives (tangible and intangible, group and individual, positive and negative) should be used, in view of the existing approaches at the enterprise and personnel management experience.

2. Differentiation is an individual approach to stimulating different groups of workers. As we have already noted, different incentives should be used towards qualified and unqualified, young and old, male and female employees, etc.

3. Flexibility is the need for continuous monitoring and adjustment of the incentive system depending on changes in employees' motivation affected by the value changes of the society as a whole and within the working team.

4. Promptness implies a quick response of management to reducing employees' motivation, and reducing the effectiveness of incentives. The main signals of inefficiency of the incentive system include: fatigability and irritability of employees; tardiness and absenteeism; overt or covert sabotage; conflicts with management and the team; reduced interest in work; reduced loyalty to the company; violation of performance discipline; low performance results; propensity to change jobs.

Thus, the incentive system should:

- make the employees to feel confident and secure, serve the goals of employee's satisfaction and improve the quality of work;
- orient the employee to achieve the corporate objectives and the desired result;
- combine the rigidity of the remuneration determination rules and flexibility in responding to changes in the external and internal situation in the organization;
- serve not only as the motive of work, but as a control mean (lever) for managers. Within the incentive system, the manager should be able to both encourage and punish the employee.

Based on the goal-setting theory of E. Locke, the incentive system at the enterprise should include the goals of both the company's management and the individual employee [1]. Therefore, during its development, it is necessary to carefully study what motives determine the behavior of personnel, and

what incentives the enterprise can provide to employees so that they can fulfill their needs and receive material or moral benefits. The relationship between motives and incentives will be presented in table 1 [2].

Table 1 - The relationship between motives and incentives in the HR management system

Motives	Incentives
1	2
Motives to meet the needs of vital material and spiritual benefits	Wage increase
	Wage premiums and increments
	Providing financial assistance
	Lump sum payment
	Development of a premium accrual scheme
	Providing a social package
	Employee stock ownership plan
	Commissions from sales
Motives of life self-determination (personal)	Ability to work by vocation
	Enhancing the creative nature of work
	Consideration of abilities and personal qualities
	Career prospects
	Possibility of professional development
	Bonus accrual for innovative ideas
	Flexible work schedule
	Possibility to get new information
	Universal respect and authority
Motives of social interaction	Opportunity to communicate with colleagues
	Favorable microclimate in the team
	Democratic method of personnel management
	Opportunity to participate in decision making
	Unified employee status
	Recognition of employee merit and achievements
	Fair management decisions
	Recreational activity system
	Possibility of obtaining a social package
Motives for status self-assertion	Participation in enterprise management
	Possibility to get a senior position
	Growth of authority granted
	Providing personal benefits
	Participation in the work of prestigious clubs
	Participation in the success and capital of the enterprise
	Staff rotation
	Possibility to obtain representative functions
	Increase in the number of subordinates
	International recognition
	Getting the title of “Best Employee of the Year”
Motives for life cycle optimization	Possibility to work at will and as per abilities
	Career growth
	Possibility to transfer experience to young personnel
	Elimination of negative incentives
	Moral and spiritual encouragement
	Equal employee status
	Providing an “open door” policy
	Labor Disputes and Disagreements Commissions
Note - drafted by the author based on the source: [2]	

The management of the enterprise should carefully study the individual needs of the employee, therefore, his motives for labor activity. With the same individual approach, it is necessary to develop an incentive system. For one category of employees, a large salary can be a good incentive, for another category it is an opportunity to distribute their working time on their own, for the third one - the prospect for advancement in this enterprise.

A careful analysis of all these indicators will allow the management of the organization to choose the most appropriate methods for personnel incentive that will quickly and effectively influence employees.

Methods of research. Allocation of forms and methods of labor incentives allows for an in-depth analysis of existing systems and to identify the most effective of them in terms of the impact on the behavior of management objects in specific production conditions. Ultimately, by combining diverse forms of incentives for various types of activities and specific business situations, it is possible to develop integrated incentive systems that allow to the maximum extent to take into account the influence of both external and internal factors on the behavior of individual participants in labor activities and labor collectives in general.

Most researchers - A. Ya.Kibanov, I.A. Batkayeva, Ye.A. Mitrofanova, M.V., Lovcheva, I.A. Essaulova, A.P. Grachev, S.A. Shapiro [2] - usually distinguish two types of incentives: material and non-material.

Results obtained. In the works of the researchers listed, material incentives are considered as a set of material benefits provided to staff for the labor contribution made to the enterprise performance, and non-material incentives imply obtaining a set of benefits provided to the employee and not related to payments and substantial monetary costs of the enterprise. At the same time material incentives are divided into monetary and non-monetary, and non-material incentives into moral, social and organizational. D.A. Ashirov in his work “Labor: incentives - motives - motivation” [3] proposes the following classification of incentives:

1. By incentive direction:
a) positive incentive;
b) negative incentive.
2. By incentive resource base:
a) economic incentives;
b) administrative incentives;
c) social incentives.
3. By types of incentives:
a) material incentives;
b) material and social;
c) moral and psychological.
4. By way of providing a stimulating effect:
a) direct incentives;
b) mediate incentives;
c) leading incentives;
d) postponed incentives.

Let us consider this classification in more detail.

The first feature (incentive’s orientation) is reflected in the content of the managerial impact, which can be either encouraging or blaming; i.e. cause a positive and negative reaction among the staff to whom the managerial impact is addressed.

The second feature (resource bases of incentives) is associated with the essence of the subject, through which it turns out to be a stimulating effect. In this regard, various kinds of resources involved in production and management serve as a source of incentive. They include:

- economical;
- administrative;
- public.

It is obvious that the construction of the motivation and incentive system will be largely determined by the economic situation of the organization, the latter, in particular, will critical for the ratio of various resources involved in the incentive schemes used.

When it is impossible to use large-scale economic resources, you need to address to a greater degree to administrative resources, based on the rationing of employment behavior and, mainly, punishment for non-compliance with the established norms.

Community resources are expressed in various kinds of effects associated with joint activities, as well as in the mentality, manifested in labor and organizational behavior of staff.

The third feature (variety of incentives) reflects the specific representation of the incentive in management practice. Material, material and social, and moral and psychological incentives are widely used here. If with respect to the first and third types there are well-established ideas, then the second type - material and social incentives - needs to be clarified.

Material and social incentives are connected to currently received loans, insurance, participation in management and profits (entrepreneurship, pensions, etc.). It is easy to see that these incentives are associated with a certain material (financial) support, but at the same time they cannot be attributed to exclusively material incentives in the classical meaning of this concept, since they are not directly included in the salary and are not directly related to individual labor's performance.

Such incentives can be classified as social, because they are aimed directly at improving the quality of life and improving the working conditions of staff through participation in enterprises' activities. It can be carried out in special programs or in the creation of its own social funds.

Due to the fact that, on the one hand, this kind of incentives is based on the material (financial) base, and on the other hand it has a social orientation, it is proposed to distinguish them in a special type - material and social incentives. The analysis shows that at present this type is becoming more widespread and seems very promising.

The fourth feature (the way of providing a stimulating effect) is also insufficiently analyzed in special works. Basically, it is not specially distinguished, although it takes on greater and greater importance in management practice. This feature is based on temporary differences and the nature of connections in the incentives. It is proposed to classify incentives according to their temporal characteristics:

- direct;
- mediate;
- leading;
- postponed.

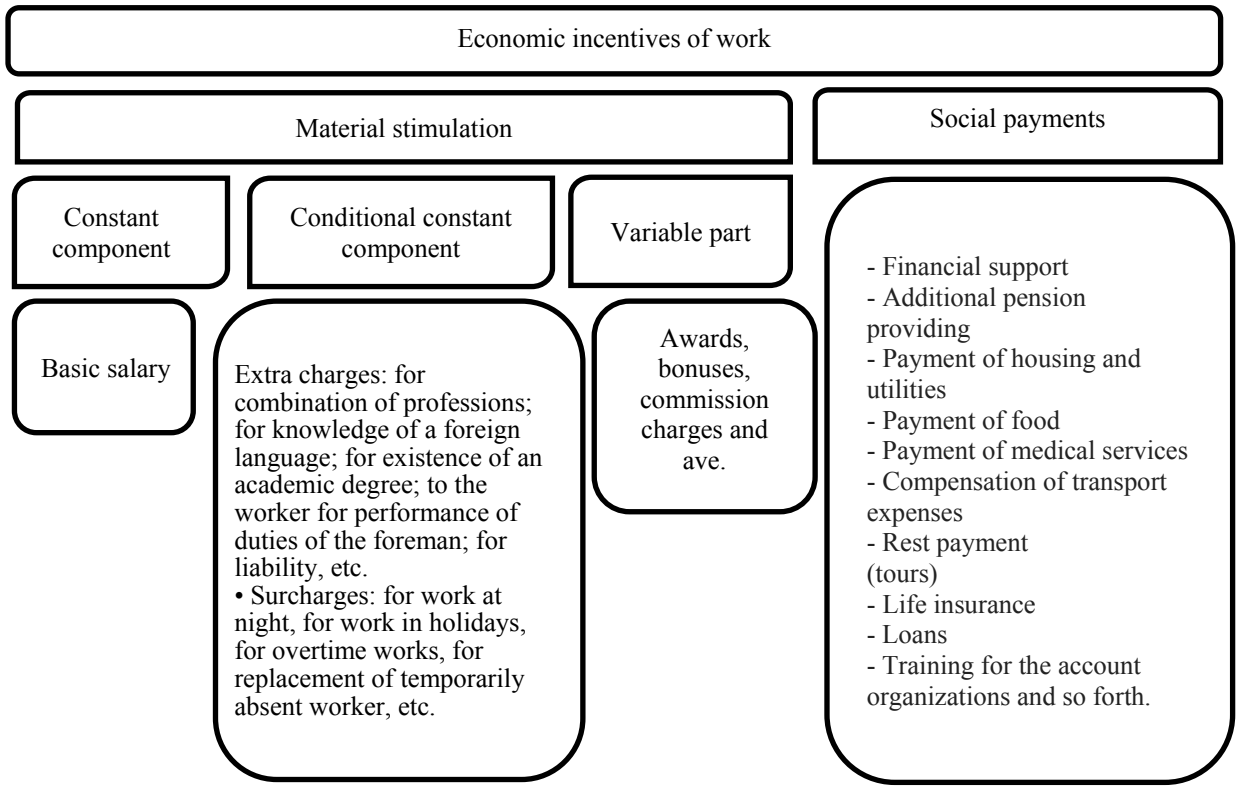

Figure 1 - Structure of labor material incentives

Note - drafted by the author based on the source: [3,4,5]

Direct incentives are expressed in wages and all other forms of payment for individual labor, as well as in administrative and public incentives (e.g., gratitude, reprimand, etc.). In this case, labor performance or employee's action and the incentive should be connected. In other words, cause and effect are based on a direct sequence and direct relationship.

Mediate incentives are intended to change certain conditions and circumstances associated with labor or directly related to it, in order to influence individual and collective performance of labor. Such incentives include professional development, delegation of authority, improvement of the organizational structure, improvement of working conditions, improvement of the quality of work and rest schedules, etc. It is obvious that all these features do not directly affect the increase in individual productivity and therefore they can be called indirect incentives. In other words, it is impossible to estimate exactly to what extent they will affect the employee's motivation, but it is assumed that their humanitarian focus, as well as the improvement of personnel management, will lead to positive effects.

Leading and postponed incentives differ in their purely temporal characteristics. Leading incentives include various types of advances, credits, loans, etc. material incentives.

From administrative incentives — various kinds of career advancement, empowerment, granting of official privileges, from public incentives — approval and support received. All this anticipates the subsequent, individual labor performance. The value of leading incentives is recognized to be quite effective, although there are cases of the opposite order. The latter is most often associated with advances through salary.

Postponed incentives are most often represented in the material and social form of incentives. Especially in the pension systems. These incentives are widely spread due to the social orientation of the state, the involvement of companies in the implementation of social programs, and also as a result of an increase in social wealth and recognition of human resources as the main ones.

The central place in the personnel incentive system is material incentives. As was already mentioned above, it is divided into the actual material remuneration and material and social benefits. In turn, the monetary remuneration includes: base wages (fixed part), increments and premiums (conditionally fixed part), additional payments (variable part) (see Figure 3) [3,4,5].

Payroll management in the organization is basically governed by a special Regulations on compensation and Regulations on bonuses. Specialists-developers of modern remuneration systems, with all the variety of approaches, are united in the following [4,5]:

1. The payroll system is hopelessly outdated and does not meet the realities of today.
2. The focus of the incentive system should be consistent with the tactics and the strategy of enterprise management, its divisions and personnel. Different tasks should not be prioritized by administrative methods, but should have an objective economic nature.
3. Incentive payments should be closely linked to individual and collective performance.
4. Their value should be substantial and significant for the employee.
5. The wage increase with regard to the growth of labor productivity should be adjustable in accordance with the tasks of planning.
6. The incentive system should be recognized by employees as understandable and fair.

New approaches to incentives imply the abandonment of traditional time-based systems or payments by complexity factors, etc., as well as replacing them with remuneration consisting of two components: the base rate and additional incentive payments depending on individual performance and/or performance of divisions/companies.

Therefore, in this work we will consider in more detail these two most important components.

Base wage is a monetary remuneration to an employee for his/her work in an organization or for performing duties at a given position (workplace) in accordance with the measure and quality of the labor invested. It consists of the official salary (usually monthly). At some enterprises, in addition to the official salary, the basic wages include a qualification allowance.

Official salary is a guaranteed monetary remuneration paid to an employee in accordance with an employment contract (or any internal regulatory document of the organization, which increases the remuneration specified in the employment contract) regardless of labor performance. It should be noted that in connection with this "regardless of labor performance," in practice, the official salary in itself has not the highest incentive effect for the employee.

The employee's official salary is determined depending on a number of factors [5]:

- skill level;
- complexity of work performed;
- degree of independence of work performance;
- degrees of responsibility for managing the work of other employees;
- intensity, harmful exposure (including hazards) of labor;
- cost of living in the region (city, settlement);
- natural and climatic characteristics;
- industry specifics.

In modern management there are the following approaches to determining the level of the base salary [6,7,8]:

1. Ranking method. It assumes the division of all types of work usually based on the complexity of the work performed. There are the following methods for determining the complexity of work:

a) Ranking is a non-analytical method, since the work is assessed as a whole, based on the impression it makes.

b) Classification by complexity is a semi-analytical method, in which an impartial, but not exhaustive analysis of qualification requirements is carried out.

c) Itemized ranking is an analytical method that requires a very detailed study of qualification requirements. The definition of the salary level is basically preceded by an assessment of labor (work complexity).

The advantage of this salary adjustment method is simplicity and accessibility for any organization. The disadvantage is that this method can be used only in relatively small organizations with a narrow list of employees' positions. Besides, with this method, the subjectivity of assessing the complexity of the work is great.

2. Factor comparison method. More formalized quantitative method of labor assessment. It includes the definition of several compensable factors (for example, responsibility, independence, mental burden), each of which may have several degrees, as well as the degree to which each factor is present in a particular type of work. For example, types of work may have 5 degrees of responsibility. And each degree of each factor is assigned a certain number of scores. After that, we determine the extent to which each of the compensated factors (for example, responsibility) is present in the work, summarize the corresponding scores for all factors and obtain the overall scoring of the work.

3. Job classification (or grading) method. Types of labor are divided into groups. These groups are called categories (classes) if they include only similar types of labor, or ranks, if they include types of labor that are similar in complexity but differ in other characteristics. This method also includes the most popular salary adjustment method using the rate ranking system. Development of a multi-rank rate scale is the most common form of remuneration in most countries of the world.

4. Grading method is grouping of positions for certain reasons (definition of "weight", classification, etc.) in order to standardize remuneration in an organization. A way to determine the value (weight) of a particular position for the organization. Essentially, grading is a way of rating.

Grading objectives:

a) Comparison of positions by specified parameters and ranking of works by significance for the enterprise. In this case, the task of raising the prestige of a certain employee in an organization or horizontal promotion within a grade, that is, salary increase, can be solved. Besides, just the intersecting boundaries of the grades make it possible to make a so-called horizontal career: an employee can be moved to another grade (increased) without salary increase.

b) Rating (salary adjustment) based on the significance of work or a position for the enterprise. It allows you to pay not only the market value of the employee, but also the value of his/her work for the company. In addition, since grades combine positions of similar content and different hierarchical levels, this makes it possible to "tie" to different grades different levels of additional monetary and natural incentives: the difference in the volume and content of social packages, benefits for different categories of employees, etc.

c) Motivation is career motivation for employees, engagement motivation for candidates.

Basically, as sated above, grading is a type of work rating, but it also has fundamental differences, which are reflected in table 2 [6,7,8]:

Table 2 - Difference between the grading system and the rating system

Rating system	Grading system
1	2
The system is based on the assessment of professional competencies (knowledge and skills), as well as work experience.	A wider number of indicators included in the assessment of the position: in addition to knowledge and skills, such characteristics as freedom of thinking and complexity of the issues being addressed, level of position's responsibility (freedom of action, field of activity, type of influence of the position on the performance) are assessed.
The basis of the structure is the minimum wage, which is multiplied by the corresponding rate factor	The basis of the structure is the weight of the position, estimated in scores
1	2
Position building hierarchy	Possible intersection of two nearby grades, i.e. an employee of a lower grade may receive a higher wage than an employee of a higher grade through professionalism
There is a clear position building hierarchy vertically from worker to director In the structure	The position structure is formed according to the emphasis principle of this position for the company
Note - drafted by the author based on the source: [6,7,8]	

The grading method involves the following steps (see Figure 2) [9]:

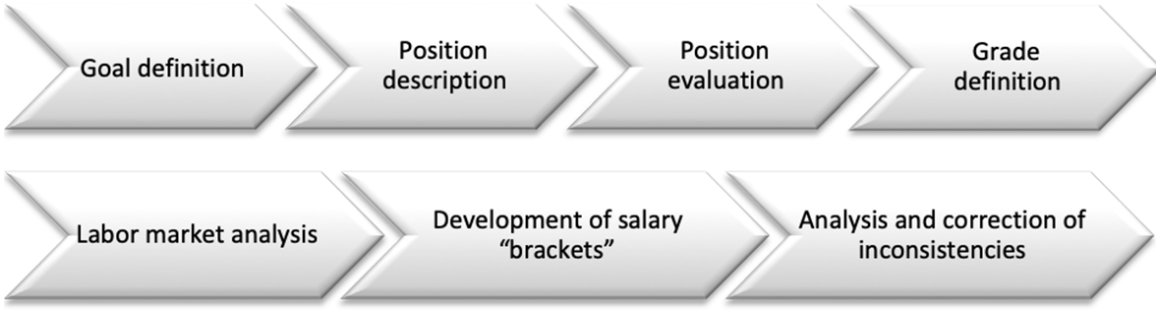

Figure 2 - Grading stages

Note - drafted by the author based on the source: [9]

The specific sizes (levels) of official salaries are determined individually by each organization, and depend primarily on the market value of the job (position) and internal assessment of the work importance for the business, on the content, complexity and skill level required to perform a particular work.

Positions are evaluated by the evaluation committee using substitution profile tables, based on three groups of factors that are considered the most important.

The first group of factors includes knowledge and skills required for work. There are three main elements: technical knowledge and skills, managerial and interpersonal qualities.

The second group of factors is issue resolution. It includes two main elements - the freedom of thinking and the complexity of the issues to be solved.

The third group is the level of responsibility. Includes: freedom of action, field of activity, the type of position's influence on the performance.

As any system, the grade system has its advantages and disadvantages, by analyzing the sources [10,11,12] the following advantages and disadvantages of this system can be identified:

Advantages:

1. Formation of the personnel development strategy;
2. Optimization of the management organizational structure;
3. Transparency of the remuneration system in the enterprise;
4. The level of employee income is determined in accordance with its value for the company, which increases staff motivation;

5. Independence of employees assessment on compliance with positions held;

6. An effective remuneration system that links all the elements of material remuneration of labor (fixed and variable part of the salary and compensation payments).

Disadvantages:

1. Significant expenses necessary for the formation, implementation and further functioning of this remuneration system;

2. Lack of highly qualified specialists with the skills to develop grading remuneration systems;

3. Occurrence of difficulties in the correct evaluation of positions in accordance with their values.

4. Negative attitude of employees to implementation of new remuneration systems (especially if the position was previously revaluated).

5. Possible subjectivity in the initial evaluation of positions.

Let us consider the second element of material labor incentives, its variable part - extra compensation.

Extra compensation is an additional payment to an employee for the performance used to account for the personnel performance. They associate the amount of monetary remuneration with the overall performance of the organization, the structural division and the employee himself/herself. It is most often expressed in the form of a premium for employee's individual achievements, a premium based on the performance of the structural division of an enterprise, a premium based on the organization's performance as a whole and targeted bonuses.

Bonuses are paid to employees on the basis of the legislation of the Republic of Kazakhstan, employer's acts, collective labor agreements, which stipulate the conditions and indicators of employees' bonuses. If the premiums of employees are stipulated in the individual employment, collective agreements, then these types of accruals are mandatory.

The main types of premiums are:

1. Premium for individual employee performance. It reflects the possibility of direct individual influence of the employee on his/her performance. If this is not the case, then one of the incentive principles "Pay for real work, not for participation in the process" is violated. It is accrued by pre-determined bonus indicators, which are determined individually for each employee (position).

2. Premium for contribution to the work of the structural division. It is used to stimulate better interaction and mutual assistance between employees of the structural division to increase his/her performance as a whole. A bonus fund is calculated for each structural division of the organization. The bonus fund is distributed among employees of the structural division using the labor participation coefficient (LPC).

LPC determination procedure:

LPC is tied to the official position or qualifications of the employee;

b) scoring method (performance by predetermined indicators are taken into account (including their scoring) every day basically by the head of the structural division; the scores are summed up at the end of the month);

c) combination of the first two methods.

3. Premium for the overall performance of the organization. The main purpose is to motivate employees to increase the overall performance of the organization. It can be paid at different intervals (for example, quarterly, semi-annually, annually) and apply to various categories of personnel (for example, only to the owners of the organization and top managers; only to top- and middle-ranking managers; to top- and middle-ranking managers and employees of structural divisions, "bringing money" to the organization; for all permanent (full-time) employees of the organization).

4. Target bonuses. It is used to stimulate effective work and activity of employees when performing individual targets. For example, for innovation, initiative shown, raw material and material saving, improving the quality of products (works, services), work experience in the organization, etc.

The bonus system organization procedure for personnel is regulated by a special "Provision on bonuses". Also, the provision on bonuses can be developed for a certain category (group) of personnel or extend to a specific structural division (group of divisions) of an organization.

The provisions on bonuses should include:

- indicators and specific conditions of bonuses;
- amount, scale and terms of bonuses;
- circle of awarded employees;
- source of bonuses.

Bonuses can be made by one or a group of agreed indicators. Experts identify four main groups of indicators of bonuses, stimulating employees for individual performance. They include:

1. Quantitative indicators: fulfillment and over-fulfillment of production targets for output and nomenclature, percentage of performance standards, ensuring uninterrupted and smooth operation of equipment, compliance with or shortening the planned repair time, performance of a smaller number compared to the standard, reduction in labor intensity of products, etc.

2. Quality indicators: improving the quality of products, the percentage of delivery of products from the first presentation, reducing the defect rate, increasing the grade of products.

3. Saving of resources used: economical consumption of raw materials and materials, fuel and electricity saving, reducing the cost of maintenance and repair of equipment.

4. Rational use of technology: compliance with the terms of development of new equipment and advanced technology, adherence to technological discipline, increasing equipment load factor.

For managers, professionals and employees, bonuses are primarily related to profit. There are proposals on the need to include in the bonus system for heads of organizations such indicators as the fulfillment of contractual obligations, the growth in production, and the provision of output of modern technological level and quality.

The condition for bonuses is usually the work during the accounting period and the fulfillment of the established indicators. One of the most important conditions for the bonuses is the compliance with labor discipline. Employees who have fulfilled bonus indicators, but have committed absenteeism or have appeared at work under the influence of intoxicants, have committed a different disciplinary offense (for example, violating the process rules for manufacturing products), do not accrue a right for the bonus in full. As a rule, they are either not rewarded (in the event of a serious misconduct), or they are paid a premium in a smaller amount than employees who have fulfilled both the indicators and the conditions for bonuses. An employee who has not fulfilled the bonus conditions does not acquire the right to a bonus or does not acquire the right to a bonus in the established (basic) amount.

Speaking about the bonus system, we should not forget about such an important point as bonus reduction. Bonus reduction is a procedure for reducing the amount of an already earned premium.

The purpose of bonus reduction is to increase the labor, production and process discipline of employees. Sanctions for violation of labor discipline can be contained either in the Regulation on bonuses, in the form of an independent section “Bonus Reduction Procedure”, or regulated by an independent document (for example, the “Regulation on the defect-free labor system”). Depending on the severity of the violation, the amount of bonus reduction can be set from 15% to 100%.

When developing bonus systems, it is recommended to adhere to the following rules:

1. Any costs should be within the budget, i.e. the amount of the premium should not exceed the amount of income (savings) obtained by improving the activities of the employee.

2. Bonuses should not be spontaneous. The company should have a well circumspect bonus system, which is based on the main goals of its activities (taking into account both strategic and current goals).

3. The bonus system should contain specific indicators for the achievement of which the employee will receive additional remuneration. The range of these indicators should not be too broad, experts recommend three to four indicators , otherwise the significance of each indicator becomes too small, and the employee begins to focus on the indicators most beneficial for himself/herself.

4. The bonus should not be tied to the full results of bonus indicators, but to their excess values.

5. Timely revision of the bonus system. This rule is important, because, firstly, employees quickly become accustomed to existing systems, and they begin to perceive the bonus as a permanent part of their earnings, that is, the incentive nature of payments is lost, and, secondly, the goal system at an enterprise can change quickly, which requires a change in the incentive system.

6. Timely deprivation of the employee’s bonus if he/she didn’t earn it. The premium should be paid only if the employee actually worked better than he/she must by the job description.

7. A business should have a more interesting goal than just making money. Even an ordinary employee engaged in the manufacture of parts on the machine should understand that he/she not only earns money, but also solves the strategic tasks of the company, makes the world better.

Traditionally, within the economic sciences, which mainly develop this problem, incentives are divided into material and moral ones. Such a separation of incentives, in our opinion, does not look quite correct. More precisely, the whole set of applied incentives could be divided into economic associated with material incentives for labor and non-economic associated with organizational, status and moral incentives [14]. A non-economic labor incentive system is shown in Figure 6 [14]. Let us consider each element of the proposed scheme in more detail.

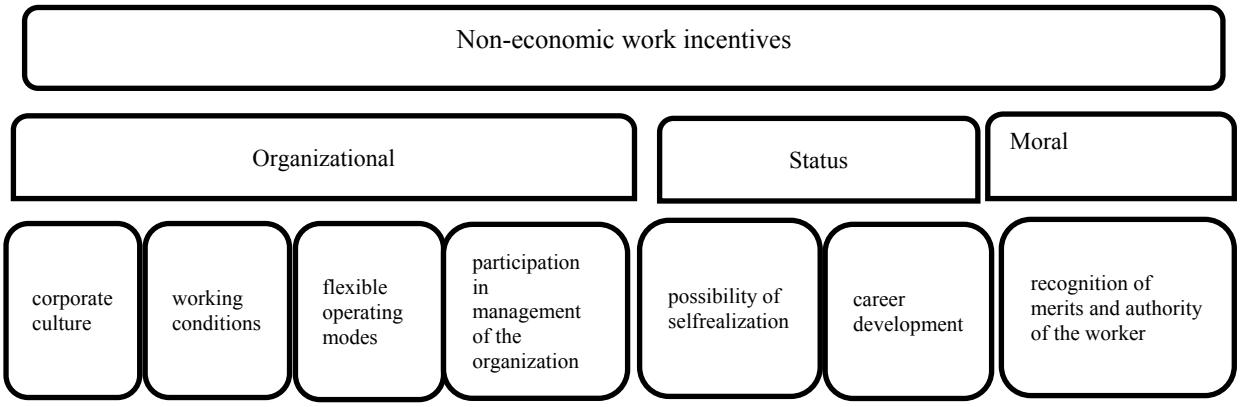

Figure 6 - Non-economic labor incentives

Note - drafted by the author based on the source: [14]

Organizational incentives of labor activity are a tool of organizational management that includes a system of interrelated incentives that regulate employee behavior by increasing his/her job satisfaction in the organization and encouraging employees to creatively perform their functions aimed at implementation of the organization's strategic goals [14]. We allocate four elements to organizational incentives methods:

1. Corporate culture is a corporate-wide value system that allows an employee to feel involved in an important (reference) group of people, to receive recognition of his/her own professionalism from it. According to Maslow - these tools help to fulfill the needs for acceptance and respect.

The tools of corporate culture include the following:

- organizational management structure;
- leadership style;
- clarity of function allocation;
- decision making mechanism;
- work standards;
- performance evaluation;
- internal and external communications;
- corporate style;
- corporate traditions and holidays;
- scientifically based selection, training and periodic certification of executives;
- recruitment of primary divisions, taking into account the psychological compatibility factor;
- applying social and psychological methods that contribute team members to develop the skills of effective mutual understanding and interaction;
- ways to resolve conflicts, etc.

2. Labor conditions are a complex objective social phenomenon that is formed in the labor process under the influence of interrelated factors of a social and economic, technical, organizational and natural occurrence and affecting human health, performance, his attitude to work and the degree of job satisfaction, and labor productivity and other economic performance, on living standards and the all-round personal development as the main production forces of society [14].

According to Maslow's theory of motivation, the tools of this group primarily satisfy physiological needs.

This group of tools includes everything that anyhow provides employees with comfortable work:

- work place;
- sanitary and hygienic conditions (temperature, light, the content of harmful substances in the air, wind speed, dust, humidity, etc.);
- workplace equipment;
- provision of workwear and safety footwear;
- transportation services;
- provision of mobile communications;
- catering;
- medical service;
- sports, etc.

3. Flexible modes of operation. The necessary elements of the flexible working hours basically are [15]: variable (flexible) hours at the beginning and end of the working day (shift), within which the employee has the right to start and finish work at his discretion; fixed hours - the hours required to stay at work for all employees in accordance with the flexible working hours. Thus, the working day in the application of flexible working hours is conditionally divided into 3 parts: two flexible time intervals - at the beginning and end of the working day and a fixed interval between them, divided, in turn, also into two parts by a lunch break.

The flexible working hours system has two main options:

- with the obligatory observance by employees of the fixed working hours. With this option, employees who come to work later must work out the due time on the same day;
- with the obligatory observance of the weekly or monthly fund of working hours. In this case, employees can transfer the difference between the hours worked and the hours required from one day to another or from one week to another during the same month.

With help of the working schedule, some social problems can be solved, in particular:

- reduced labor market strains (for example, the spread of flexible working hours for working women by organizations will allow them to successfully combine motherhood and career, thereby stimulating birthrate);
- chronic fatigue, lack of sleep and stressful situations were eliminated (for example, when developing and implementing advanced labor management techniques ensuring adequate rest for workers and employees who perform work duties in shift working hours, as well as in irregular working hours), etc.

The disadvantages of using these working hours are:

- not suitable for all employees, because it requires a great concentration, responsibility and self-control for an employee;
- such work creates some isolation of people, since working relationships play an important role in the social relations of society;
- with the mixed working hours (some employees work according to a flexible schedule, and the rest - according to standard conditions), envy and ill will to each other may arise;
- additional costs from employers for the introduction of additional control and accounting of working time and labor remuneration to such employees;
- a negative impact on the career growth of employees performing their duties in the flexible working hours.

4. Participation in organization management. Knowing the labor motivation structure of employees, it is possible to more accurately predict which forms of incentives will be most effective for one or another category of staff of the organization. One of the most promising forms of employees' group behavior, leading to an increase in the performance of the collective work and the achievement of its goals, is participative management, which is also one of the employee incentives methods

The term "participative management" is literally translated as "collective management" or "participatory management". The beginning of the research of participative management styles was laid in the 50s – 60s of the twentieth century. D. McGregor, R. Likert and K. Argyris justified the expediency of using the human factor in the most efficient way. A significant contribution to the development of ideas of

participative management was made by such scientists as K. Alderfer, F. Herzberg, D. McCleland, A. Maslow, E. Mayo. In the USA, participative management began to be considered within the school of human relations, D. Garson, A. Burley, M. Minz, and E. Lowler (mid-80s) began to pay special attention to corporate governance issues.

The International Institute for Labor Studies describes participative management as a process in which employees and other categories of personnel have the right to make management decisions within an enterprise, with the elements of participative management being considered as a condition for a full implementation of employees' labor potential within the concept of quality of working life [15].

Participative management can also be viewed as remuneration programs seeking to increase internal motivation and interest of employees in the labor process by expanding their authority in the activities of the company. Unlike most remuneration systems based on the individual contribution of employees, the participative management is based on the recognition of the mutual interests of all members of the firm, which helps to integrate these interests and increase the interest of employees in performance.

Thus, the participative management structure provides for more active participation of employees in decision making, primarily within their area of responsibility, increases employee motivation, increasing responsibility for their performance, reduces the possibility of labor conflicts, eliminating many organizational and managerial reasons [15].

Status labor incentives is focused on professional growth, increasing the authority in the team. These are promises to the employee of more interesting (profitable) work, increasing his/her social value in his/her own eyes or the eyes of those around him/her, which actually influence the change of status, and hence, the receipt of additional material benefits. The influence of these incentives is most noticeable not at the time of presentation of another job, position, but at the stage of waiting, when a person mobilizes his/her internal reserves in order to get what he/she wants, to move to these new positions (jobs, posts). This group includes everything that gives company employees the opportunity for career growth, develop, achieve significant goals for themselves. According to Maslow - these tools contribute to the fulfillment of the need for self-fulfillment:

- professional development;
- career development;
- possibility to make decisions;
- internship and training;
- innovation incentives.

Moral stimulation of labor activity is aimed at regulating the employee's behavior on the basis of objects and phenomena reflecting public recognition, increasing the employee's prestige.

Incentives of this kind triggers motivation, based on the fulfillment of the need to express appreciation and be recognized. The essence of regulation is the transfer and dissemination of information about the labor performance, achievements in it and the merits of the employee to the team or organization as a whole.

Instruments of moral incentives for staff [15]:

- systematical informing the staff about the state of affairs in the organization (extended meetings, meetings of the work team, presentations of successful projects, organized internal PR, targeted ideological work, local corporate media, corporate identity, etc.;
- organization of corporate events (professional competitions, master classes, labor competitions, corporate events, newsworthy events, team building events, etc.);
- official recognition of merit (presentation to state, professional and public awards, awarding honored employees with certificates, diplomas, corporate awards, valuable gifts, vouchers, sums of money (status premiums), mentioning at meetings, public events, honor roll), etc.).

Thus, it should be noted that the path to effective personnel management lies through an understanding of its motivation. Only by knowing what drives a person, what motivates him to act, what motives lie at the basis of his behavior, an effective system of forms and methods for work collective management can be developed. To do this, you need to know how certain motives arise, how and by what kind of incentives, these motives can be brought into action. In organizations where people closely interact with each other, the use of incentives should take into account the needs and their satisfaction, the

entrepreneurial spirit and interests of the individual, and even the character and way of life. Then the incentives will be truly effective and personally meaningful.

Conclusion.

- In this article, a classification of factors influencing the formation of the labor incentive system was proposed, which includes two groups: external (objectively existing and independent of the company's management) and internal (formed and dependent on the enterprise management); and the influence of these factors in the conditions of the Republic of Kazakhstan was considered.

- The main building principles of effective incentive system were also revealed in this study

its types were also considered - economic and non-economic. The conclusion is made about the need to apply more flexible approaches to determining the level of base wages, and the variable part of wages, the need to link wages with the ultimate performance of both an individual employee and the entire structural division, and the enterprise as a whole.

- It follows from the literature analysis that non-economic incentives play an increasing role in labor incentives for employees, as it allows to satisfy not only their basic needs, but also the needs of higher levels and create a favorable atmosphere in the workforce. This is achieved by expanding the participation of employees in enterprise management, using flexible working hours, creating a corporate-wide value system that allows an employee to feel involved in an important group of people, to receive from recognition of his/her own professionalism from it.

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ҚАЗІРГІ ЖАҒДАЙДА ЕҢБЕКТІ ЫНТАЛАНДЫРУДЫҢ ТҮРЛЕРІ МЕН ӘДІСТЕРІ

Аннотация. Бұл мақалада еңбекті ынталандыру жүйесін қалыптастыруға әсер ететін факторларды жіктеу ұсынылды, ол екі топтан тұрады: сыртқы (объективті және кәсіпорын басшылығына тәуелді емес) және ішкі (қалыптасатын және кәсіпорын менеджментіне тәуелді). Бұл зерттеуде ынталандырудың тиімді жүйесін құрудың негізгі принциптері ашылып, оның түрлері – экономикалық және экономикалық емес қарастырылды. Базалық лауазымдық жалақы деңгейін және жалақының ауыспалы бөлігін анықтауға неғұрлым икемді тәсілдерді қолдану қажеттілігі, жеке қызметкердің де, бүкілқұрылымдық бөлімшенің де, жалпы кәсіпорынның да қызметінің түпкілікті нәтижелері мен еңбеккеақы төлеуді байланыстыру қажеттігі туралы қорытынды жасалды.

Түйін сөздер: менеджмент, ынталандыру, персоналдыбасқару.

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ФОРМЫ И МЕТОДЫ СТИМУЛИРОВАНИЯ ТРУДА В СОВРЕМЕННЫХ УСЛОВИЯХ

Аннотация: В данной статье была предложена классификация факторов, влияющих на формирование системы стимулирования труда, которая включает две группы: внешние (объективно существующие и не зависящие от руководства предприятия) и внутренние (формируемые и зависимые от менеджмента предприятия); и рассмотрено влияние этих факторов в условиях Республики Казахстан.В данном исследовании также были раскрыты основные принципы построения эффективной системы стимулирования и рассмотрены его типы – экономическое и неэкономическое. Сделан вывод о необходимости применения более гибких подходов к определению уровня базового должностного оклада, и переменной части заработной платы, необходимость увязки оплаты труда с конечными результатами деятельности, как отдельного работника, так и всего структурного подразделения, и предприятия в целом.

Ключевые слова: менеджмент, стимулирование, мотивация, управление персоналом.

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ANALYSIS OF INVESTMENT ATTRACTIVENESS OF KAZAKHSTAN

Abstract. The Republic of Kazakhstan is attractive for investors. The factors that ensure the investment attractiveness of the Kazakhstan market include: access to natural resources, market size, strategic location of Kazakhstan, as well as a stable political situation and the availability of an appropriate legislative framework.

In the article the rating of investment attractiveness of Kazakhstan and favorable conditions for investors are considered. The problems and negative factors in the field of attracting investments are identified. It is proposed to stimulate the development of competitive industries by using more actively such proven tools in world practice as special economic and industrial zones, social and entrepreneurial corporations, launching IPO by Kazakhstani companies and the development of the securities market, based on the favorable business climate of Kazakhstan.

Key words: foreign direct investment; investment climate; investment attractiveness.

Introduction

Business is not easy task and involves certain risks. As usual entrepreneurs are looking for reliable ways to develop and strengthen their business.

Investments - a kind of long-term business plan with the right approach it helps to earn a good income for many years. Recently, more and more foreign businessmen prefer their money to "work" in Kazakhstan.

The Republic of Kazakhstan is attractive for investors. The factors that ensure the investment attractiveness of the Kazakhstan market include: access to natural resources, market size, strategic location of Kazakhstan, as well as a stable political situation and availability of an appropriate legislative framework.

Methods

Kazakhstan is one of the most attractive countries for foreign investment in the world according to the international experts evaluation.

According to the criterion of "investment attractiveness" Kazakhstan in 2018 in the rating "Doing Business" compiled by a group of analysts of the World Bank, ranks 36th (10 indicators) among 190 countries.

According to Forbes Kazakhstan magazine, thanks to the Kazatomprom IPO, the interest of international investors in the uranium industry has revived, as the uranium used in nuclear reactors to produce electricity has become one of the best raw materials of 2018.

Last 12 years, Kazakhstan has attracted 264 billion dollars of direct investments. The Netherlands, the USA, France, Switzerland, Russia and China invest the most in the raw materials sector of the economy. The items of exported goods of Kazakhstan include oil, copper, zinc, slag, ore, mineral fuel, ferrous metals, etc[1].

Here experts note another nuance: in the presence of such a quantity of natural raw materials, the country exports for processing most of it, and then buys again but in the form of a finished product. In view of this situation, opportunities open up for businessmen and investors in the form of construction of plants and companies for processing of natural resources on the territory of Kazakhstan. This will reduce the cost of production for domestic buyers and improve its quality for export.

The country has formed the appropriate services to work with foreign investors: the Council of foreign investors under the President of Kazakhstan, the Ministry of investment and development of

Kazakhstan (operates on the principle of "one window" for investors), the national company "KaznexInvest", the Council to improve the investment climate under the Prime Minister of Kazakhstan, the investment Ombudsman represented by the Minister for investment and development of Kazakhstan, investor councils under the governors of regions, national development institutions.

A new structure was created in the form of JSC "National company " KAZAKH INVEST", authorized to implement measures of state support for industrial and innovative activities in the field of attracting investments into the economy of Kazakhstan, as well as the development and promotion of exports [2]. It has a wide network of representatives abroad. Provides a full range of services to support investment projects from idea to implementation on the principle of "one window" and acts as a single focal point for special economic zones of the Republic of Kazakhstan (http://www.invest.gov.kz/ru/).

Thus, the institutions represented by the Ministry of investment and development of Kazakhstan and NC "KAZAKH INVEST" are able to assist in resolving the issues of each investor, to open a business and its further work, acting on the principle of "one window", from obtaining a visa to receiving state support [3].

A comprehensive system of state support for investment activities has been introduced in order to create a favorable investment climate for economic development and stimulate investment in the creation of new production, expansion and renewal of existing production facilities with the use of modern technologies, improving qualifications of Kazakhstani personnel, and environmental protection.

The state gives the investor the right to invest in any objects and types of business activity, except as provided by the laws of the Republic of Kazakhstan.

In our opinion, the country provides investors with significant guarantees, such as [5]:

– full and unconditional protection of rights and interests, which is provided by the laws of the Republic of Kazakhstan, as well as international treaties ratified by the Republic of Kazakhstan;

– stability in case of changes in the legislation of the Republic of Kazakhstan (tax, employment in the sphere of attracting foreign labor);

– the right to compensation for damage caused to him as a result of the publication of acts by state bodies that do not comply with the laws of the Republic of Kazakhstan, as well as illegal actions (inaction) of officials of these bodies, in accordance with the civil legislation of the Republic of Kazakhstan;

– stability of the terms of contracts signed between investors and state bodies of the Republic of Kazakhstan (except for cases when amendments to contracts are made by agreement of the parties);

– use of income (at the discretion, after payment of tax liabilities);

– publicity of the state bodies activities in relation to investors and ensuring access for investors to information related to the implementation of investment activities;

– free access to information on registration of legal entities, their Charter, registration of real estate transactions, issued licenses, as well as to other information provided by the laws of the Republic of Kazakhstan, which is related to the implementation of their investment activities and does not contain commercial and other secrets protected by law;

– in case of nationalization and requisition, the Republic of Kazakhstan is fully compensated to the investor for the losses caused, payment is made at the market value of the property;

– transformation of the investor's rights to another person (is recognized as lawful only in case the investor makes investments in the Republic of Kazakhstan and (or) fulfillment of certain contractual obligations by them).

Kazakhstan also provides investment preferences (depending on the type of investment project): exemption from customs duties and VAT on imports, state full-scale grants, tax preferences, investment subsidy, exemption from import duties and taxes in accordance with the tax legislation of the Republic of Kazakhstan.

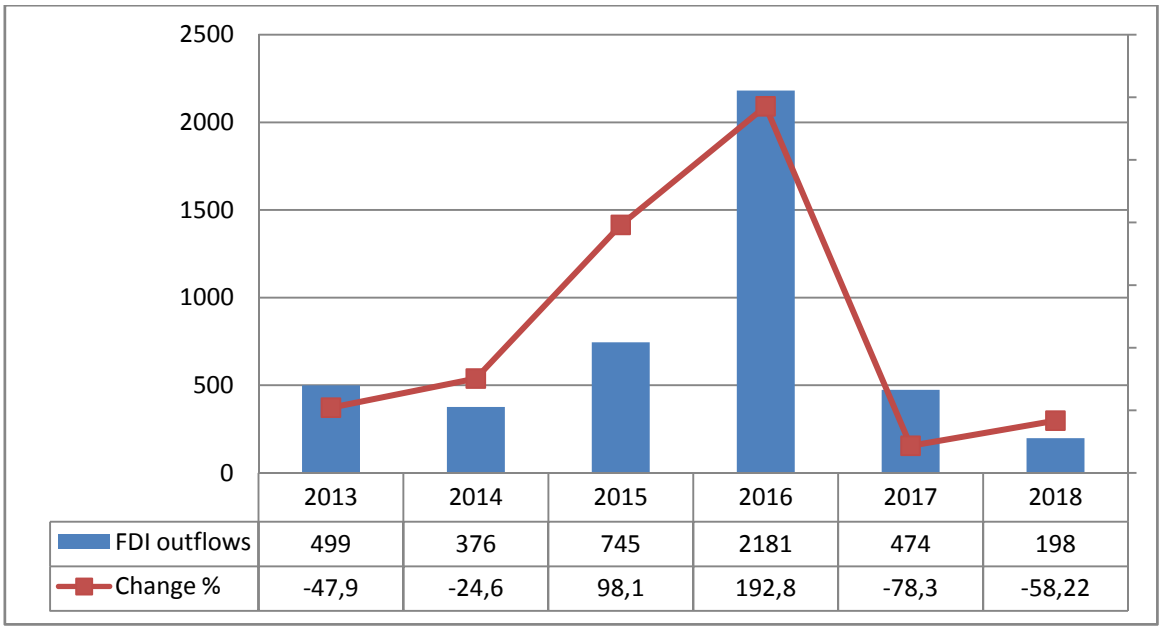
For obtaining investment preferences, a legal entity of the Republic of Kazakhstan sends to the authorized investment body (MID RK) an application and documents confirming the applicant's compliance with the requirements established by the Entrepreneurial code of the Republic of Kazakhstan. In its turn, investment preferences are provided on the basis of an investment contract signed between the authorized investment body (MID RK) and a legal entity of the Republic of Kazakhstan implementing an investment project [6].

Mainpart

In the first half of 2018, the lowest volume of outflow of investments abroad was recorded-only 532.5 million dollars, of which 198 million were recorded in the second quarter. For comparison for the same period of 2017 the gross outflow of direct investment from Kazakhstan investors were 1.4 billion dollars, and in 2016-2.8 billion [7].

Since September 2016, Kazakhstan has officially announced a new growth management model. Within the framework of development programs in the second five-year plan, Kazakhstan is moving from an economy driven by the factor of "raw material competitiveness" to an economy based on growth due to the "investment factor".

This model is described in detail in the adjusted state program of industrial and innovative development from September 6, 2016. In August 2017, there was launched a detailed investment strategy until 2022 . The purpose of the strategy is to create a favorable investment climate and attract investments aimed at improving efficiency [8].



	2013	2014	2015	2016	2017	2018
FDI outflows	499	376	745	2181	474	198
Change %	-47,9	-24,6	98,1	192,8	-78,3	-58,22

Figure 1 - FDI Outflows from Kazakhstan. 2 quarter (million USA dollars)

The program was developed with the support of the international expert community and the World Bank groups.

As a result of the initiated processes of modernization of the national economy, the volume of export products in 2017 increased by 31.6% to 48.3 billion US dollars (in 2016-36.7 billion US dollars).

For the second quarter of this year, exports amounted to 15.2 billion US dollars against 12.5 billion for the same period of a year earlier.

Expected events are in the development of Kazakhstan's investment attractiveness in the medium term.

In December 2019, the Ministry of industry and infrastructural development should submit an updated state program of industrial and innovative development of Kazakhstan until 2025. This program is developed on the basis of the National action plan for the implementation of the President's Address to the people of Kazakhstan dated October 5, 2018 " The growth of welfare of Kazakhstan: increasing income and quality of life»

In February 2019, the government created a direct investment Fund in the non-raw material sector, acting on the principle of co-investment with foreign investors, for the implementation of large and breakthrough projects.

Also a new program for the development of the tourism industry for the period of 2019-2025 will be published in February 2020.

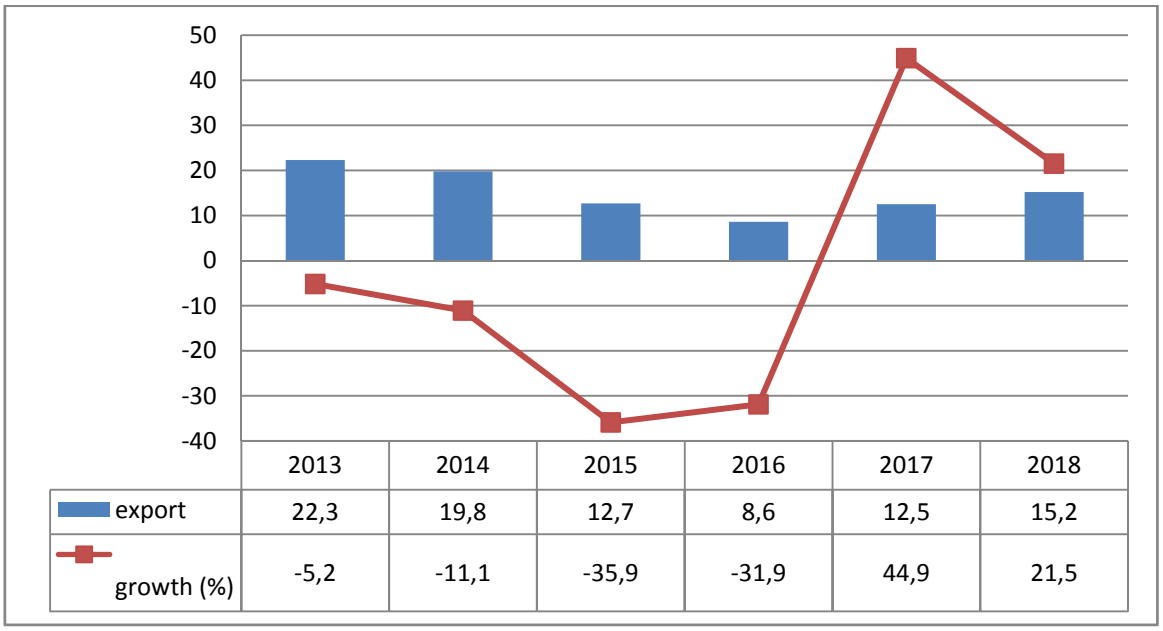


Figure 2-Dynamics of changing Kazakhstan's exports. 2 quarter (billion US dollars)

In July 2019, the constitutional law on the International financial center "Astana" will be amended to ensure the rapid establishment and development of the center as the main financial platform of the country and the use of its jurisdiction to attract and protect investments.

In August 2019, the Forecast scheme of territorial and spatial development of the country until 2030 was published, which will become a new map of managed urbanization of the country.

The forecast scheme provides a link between the current and long-term, macroeconomic, sector and regional aspects of development. It allows coordinate the actions of business, sector and territorial state bodies and other organizations.

Table 1-Target indicators of the National investment strategy (%)

	Base 2016	Plan 2017	2018	2019	2020	2021	2022
Gross FDI inflows	100	102	104	109	113	118	126
Ratio of gross FDI to GDP	15	16	17	17	18	18	19
FDI in the manufacturing industry	100	105	110	120	130	140	150
The investment volume in fixed capital of the non-primary sector of the economy	100	103	106	113	123	134	146
Foreign investments volume in fixed capital of non-raw material sector of economy	100	103	107	115	130	140	150
http://finprom.kz/							

However, almost half of the European Union countries have reduced investment flows to Kazakhstan.

Finland reduced FDI in Kazakhstan by 63.3%, the volume for the year decreased from 30.1 million to 11 million USA dollars. Belgium, a strategic partner, weakened investment flows by 1.9%, which amounted to $ 19.9 million US dollars. Austria almost completely recovered capital from the economy of the Republic of Kazakhstan for the amount of 14 million US dollars. It has invested only $3.2 million US dollars. A year earlier, Austrian investors invested $ 86.9 million US dollars in the economy of Kazakhstan

In general, last year 12 EU countries reduced investment flows to Kazakhstan by 12.2%.

In order to stimulate the development of competitive industries, tools such as special economic and industrial zones, which have proved themselves in the world practice, are being more actively used in the country.

At present there are six special economic zones have been created in Kazakhstan.

The FEZ is faced with large-scale and specific tasks, their solution will contribute to the realization of the economic potential of the regions, improvement of the investment and business climate.

It is also planned to create 2 new FEZs: Khorgos-Eastern gate, Dostyk.

There is a regime of free customs zone on the territory of the zones, as well as significant tax benefits (corporate income tax, land tax, property tax, VAT).

Social and entrepreneurial corporations are another effective tool for economic diversification.

Their main task is to ensure breakthrough development of the regions through the creation of processing industries, the introduction of an effective system of corporate governance, the consolidation of state assets and entrepreneurial initiatives to solve social and economic problems.

A network of these regional development institutions consisting of 7 socio-entrepreneurial corporations has been completed. This allowed cover the entire territory of Kazakhstan. In this way equal conditions have been created for the development of entrepreneurship in all parts of the country. Participation in projects of social and entrepreneurial corporations provides businesses both domestic and foreign, access to financial, land and technological resources [9].

The main problems in attracting investments to Kazakhstan:

— Insufficient investment attractiveness of non-primary sector of the economy (administrative barriers, low development level of transport and communication infrastructure, lack of skilled labor, low capacity of the Kazakh market);

— Insufficient development of the support and protection mechanism of domestic investors in foreign countries;

— Lack of sufficient information on potential investment markets and ways of entering these markets for Kazakh companies;

— Weak development of the securities market;

— Unattractiveness and lack of activity of Kazakhstan companies entering IP0.

In Kazakhstan, there are also negative factors, such as licensing and tax payment conditions, corruption, raiding, lack of skilled labor, poor infrastructure. But, despite the negative factors, the investment attractiveness of Kazakhstan is growing and in the future, big priorities are expected for both domestic and foreign investors.

Thus, the investment attractiveness of Kazakhstan market provide such factors as: access to natural resources, market size, strategic location of Kazakhstan, as well as a stable political situation and the availability of an appropriate legislative framework. All of the above factors may favorably affect the activation of launching IP0 by Kazakhstani companies and the development of the securities market of Kazakhstan.

The obtained results (conclusions)

Kazakhstan has the most important task - to become one of the 30 most developed countries in the world by 2050. To accomplish this task, the country is looking for new markets, increasing innovation potential, developing private sector, as well as looking for all opportunities to create an investment climate.

The country strengthen cooperation with Russia, China, European and Asian countries, which will contribute to the growth of the trade potential of the Republic and the emergence of new investment opportunities.

According to many investors opinions the most attractive sector for investment is the energy sector. By 2030, Kazakhstan will become one of the leaders in the energy sector. However, industries such as high technology, telecommunications equipment and infrastructure, as well as professional services have significant growth potential and can become an important source of income and new job places for the country [10].

Over the years of independence, Kazakhstan received the significant volume of foreign direct investment, but these funds were invested in the extraction of raw materials and its export from the country. Low level of investment in such industries as: agriculture, mineral exploration, medicine, infrastructure, manufacturing, science, high-tech industries. Usually there significant budget money is invested but these funds are not always used for its intended purpose.

The government policies and practical events play a key role in formation of the investment climate [11].

Thus, foreign direct investment in the economy contributes to financial stabilization, helps to solve strategic and tactical problems of macroeconomics, such as the fighting against inflation, structural

adjustment, eradication of technological and managerial backwardness of the economy. The efficient use of investment resources is one of the main factors determining economic growth in the long term.

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ҚАЗАҚСТАННЫҢ ИНВЕСТИЦИЯЛЫҚ ТАРТЫМДЫЛЫҒЫНА ТАЛДАУ

Аннотация. Қазақстан Республикасы инвесторлар үшін үлкен қызығушылық тудырады. Қазақстандық нарықтың инвестициялық тартымдылығы табиғи ресурстарға қол жетімділіктің, нарықтың көлемінің, Қазақстанның стратегиялық орналасуының үйлесімімен, сондай-ақ тұрақты ішкі саяси жағдаймен және тиісті заңнамалық базаның болуымен қамтамасыз етіледі.

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АНАЛИЗ ИНВЕСТИЦИОННОЙ ПРИВЛЕКАТЕЛЬНОСТИ КАЗАХСТАНА

Аннотация. Республика Казахстан представляет для инвесторов большой интерес. Инвестиционную привлекательность казахстанского рынка обеспечивают совокупность доступа к природным ресурсам, величина рынка, стратегическое расположение Казахстана, а также стабильная внутриполитическая обстановка и наличие соответствующей законодательной базы.

В статье рассмотрен рейтинг инвестиционной привлекательности Казахстана и благоприятные условия для инвесторов. Определены проблемы и негативные факторы в сфере привлечения инвестиций. Предложено для стимулирования развития конкурентоспособных производств более активно использовать такие оправдавшие себя в мировой практике инструменты, как специальные экономические и индустриальные зоны, социально-предпринимательские корпорации, выход на IP0 казахстанских компании и развитие рынка ценных бумаг, на основе благоприятного бизнес-климата Казахстана.

Ключевые слова: прямые иностранные инвестиции; инвестиционный климат; инвестиционная привлекательность.

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FEMALE ENTREPRENEURSHIP AS A CHOICE TO GO OUT OF THE POVERTY

Abstract. Women decide to start a business for a variety of reasons. Extant research shows that if some women decide to establish their own enterprises in order to go out of the poverty by earning some income, others decide to be involved in a business world with an aim of being their own-boss and independent. Thus, the aim of this research is to explore the main reasons of women's business establishment decisions. Based on an in-depth study of an early-stage female entrepreneur owning a small-sized enterprise, this study finds out that women start a business with an aim of earning some income in order to feed their children and providing them with better living conditions. Thus, entrepreneurship for women was a way to go out of the poverty. Once the business passed over the start-up stage, it allowed owners to have some savings in addition to the profit, through which they were covering their living expenses.

Keywords: female entrepreneurship, poverty, entrepreneurship, women entrepreneur(s).

I. Introduction

Poverty remains as an important issue for many people around the world. Bruton et al (2013) argue that scholars exploring entrepreneurship in a third world countries with high rate of poverty should focus on the factors that encourage people to establish and sustain a business as a way of improving their lives. Particularly, women's choice of entrepreneurship in developing countries is an interesting topic to consider. L. De Vita et al. (2013) claim that women in developing countries are perceived to be more self-confident about their skills and capabilities than female entrepreneurs in developed countries. Thus, they are less afraid of failure than women in developed countries. L. De Vita et al. (2013, p.8) explain this tendency by the fact that for women from developing countries entrepreneurship "is the only way to have a feasible job". They also claim that married women with young children are more likely to establish their own-business rather than being employed to somebody else. Thus, entrepreneurship for them is the "only way to avoid unemployment" (De Vita et al. (2013, p.7). Fielden and Davidson (2005) refer this type of motivation (the need for income) for women to establish a business to "push" factors. "Push" factors also include the need for work-home balance and lack of attention by previous boss. Female entrepreneurs are not only motivated by "push" factors, some of them may also be motivated by "pull" factors that include the desire to be independent and own-boss, and the need for self-achievement. McGowan et al. (2012) and Sarri & Trihopoulou (2005) claim that female entrepreneurs are equally motivated by both "push" and "pull" factors. However, women's motivation to start a business is a country-specific. It also depends on the business-scale. The aim of our research is to find out how women entrepreneurs are motivated to start a small enterprise based on an in-depth study of an early stage female entrepreneur from the business-hub of Kazakhstan, Almaty. This study employs qualitative method to achieve its aim and finding out women's motivation to start a business.

The paper is structured as follows. Starting from the literature review on women's motivation to start a business with particular focus on emerging markets, it continues with the description of the research method applied in this research. Thereafter, findings are shown and they are traced to previous research, ultimately research limitations are discussed and directions for further research is given.

II. Literature review

Female entrepreneurs contribute to economic growth through their business establishment and its further maintenance. Extant research has identified that there can be "push" and "pull" motivational factors to start a business for women (Hughes, 2003). Bennet and Dann (2000) claim that "pull" motivational factors to start a business include the self-actualization elements such as the need for achievement, independence and the desire to be own boss. Therefore, these factors are considered as an intrinsic motivation to start a business (Amabile, 1993). Hisrich and Brush (1985) explain "push" factors as a choice that come out of the necessity such as the lack of promotion by previous employer, the need for work-home balance and the need for income. Thus, Amabile (1993) refer "push" factors to extrinsic motivators and claim that when women decide to start a business intrinsic and extrinsic motivation act together. Despite the fact that both "push" and "pull" factors synergistically motivate people so start a business (McGowan et al., 2012; Sarri and Trihopoulou, 2005), intrinsic motivation or "pull" motivational factors to start a business should be higher than extrinsic motivation or "push" motivational factors (Amabile, 1993).

Women's motivation to start a business can also be traced to the location. In other words, it might be a country-specific. Extant research has explored women's motivation to establish a business in countries such as Canada (Hughes, 2003), Australia (Bennett and Dann, 2000), Saudi Arabia (Itani et al., 2011), Turkey (Hisrich and Ozturk, 1999), Poland and Check Republic (Lituchy and Reavley, 2004), China (Deng et al., 2010), Hong-Kong (Chu, 2000), Afghanistan (Holmen et al., 2011), Malaysia (Gadar and Yunus, 2009), Uzbekistan (Tasheva et al., 2018), Latin America and Caribbean (Terjesen and Amoros, 2010).

Scholars claim that women in developed countries opt to self-employment in order to be independent and self-actualize themselves (Hughes, 2003; Bennet and Dann, 2000). Thus, they have an intrinsic motivation to establish a business. However, female entrepreneurs' motivation to establish their own business differ from the motivation of women in developed countries. If some women in developing countries decide to be self-employed in order to be independent and to self-actualize themselves (Itani et al., 2011; Lituchy and Reavley, 2004), other female entrepreneurs in emerging markets start their own business out of the necessity (Andriuta and Kartasova, 2013; Deng et al., 2010). Nevertheless, women's decision to be self-employed in all developing countries are not the same and it is very country and situation specific. Aman and Nurgaliyeva (2019) argues, that Kazakh female entrepreneurs were getting informal support from their relatives, friends and family members, which demonstrates positive societal cognitive attitude towards the entrepreneurship in the country under the consideration. Tasheva et al., 2018 analyze what kind of challenges face females to be an entrepreneur inn Uzbekistan and found that gender bias influences to women's entrepreneurship activities. Thus, the focus of this paper is to find out women's motivation to start a business in Kazakhstan and to point out its situation-specific features.

III.Research method

Due to the nature of our research purpose, we consider that qualitative research method is appropriate. Liamputtong and Ezzy (2005) argue that "when we need a deeper understanding of the exceptions and special cases, or when we want to understand the meanings and preferences that underlie those larger patterns" (p.12). In our case, we are trying to understand the meaning and preference that explain women's choice of being self-employed or starting their own-business in Kazakhstan. Since our research purpose has an exploratory nature, in our study in-depth single case study method is used. Hagan (2006, p. 240) gives a definition of a case study method as "in-depth, qualitative studies of one or a few illustrative cases." In particular, we employ an intrinsic case study with a purpose of better understanding of women's motivation in business establishment in particular country. Thus, the role of the researcher is not understanding or testing a certain theory, but rather better understanding internal aspects of women's motivation to establish a business (Munhall, 2007).

The case was selected based on its ability to provide insights meeting our research purpose. The case company is a small-sized business that is run by women in a business-hub of Kazakhstan, Almaty. The data was collected via semi-structured interviews. The interview themes were designed based on initial literature review scanning. In order to ensure multiple views regarding women's decision to establish a business, we collected the data not only from female entrepreneur running the business, but also from her

children, friends and previous boss. After talking with other parties, follow-up interview was provided with a female entrepreneur. 24-hour rule was applied in data transcription. The data has further been coded and it is presented in the following section. The name of the company and the company's founder are kept anonymous, due to ethical and confidentiality reasons agreed with the interview participants. The profile of the company and its founder are presented in the following section.

IV. Findings

The table below presents the company's founder's profile. Originally coming from the western city of Kazakhstan – Aktobe, female entrepreneur was a high school graduate, thus, had a secondary degree. She was divorced and had two children under the age of 18, who were living together with her and were dependent on her. During 9 years of living in Almaty, the company's founder has changed its work twice and the duration of its last employment was 5 years.

Table 1 - The company's founder profile

Age	52
Education level	Secondary degree, high school graduate
Previous occupation	Founder and CEO of a catering company
Duration of the last employment	About 5 years
Reason of leaving the previous workplace	due to the encouragement from previous boss to establish own business
Marital status	divorced
Number of children	2
City of origin	Aktobe city, Kazakhstan
Period of leaving in Almaty	About 9 years

Towards the end of her last employment in a restaurant and catering company, the company's founder was motivated to start her own business. She was feeling that she has so far had enough experience and that she is now ready to start her own business in a catering industry. In addition, the boss at her last worked company was very supportive of her and was constantly encouraging her to start her own business. The female entrepreneur claims that:

"*…Despite a strong desire to establish my own business, I was always doubtful about my idea, the initial capital and investment to my business and its future. It was the boss at my previous workplace giving me a strong motivation to start a business. He made me believe in my skills and capabilities of establishing and managing a catering company. Moreover, he provided me an initial capital to start a business. Thus, I am very grateful to this kind-hearted and generous person…*"

Thus, with the initial capital provided by women's previous boss, the catering company was established in 2016 as a limited liability partnership (LLP) in Almaty region of Kazakhstan. The company currently employs 5 people and due to early stage of a business, its profit is not yet stable.

Table 2 - Case company's profile

Year of establishment	2016
Business location	Kazakhstan, Almaty region
Legal form of establishment	Limited Liability Partnership (LLP)
Industry Type	Catering
Number of employees	5 employees
Annual net profit	Not stable at the moment

During the interview the founder of the company has also mentioned about the concerns at initial stages of her business.

"*…I was worried about having enough client base and my business portfolio. However, throughout the time, both business portfolio and client base were established.*

People say that in order to start and establish your business, you need a money. But I think that money is not a main factor, instead hard work is a core driver of success. For instance, I started with almost zero capital, but my business is incrementally succeeding…"

In addition to mentioning the reasons driving to success, female entrepreneur also claims that the main reason for her to stay in a business is her family and children.

"…. *Of course, the first and foremost reason to start a business was the need for income. It is also true that I could have worked for another company and earn stable income with less stress. But now when my business started to succeed, I believe that this will help me to tackle the poverty and help me and my children to afford a life that we aimed to have for a long time ..."*

Company's founder says that she is putting a great effort for her business to succeed. The founder's daughter claims that…

"... I used to know a mom as a hard-worker throughout my life-time. However, she is working twice harder since she established her own-business. Instead of two days on weekend, she only allows herself to have a one day-off. Me and my brother try to help our mum with her business, whenever we are free from school, because we know that she is working hard in order to give us a better education and living conditions in the future…"

During the interview it was also mentioned that female entrepreneur is getting enormous support from her family and relatives. She also claims that she is about to apply for one of the local entrepreneurship supporting institutions in order to get some financial support from them.

V. Discussion and conclusion

Having an interpretive perspective for data analysis, our research has analyzed the case of an women entrepreneur from Almaty region, Kazakhstan, who established a business in the catering sector after several years of working in the same industry. We were particularly interested on the reason behind women entrepreneur's business development decision. Our findings show that women, who has originated from western city of Kazakhstan – Aktobe, was both intrinsically and extrinsically motivated to start her own business in Almaty region. Thus, our findings support Amabile, 1993, McGowan et al. (2012) and Sarri and Trihopoulou (2005)'s views on the possibility of synergistic influence of "push" and "pull" factors in women's venturing decisions. Nevertheless, the foremost reason to start a business was an immediate need for income (Hisrish and Brush, 1995). Since the case company's founder didn't possess any university degree, the establishment and further success of her business was the only way to go out of the poverty. Thus, theoretical contribution of our paper to existing research is that women entrepreneurs' decision to business venturing in emerging economy countries depends on the education level of an entrepreneur and it also defines the business growth type as well.

Our findings were limited to the case of a single entrepreneur from only one emerging market. Therefore, future studies are encouraged to be enlarged to multiple cases comparing women entrepreneurs possessing different types of degree (upper secondary, bachelor's masters and PhD), who created a business in a variety of spheres. It will also be interesting to compare the business establishment intention of a women entrepreneur from emerging market with the business establishment intention of a female entrepreneur from developed country, both of which possess the same level of education. Furthermore, in order to improve the reliability of our studies, quantitative studies with a larger sample aiming at finding out women's intention to create a business in emerging market should be provided.

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КЕДЕЙШІЛІКПЕН КҮРЕСУДІҢ ЖОЛЫ РЕТІНДЕ ӘЙЕЛ КӘСІПКЕРЛІКТІ ДАМЫТУ

Аннотация. Әйелдер әртүрлі себептерге байланысты бизнесті бастайды. Кеңейтілген зерттеулер көрсеткендей, егер кейбір әйелдер белгілі бір табыс табу арқылы кедейліктен шығу үшін өз кәсіпорындарын құруды ұйғарса, ал басқалары өздерінің бастықтары және тәуелсіз болулары үшін бизнес әлеміне араласуды шешеді. Осы зерттеудің мақсаты әйелдердің бизнесті құру туралы шешімдерінің негізгі себептерін зерттеу

болып табылады. Шағын кәсіпорынды иемденетін әйел кәсіпкерді терең зерттеу негізінде бұл зерттеу әйелдердің балаларын асырау және олардың өмірлерін жақсарту үшін белгілі бір табыс табу мақсатында бизнесті бастайтындығын анықтады. Осылайша, әйелдер үшін кәсіпкерлік кедейліктен шығудың жолы болды. Бизнес бастапқы сатыдан өткеннен кейін, иелеріне пайдадан басқа біршама үнемдеуге мүмкіндік береді, олар арқылы олар өздерінің өмірлік шығындарын жабды.

Түйін сөздер: әйелдер кәсіпкерлігі, кедейлік, кәсіпкерлік, бизнес, әйел кәсіпкерлер.

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ЖЕНСКОЕ ПРЕДПРИНИМАТЕЛЬСТВО КАК СПОСОБ БОРЬБЫ С БЕДНОСТЬЮ

Аннотация. Женщины решают начать бизнес по разным причинам. Результаты последних исследований показывают, что часть женщин решают создать свои собственные предприятия для того, чтобы выйти из бедности зарабатывая некоторый доход. Другая часть женщин принимают решение о создании бизнеса с целью быть боссом для самих себя, т.е. быть независимыми. Таким образом, цель этого исследования состоит в том, чтобы изучить основные причины принятия решений о создании женского бизнеса. Основываясь на углубленном исследовании женщины-предпринимателя на ранней стадии, владеющей малым предприятием, это исследование обнаруживает, что женщины начинают бизнес с целью получения некоторого дохода, чтобы прокормить своих детей и обеспечить им лучшие условия жизни. Таким образом, предпринимательство для женщин стало способом выхода из бедности. Как только бизнес прошел стадию запуска, это позволило владельцам иметь некоторую экономию в дополнение к прибыли, благодаря которой они покрывали свои расходы на проживание.

Ключевые слова: женское предпринимательство, бедность, предпринимательство, женщины предприниматели.

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UNIVERSITY MANAGEMENT IN THE CONDITIONS OF ACADEMIC FREEDOM

Abstract. The success of the university is primarily associated with the construction of a comfortable professional environment for the creative work of its members. Therefore, the development of human capital is the basis of the university's internal policy," Mr. Novoseltsev emphasized. "Quite right, in fact, the policy of the university is personnel. First of all, we are talking about teachers and researchers, which is why the administrative apparatus should work, first of all, to create favorable conditions for them. Universities are becoming centers of network interactions with business and partners. Intensive interpenetration of design and administrative forms of management is taking place. The resulting noticeable changes in the role of many leading employees are perceived painfully and also require the development of new management approaches. The unifying role of such collectively accepted documents as the university's mission and strategy is growing.

Keywords: higher education institutions, management, novelty, centers, academic freedom, personnel.

INTRODUCTION

Universities should serve the satisfaction of the individual's needs for intellectual, cultural and moral development, as well as the satisfaction of the socio-economic needs of a society whose scientific, technical and social progress is inconceivable without comprehensively educated and professionally trained specialists of all levels, therefore universities should act as a connecting link ensuring the interaction of education and Sciences.

If you pay attention to foreign experience, then, for example, in the United States, the Supreme Court defined the term "academic freedom" as follows: "the university itself determines who has the right to teach and study, how to teach and how to organize student enrollment."

Regarding the rating, I will say this: regardless of who will make the rating, the absence of corruption and the observance of legal norms are important in this process.

MAIN PART

The modern approach to reforming the higher education system is the need to manage universities that is adequate to current conditions, since the wealth of modern states is determined not by natural and technological parameters, but primarily by human capital and education, especially higher education, is becoming an essential component of economic, social and spiritual development .

Among the diverse types of professional activity, managerial occupies a special place. Analyzing it, it is important to emphasize the importance of managerial relations, which are of particular interest for their more complete study. Researchers usually refer the following to the main features of managerial relations.

An effective university management system should consist of 8 elements.

Enrollment, admission, transaction, examination and certain records management depends largely on computerization and automation. Cloud based UMS allows activities to precede in a systematic and effective manner. There are a number of e-solution companies offering certified management systems to the organizations in need. Listed here are some of the features of **University Management System.**

Figure 1 - University management system (UMS)

Functional management is carried out by the heads of departments involved in the innovation process. At this level, the strategic goals in the field of innovation are being transformed into the tactical goals of units or responsibility centers.

The managed subsystem includes units that implement and / or ensure the innovation process, the task of which is to implement the stages of the innovation process: generating an idea - evaluating and selecting an idea - developing an innovation - introducing an innovation - commercializing.

Thus, in the modern university management system, the innovative component should be brought to the strategic level and reflected in all subsystems, which in turn is ensured by the choice of the appropriate organizational structure of the university, which ensures the consolidation of innovative goals for the relevant departments. Firstly, as a result of the implementation of managerial relations, on the one hand, values that are not directly perceived by a person are not created, but on the other hand, their implementation is a prerequisite for the effective creation of socially useful values. The main product of the implementation of managerial relations is the organization of joint labor activity, as well as the individual activities of individual performers, but organization as a product exists in a form that is not given to a person in his feelings and is not directly perceived by him. In the process of implementing managerial relations, the leader may be in a psychologically disadvantageous position in relation to other participants in the labor process. This feature can become a factor causing difficulties in management. Secondly, management relationships are always realized by people. However, this does not mean that in managerial relations everything is realized by their subjects and that there is nothing that remains in the zone of the unconscious. Thirdly, managerial relations are subject to various subjective factors. These include the influence of diverse psychological processes, conditions and properties of managers and executors included in managerial relations [3].

Many management problems arise due to the imperfection of the understanding of the situation by the management personnel, which is due to partial ownership of information, lack of knowledge of the situation in full and inability to compare individual tasks of the unit with the general tasks of the university. People who make important decisions are almost all teachers at the university. The leadership of the university has to make decisions based on the real situation and events that occur regardless of what they say and think about them [4].

An analysis of the management processes of the educational system during the period of transformation shows that one of the causes of the education crisis was the discrepancy between the new forms and contents of the management model that has developed over decades.

Today, in countries with market economies, budget financing, as a rule, does not cover the costs of the university [4]. The provision of missing resources takes place in the context of intense competition for an increase in the number of students whose tuition can be paid not only by the state (including exporting education), for scientific and other grants, for projects in large-scale programs, for partners, etc. In this regard, it is often said that the university should become entrepreneurial. However, one cannot fail to see significant differences between the university and the commercial organization. The university is preparing the next generation of citizens of the country, and a commercial organization maximizes profits. At the same time, the university is guided by the mission [5], and the commercial organization is guided by the temporary guidelines adopted by the shareholders. The university disseminates knowledge, and a commercial organization, on the contrary, protects its experience in order to prevent others from using it. The real value of the results of the university's work (the importance of research and publications, the success of graduates) will be determined over time, and the products and assets of a commercial organization are directly measurable. Therefore, the university needs its own approach to management, and not direct copying of entrepreneurial experience.

Interaction with partners is important not only for obtaining equipment, bases of practice and other resources, which are usually not enough at universities [6]. An equally acute issue in the development of education in a new complex field is the involvement of leading experts from other organizations. At the same time, we are talking about a fairly large number of specialists and long-term cooperation with them, since the period of creation of new areas of training requires considerable time. Such integration becomes crucial, which requires sustained network interactions with partners. At the same time, a network of interactions involving a constellation of prominent specialists inevitably begins to live its own life. In this regard, it is important that the management of the university ensure the orientation towards the initially intended goal of creating a system of advanced education in a specific field.

A process cannot exist separately from an organization. For the processes to work, the senior management must determine the purpose of the process, set goals for the owner of the process and approve the planned values of the process performance and efficiency indicators. The process owner makes management decisions based on the information received and the established plans.

The organization’s process management system includes:

- actions for converting inputs to outputs;
- a system for collecting information on process indicators;
- a system for analyzing this information;
- making management decisions by the person responsible for the effectiveness of the process;
- a system of continuous improvement of process indicators and corrective actions to eliminate the causes of deviations during the process.

Process indicators should be integrated into the organization’s general management accounting system, and the process activity planning system into the organization’s strategic planning system.

The combination of organization management allows an organization of any complexity to build a system for effective management of each process, link individual processes into a single system and integrate into this management system a mechanism for continuous improvement of the organization. Thus, the process is a sequence of logically related actions that use resources to obtain results that can achieve the main goals of the organization. The considered expansion of interactions and the complication of the entire system of the university’s activities are an important source of development (a complex system develops faster than its parts). At the same time, such a trajectory gives rise to new control problems.

One of the most relevant to the goals of the university’s process control system is the method of functional improvement of processes (EfPiAi method). Additional advantages, in comparison with other methods of evolutionary improvement, of business processes are provided due to the following features of the method of functional improvement of processes:

- a systematic approach to improving the business process, multidimensional points of view on the business system;
- the widespread use of methods of functional-cost and functional-economic analysis when adjusting the functional components (operations) of a business process;

- more flexible modeling tools - the use of the "as is" model, the "as it should be" model, and benchmarking techniques;

- modeling of the organizational structure and information system of the university's business processes.

However, despite the indicated advantages of the method of functional improvement of processes, it cannot be considered completely adequate to the tasks of improving the university management system. In particular, the problems of redesigning existing processes that rely on the traditional organizational structure and occurring in most universities under conditions of poor automation are not sufficiently developed. Development is always uneven, and therefore it is necessary to focus efforts on the identified priorities. At the same time, it is important that the formation of priorities (platforms) be a collective decision, reflected in documents such as the Mission and the Strategy of the university. Then the breakout flag on a specific platform is perceived by the team as a common flag.

The second important circumstance is related to the fact that the ongoing changes (uniting and separation of units, the creation of inter-faculty teams, etc.) change the role of the actors, and this can be painful. There is a need to create a “brace”, ensuring the stability of the united team, its ability to overcome internal conflicts and accept new challenges. Among these challenges is the systematically arising need to find new sources of financing, which often requires changes both in the composition of the team and in the organization of its work.

CONCLUSION

It is important in the team to form an understanding that for successful development in the new conditions, adaptation is necessary through internal transformations and participation in networks. The problem arises of organizing systematic studies of managers and individuals who are in reserve management. All this brings us back to the topic of rector competencies already noted above. Modernization of education in general and higher education in particular is a point of growth and at the same time a priority for the development and renewal of the economy, science, culture, and the formation of civil society. If we talk about the main tasks of updating higher education, they should also be primarily social and include: updating the content of higher education and improving its quality; equal access to education; the formation of effective mechanisms for transmitting social order to a higher education system; expanding the participation of society in the management of education.

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АКАДЕМИЯЛЫҚ ЕРКІНДІК ЖАҒДАЙЫНДАҒЫ УНИВЕРСИТЕТТІ БАСҚАРУ

Аннотация. Университеттің жетістігі, ең алдымен, оның мүшелерінің шығармашылық жұмысы үшін қолайлы кәсіби ортаны құрумен байланысты. Сондықтан адами капиталды дамыту университеттің ішкі саясатының негізі болып табылады », - деді Новосельцев мырза. «Университеттің саясаты - бұл кадрлар. Біріншіден, біз мұғалімдер мен зерттеушілер туралы айтып отырмыз, сондықтан әкімшілік аппарат, ең алдымен, оларға қолайлы жағдай жасау үшін жұмыс істеуі керек. Университеттер бизнес пен серіктестермен желілік өзара әрекеттесу орталықтарына айналуда. Басқарудың жобалық және әкімшілік формаларының қарқынды интерпентетриясы жүруде. Көптеген жетекші қызметкерлердің рөліндегі елеулі өзгерістер ауыр қабылданады, сонымен қатар басқарудың жаңа тәсілдерін әзірлеуді талап етеді. Университеттің миссиясы мен стратегиясы сияқты қабылданған құжаттардың біріктіруші рөлі артып келеді.

Түйін сөздер: жоғары оқу орындары, менеджмент, жаңалық, орталықтар, академиялық еркіндік, кадрлар.

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УПРАВЛЕНИЕ ВУЗОМ В УСЛОВИЯХ АКАДЕМИЧЕСКОЙ СВОБОДЫ

Аннотация. Успех университета связан, прежде всего, с построением комфортной профессиональной среды для творческой работы его членов. Поэтому развитие человеческого капитала – это основа внутренней политики университета», - подчеркнул господин Новосельцев. «Совершенно верно, по сути, политика вуза - это кадры. Прежде всего, речь идет о преподавателях и научных работниках, именно поэтому и административный аппарат должен работать, в первую очередь, на создание благоприятных условий для них. Университеты становятся центрами сетевых взаимодействий с бизнесом и партнёрами. Происходит интенсивное взаимопроникновение проектных и административных форм управления. Возникающие при этом заметные изменения роли многих ведущих сотрудников воспринимаются болезненно и также требуют развития новых подходов к управлению. Возрастает объединяющая роль таких коллективно принимаемых документов, как миссия и стратегия вуза.

Ключевые слова: высшие учебные заведения, управление, новизна, центры, академическая свобода, кадры

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ACADEMIC FREEDOM ATTRACTIVE CHALLENGE OF MODERN UNIVERSITY

Abstract. This article discusses the basic principles of academic mobility in the framework of the Bologna process. The process of implementing academic mobility has been studied: social - the free movement of students, undergraduates, PhD doctoral students, academic staff, the interchange of teaching and research technologies, and the second - the organization of joint educational programs: tools of academic mobility in order to obtain educational and professional competencies in higher education institutions of the world educational space for one to two semesters. This will increase the competitiveness of education and the development of human capital by providing affordable quality education for the stable development of the economy in order to achieve the highest level of education in higher education institutions that will satisfy the needs of the modern market.

Key words: academic mobility, social adaptation, joint educational programs, competitiveness of education.

In the conditions of integration and globalization of Kazakhstan in the international educational space, modernization is taking place in a modern domestic higher school.

Leader of the nation N.A. Nazarbayev, in his message to the People of Kazakhstan, the “Kazakhstan-2050” Strategy, says that the held Kazakhstan has stood the test of the crisis of its statehood, economy, society, social cohesion, regional leadership and international authority. “Education spending has grown 12 times over the past 20 years. The state educational development program is at the implementation stage, and it is aimed at a total change in all levels of education - from preschool to higher. "

Particular attention in the State Program for the Development of Education of the Republic of Kazakhstan for 2016-2020 is given to “improving competitiveness in education, developing human capital by providing affordable quality education for the stable development of the economy, in order to achieve the highest level of education in higher education institutions that will satisfy the needs of the modern market. Developed education will become the basis for the future economic, political and socio-cultural prosperity of the country. ”

In modern education, the most important values of the human resource are formed and improved, as well as what is reflected in the individualized approach of the higher education process in its various manifestations, including pedagogical and psychological. The main reason in the modern system is construction, in which anyone who wishes has access to the opportunity to learn and gain the necessary competencies to realize and position themselves as a professional. Theorizing is the basis of the learning process, little attention is paid to professional activities, there is no focus on solving communication skills. The applied grammar-translation method, which has been used in recent decades, emphasizes the translation of texts and teaching the rules, but not communication.

Self-presentation of oneself as a professional, of course, implies the development, that is, academic mobility, for the possibility of obtaining the necessary baggage of knowledge and experience, and competencies. Today, the need for high-level specialists, and, consequently, for graduates of higher education, already adapted professionals, is very high. The signing of the Bologna Declaration by Kazakhstan in the light of the Bologna process sharply denotes the challenges facing the system of Kazakhstani higher education today and an important task is attractiveness, which affects the academic mobility of students, coupled with the right to choose, in order to receive a high-quality education at a

partner university. In the implementation of the Bologna process, great attention and participation is given to the academic mobility of students, which is the main factor in organizing the world educational space. Academic mobility involves internal and external student movements. External academic mobility is the movement of students outside the state, which distinguishes the usual student internship from academic choice. Students go to a partner university to study for one or two semesters, which makes this process different from short-term educational, research internships.

As part of academic mobility, students study abroad, having the same rights to the educational process as students of the host institution, while fully mastering the program of courses, when students return to their home university, these courses are fully counted as an equivalent amount of knowledge gained by them.

It is fair to say that the task in the framework of educational academic mobility and approved by the state educational standard is solved by universities, through the development of loans at a partner university.

In this connection, there is a tendency that among students of Kazakhstani universities, knowledge of foreign languages is sometimes not up to the mark. Teaching, in particular English, in Kazakhstani universities is taking into account the international program. The minimum level of IELTS certificate requirements for students traveling to a partner institution varies from 5.5 out of 9 in total and 5.5 for each of the four types of speech activity. Upon reaching the level of proficiency, according to the standard, students can be enrolled in universities in the UK, America, Europe, Asia. Because of this, first-year students are faced with the task of knowing the English language for the appropriate level, when recruiting students they are divided into groups and classes in the group range from 8 to 12 hours a week.

At the beginning of the school year, students wishing to take the exam with the IELTS British Council certificate for students conduct three-week intensive courses with a "complete immersion" in order for students to learn, in particular English, to achieve the required level. In the second year, for students, English courses are defined as maintaining skills in writing essays, motivational letters, etc. And subsequently, the level of improvement of English proficiency is improved through the training of special disciplines in English.

“Each university should - taking into account specific circumstances - ensure the protection of freedoms, its students and the creation of such conditions when they can find a culture and receive training that we ourselves would like to have” (Magna Charta Universitatum Eurapearum, 1988).

It is very difficult to overestimate the importance and role of students in the Bologna process. The modernization of higher education in European countries associated with the Bologna process is a locomotive in the global system of higher education.

“There is growing awareness that an important result of the Bologna process will be the transition from teacher-led training to student-centered higher education” (London Communiqué, 2007, Clause 2.1). This principle determines the strategy in choosing the concretization and implementation of many programmatic doctrines and practice-oriented leaderships of the countries that have signed the Bologna Declaration and today this fully allows us to be sure that it is students who are the main active persons involved in the Bologna process.

As follows from the Prague Communiqué (2001), “competent, active and constructive partners in the creation and formation of the European Higher Education Area should influence the organization and content of education in universities and other types of universities.”

According to the Berlin Communiqué (2003), the National Council of European Students has been accepted to “participate in the development of an acceptable set of standards, procedures and methodologies for assessing quality and an adequate system of monitoring universities through special agencies or organizations. The key principle of cooperation with students is to constantly attract students to further activities at the earliest stages of work. The main goal is to find a legal basis that allows students to achieve a real increase in participation in management in ways that students and student organizations themselves consider necessary: the European Student Union (European Student's Union) and the National Student Union of Europe (ESIB). According to the Bergen Communiqué (2005), the National Student Union of Europe (ESIB) becomes an advisory member of the Bologna Process working group, along with the Council of Europe, the Pan-European Authority for International Education (IE). The European Network for the Quality Assurance of Higher Education (ENQU), the European Association of Higher

Education Institutions (EURSHEA), the European Center for Higher Education (UNESCOCEPES) and the European Union of Industrial and Enterprise Confederations (UNICE). ”

Realizing the main criteria of academic mobility, the Bologna process puts the rights and powers of students and teachers at the forefront. We can say with confidence that the dynamics of development over the past few years in the system of international educational space gives indicators of an increase in the mobility of the teacher and student by more than 40%. That is why academic mobility is so attractive for international students and causes great enthusiasm among researchers, scientists, faculty all over the world.

As mentioned earlier, the international educational programs Erasmus, TEMPUS, Leonardo are effective mechanisms for the successful implementation of academic freedom, cultural interactions, and scientific interaction in the framework of the Bologna process. For information, today more than five thousand universities and institutions from more than 40 countries of the world community participate in international educational programs.

Statistics show that more than four million students took part in academic mobility from 2014 to 2015, and in 2015-2016. this figure has doubled, and according to the forecast of the European Commission, every sixth student will be involved in academic mobility by 2020.

Academic mobility met the expectations of students and became an impressive reality by its results thanks to the model of European academic performance offset (ECTS), developed in 1989, and the accumulation of loans. Carnegie credit (credit), or Carnegie credit (accreditation) unit, is a credit given to a student for a course taken at a secondary or higher educational institution, the volume of which is 1 academic hour per week for a semester - 27 astronomical hours = 36 academic hours of 45 minutes. Accordingly, one academic year at the university corresponds to 60 ECTS - credits (1500-1800 academic hours). Thus, to obtain a bachelor's degree, you need to get from 180 to 240 ECTS credits, and to obtain a master's degree - 300 ECTS credits. Thanks to this model, the freedom of students' choices takes on its specific appearance: students who have studied at their university for at least two years, have an average mark, are above a certain university level and speak a foreign language, can continue their education at any university in Europe. It is noteworthy that students do not pay for their studies - all expenses are covered by the European Union and the "home university" (AlmaMater), including scholarships to cover living expenses abroad. " [one]

Of course, academic mobility in the signatory countries of the Bologna Declaration is completely different, since the number of students in the total total score varies no more than 6-7%, for example, in Turkey (5%), Croatia (3%), Slovenia (3.5 %), above 11% in Norway (15.6%), Denmark (14%), Finland (15%), Austria (11%) and so on.

Table 1 - **The ratio of the proportion of foreign students in Kazakhstan and the OECD**

1	Kazakhstan	3,9%
2	Turkey	5%
3	Lithuania	5,5%
4	Czech	8%
5	Estonia	10%
6	Denmark	14%
7	Finland	15%
8	Netherlands	15%
9	Norway	15,6%
Source: Compiled by the author.		

“The key thesis on providing students with as many freedoms, rights and powers as possible is realized thanks to a development strategy, flexible, individually-personality-oriented learning paths.” [2]

This strategy is characterized by a number of comprehensive measures, factors, and development vectors that contribute to the solution and organization of long-term mutual cooperation on all important and main points: the faculty, students, in general, StakeHolders. And also, in the strategy, the key concepts are the importance of the ongoing educational process, as an essential and adequate reactor for the constant obsolescence of the past and emerging new competitive professions, which are a reflection of society on the changes that are taking place in the whole world community. With this course of events, a

number of necessary innovations arise in relation to the formation of new competencies, such as: “lifelong learning” (LifeLongLearning – LLL), which is spelled out as the main criteria and forms in the Lisbon Memorandum (2000).

Speaking about the trajectory of educational programs and its harmonization, about the forms and types of education, about the implementation of a common agreement and the recognition of degrees and qualifications, it is possible when adopting "modularization," student-student-centered learning "and more based on an integrated approach using the ECTS system. The era of globalization has come and everything that is happening in the world is becoming global, global, and last but not least, these processes have affected the education system, and it was the exchange of students, doctoral students, faculty in the framework of the international movement that was called "international academic mobility" .

The international academic community is in a rigorous search for new ways for world cooperation, rapprochement and integration in the higher education system, to the mutual recognition of diplomas and degrees. To solve this problem, a thorough study, monitoring and analysis of higher education systems in different states is necessary, for comparison, comparison and lead to a common denominator.

All processes taking place in any state are integration, political, social, economic, all of them affect the formation, reform, transformation of higher education.

The course of the modern world order is such that society has an urgent need for new generation workers who can withstand fierce competition, be entrepreneurial and advanced, competent and highly educated, person-oriented for success, proactive and responsive to the demands of the times. All these requirements are the essence of their further adaptation to challenges and life changes, the ability to put into practice the stock of quality knowledge and skills that they have gained, the ability to build strategic plans, generate new ideas, conduct brainstorming, all that characterizes them as specialists in new world trends , operate the skills of excellent foreign language training.

Undoubtedly, the possession of such advanced, diverse and integrative skills gives a clear picture of what a highly skilled specialist of the 21st century looks like, what qualities he must have to position him as a mobile person, adequate to the realities of modern society.

Today it is impossible, as impossible, to imagine the world educational system without academic mobility, not to endow the young specialist with the best qualities, without presenting high requirements to him in terms of mobility, dynamism, competitiveness, etc.

Thus, the introduction of academic freedom is a necessary and essential factor that deserves a comprehensive, systematic study. Russian scientists, such as: Yu.V. Harutyunyan, JI.B, Goryunova, O.A. Smooth, S.N. Novikov, P.A. Sorokin, etc., the issue of academic mobility has been studied over recent years with the goal of defining it as an integrative process and an operational tool in the system of higher education. Studying all the previously proposed determinations of academic mobility, let us single out the following interpretation from the total number, which, in our opinion, are closest to the Kazakh educational society: academic mobility is all persons involved (students, faculty, undergraduates, doctoral students, all academic staff), all those who are involved in the educational, scientific, research process, who intend through academic freedoms to exchange progressive scientific experience, their rich spiritual and cultural baggage, who is ready for promising transformations, for personal and professional self-perfection.

S.I. Ozhegov interprets the word "mobile" in this way: "1) mobile, capable of rapid movement; 2) able to act quickly, make decisions ”[3]. Therefore, this interpretation refers to movement expanded to individual psychological characteristics, exhibiting flexibility in movement, based on individual psychological consciousness. A large sociological encyclopedic dictionary, a modern dictionary of foreign words, a large English dictionary give an interpretation of the word "mobility" as "mobility and ability to quickly change behavior, reactive thinking, the desire and motivation for action, for flexible thinking."

Based on this, we can state that the reference resource offers an interpretation of the concept of “mobility” in the following, mainly psychological way: reactivity, shift, movement, combinatoriality, mobility, plasticity, flexibility, quick response, swiftness and determination to actions and acts.

In science, psychology, mobility, considered as behavior and a motivation for action, gives personality traits through the prism of the ability to concentrate, be prepared, and respond responsibly to the choice of the right decision. Indeed, if we consider abilities as psychological and personality characteristics of an individual, we can conclude that this is an important aspect in a positive result for

successful activity. Psychologists have proved that the success of any human abilities lies in reactivity, a deep and persistent ability to operate tools of activity. “Ability cannot arise outside the corresponding, specific activity” [4] and, therefore, success is the activity that is determined by the combination and development of various kinds of abilities.

Hence, readiness is a condition for mobilizing the individual’s psychological, physical, and emotional forces for action. In the Big Dictionary of the Russian language, readiness is defined as decision, consent, desire, preparedness, determination to act. In the glossary of terms, E. Ilyina readiness - “this is the attitude and mobilization for the upcoming activities. The readiness of an individual to perform an action actualizes a number of mental processes necessary for an effective result: attention, memory, thinking, imagination, speech ”[5].

This means that the mobility of the individual is a characteristic feature of how quickly and adequately the individual adapts to changing realities.

It is obvious that the concept of academic mobility, being the object of research in many sciences: pedagogy, psychology, philosophy, imageology, sociology, etc., comes down to what it can practically mean "physical movement of a stimulus, object or organism, or perhaps metaphorically, movement through areas that may be social, professional, or even cognitive. ”

Having such a wide range of determinations, the concept of academic mobility is linked to such concepts as: “external mobility”, “internal mobility”, “social”, “horizontal”, “vertical”, “social and professional mobility”, “professional” and etc.

Higher education in Kazakhstan is of national value and wealth thanks to the invaluable efforts of a large number of faculty, scientists, outstanding professors, and skillful managers. Kazakhstan higher school is more closely related to the mentality of students and their parents, as it is aligned with the outstanding traditions of education, humanism, worthy of the entire cultural layer of the global educational space, which reflects a correlation to the highest world characteristics. For the Kazakhstani higher education system, it is essential to create a common space in the framework of education in the European and Kazakhstani educational fields. A clear definition of the vector as a bilateral educational format and not only to reduce it to the implementation of the Bologna process. The Bologna process in Kazakhstan is an internal affair, at least for the country itself.

This methodological difference in the implementation of the Bologna process is overcome through close contacts between Kazakhstan and the European Union at the entire stage. For an unambiguous understanding in the implementation of the tasks set, the transition to a thorough analytical approach is a substantive mechanism in supporting the construction of a global educational bridge between the European Union and Kazakhstan.

Worldwide recognized educational projects such as: Erasmus, TEMPUS, Socratus, etc. represent internal grants of the European Union. In recent decades, these programs have become available for third world countries and, moreover, in the near future, for formatting and increasing its productivity, they will be brought to a common denominator.

It is impossible to implement the standards of the Bologna process without taking into account the important and key factors, namely: the essence of the Bologna process includes the implementation of the unification of unit reloading, recognition of an educational document and the formation of a transnational system.

Kazakhstan, which has successfully entered the Bologna process, has become an active competitor with Russia and the CIS countries in the market of educational programs of higher education. The countries that signed the Bologna Declaration strive in every way to clearly modernize their higher education system, to equate their curricula and plans with the leaders of the European educational space, using in the learning process important developments of world science in the field of economic, social, humanitarian subjects. The academic freedom of professors and teachers of the university system is a productive form in the system of advanced training and the entire educational process as a whole.

Such mutual cooperation with the European educational community brought Kazakhstani universities to a new high-quality socio-economic level, which affected not only the quality of teaching, but also the size of the salaries of faculty, which in the near future should comply with the European standard, criteria and norms.

Moreover, in Kazakhstan's universities there was an "explosion, excitement" regarding the study of foreign languages, in particular English, French, Spanish, which is also one of the European criteria - good knowledge of several foreign languages - which brings an attractive image to the teacher of the Kazakhstan higher education system.

Students of Kazakhstani universities, studying on programs according to the standard of European norms and requirements, participate in academic mobility for one or two semesters in European, American universities to receive a document confirming training. In turn, students of foreign universities have opportunities and incentives for studying at universities of Kazakhstan according to the double diploma programs and not only for obtaining a bachelor's and master's degree. In recent decades, in connection with the implementation of academic mobility, more and more Kazakhstan universities go to foreign universities at universities.

For Kazakhstan students, job prospects are opening up more and more, both on the territory of Kazakhstan and abroad, having double diplomas (of a basic university and foreign), so Kazakhstan employers are in fair competition for the best graduates who have received education in Kazakhstan and for abroad.

As you know, in the implementation of academic mobility, such important criteria are motivation and self-motivation, self-education, flexibility, the ability to cooperate, knowledge of a foreign language at the required level, the willingness to accept new challenges, lead to the main attributes, namely to sociocultural interaction, getting knowledge flow, to the use of innovative technologies, new tools, to everything that will bring unconditional bonuses for a future career.

Thus, the main prerequisites for the implementation of academic mobility and the need for its implementation at this stage are globalized and integrated processes that have a significant impact on the course of the modern world order, which entail significant and effective changes and challenges for all aspects of the social structure, including the system higher education. The relevance of the principles of academic mobility in the framework of the Bologna process is due to the need to request modern society in order to comply with, be in the trend of world adaptation processes, such as: professional competence, flexibility, responsiveness, mobility, determination, self-motivation, competitiveness.

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АКАДЕМИЯЛЫҚ ЕРКІНДІК ҚАЗІРГІ ЖОО-НЫҢ АТТРАКЦИЯЛЫҚ ШАҚЫРУЫ

Аннотация. Бұл мақалада негізгі принциптерін, академиялық ұтқырлық Болон процесінің шеңберінде. Академиялық ұтқырлықты жүзеге асыру үдерісі зерттелді: студенттердің, магистранттардың, PhD докоранттарының, академиялық құрамның әлеуметтік - еркін ауысуы, оқыту және ғылыми-зерттеу технологияларымен өзара алмасу және екінші – бірлескен білім беру бағдарламаларын ұйымдастыру: бір-екі семестр бойы әлемдік білім беру кеңістігінің жоғары оқу орындарында білім алу және кәсіби құзыреттілікті алу мақсатында академиялық ұтқырлық құралдарын. Бұл қазіргі заманғы нарықтың қажеттіліктерін қанағаттандыратын жоғары оқу орындарында білім берудің ең жоғары деңгейіне қол жеткізу үшін экономиканың тұрақты дамуы үшін қолжетімді сапалы білім беруді қамтамасыз ету жолымен білім берудің бәсекеге қабілеттілігін арттыруға, адами капиталды дамытуға мүмкіндік береді.

Түйін сөздер: академиялық ұтқырлық, әлеуметтік бейімделу, бірлескен білім беру бағдарламалары, білім берудің бәсекеге қабілеттілігі.

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АКАДЕМИЧЕСКАЯ СВОБОДА. АТТРАКТИВНЫЙ ВЫЗОВ СОВРЕМЕННОГО ВУЗА

Аннотация. В данной статье рассмотрены основные принципы академической мобильности в рамках Болонского процесса. Изучен процесс реализации академической мобильности: социальный - свободное

перемещение студентов, магистрантов, докторантов PhD, академического состава, взаимообмен обучающими и научно-исследовательскими технологиями и второй – организация совместных образовательных программ: инструментов академической мобильности с целью получения образовательных и профессиональных компетенций в высших учебных заведениях мирового образовательного пространства в течение одного-двух семестров. Что позволит повысить конкурентоспособность образования, развитие человеческого капитала путём обеспечения доступного качественного образования для стабильного развития экономики, чтобы достичь наивысочайшего уровня образования в высших учебных заведениях, которые будут удовлетворять потребности современного рынка.

Ключевые слова: академическая мобильность, социальная адаптация, совместные образовательные программы, конкурентоспособность образования.

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MODERN APPROACHES TO THE CONTENT OF THE CONCEPT INTEGRATED RISK MANAGEMENT SYSTEM IN BANKS

Abstract. The integrated risk management system involves the adoption of strategic decisions that will contribute to the achievement of the Bank's overall corporate goals. In other words, the risk management system should be integrated into the overall strategy of the Bank. Moreover, the integrated risk management system should be based on continuous monitoring of potential risks at each level of the management system. This article analyzes the main stages of risk management development and various approaches that reveal the essence of integrated risk management in banks.

Keywords: bank risks, bank risk management, bank risk management system, integrated risk management, integrated risk management system in banks.

In the banking system, the role and significance of risks are associated not only with probable losses on the part of banks, but with the use of mainly borrowed funds of their clients while carrying out their activities.

Banks are always confronted with uncertainty that defines the essence of the concept of risk. That is why, banks should focus on reducing indicators of possible risk, otherwise, carrying out their operations, banks will not be able to achieve their main goal - profit maximization [1].

Risk management in banks has changed significantly in recent decades. New requirements in the activities of second-tier banks that arose as a result of the global financial crisis caused a wave of changes in the functions of banking risk management. They include more detailed and stringent requirements for capital, leverage, liquidity and financing, as well as higher standards for reporting risks. Non-financial risk management has become more important as standards for compliance and behavior as a subject of the financial market have become stricter. Stress testing has become a major supervisory tool in parallel with rising expectations regarding bank transparency.

The developed approaches to managing some types of banking risks are described in detail in the literature and are applied in practice as well. The main issues of risk management were studied by international organizations such as the Basel Committee on Banking Supervision (BCBS), the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and the Global Association of Risk Professionals (GARP). However, there are only a few studies regarding a comprehensive integrated approach to risk management in banks, covering all aspects and categories of banking risks.

In order to develop conceptual approaches to management in the banking sector, an international consulting body, the BCBS, was organized, the activity of which is aimed at developing recommendations on risk management in the banking system by relevant regulatory authorities. At the same time, the existing recommendations do not mean that they are binding, although many countries that are members of the Basel Committee, including the Republic of Kazakhstan, adhere to the developed standards.

At the same time, despite the scale of these and other changes, most of the risk management functions in banks are still in the process of transformations that will meet the increased requirements of the financial market. Before talking about the ever-increasing role of risk management in the banking sector and, especially, integrated risk management, it is necessary to determine the very concept of an integrated risk management system in second-tier banks.

The origins of risk management theory date back to the 18th century and arose along with the paradigm of economic analysis of classical political economy, based primarily on the works of A. Smith, A. Marshall, A. Pigou, J. Schumpeter (Table 1).

Table 1 - The main stages of risk management development

Years	Research Area
1	2
1914	Creation of the Robert Morris Association for the study of credit risks in financial institutions (USA)
1915	Fr. Leitner prepared the dissertation *Enterprise Risks* on risks and management methods including insurance (Berlin, Germany) Bank risks, Bank risk management, Bank risk management system, integrated risk management, integrated risk management system in banks
1921	Frank Knight has published the book *Risk, Uncertainty and Profit*, which distinguishes between uncertainty and not measurable risks.
1921	John Maynard Keynes published his dissertation, *A Treatise on Probability*
1928	John von Neumann presented an article on game theory and strategy *Toward the Theory of Strategic Games*
1944	John von Neumann and Oscar Morgenstern developed mathematical aspects in the book *Game Theory and Economic Behavior*
1952	Harry Markovich published an article *Portfolio Selection*, a model from which is used by investment portfolio management specialists
1955	Russell Gallagher published his *Risk Management: A New Cost Control Phase in Harvard Business Review*
1955	Wayne Snyder proposed the term “risk manager” instead of “professional insurance manager”
1956	Herbert Denenberg began to study the idea of risk management, using the early works of Henry Fayol
1962	Douglas Barough calculated the cost of risk by comparing the amount of administrative expenses, risk control expenses, losses or insurance premiums with revenue, assets or net worth
1966	The American Insurance Institute is developing a specialist training program offering *Certified Risk Management Specialist* qualification
1972	Joseph Kenneth Arrow introduced the conditions under which the law of large numbers works and insures any risk
1973	Fisher Black and Miron Scholz published an article in which they calculated a formula for determining the value of an option
1973	Establishment of the Geneva Association or the International Association for the Study of the Economics of Insurance and Risk Management
1974	Gustav Hamilton described the risk management cycle in graphics, presenting the relationship and interaction of all elements of the process, from assessment and control to financing
1975	American Insurance Management Society renamed Risk Management and Insurance Society Recognizing Risk Management Priority
1979	Daniel Kahneman and Amos Tversky published an article *Theory of Prospects: An Analysis of Decision Making in Risk*
1980	The International Society for Risk Analysis was created and the firs edition of the quarterly *Risk Analysis* journal was issued
1982	D. Kahneman, A. Tversky and P. Slovik published the book *Decision-Making under Uncertainty: Rules and Prejudices*
1986	In London there was the Risk Management Institute established, which conducts international exams under the Member of the Risk Management Institute program
1987	October 19, 1987, the stock market crashed, so this day is called Black Monday from now on
1987	Vernon Groes has published his *Risk Management: A Systematic Loss Prevention for Leaders*
1988	Updated Agreement Issued - Basel I
2004	Updated Agreement Issued - Basel II
2010	Updated Agreement Issued - Basel III
Note: compiled by the author based on the source [2]	

In 1900 - 1960, risk was already perceived as an integral part of any business carried out in conditions of uncertainty. There was a need for a systematic approach to risk management, which was carefully studied by J. Schumpeter. In his book *Theory of Economic Development,* he proposed a new approach to assessing the role of entrepreneurs engaged in innovative activities under risk condition [3].

British scientists A. Marshall, A. Pigou, and F. Knight developed the so-called "neoclassical" theory of entrepreneurial risk [4].

The theory of strategic games by J. von Neumann and O. Morgenstern made a significant contribution to the risk management system [5].

One of the most important points in the development of risk management theory was the emergence of the concept of "diversification" introduced by Harry Markowitz, who created an approach aimed at minimizing market risks [6].

Today, an integrated approach to risk management has been developed and is supported by many modern foreign and domestic scientists who are developing the theory of risk management both in terms of improving the methodologies and in terms of the features of its application in accordance with national and international standards.

In particular, M. Meskon, M. Albert and F. Hedouri believe that the risk management system represents the elements of risk assessment and management that arise in the decision-making process [7]. I. Balabanov considers the risk management system as a set of procedures and elements for managing risk and financial relations [8]. I.E. Ryazanov is of a similar opinion, according to which the risk management system is a set of elements that includes various risk management tools [9]. Risk management is also defined as a comprehensive policy and a set of actions that ensure the forecast, analysis and monitoring of risks and provide the possibility of further monitoring the risk position necessary to evaluate the existing management method and, if necessary, transfer to a different level of risk management [10].

All these definitions indicate an important component of risk management as an economic category - a set of elements for assessing and managing risk. Thus, the authors emphasize the importance of the methodological aspects of risk management on the one hand (tools, methods, approaches, etc.) and consistency, on the other hand. In addition, in each case, the authors note the importance and high importance of risk management in the activities of organizations. For example, I. N. Glazkova emphasizes the fact that an effective risk management system becomes an important factor in ensuring the sustainable competitiveness of business structures [11]. The strengthening of the competitiveness of entrepreneurial structures in the domestic and foreign markets through the formation of creative approaches in the risk management system is also noted by I. Okolishnikova and E.V. Katochkova [12].

The significance of risk management is emphasized by the authors of Kazakhstan. In particular, R.K. Kazieva and M.A. Kusainova consider the growing relevance of issues of risk management development to be a single effective integrated risk assessment system [13]. M.S. Kistaubaeva emphasizes the fact that risk management is one of the main aspects of ensuring the financial stability of organizations [14].

As one can see, there are many different kinds of definitions that reveal the essence of risk management. Moreover, all the authors agree on one thing, which is the necessity and importance of its organization, the effectiveness of its application. However, it should be noted that most of the definitions regarding the concept of risk management are either related to companies or encompass entrepreneurial structures as a whole (which includes banks too). Despite this, the authors pay attention to the concept of risk management in banks, albeit slightly. In particular, K.E. Vanyan and A.A. Chub consider the bank's risk management system to be a set of elements of the credit organization's management system with respect to identifying and leveling the negative consequences of various banking risks [15]. I. A. Kiseleva notes that banking risk management is a process that includes identification of risks, assessment of their magnitude, monitoring and control of risk positions [16]. The banking risk management system is also considered as a set of methods and working methods of bank personnel aimed at ensuring a positive financial result in the face of uncertainty, forecasting the occurrence of a risk event and taking measures to reduce or eliminate negative consequences [17].

Domestic authors also presented interpretations of risk management in banks, in particular, bank risk management is presented as a tool for generating maximum income, taking into account the risk of possible losses [18]. Risk management in banks is a set of actions aimed at identifying risk problems and developing methods and methods for solving them [19].

A review of the economic literature regarding the concept of risk management precisely in banking structures shows the insufficiency and narrowness of the content of the conceptual approach. Risk management is considered similar to the concept used in companies where the words "company risks" can be easily replaced with "bank risks". At the same time, the authors emphasize, firstly, the importance of focusing bank risk management on the financial result, and secondly, the importance of mitigating the consequences of risk situations. Some authors focus on the need for the involvement of all bank personnel

in the risk management system, which is also very important for creating a systematic risk management in banks.

In the economic literature there are approaches to the essence of integrated risk management. It is believed that the source of the integrated risk management system as a new paradigm of the theory of risk management was the study *Internal Control - Integrated Structure* (ICIF), which was written in 1992 by the Committee of Sponsoring Organizations of the Treadway Commission. This document laid the foundation for a new culture and policy of organizations, which implies risk awareness for the whole team [20].

In particular, the authors present the following definitions of an integrated approach to risk management. Integrated risk management is a set of practices and processes supported by risk-based cultures and technologies that improve decision-making and productivity through an integrated view of how well an organization manages its unique set of risks [21].

Integrated risk management can mean everything from using financial instruments to managing specific financial risks, from responding effectively to rapid changes in the organizational environment, to responding to natural disasters and political instability or changes in direction [22].

An integrated approach to risk management is considered as a reasonable combination of all the organization's resources in order to anticipate, identify and evaluate uncertainties, as well as manage a set of risks that dynamically change in the process of activity [23]. I.P. Skobeleva, N.V. Legostaeva and N.E. Kalashnik adhere to a similar approach. In particular, they consider the integrated approach to risk management to be an effective pooling of resources aimed at reducing the uncertainties of the totality of risks by integrating risk management with strategic and operational types of management to ensure growth in achieving the target parameters of business development [24].

Integrated risk management is a continuous cyclic process of making and implementing management decisions in accordance with the strategic goals and interests of the organization, which covers all areas of its activities [25].

It should be noted that, emphasizing the integrated approach to risk management, the authors emphasize such important aspects as the continuity of the process, the coverage of all aspects of the activity and the pooling of all available resources. However, in addition to these areas, the integrated approach should also take into account the interdependence of all types of activities, which means that all risks should be considered as a single whole, as a single management object, taking into account the existing relationships.

An analysis of the economic literature on the organization of risk management in banks shows a significant limitation of research on precisely integrated risk management, and specifically in the banking sector. As a rule, authors consider the concept of integrated risk management in general as a whole, without introducing this concept to banks, or explore the concept of risk management in banks without paying attention to the integrated approach. At the same time, there are only a small number of authors who devoted work to the study of this particular area - integrated risk management in banks.

So, K.N. Maslova believes that integrated risk management in banks is a comprehensive and effective management of the most important risks that affect the bank's activities, which includes the formation of a corporate culture of risk management and its integration into strategic planning [26]. In this definition, several important aspects for integrated risk management in banks should be emphasized: an integrated approach to risk management, creating a corporate culture of risk management and strategic planning.

Integrated risk management in banks is a formalized approach to the assessment and management of all bank risks, regardless of their origin in the context of the management of the bank as a whole [27]. Here, the author also points out the importance of an integrated approach to risk management in banks.

Integrated banking risk management is considered as an activity to develop the most important goals and ways to achieve the strategic goals of the bank, based on an analysis of internal and external factors that affect risks, strategic planning, as well as integrated monitoring of the implementation of decisions made and the possibility of their timely adjustment [28] . In this approach, the author also notes such an aspect as strategic planning, and also points to integrated control, which is an important parameter of integrated risk management in banks.

Despite the existence of different approaches to the concept of integrated risk management in banks, unfortunately, today there is no clear definition of an integrated risk management system in banks. As the

analysis of economic literature has shown, authors, as a rule, are somewhat one-sided in their approach to this concept, emphasizing the importance and significance of only certain aspects of this economic category. Many important elements of integrated risk management, taking into account the features and specifics of banking activities, are not taken into account and not identified by the authors.

Summarizing the achievements of the authors who conducted research on integrated risk management in banks, their experience and results, the need for further research in this direction should be noted. In particular, there is a need to develop conceptual proposals and recommendations for the development of an integrated approach, the introduction of an integrated risk management system in banks that meets modern international standards.

First of all, in order to indicate the author's approach to the essence and content of the concept of an integrated risk management system in banks, we denote the main significant elements of this category.

First, banking is fundamentally different from any other entrepreneurial activity: it is much more complex and specific. The difficulty lies in the multidimensional nature of the bank's business lines. Such a number and lines of operations are not able to carry out any other economic entity. The specificity of banking operations is that some types of activities, which, for example, are passive for the company, on the contrary, are active. In addition, banks work only with financial resources and do not deal with production activities, such as, for example, companies in the manufacturing sector of the economy. All this greatly complicates the coverage of all possible banking risks. At the same time, an integrated approach means that all risks must be managed comprehensively, considered as a single management object.

Secondly, it is important to consider that all bank operations are interconnected with each other, as a rule, one type of activity comes from another. This makes it necessary to take into account the interdependence of risks in a common unified management object.

Thirdly, the risk management process in banks should be streamlined, i.e. responsible department and persons are designated, and also stages of risk management are defined. At the same time, the obligatory management step is to control and monitor all risks at all levels of the banking hierarchy.

Fourth, strategic planning is of great importance for the bank, since it allows you to determine the main directions of the future development of the bank. Risk management should be integrated into strategic planning so that the results of risk management make it possible to make effective and high-quality management decisions for the further strategic development of the bank.

And fifth, an integrated approach to risk management in the bank should ultimately provide a positive synergistic effect.

Thus, the elements of integrated risk management in banks designated by us allow us to give the following definition of this concept. *From our point of view, the integrated risk management system in banks is a consistent combination of effective methods of an integrated and continuous process of management, control and monitoring, integration into strategic planning of the totality of risks that form a single management object, taking into account their interdependence, providing a positive synergistic effect for adoption quality management decisions in the bank.*

The definition we have proposed identifies all the required elements of an integrated risk management system in banks. In particular, if the concept of "system" involves many elements that form some unity in the performance of a certain task, then the definition considers a certain set of risks that form a single management object and at the same time takes into account the interdependence of these risks in the aggregate. Presentation of the aggregate risks of the bank as a single object of management also implies an integrated approach to banking risk management.

Since risk management is a process, the sequential combination of risk management elements in the definition implies the implementation of several regularly renewable stages. Here, many processes based on the model of interaction of its components, which is carried out in dialectic unity and in interconnection, are important [29].

The process we have designated must be continuous and integrated. In other words, risk management becomes a renewable regular cyclical process.

Risk management is risk management, which means it implies the existence of certain methods by which this management is carried out. Naturally, these methods must be effective in order to achieve the set goals.

Risk management in the bank also covers the processes of control, monitoring and strategic planning. That is, the adoption of managerial decisions becomes high-quality if control and monitoring of their implementation is carried out, and the results of decisions are the basis for the corresponding strategic plans.

And the most important thing in carrying out any activity is an effective result. In our case, we believe that integrated risk management in banks should ultimately provide a positive synergistic effect, that is, one that cannot be achieved with the scattered use of risk management elements.

D.L. Antropov empathized three options for integrating risk management in banks (Figure 1).

Horizontal integration involves a synthesis of all the risks that a bank gets challenged by while performing various kinds of operations. In other words, this is the very integration when the totality of risks should be considered as a single object of management. At the same time, at present, Kazakhstan banks in this same horizontal integration do not take into account the interconnectedness of risks, do not assess the degree of mutual influence of risks in the overall portfolio of the bank.

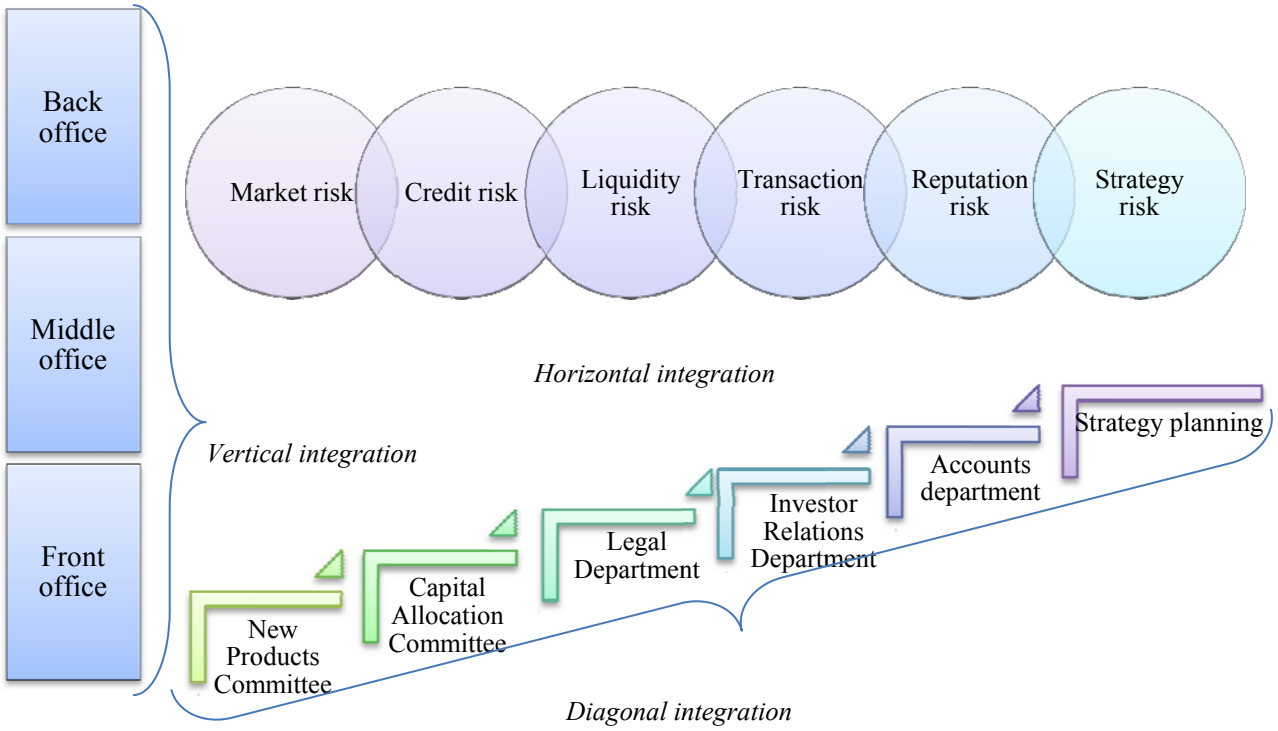

Figure 1 - Types of integration of risk management in banks

Note: based on source [30]

Since various operations are carried out and controlled by various departments of the bank, moreover, each operation is reflected in several departments, the risks tend to influence the activities of these departments of the bank. This is the diagonal integration of risk management in banks.

Despite the separation of functions between the back office, middle office and front office, it is important to ensure access to information for all participants in the risk management process. In this perspective, a significant role is played by the vertical integration of risk management in the bank, which allows the consolidation of risk data, the free transfer of information for analysis and appropriate management decisions.

An integrated approach to risk management in banks involves a systematic review of the factors, objects and functions of risk management, which significantly improves the quality of managerial decisions. Integrated risk management involves pooling the bank's resources to minimize uncertainty in order to achieve the strategic development goals of the bank. The integration of risk management into the

strategic and operational management system of the bank provides a much greater effect due to the fact that the components of the risk management system are interconnected.

The implementation of an integrated approach to risk management in a bank involves the definition of a concept for building a specific management model that can ensure the achievement of the most effective results, due to which a positive synergistic effect is achieved.

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БАНКТЕРДЕГІ ТӘУЕКЕЛДЕРДІ БАСҚАРУДЫҢ ИНТЕГРАЦИЯЛАНҒАН ЖҮЙЕСІ ҰҒЫМНЫҢ МАЗМҰНЫНА ЗАМАНАУИ КӨЗҚАРАСТАР

Аннотация. Тәуекелдерді басқарудың интеграцияланған жүйесі банктің жалпы корпоративтік мақсаттарына қол жеткізуге ықпал ететін стратегиялық шешімдер қабылдауды көздейді. Басқаша айтқанда, тәуекел-менеджмент жүйесі банктің жалпы стратегиясымен қамтылуы тиіс. Бұдан басқа, интеграцияланған тәуекел-менеджмент жүйесі басқару жүйесінің әрбір деңгейіндегі әлеуетті тәуекелдердің тұрақты мониторингіне негізделуі тиіс. Бұл мақалада тәуекел-менеджменттің негізгі даму кезеңдері және банктердегі интеграцияланған тәуекел-менеджменттің мәнін ашатын түрлі тәсілдер талданған.

Түйін сөздер: Банктік тәуекелдер, банктік тәуекелдерді басқару, банктік тәуекелдерді басқару жүйесі, интеграцияланған тәуекел-менеджмент, банктердегі интеграцияланған тәуекел-менеджмент жүйесі.

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ABOUT THE NEED TO CREATE AN AGROBANK IN THE MODERN REALITIES OF KAZAKHSTAN

Abstract. Identified problems regarding financing of agriculture. Industry funding has plummeted compared to historical retrospectives. Investment and innovation development, in order to achieve results, must be financed accordingly. Agricultural management is fraught with risks, poor infrastructure with a low population density, and the lack of accounting due to legislative norms makes the development of rural financial institutions inexpedient and risky.

Existing government programs aimed at supporting both the agricultural industry and the financial sector set different and necessary goals. The financing of agricultural groups must, as well as respect the rights of large and small farmers, and not contradict the norms of the World Trade Organization, which includes Kazakhstan.

Both the opinion of domestic experts and the experience of foreign countries suggest that Kazakhstan needs a specialized agro-industrial bank. Moreover, it is advisable to introduce a particularly legal framework for such a mechanism of financial activity, such as the Development Bank of Kazakhstan. After all, an ordinary commercial bank can either engage in currency speculation, or "send funds inappropriately." The conclusion is analyzed. The creation of a special level of the banking system, together with a political decision and special control by regulators, should solve many accumulated issues and problems in the industry. Indeed, in developed countries such a mechanism solves issues with overproduction, and in our realities there is a question of saturating the market with its products, which is relevant in the context of import substitution and national food security.

Key words: agriculture, agrobank, finance, financing, economy.

In the message of the President of the Republic of Kazakhstan N. Nazarbayev to the people of Kazakhstan “Growing the welfare of Kazakhstanis: improving incomes and quality of life,” the goal is to increase labor productivity and export of agricultural products, which should be achieved through support measures, with emphasis on attracting modern technologies, introducing management experience with the help of reputable foreign experts and training of villagers in the basics of entrepreneurship [1].

Achieve such goals, perhaps, will be through appropriate financing of the industry. Indeed, if in the eighties in the USSR capital investments in the agricultural sector amounted to about 32% of the total national economy, in the 2000s it amounted to about 2-3 percent. At the same time, agricultural engineering suffered, along with the fact that the supply of imported equipment also has a downward trend.Therefore, the policy in the field of investment and innovation development should not only stimulate the creation of the corresponding processes, but also achieve the mastery of their results [2].

Material and research methods. The research materials are materials on financial support for the agricultural sector, global experience in financial support through various methods and models. The opinions of scientists, Kazakhstani experts on the further system of financing the agricultural sector, the need to create a specialized financial institution are examined.

The study conducted an analysis of current trends, the acceptability of world experience for the agricultural sector of Kazakhstan.

Results and its discussion. The issues of current agricultural lending are considered. Sources of financing are one of the important components of any business, while agriculture has its own characteristics. Agriculture has a number of features, and the accompanying high rates of borrowed funds is not such an insurmountable obstacle. Currently, we can see the following problem areas of agriculture:

- High natural risks, lack of collateral, price spikes in regional and world markets, depending on market conditions, make the industry unattractive for financial institutions.

- Weak infrastructure in combination with low population density leads to a rise in the cost of operating (transaction) costs for financial institutions compared with the city.

- It is difficult to assess creditworthiness with the lack of high accounting requirements, the weakness of statistical information, which also inhibits interest in financing.

Opening branches is impractical due to the disadvantageous ratio of "income - costs." Therefore, small and medium producers suffer more from this.

In the programs that are being developed for financing agriculture, the related activities are often overlooked, without which the functioning of the agricultural sector is impossible -

- Access to financing should be at all levels of the agricultural production chain, from suppliers of fertilizers, feed and equipment to processors, transporters and wholesalers and so on.

- Weak development of infrastructure - agricultural (roads, storage, land reclamation) and rural (housing, social facilities, etc.) is a lack of agriculture in developing countries.

- Difficulties in introducing innovations, poor financing of scientific research, training of farmers is important in the development of the economic sector, although often insufficient attention is paid to this.

The emphasis on replacing subsidization of the final product with interest rate subsidies will not improve the availability of financing. Therefore, the relevant departments should not artificially reduce interest rates, but solve the accompanying problems. In addition, the artificial reduction in interest rates has a number of problem points. Many international financial organizations are against interest rate subsidies; some points may be contrary to WTO rules.

Another problem is that the conditions for obtaining reduced rates should have everything, which is difficult for several reasons. Limited state resources cannot reach everyone, and based on this, large agribusinesses become recipients. Therefore, small businesses often have no resources left, although it is he who is the driver of the economy.

The next problem can be considered that if everyone is trying to get cheap financing, then this leads to such adverse consequences as restraining the development of the stock market, reducing motivation - after all, the borrower can take "cheap" money and simply place it on a deposit at the bank.

A solution may be a mechanism where borrowers receive funds from banks at market rates, which is optimal for banks, makes it possible to more efficiently analyze and maintain appropriate accounting, and subsidize through tax deductions. The advantages will be manifested in the fact that the relationship between financial institutions and farmers will become market ones, the issue of controlling a large number of state bodies will be removed, and those who work and pay taxes will receive such subsidies. Perhaps this method will complicate business processes, as there will be an additional burden of accounting and proving, however, our farmers have experience working with government agencies on such issues [3].

Currently, borrowed funds for farmers are available almost exclusively in rural credit partnerships. Basically, the mechanism for distributing finances was based on the distribution of received state money through the Agrarian Credit Corporation. But the Agribusiness 2020 program assumes that the state will move away from such a scheme, and credit partnerships will attract funds from private investors. True, at the same time, the Agrarian Credit Corporation will use other instruments of state support, such as subsidizing remuneration and providing guarantees. For banks, such guarantees will be a sufficient condition to reduce risks, and for farmers, the problem of the insufficiency of the collateral base will be solved.

The experience of Germany was taken as an example of creation and development, a striking example is the history of the banks of the Raiffeisen group. In the beginning, mutual assistance cash registers and cooperatives appeared, supporting peasants during economic difficulties. The first Raiffeisenbank was founded in Austria in 1886. In about ten years, the number reached 600 banks and the group currently occupies about a quarter of Austria's entire banking business.

In the case of competent construction of a system of rural credit partnerships, you can attract investors to the agricultural business. In the future, the question may arise of creating a specialized bank [4].

Opinions on the need for the bank are held by Timur Kulibayev, chairman of the presidium of the national economic chamber Atameken Union. For example, there is a similar bank in Russia, where agribusiness is credited taking into account specifics, seasonality. In Belarus, there is a closer relationship between the leadership and the leaders of agricultural organizations. Thus, while being in the SES, the agrarians of Kazakhstan are in impaired conditions, since access to financial resources is limited. Despite the fact that half of the population lives in rural areas, the country does not provide itself with agricultural products. The urgent question is that the lack of a specialized bank in Kazakhstan will negatively affect the competitiveness of Kazakhstani producers within the framework of the Common Economic Space [5].

In a statement by the Government of the Republic of Kazakhstan and the National Bank of the Republic of Kazakhstan on the main directions of economic policy for 2018, we highlight the points of interest to us.

Financial regulation by increasing the responsibility of managers and auditors will have to improve the quality of investment decisions. All this will have to lead to the improvement of financial organizations and the departure of insolvent, while barriers to the development of financial relations will have to be reduced.

In terms of increasing investment attractiveness and improving the investment climate, emphasis will be placed on attracting private investment and enhancing the role of the banking sector. Such an investment policy will have to increase performance to OECD countries [6].

You can also note the joint statement of the Government of the Republic of Kazakhstan and the National Bank on new measures of additional support to the agricultural sector. The availability of financing should solve the tasks of increasing productivity and exports, since the agro-industrial complex is a strategic industry and is a potential locomotive. The growth of the industry in a changing situation on world markets is possible with a decrease in the debt burden, especially given the fact that the sector has a load in the form of foreign currency loans and also operates under pressure from external shocks.

One tool is the de-dollarization and restructuring of the requirements of Kazagro Holding as part of agribusiness development programs. An active participant in this area is Tsesnabank, which accounts for over 65% of lending to the industry. Tsesnabank, together with the Holding, has already begun to work out issues of refinancing foreign currency loans. At the same time, the Government and the National Bank are developing a program for the repayment of agricultural loans from Tsesnabank in the amount of 450 billion tenge. These events will improve the financial condition of agricultural enterprises, as well as increase the financial stability of the bank itself. Ultimately, this should lead to the protection of the interests of agricultural producers, increase lending, and will allow for a policy of modernizing the agricultural sector [7].

According to T. Rakhimbekov, such a statement is timely, because the delay could lead to negative consequences. Bank loans are used by large and medium agribusinesses, where hundreds of thousands of villagers work, who could be left without work.

The problems of many banks have arisen during the implementation of the Agribusiness 2020 Program for the financial recovery of agricultural producers. Holding "KazAgro" attracted about 1 billion US dollars and 600 million euros, which are placed in banks. However, banks owe a certain amount in tenge, at the same time the Holding has a foreign currency loan, therefore, as a result of devaluations, the Holding has unsecured debt to foreign financial institutions.

This situation leads to the fact that if banks were cautious in lending to the industry, then at present this area will become risky for banks.

Moreover, the problem of lending to the industry is compounded. The volume of SCTP loans is decreasing, while about two and a half percent of households are generally credited.

The solution to the problem is seen in the creation of a specialized bank. Moreover, such a bank should not function in the legal field of the Law of the Republic of Kazakhstan "On Banks and Banking Activities", but by analogy with the Development Bank of Kazakhstan.

Otherwise, Agrobank will turn into a regular commercial bank. At the same time, it will not be necessary to create it from scratch, but to connect the financial structures that have previously worked in this area.

In addition, for financial recovery, apply the institution of bankruptcy of agricultural producers, but with certain mechanisms that take into account the social factor of agriculture. An example is the total bankruptcy of all agricultural enterprises in 1998, which caused the growth of agriculture in the next 10-12 years [8].

According to Peter Svoik, who shares the view that the Agrarian Bank is necessary, the current banking system does not fulfill the role for the development of the entire domestic economy in general, and agriculture in particular.

The origin of the modern financial and banking system of Kazakhstan took place against the backdrop of the collapse of the entire industry, not excluding the agricultural sector. The formed system was built on servicing the export of raw materials, as exporters of raw materials resort to the services of the banking system for maintaining current accounts, without resorting to the investment and lending system.

Attracted investments, resources for development, exporters receive by direct conversion on the exchange of their performance results, without attracting the resources of the Kazakhstan banking system. Thus, they are not interested in the cost of money in Kazakhstan; accordingly, there is no question of the availability of borrowing in the local financial market.

At one time, the National Bank did not lend to the banking sector, but only supported short-term liquidity, and at the same time it showed this policy as a fight against inflation. At the same time, attracting resources from abroad, practically provides benefits to external creditors. Hence, the economy uses money with a higher value, when such expensive money can afford the sphere of trade, where, due to the specifics of the industry, such borrowing costs are permissible; or, due to hopelessness, mortgages with retail lending.

Thus, government support for agricultural producers and generally all domestic producers should be to compensate for the overpriced cost of a bank loan. With the creation and development of an optimal agricultural system, the state needs to build a separate banking line for their financing.

So, when deciding to create an Agrobank, the postulate that it should not be like all other commercial banks should be taken into account. He will not carry out financial speculations with the resources entrusted to him, but will direct to what they are intended for with simultaneous clear control.

Commercial banks can now, not really bothering with real loans, invest money at a sufficiently high percentage on deposits of the National Bank and in its borrowed securities. In addition, large banks, which are available in both tenge and dollar financing, can play on the difference in their value and floating rate.

The creation of a branch bank may not solve all the problems at once, because it is necessary to form a special two-tier system of lending and investment, which the National Bank should work at its core. What is needed is "revolutionary" decisions at the political level, which should move the solution of many pressing issues [9].

It will be interesting in this subject to note a special financial institution in Kazakhstan - Joint-Stock Company "Development Bank of Kazakhstan". The main mission of the bank is to promote sustainable economic development by investing resources in the non-primary sector of the economy.

For this, the main postulates of activity are such determining factors that the bank is the leading operator in evaluating and structuring large infrastructure and industrial projects for the private sector and

the Government of the Republic of Kazakhstan. At the same time, the bank is a specialized state development institution that provides timely and sufficient financing of projects in the field of industry and infrastructure.

For this purpose, the Bank has been given the task of providing a financial institution with the best financing in national currency, as it is one of the largest financial institutions in Kazakhstan in terms of assets with recognized authority in international markets and the main agent for attracting long-term and low-cost borrowing and investment for corporate clients.

To achieve these goals, the bank sets goals, such as improving and increasing the efficiency of state investment, developing industrial infrastructure and manufacturing, as well as assisting in attracting external and internal investments in the country's economy.

The bank carries out its activities on the basis of the principles taken, where indicators of achieving socio-economic effects have become important, adhering to strategic partnerships with second-tier banks, making decisions on the issuance of funds on the basis of repayment, payment and return on investment projects; synchronicity with the tasks of the state industrial and innovation policy of the Republic of Kazakhstan and anti-money laundering [10].

The experience of countries in supporting agricultural business is also interesting. The Council of Europe Development Bank was established on the basis of a partial agreement of April 16, 1956. as a financial body of the Council of Europe under the name “Council of Europe Fund for the Settlement of National Refugees and Other Persons during the Relocation in Europe”. The short name “Council of Europe Social Development Fund” began to be used since 1989 and at the same time became official since March 18, 1997 as a result of the entry into force of the amendments to the Agreement establishing the Fund after its ratification by all member states. Members are 40 states, headquartered in Paris.

The main tasks and scope of activity is the financing of socially significant problems and projects aimed at helping and supporting refugees, displaced persons, as well as people affected by emergencies (natural disasters, environmental disasters, wars, deportations, etc.). However, during the course of the activity, taking into account the new social and economic priorities, the Bank has now significantly expanded its activities. Currently, the bank, among other things, finances job creation programs at small and medium-sized enterprises in economically disadvantaged zones; the creation of training programs; the construction of real estate for low-income people; the creation of social infrastructures in the field of health, education, and the environment. Also in the sphere of interests are projects to improve the equipping of rural regions and update non-prestigious urban areas, protect and restore historical monuments.

In the course of its activities, the Bank founded the “Selective Trust Account”, the funds of which can be used from part of its annual profits to provide subsidiary assistance to projects of the greatest social significance in the member countries that are most in need of it [11].

In world practice, the role of the state in regulating and supporting the agricultural and food markets is growing. At the same time, the agricultural sector is seen as a system in which self-regulatory mechanisms are difficult, and support is seen as compensation in an unstable market.

For example, in Germany, agricultural rental bank loans are provided on preferential terms, since the bank operates under the law on cooperatives, with a preferential tax regime. The Credit Agricole bank operating in France operates on the principle of bonification - subsidizing by the state of the interest rate between the contractual and the preferential rate when providing a loan to a farmer. Such an established system of state support has proved its effectiveness and viability, which operates in the European Union on the basis of the principles of the Unified Agricultural Policy. The absence of such support would not attract the banking sector to the industry, since capital would flow into more profitable spheres [12].

Findings. Based on the foregoing, we can talk about the relevance of creating a specialized bank in the agricultural sector. At the same time, given the sad experience of Nauryzbank, which, although it specialized in the agricultural sector, was an ordinary commercial bank, with inherent problems and risks, it is necessary to go to a fundamentally new level of a financial institution.

The creation of a specialized bank is seen in the context of the corresponding state policy, including both agricultural and financial aspects. An example of this is the Development Bank of Kazakhstan, which is faced with specific tasks that are credited to projects according to specific parameters. Considering international experience, the bank will have to solve specific issues of the economy of Kazakhstan, which should bring the agricultural sector to a new level of development.

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ҚАЗАҚСТАННЫҢ ҚАЗІРГІ ЖАҒДАЙЫНДА АГРОБАНК ҚҰРУ ҚАЖЕТТІЛІГІ ТУРАЛЫ

Аннотация. Ауыл шаруашылығын қаржыландыру проблемалары анықталды. Тарихи ретроспективалармен салыстырғанда саланы қаржыландыру азайды. Нәтижеге жету үшін инвестициялық және инновациялық даму тиісінше қаржыландырылуы керек. Ауылшаруашылық менеджменті қауіп-қатерге, халықтың тығыздығы төмен инфрақұрылымға және заңнама нормаларына сәйкес есеп жүргізудің болмауына байланысты, ауыл қаржы институттарының дамуын мақсатсыз және қауіпті етеді. Агроөнеркәсіптік кешенді және қаржы секторын қолдауға бағытталған қолданыстағы мемлекеттік бағдарламалар әр түрлі және қажетті мақсаттар қояды. Ауылшаруашылық топтарын қаржыландыру ірі және ұсақ фермерлердің құқықтарын құрметтеуі керек және Қазақстан кіретін Дүниежүзілік сауда ұйымының нормаларына қайшы келмеуі керек.

Отандық сарапшылардың пікірі де, шет елдердің тәжірибесі де Қазақстанға мамандандырылған агроөнеркәсіптік банк қажет екенін көрсетеді. Сонымен қатар, Қазақстанның Даму Банкі сияқты қаржылық қызметтің тетіктері үшін ерекше құқықтық негіз ұсынған жөн. Кәдімгі коммерциялық банк валюталық алыпсатарлықпен айналыса алады немесе «қаржыны тиімсіз жібере алады». Қорытынды талданады. Банк жүйесінің арнайы деңгейін құру саяси шешіммен және реттеушілердің арнайы бақылауымен бірге саладағы көптеген жинақталған мәселелер мен проблемаларды шешуі керек. Шынында да, дамыған елдерде мұндай механизм артық өндірумен байланысты мәселелерді шешеді, ал біздің шындықта нарықты импортпен алмастыру және ұлттық азық-түлік қауіпсіздігі жағдайында өз өнімдерімен қанықтыру мәселесі бар.

Түйін сөздер: ауыл шаруашылығы, агробанк, қаржы, қаржыландыру, экономика.

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О НЕОБХОДИМОСТИ СОЗДАНИЯ АГРОБАНКА В СОВРЕМЕННЫХ РЕАЛИЯХ КАЗАХСТАНА

Аннотация. Выявлены проблемы касательно финансирования сельского хозяйства. Финансирование отрасли по сравнению с историческими ретроспективами резко упало. Инвестиционно-инновационное развитие, для достижения результатов должно соответственно финансироваться. Хозяйствование в сфере агропромышленного производства сопряжено с рисками, слабая инфраструктура с низкой плотностью населения, отсутствие ведения бухгалтерского учета в силу законодательных норм делает нецелесообразным и рискованным развитие финансовых структур на селе.

Существующие государственные программы, направленные как на поддержку аграрной промышленности, так и финансового сектора ставят перед собой разные и нужные цели. Финансирование сельскохозяйственных формирований должно, как и соблюсти права крупных и мелких аграрий, так и не противоречить нормам Всемирной торговой организации, куда входит Казахстан.

Как и мнение отечественных специалистов, так и опыт зарубежных стран, говорят о том, что в Казахстане необходим специализированный агропромышленный банк. При этом целесообразно введение особенно правового поля для такого механизма финансовой деятельности, как например, Банк развития Казахстана. Ведь обычный коммерческий банк может заняться либо валютными спекуляциями, либо

«направлять средства не по назначению». Проанализировано и вывод. Создание особого уровня банковской системы, в совокупности с политическим решением и особым контролем со стороны регуляторов, должно решить многие накопившиеся вопросы и проблемы в отрасли. Ведь в развитых странах такой механизм решает вопросы с перепроизводством, а в наших реалиях стоит вопрос насыщения рынка своей продукцией, что актуально в контексте импортозамещения и национальной продовольственной безопасности.

Ключевые слова: сельское хозяйство, агробанк, финансы, финансирование, хозяйство.

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TO THE QUESTION ABOUT SOURCES OF DIPLOMATIC RELATIONS BETWEEN THE REPUBLIC OF KAZAKHSTAN AND USA

Abstract. It should be noted that the bilateral Kazakh-American partnership is part of the geostrategic and national interests of the United States not only in Kazakhstan, but also in the entire Central Asian region. However, it is Kazakhstan that is the most reliable partner of the United States in Central Asia, as Kazakhstan is politically stable, has significant economic potential, huge reserves of mineral resources, qualified technical personnel. Therefore, a certain political and economic presence of the United States in the center of the Eurasian continent is important for maintaining the geopolitical balance, stability, security, and prosperity of the region. During the first decade of independent development, Kazakhstan became open to the United States in political, economic, environmental, cultural and educational areas. Every year, various American senators visited our country, meeting both with government and with the public. United States in their faces looked like a great country, deserving of attention by its good example in building a market economy and a democratic society. The relationship between the two States is a strategic partnership. This applies not only to the economy, but also to the achievement of common global security objectives.

Key words: international relations, cooperation, international legal principles, norms of international law, strategic partnership, energy partnership, international markets, delivery of resources, global energy sources, security.

Following the dissolution of the Soviet Union, the United States, on December 25, 1991, was the first country to recognize Kazakhstan's independence. The United States opened its Embassy in Almaty in January 1992 and then relocated to Astana (renamed Nur-Sultan in 2019) in 2006. The United States opened a Consulate General in Almaty in 2009. In the years since Kazakhstan's independence, the two countries have developed a strong and wide-ranging bilateral relationship.

The development of a comprehensive partnership with the United States is one of the main priorities of our country's foreign policy. Political dialogue is being consistently developed at all levels, including the highest one.

Kazakhstan is the 79th largest trading partner of the United States, with a total of $2.1 billion in two-way trade in 2018. U.S. firms have invested tens of billions of dollars in Kazakhstan, concentrated in the oil and gas sector. Kazakhstan has made some progress in creating a favorable investment climate, although serious problems remain, including corruption and arbitrary enforcement of laws and contracts. A U.S.-Kazakhstan Bilateral Investment Treaty and a Treaty on the Avoidance of Dual Taxation have been in place since 1994 and 1996, respectively. In 2001, Kazakhstan and the United States established the U.S.-Kazakhstan Energy Partnership. Kazakhstan became a member of the World Trade Organization on November 30, 2015.

The official visit of the President of Kazakhstan to the United States was an important milestone in the development of the Kazakh-American strategic partnership and gave renewed impetus to the further development of the full-scale and multifaceted engagement between Astana and Washington. In particular, the two leaders decided to establish an enhanced strategic partnership between the two countries. The specific nature of the relations between the United States and Kazakhstan and the stated intention to expand cooperation in all spheres of strategic partnership for the benefit of both countries were clearly demonstrated by the results of the visit, the issues discussed, the depth of the talks and the high level of trust [1].

The Strategic Partnership Dialogue (SPD) has been operating under the chairmanship of the heads of foreign offices since 2012. In view of the Commission's importance, its working groups were upgraded to the Committees, whose first meetings were held on March 8-9, 2016, in Washington. The 5th SPD review session was held on November 30, 2017, in Astana, which was attended by officials of all interested government agencies.

U.S. Government assistance to Kazakhstan focuses on combating transnational threats (trafficking in persons, narcotics, terrorists, and weapons of mass destruction materiel), improving the functioning of the judiciary, promoting an increased public role for civil society and mass media, maintaining Kazakhstan's open investment and trade environment, helping the government provide effective social services, and supporting Kazakhstan's efforts to increase its production of low-cost clean energy [1]. Kazakhstan and the United States belong to a number of the same international organizations. Kazakhstan is a member of the United Nations, Organization for Security and Cooperation in Europe (OSCE), and North Atlantic Cooperation Council. Kazakhstan held a nonpermanent seat on the UN Security Council in 2017-2018, held the chairmanship of the OSCE in 2010 and held an OSCE summit in Astana in December 2010. It is an active participant in the North Atlantic Treaty Organization's (NATO) Partnership for Peace program. Kazakhstan also engages in regional security dialogue with the Association of Southeast Asian Nations (ASEAN). Kazakhstan founded the Conference on Interaction and Confidence Building Measures in Asia (CICA). Kazakhstan is also a member of the Collective Security Treaty Organization (CSTO) and the Shanghai Cooperation Organization (SCO). Kazakhstan is a signatory to the Convention on International Trade in Endangered Species (CITES).

According to Kazakhstan' customs authorities, bilateral trade with the United States amounted to 1.636 billion dollars in 2017, including exports from Kazakhstan to the US reaching 392.3 million dollars and imports from the U.S. to Kazakhstan worth 1.244 billion dollars.

According to the National Bank of the Republic of Kazakhstan, the gross inflow of foreign direct investment from the United States into Kazakhstan's economy amounted to 30.6 billion dollars between 2005 and September 31, 2017. The main investment sectors are mining, real estate, lease and services to enterprises, financial activities, activities of professional organizations, associations and alliances.

The U.S. is the second largest investor in Kazakhstan after the Netherlands. Furthermore, the announcement in July 2016 that TengizChevrOil plans to reinvest 36.8 billion dollars into the Future Growth Project and Wellhead Pressure Management Project the Tengiz field contributed to the increase of trust of the U.S. and international investors in Kazakhstan's economy.

Despite the instability in the global economy, American companies continue to demonstrate an interest in the Kazakhstani market. In recent years, companies such as Primus Power, Spancrete, Uber, Starbucks, McDonalds and Netflix have entered the Kazakh market.

Murat Laumulin insisted: "The creation of favorable conditions for economic cooperation between the United States and Central Asian countries is discussed on a regular basis at the Council meeting of the U.S. Central Asia Trade and Investment Framework Agreement (TIFA). The last meeting was held on December 11-13, 2017, in Almaty" [2, P.21]. A key instrument in the energy cooperation is the Kazakhstan-U.S. Energy Partnership. Within the framework of the visit of the presidential delegation to the EXPO-2017, headed by the Deputy Secretary of Energy Dan Brouillette on August 28, 2017, a meeting was held with the Minister of Energy Kanat Bozumbayev. The Joint Statement by Co-Chairs of the Kazakhstan - U.S. Energy Partnership was signed at the meeting. According to the document, the sides agreed to raise the level of engagement to the Strategic Energy Dialogue and outlined specific areas of cooperation, such as renewable energy, nuclear energy and energy security.

Over 28 years, more than 70 interstate, intergovernmental and interagency agreements have been signed. Efforts are made to enhance the treaty and legal basis. On December 6, 2016, an interstate Agreement on mutual legal assistance in criminal matters (MLAT) came into force. Kazakhstan became the first country in Central Asia and the third in the CIS (after the Russian Federation and Ukraine) to conclude such an agreement with the United States. On September 11, 2017, the Agreement on the Improvement of International Tax Discipline (FATCA) was signed in Astana. The Protocol Amending the Agreement between the Government of the Republic of Kazakhstan and the Government of the United States of America on Support for Commercial Rail Transit of Special Cargo through the Territory of the Republic of Kazakhstan in Connection with the Participation of the United States of America in Efforts for

the Stabilization and Reconstruction of the Islamic Republic of Afghanistan was signed on September 21, 2017. On November 10, 2017, Kazakhstan ratified the Inter-American Convention on Extradition of 1933. An Agreement between the Government of the Republic of Kazakhstan and the Government of United States of America on Assessing Air Navigation Service Fees for State Aircraft was signed on January 12, 2018. This facilitates visits to Kazakhstan by the U.S. official delegations to Kazakhstan, including congressional delegations.

Murat Laumulin in his another work stressed: "Dialogue on democracy and human rights remains an important component of the strategic partnership between Kazakhstan and the United States. The visit of the Minister of Religious Affairs and Civil Society of Kazakhstan, Nurlan Yermekbayev, to Washington took place on May 9-10, 2017. During the meetings with representatives of the U.S. Administration, issues of ensuring rights and freedoms in Kazakhstan and countering religious extremism and terrorism were discussed" [3, P.27].

The United States was the first country to recognize our independence and establish diplomatic relations with Kazakhstan in December 1991. During the short period since then, bilateral cooperation has intensified in almost all areas and the relationship between the two countries has been firmly established at the level of strategic partnership.

Political dialogue at the highest level creates the necessary conditions to further strengthen mutually beneficial cooperation with the current U.S. administration. The constructive and cordial relationship between the two leaders, Nursultan Nazarbayev and Barack Obama, is one of the most important facilitators of the growing partnership [4]. Our leaders meet each other annually on the margins of various international events. The previous such meeting took place during the G20 summit in St. Petersburg in September 2013. The leaders also regularly exchange messages on contemporary issues. The close and trust-based relationship between the two leaders was once again reaffirmed during their recent phone conversation, which covered strategic partnership issues and the situation in Ukraine.

As President Obama pointed out in his congratulatory message to our head of state on the occasion of our Independence Day last year, although the strategic partnership between our countries "is young, it continues to develop, reflecting the cooperation between our governments and people." Given the United States' recognition of Kazakhstan's international leadership in nonproliferation, the next meeting of our leaders is scheduled to take place during the Nuclear Security Summit in The Hague on March 24-25. The meeting will give the leaders an opportunity to compare notes on topical issues on the bilateral and international agendas. President Obama has said he appreciates President Nazarbayev's leadership on nuclear nonproliferation, which has led to "growth and prosperity in his own country."

American experts also note the successes of Kazakhstan's diplomacy. Frederick Starr, chairman of the Central Asia-Caucasus Institute at Johns Hopkins University, believes that "Kazakhstan has managed to do what no other country has done: maintain cordial and balanced strategic partnerships with China, Russia and the United States." In his opinion, "U.S. links with Kazakhstan are among this country's most promising relations in the Muslim world."

Richard Weitz, senior fellow and director of the Centre for Political-Military Analysis at the Hudson Institute, notes that "Kazakhstan's growing role in its extended neighbourhood advances significant U.S. interests." He states that through "its increasing economic engagement in Eurasia – which has involved direct investment and trade as well as support for improving regional commercial and transportation infrastructure – Kazakhstan is helping transform Central Asia and the Caspian region into an 'arc of opportunity' rather than an 'arc of crisis.'"

A visit by Kazakhstan's Foreign Minister Erlan Idrissov to the U.S. in July 2013 gave a significant impetus to the development and strengthening of bilateral cooperation and was groundbreaking in a number of key directions.

The co-chairmanship of the Strategic Partnership Dialogue Commission was elevated to the heads of foreign ministries. Among all Central Asian states, the U.S. has established a Strategic Partnership Dialogue Commission only with Kazakhstan, while with other countries in our region Washington conducts annual bilateral consultations. Another main outcome of the visit was the launch of the mutual issuance of five-year visas from August 1, 2013. The high level and intensity of the foreign minister's meetings with heads of key U.S. agencies indicated recognition of Kazakhstan's growing political importance by official Washington as well as its readiness to be Kazakhstan's partner in implementing the

Kazakhstan 2050 Strategy and the National Concept of the Transition to a Green Economy through the participation of advanced corporations [5].

The November 2013 visit to Washington, D.C., by Minister of Defence Adilbek Dzhaksybekov acquired a critical urgency in the context of the U.S. troop withdrawal from Afghanistan in 2014. During the visit, Dzhaksybekov and U.S. Secretary of Defence Chuck Hagel and other officials had a comprehensive exchange of views on regional security issues, as well as the strengthening of military and technical cooperation.

It is also important that contacts were established with enterprises of the U.S. defence industry complex and bilateral military-technical cooperation was brought to a qualitatively new level.

As a practical follow-up to the meetings, a number of major U.S. defence companies plan to take part in the KADEX defence technology exhibition in Astana in May 2014.

Overall, cooperation in this area is developing in accordance with the third five-year plan for military cooperation for the period 2013-2017, which was signed in November 2012.

The plan provides for the development of peacekeeping capacities (including through the Steppe Eagle military exercises); assistance in the field of military education; the establishment of contacts between defence companies and training for special operations units of Kazakhstan's armed forces, including psychological training.

In the law enforcement sphere, the official visit of Prosecutor General Askhat Daulbayev to Washington last December, the first in the history of bilateral relations, and his meetings with the U.S. Attorney General and the head of the FBI laid a good foundation for the development of a constructive partnership.

Interparliamentary relations have also been revitalised and mutual visits of parliamentary delegations take place.

The unprecedented participation of 30 U.S. congressmen and senators in the Kazakhstan-American Conference and the reception on the occasion of Kazakhstan's Independence Day in December 2013 is evidence of the growing interest in our country. The number of members of Congress in the Friends of Kazakhstan Caucus on Capitol Hill is growing.

A parliamentary delegation led by Deputy Speaker of the Senate of Kazakhstan Alexander Sudyin visited Washington in May 2013 to mark the 10th anniversary of the success of the initiative of our President to convene and host the Congress of Leaders of World and Traditional Religions.

In honour of Kazakhstan's delegation, Congressman Eni Faleomavaega handed to Senator Sudyin his Congressional Record statement recognising Kazakhstan's contribution to promoting interfaith dialogue. The U.S. congressman thanked Kazakhstan and President Nazarbayev for his initiative to convene the Congress of Leaders of World and Traditional Religions 10 years ago, noting that today "it has become an effective forum in which the leaders of world religions may promote a unified approach to achieving the most important goal – the establishment of inter-religious dialogue."

Andrei Chebotarev reminded, that "Kazakhstan and the U.S. continue to maintain dialogue on nuclear nonproliferation. The Americans have always appreciated Kazakhstan's contributions in this area, singling out Kazakhstan as an example for other countries" [6, P.19]. Most recently, U.S. Senator Ed Markey chose to announce his introduction of the SANE Act (Smarter Approach to Nuclear Weapons Expenditure) to the Senate at a reception organised by the Embassy of Kazakhstan in the historic Kennedy Caucus Room of the U.S. Senate. This indicates the value he places on cooperation with Kazakhstan in the field of nuclear nonproliferation and disarmament. The reception was part of the PNND (Parliamentarians for Nuclear Non-Proliferation and Disarmament) Assembly, where Kazakhstan's delegation included Senator Byrganym Aitimova and member of the Mazhilis of Kazakhstan Viktor Rogalev, as well as representatives of the online education and petition initiative, the ATOM Project.

The relocation of the International Science and Technology Centre in Kazakhstan, as well as the creation of the International Atomic Energy Agency's low-enriched uranium fuel bank and the construction of the Central Reference Laboratory in Almaty are among the breakthrough projects in the field of nonproliferation coming in the near future. Another of Kazakhstan's concrete contributions to nonproliferation, the U.S. believes, came in the hosting of two rounds of talks between Iran and the six nations of international mediators in Almaty, which helped launch the actual mechanism of a diplomatic resolution to the Iranian nuclear programme.

Our two governments pay special attention to creating favourable conditions for the development of investment and trade and economic cooperation. The volume of U.S. foreign direct investment in Kazakhstan in the first half of 2013 amounted to $1.2 billion, 12.8 percent more than in the same period in 2012. Most American foreign direct investment goes to the mining industry (18 percent), real estate and business services (16 percent), the financial sector (5 percent) and activities of professional organisations and industry associations (3 percent).

Mutual trade during the nine months of 2013 amounted to $1.9 billion, which is 5.6 percent more than that of the first nine months of 2012. Major American companies such as Boeing, General Electric, Hewlett-Packard and others have accomplished their business plans in Kazakhstan. Some companies have been successful in establishing joint ventures. One success story is the joint venture of GE Transportation and Kazakhstan Temir Zholy to manufacture locomotives. As part of its strategy of business expansion, this joint venture plans to manufacture and assemble diesel engines.

American companies are also leaders in terms of investment in Kazakhstan's energy sector. The Joint Kazakh-American Commission on energy partnership plays an important coordinating role in energy cooperation between the two countries. It aims to develop and implement a detailed and concrete action plan in all areas of energy partnership. The work of the commission over the past years has shown that cooperation in the field of renewable energy, energy efficiency and clean energy technologies is becoming increasingly important. In a short period of time, both sides have managed to establish a permanent expert dialogue and advanced to implementing specific projects. The 10th meeting of the commission is scheduled to take place this year.

An important event in Kazakhstan-U.S. bilateral cooperation is the international exhibition EXPO 2017. The main theme of the exhibition corresponds to the long-term objectives that U.S. President Barack Obama has set for his country, namely achieving full development of energy-saving and alternative energy technologies by 2033.

Work on the scientific and technological track within the framework of the Kazakhstan-U.S. Strategic Partnership Commission and its establishment in the form of a separate Joint Commission on Scientific and Technological Cooperation last year facilitated important steps in the development of long-term cooperation in this area. The inaugural meeting of the commission took place in June 2013 in Astana, which resulted in the adoption of a joint action plan for 2013-2015. In recent years, the number of U.S. industrial and manufacturing companies interested in entering Kazakhstan's market has grown [7, P.49].

Today, the United States sees Kazakhstan as a reliable partner and a regional leader in Central Asia, a country that effectively transmits domestic successes into the world arena and makes significant contributions to global and regional security.

Ex-President Nazarbayev's state-of-the-nation address, "Kazakhstan 2050 Strategy: New Political Course of the Established State," has been positively received by U.S. official, analytical and business circles. The address gives a new opportunity for widening bilateral collaboration, especially in the field of investment, technology and innovation.

USA officials and experts believe the address is a solid and positive road map that clearly identifies Kazakhstan's development priorities for the long term. Our focus on an innovative economy and sustainable development should give a powerful boost to the work of the Strategic Partnership Dialogue, whose agenda intersects with the ambitious goals of the 2050 strategy [8, P.47]. We will need to maintain a dynamic foreign policy in order to reach the goals of joining the world's 30 most developed countries and creating a favorable environment for attracting new technologies and investment.

According to American experts, implementing long-term programs will ensure political stability and economic development. U.S. business circles also positively note the economic initiatives outlined in the address and underline the ambitious and timely priorities that will play an important role in the transformation of Kazakhstan's economy [9, P.120]. The strategic partnership between Kazakhstan and the United States is experiencing a new stage of growth, exemplified by our common strategic goals and similar approaches to achieving them.

In the conclusion we would like to note, that Kazakhstan has attracted significant foreign investment since independence. The U.S. is one of Kazakhstan's most important economic partners. Bilateral cooperation was affirmed by President Donald J. Trump and President Nursultan Nazarbayev at the White House in January 2018. The two leaders resolved to strengthen cooperation in trade and investment, and

people-to-people relationships through regular high-level meetings within the framework of an Enhanced Strategic Partnership Dialogue. Kassym-Jomart Tokayev, who was sworn in as the new President of Kazakhstan on March 20, 2019, reaffirmed his commitment to continue the country's foreign and economic policy. Kazakhstan is the most efficient and investment-friendly transit hub for the greater Eurasia region. By 2020 the country aims to become a key logistics hub for Eurasia and beyond by developing transportation and export centers on the territory. Kazakhstan and the US have established a robust trade relationship that has generated skilled jobs in both countries. Kazakhstan imports annually from the U.S. high tech medical equipment, industrial machinery and livestock.

З.К. Аюпова, Д.Ө. Құсайынов

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ МЕН АҚШ АРАСЫНДАҒЫ ДИПЛОМАТИЯЛЫҚ ҚАТЫНАСТАРДЫҢ БАСТАУЫ МӘСЕЛЕСІНЕ

Аннотация. Айта кету керек, Қазақстан-Американдық әріптестік АҚШ-тың ұлттық геостратегиялық мұддесінің құрамдас бөлігі болып табылады, ол тек қана Қазақстан мен емес барлық Орта Азия өңіріне бағытталған. Бірақта тек қана Қазақстан Америка құрама штаттарының Орталық Азия өңіріндегі ең сенімді серіктесі, себебі Қазақстанда саяси тұрақтылық бар, экономикалық мүмкіндіктері де берік, минералдық ресурстарға бай, кадрлық потенциал да, техникалық мамандарда кәсибі деңгейде дайындалған. Сондықтан да белгілі дәрежедегі АҚШ-тың саяси және экономикалық Орталық Азиядағы қатысулары осы өңірдегі геосаяси балансты сақтауға, тұрақтылық пен қауіпсіздікті қамтамасыз етуге әсерін тигізеді. Тәуелсіздіктің алғашқы он жылдығында Қазақстан АҚШ үшін саяси, экономикалық, экологиялық, мәдени және білім бағытында ашық саясат ұстады. Жылсайын біздің елімізге Американың әртүрлі сенаторлары келіп кездесулер мен келіссөздер өткізді, өкімет мүшелерімен және қоғам белсенділерімен пікірлесті. Олардың арқасында АҚШ сый-сияпатты қажет ететін, мейірімді үлгілермен, нарықтық экономиканы құруға көмектесетін ұлы мемлекет ретінде көрініс тапты. Екі мемлекеттің арақатынасы стратегиялық сипатқа ие болып өзінің жемісін бере бастады. Бұл тек қана экономикалық бағытында емес, әмбебап сипаттағы қауыпсыздік мәселелерін де қамтиды.

Түйін сөздері: халықаралық қатынастар, ынтымақтастық, халықаралық-құқықтық принциптер, халықаралық құқық нормалары, стратегиялық әріптестік, энергетикалық әріптестік, халықаралық нарықтар, ресурстарды жеткізу, жаһандық энергия көздері, қауіпсіздік.

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К ВОПРОСУ ОБ ИСТОКАХ ДИПЛОМАТИЧЕСКИХ ОТНОШЕНИЙ МЕЖДУ РЕСПУБЛИКОЙ КАЗАХСТАН И США

Аннотация. Следует отметить, что двустороннее казахстанско-американское партнерство является частью геостратегических и национальных интересов США не только в Казахстане, но и во всем Центрально-азиатском регионе. Однако именно Казахстан является наиболее надежным партнером США в Центральной Азии, поскольку Казахстан политически стабилен, имеет значительный экономический потенциал, огромные запасы минеральных ресурсов, квалифицированные технические кадры. Поэтому определенное политическое и экономическое присутствие США в центре евразийского континента является важным для сохранения геополитического баланса, стабильности, безопасности и процветания региона. За первое десятилетие независимого развития Казахстан стал открытым для США по политическим, экономическим, экологическим, культурным и образовательным направлениям. Ежегодно нашу страну посещали различные американские сенаторы, проводившие встречи как с правительственными кругами, так и с общественностью. США в их лице выглядели как великая страна, заслуживающая внимания своим добрым примером в построении рыночной экономики и демократического общества. Отношения двух

государств носят характер стратегического партнерства. И это касается не только экономики, но и достижения общих глобальных целей, касающихся безопасности.

Ключевые слова: международные отношения, сотрудничество, международно-правовые принципы, нормы международного права, стратегическое партнерство, энергетическое партнерство, международные рынки, доставка ресурсов, глобальные источники энергии, безопасность.

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ACTUAR DEVELOPMENT IN THE ECONOMY OF AGRICULTURE

Annotation. Analysis of economic efficiency shows that the formation of market relations in the agricultural sector requires a well-considered and balanced approach, justification of diverse forms of ownership and methods of management. Of particular relevance are the problems of management restructuring, since production efficiency and the solution of the problem of sociologizing the economy and raising the living standards of the population depend on it in the first place. From the perspective of the insurance company, in order to choose the level of protection against losses in the agricultural sector, a clear understanding of the nature, specificity, nature, volume and frequency of losses faced by the parties of the insurance process in agricultural insurance is required, which is described in more detail by the authors in this article.

Keywords: crop insurance, state financial support, insurance mechanism, actuary.

INTRODUCTION

Agricultural insurance as an important element in protecting agriculture from the whims of nature originated in the 1920s and in a number of countries has reached a high level of development. There are many modifications of agricultural insurance programs in the world, but not one of them is able to function without the use of relevant and reliable data. This system cannot develop without powerful support from the state, one of the important and sometimes underestimated areas of which is assistance in collecting and selecting data. Actuarial calculations in agricultural insurance require, first of all, production and weather data. When developing an insurance product, a decision on the use of one or another sample is made depending on the goals set.

MAIN PART

Premium rates should not only be adequate to the capabilities of the manufacturers wallet, but also be comparable in terms of coverage of insurance obligations. When calculating tariff rates, it is necessary to take into account what factors influence the decision on insurance by the agricultural producer.

From the perspective of the agricultural producer, a number of important factors can be distinguished that influence the decision-making regarding the use of such a risk management tool as agricultural insurance. These factors include, first of all, the size of a possible loss in relation to the turnover of cash flows of the economy and the expected income from the results of the production cycle. The decision of the agricultural producer regarding the use of various risk management tools depends on the availability and cost of risk management tools. In agricultural insurance, it is necessary to recognize and adequately assess the position of the commodity producer in the light of the adoption (or rejection) of a particular strategy for managing the production cycle.

Do not forget also that the owner should give priority to the calculation of the necessary costs and their commensurability with the expected benefits. It may be unprofitable for a commodity producer with small and medium production volumes to install expensive irrigation systems that have to pay off for more than one year, so he is likely to prefer insurance as an alternative to risk diversification.

An important factor for agriculture is the frequency of occurrence of a risk event. The cyclic incidence of cereal grains is 4–5 years, and catastrophic losses that can lead to hunger occur once every

20–30 years. At the same time, unfortunately, no observations and studies are able to give a clear answer to the question of which of the next years this risk event will occur. Actually balanced insurance rates are an important and integral element in the creation and implementation of a high-quality insurance product. Actuaries working on this issue should proceed from all of the above factors motivating the participation of producers in the agricultural insurance program.

In the United States, the development of databases for agricultural insurance as part of the development and implementation of subsidized agricultural insurance programs is carried out by the Risk Management Agency (RMA), a structural unit of the US Department of Agriculture, and the Federal Crop Insurance Corporation Corporation - FCIC). Data from manufacturers is collected by private insurance agents when entering into insurance contracts. Farmers (producers) who participate in the US agrarian insurance program must report on the harvested and sown area in accordance with the management methods used and the data for each insured crop. Data is not georeferenced.

Loss assessors visit farms and study production records for the current year in each situation where there is a question of compensation. They also determine the reliability of crop data reported in the previous year. In addition, a selective audit is conducted in farms that did not state requirements, but provided information about the crop. The purpose of these activities is to check for records to confirm the information provided. These audit procedures guarantee the completeness of production data provided to insurers.

The data is then processed and formatted in accordance with a government-defined standard. The US Department of Agriculture (USDA) runs the National Agricultural Statistics Service (NASS), which collects all the actual data, which forms the basis of the data archive. Yields for most crops have been collected here for more than 70 years, and by variety for 40–50 years. US cereal insurance statistics have been in use since 1989.

Very often one can hear complaints about how "bureaucratized" the data collection system is in post-Soviet countries. Many complain about the huge number of forms that need to be filled out, submitting reports on doing business. Below is a table that illustrates the main reporting forms of agricultural producers for agricultural insurance in the United States.

Table 1 - Positions of production data that represent American farmers

Reporting Form Number	Name of the reporting form	Description	The number of data fields in a particular form
10	Policy accounting	Description of indicators of the insured manufacturer	38
11	Area Accounting	Description of data in accordance with insurance policy	93
12	Payment accounting	Policy premium payment descriptions	12
15	Crop accounting	Manufacturer Insurance History	93
20	Accounting for total loss	History of loss or compensation paid	35
21	Line of losses	Description and causes of losses	82
25	Payment / Arbitration	Record of appeals	17
55	Agent Data	Agent Description	40
56	Loss Adjuster Details	Description of loss assessment	25

Every year, agriculture invests more and more money in new technologies, and at the same time introduces more advanced risk management tools. The insurer's task is to “prepare a sled in the summer,” since the inevitable risks of agriculture require a systematic approach to solving them.

In countries with a developed system of agricultural insurance, when calculating tariff rates for the agricultural sector, a correction factor for productivity “for the development of technologies” is applied at a rate of 1% per year. The data collection process is quite complicated and requires constant updating and refinement. The practice of countries with a developed system of agricultural insurance involves, by

default, the investment of very significant funds in the creation and maintenance of a database for actuarial calculations. In most countries, this is ensured by the coordinated actions of business and government agencies.

Actuarial practice of leading countries also provides that in cases of lack of data, actuaries can use their own valuation, experimental data, expert judgment and other information to determine premium rates. In the absence of a representative database from the perspective of actuarial calculations, one or more methods should be applied.

As Kazakhstan developed this segment of the insurance market, the main problems in agricultural insurance were identified:

- all measures do not constitute a system of measures ensuring the active participation of agricultural producers in insurance and a high level of insurance protection;
- imperfection of the mechanism of state participation in this process;
- insufficient regulatory support for the insurance process;
- inconsistency of the insurance institute's tools with modern requirements.

Experts believe that land relations in Kazakhstan are currently at an impasse. On the one hand, most of the agricultural land is in shared ownership, and the state is looking for ways to liquidate it, and on the other, there is an over-concentration of land with all the negative manifestations of this process.

More than half of the land shares transferred to the ownership of citizens during the reorganization of collective farms and state farms are currently unclaimed. High costs of cadastral work lead to the fact that agricultural organizations are excluded from the process of registration of rights to used land in accordance with the law. The uncertain legal status of such lands does not allow them to participate in economic agricultural relations. Meanwhile, agricultural land should be the basis of such a relationship. Reducing ownership relations to a legal form alone is not enough.

The lack of legitimacy of ownership of the means of production that have developed as a result of the privatization of the 90s also causes difficulties in solving land use problems.

Under these conditions, it is advisable to use the methodology for determining the insurance rate, expressed from the insurance object. According to this methodology, for crop insurance, the average general crop yield over a long period is first determined. Negative deviations from the general average yield characterize the probable shortage of products in a particular year and, therefore, the size of insurance compensation. This approach to calculating insurance rates corresponds to the real risk of cultivating crops and ensures the flow of funds to the insurance fund to fully cover potential damage.

The formation of the agricultural insurance system is inextricably linked with the reform of all agriculture. Considering agricultural insurance as an element of agricultural policy, we see that measures aimed at strengthening agriculture and ensuring food security of the country are not always consistent and interconnected.

First of all, it should be noted that the entire mechanism of agricultural insurance does not correspond to the specifics of the industry. He did not provide the most important thing - effective and reliable insurance protection of the reproduction process: the size and timing of insurance compensation do not take into account the short-term and seasonality of the production process, for example, in crop production. There is no differentiation of insurance rates within the region. The process of payment extended over time does not allow taking measures to reduce damage. However, not only the size of subsidies determines the effectiveness of insurance - the mechanism of state insurance support needs to be reformed.

The insurance payment mechanism is not brought up to the appropriate level and allows the insurance company to drag out the process or even evade its obligations and requires “manual” management, that is, intervention by the authorities.

Insurance in agriculture should be long-term, the rules should be long-term, although the possibility of their modernization is not ruled out. For example, despite the proven and well-proven agricultural insurance system in the United States, since 2011 the government has been making some changes to the rules for the participation of insurance companies in the subsidized insurance program.

Международные требования (в частности, требования Международной ассоциации страхового надзора и рекомендации Мирового банка) диктуют необходимость ускорения процесса принятия новых требований в тех областях, где регулирование страхового рынка РК пока в значительной

степени уступает не только опыту стран с развитой рыночной экономикой, но и смежным секторам финансового рынка.

Insurance in the vast majority of countries is voluntary, but the state in every way encourages manufacturers not to neglect this risk management tool.

To ensure the conditions for the functioning of the insurance market in agriculture and ultimately achieve the sustainability of agricultural production, it seems necessary to create and develop reinsurance organizations specializing in servicing the agro-industrial complex. But the creation of such organizations today is impossible without the participation of the state. For these purposes, it is necessary to provide for a separate line in the budget expenditures to create a republican reinsurance fund. Moreover, we consider it necessary to develop an independent legislative framework for the regulation of reinsurance, which regulates the main provisions of the reinsurance contract.

The conceptual framework for the development of reinsurance operations should also include mechanisms for state participation in the creation of a reinsurance company capable of accepting even abnormal agricultural risks into reinsurance. Thus, reinsurance activities are a necessary and integral part of agricultural insurance activities.

It follows from the study that measures to rehabilitate the soil cover and clean up contaminated water bodies and rivers affected by industrial disasters should be included in the preventive measures for crop insurance, which will generally have a favorable effect on the environmental situation. It would be justified to finance from this reserve research projects related to the cultivation of new drought tolerant varieties that have high adaptive potential (resistance of agricultural plants to adverse conditions of soils, climate, insect pests, diseases).

In order to protect crops from insect pests, it is necessary to build observation posts that will forecast and signal their appearance, control population density, and purchase pesticides, tools and equipment for these items.

To finance the proposed measures, it is necessary to increase deductions to 4% of insurance premiums on crop insurance for preventive measures, as was the case with compulsory insurance.

The loss fluctuation reserve is intended to compensate the insurer's expenses for making insurance payments in cases when the value of the loss amount of the insurance amount in the reporting period exceeds the expected average level of loss.

The formation and use of the above reserves is for insurance companies the most important aspect of their activity, as agricultural producers seek to have full insurance coverage for all types of fluctuations in loss ratio.

CONCLUSION

Thus, insurance tariffs are currently in force, which do not fully take into account the real characteristics of agricultural production. Recommended insurance tariffs, expressed as a percentage of the insurance object (in crop production, the object is gross harvest, in livestock production - the average annual milk yield, wool cut, average weight gain, etc.) will most fully correspond to the real risk of growing and ensure the collection of funds in insurance funds to cover potential damage. Insurance rates are differentiated by natural economic zones. In those areas of the republic where the probability of occurrence of insured events is quite high, it is advisable to apply higher, compared with the average republican tariff rates, and vice versa.

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АКТУАРНОЕ РАЗВИТИЕ В ЭКОНОМИКЕ СЕЛЬСКОГО ХОЗЯЙСТВА

Аннотация. Анализ экономической эффективности показывает, что формирование рыночных отношений в аграрной сфере требует продуманного и взвешенного подхода, обоснования многообразных

форм собственности и способов хозяйствования. Особую актуальность приобретают проблемы перестройки управления, так как от него в первую очередь зависят эффективность производства и решение задачи социологизации экономики и повышения жизненного уровня населения. С позиции страховой компании для выбора уровня защиты от потерь в сельскохозяйственном секторе необходимо чёткое понимание природы, специфики, характера, объёма и частоты убытков, с которыми сталкиваются стороны страхового процесса в агрострахование, о чем более подробно описано авторами в данной статье.

Ключевые слова: страхование урожая, государственная финансовая поддержка, механизм страхования, актуарий.

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АУЫЛШАРУАШЫЛЫҚ ЭКОНОМИКАСЫНДАҒЫ АКТУАРЛЫҚ ДАМУ

Аннотация. Экономикалық тиімділікті талдау аграрлық сектордағы нарықтық қатынастардың қалыптасуы ойластырылған және теңдестірілген көзқарасты, әртүрлі меншік нысандары мен басқару тәсілдерін негіздеуді қажет ететіндігін көрсетеді. Менеджментті қайта құру проблемалары айрықша өзекті болып табылады, өйткені өндірістің тиімділігі мен экономиканы әлеуметтендіру мен халықтың өмір сүру деңгейін көтеру мәселесі бірінші кезекте оған байланысты. Сақтандыру компаниясының көзқарасы бойынша, агроөнеркәсіптік кешендегі шығындардан қорғау деңгейін таңдау үшін, ауылшаруашылық сақтандыру саласындағы сақтандыру процесінің тараптары тап болатын шығындардың сипатын, ерекшелігін, сипатын, көлемін және жиілігін нақты түсіну қажет, оны авторлар осы мақалада толығырақ сипаттайды.

Түйін сөздер: өсімдіктерді сақтандыру, мемлекеттік қаржылық қолдау, сақтандыру тетігі, актуарий

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ACTUAL PROBLEMS AND PROSPECTS FOR THE DEVELOPMENT OF ENVIRONMENTAL AUDIT IN THE REPUBLIC OF KAZAKHSTAN

Abstract. Any legal entity that is engaged in certain activities knows very well that in order to achieve success in its business, the correct distribution of financial resources and the most effective management are necessary. Therefore, for the proper development of the company and obtaining positive results, it is necessary to carry out certain actions in the work process that will allow you to find errors and problems in a timely manner. In short, the success of effective work lies in conducting a thorough and ongoing analysis of various data that directly relates to the entire work of the enterprise. Environmental audit should be focused on the internal individual needs of the enterprise in accordance with its policies and established goals.

Keywords: ecology, audit, problems, analysis, prospects, standards.

INTRODUCTION

Environmental audit (environmental auditing) is a check and assessment of the status of the activities of legal entities and citizens-entrepreneurs to ensure rational environmental management and environmental protection from harmful effects, its compliance with the requirements of the legislation of the Republic of Kazakhstan, conducted to identify past and existing environmentally significant problems, prepare recommendations on improving such activities and for other purposes provided for by environmental legislation [1].

In addition, it is important to clearly identify the goals and objectives of the enterprise before deciding what type of environmental audit it needs. For example, the environmental authorities establish a certain degree of detail in conducting an environmental audit, while the board of directors or the management of an enterprise, in accordance with its own tasks and the environmental policy pursued, can try to conduct a more detailed audit, which analyzes all aspects of the organization's management and operation of the enterprise different structural levels.

MAIN PART

The classification of environmental risks can be carried out according to various criteria, for example, according to the degree of spread, risks can be global and local. Global risks, which should be under the control of the state and society, must include such large-scale ones as:

global climate change;
depletion of the ozone layer;
death of the population and losses in biological diversity;
air pollution;
pollution of natural objects (reservoirs, forests, soils in large areas, depletion of the earth's surface, etc.);
floods, earthquakes and other natural disasters;
desertification.

Local environmental risks can be associated with:

with direct activities of industrial enterprises that carry out large volumes of emissions into the environment / 9 /;

with industrial accidents and disasters;

with unlawful actions of individuals committed intentionally and through negligence.

Environmental risks should be distinguished by the degree of their perception and impact, for example:

- risks to human health;
- risks to flora and fauna;
- risks for subsoil, land, water bodies, forests and other natural objects;
- risks to natural resources (for example, minerals);
- risks that may entail material and financial losses (for the state, individuals and legal entities).

Based on the classification of environmental risks, it is possible to timely identify entities whose activities are a source of environmental hazard, and take measures to prevent the onset of risks or minimize their impact, as well as develop measures to protect facilities from exposure to environmental risk factors. As a rule, environmental damage is caused by harm. In this connection, let us dwell on the factors and forms of manifestation of harm.

Environmental factors and forms of harm:

reduction, loss of certain properties and qualities of natural objects / 10 / (nature management objects);

worsening conditions for the use of natural resources / 11 / and the use of natural objects;

loss, retirement from the use of natural resources and objects;

violation of the ecological balance (balance in the ecosystem);

ecological disasters with irreversible consequences, reduction of biological diversity / 12 /.

Economic factors and forms of harm:

losses from nature users in the process of using natural resources and using natural objects;

retirement of sources of raw materials from economic turnover, their loss;

losses in the system of division of labor;

violation of the conditions of economic reproduction.

Social factors and forms of harm:

dissatisfaction of people (workers) with living conditions;

population migration, including labor resources;

loss of health;

increased disability, including by birth;

increase in mortality;

mass deaths of people;

genetic disorders, etc.

Technical and technological factors of harm:

premature wear of equipment, devices, installations, breakdowns, accidents;

violation of technological processes;

loss of material assets (equipment, facilities, etc.);

reduced return on production capacity, the effectiveness of their use.

Since it is impossible to stop anthropogenic activity, and if natural disasters are not considered, although they are also sometimes the result of human activity, it is possible to subdivide environmental risks according to normative levels. Such a classification helps the timely identification and assessment of risks, which, in turn, minimizes the harm resulting from the onset of some environmental disasters. First of all, the classification of environmental risks at regulatory levels should be carried out by authorized state bodies for environmental protection, for example, the Ministry of Environmental Protection of the Republic of Kazakhstan, its territorial units, non-governmental environmental institutions involved in the study of environmental problems.

So, according to this criterion, the following types of environmental risks are determined / 13 /:

Acceptable environmental risk, when the level of risk is justified in terms of both environmental and economic, social and other problems, in a particular place (region) and at a specific time. The need to

formulate a concept of acceptable (permissible) environmental risk is due to the impossibility of creating conditions for absolutely safe operations and the technological process. Acceptable risk combines technical, economic, financial, social and political aspects and represents a compromise between the level of environmental safety and the possibilities to achieve it.

The environmental audit procedure should provide an opportunity to assess the compliance of the inspected object with the environmental audit criteria established for it - The environmental audit procedure is simple and accessible in management and execution.

An environmental audit is conducted by independent individuals (environmental auditors) and audit organizations on the basis of an agreement with the customer.

The Law "On Environmental Protection" states that the environmental auditor is an individual who has been certified and has obtained a license to carry out environmental audit activities. This norm duplicates the provision in article 82 of the Law "On Environmental Protection", existing at present [2]. The draft says that certification of environmental auditors is a voluntary procedure, which, despite the dispositive nature of the norm, is carried out periodically. This certification confirms that an individual has work experience, special training, knowledge, skills and personal qualities necessary for him to conduct an environmental audit. However, in our opinion, the definition of personal qualities is a subjective assessment, and it is difficult to consider it as a criterion for passing certification.

Since the certification procedure for environmental auditors has not yet been determined, the project provides that the central executive body of the Republic of Kazakhstan in the field of environmental protection approves the certification of environmental auditors and the creation of a special qualification commission. The competence of the authorized body also includes the approval of a conclusion form on the need for an environmental audit.

The introduction of an environmental and economic audit of environmental management efficiency involves making changes to the existing management system at the enterprise. Many studies in this area are devoted to determining the economic efficiency of environmental management. An approach to the study of the environmental performance of auditing has not been developed. In addition, the study of existing methods for assessing the results of environmental activities has shown that there are still no clear recommendations and methodologies for determining the effectiveness of environmental activities at enterprises that would allow a reliable assessment of the activities of enterprises. An insufficient assessment of environmental activities reduces the rationality of decisions, which is manifested by the occurrence of environmentally unfavorable situations. There is also a need to develop scientific approaches to the audit of environmental and economic efficiency of environmental protection activities on a new methodological basis, using modern methods.

The largest innovations are outlined in the Environmental Code for the reform of the licensing system, environmental impact assessment and regulation of emissions into the environment. The principle of preventive (warning) environmental protection enjoys general support in many countries of the world. Almost everywhere, the issuance of permits for emissions into the environment is carried out on the basis of a mandatory environmental impact assessment. In Kazakhstan, traditionally, as in other CIS countries, a state environmental review is carried out along with a mandatory environmental impact assessment and calculation of emission standards. The difference from developed countries is that in the CIS countries all these procedures are carried out separately. From here it's immediately clear what we should strive for - to combine the impact assessment and calculation of emission standards with the project cycle, and combine the issuance of permits and environmental impact assessment in one process. Part of this work has already been done. In the Environmental Code, enterprises are divided into 4 groups according to the complexity of production and the degree of their possible impact on the environment, for each subsequent group the procedure for issuing environmental permits is simplified procedurally. For the 4th group, the EIA procedure is limited only to the section of the environmental protection project, and they receive environmental permits on the basis of declarations. In addition, as part of the work of the Expert Group on the revision and optimization of permits, work to simplify licensing procedures is ongoing.

So, it is suggested:

- cancel the licensing of work and services in the field of environmental protection, with the exception of category 1 facilities in accordance with the criteria provided for in Article 71 of this Code;

- reduce the stages of environmental impact assessment (up to 3 stages); - reduce the time of the state environmental review, depending on the category of the facility (2 times or less);

- reduce the package of documents for obtaining permission for emissions into the environment of nature users with objects of categories I and II; - reduce the time for consideration of applications for permits for emissions into the environment (by 2 times).

However, in its final form, the entire licensing procedure should be reduced to the following. The company is applying for an environmental permit (using the resources of e-government). The authorized body considers this application, sending materials, if necessary, to environmental experts or for approval by other state bodies. The term of such a review may be 4-5 months, but it will be a shorter period and fewer procedures than the combined term of environmental impact assessment and issuance of permits. That is, environmental review should become an internal procedure of the authorized body, as is done in most developed countries. According to the degree of influence on the environmental sphere, one can hardly name anything more important than sanitary and environmental standards governing the pollution of all-natural environments - water bodies and drinking water, soil and air in settlements.

For the first time, the Environmental Code introduced rules on the ownership of waste, its transfer from one person to another and to the state, and the system of classification and regulation of waste is brought into conformity with the Basel Convention and EU directives, which is a mandatory requirement when our country joins the World Trade Organization. Also, a transition has been made from rationing waste generation to rationing waste disposal, which should stimulate nature users to search for non-waste technologies and waste recycling.

Figure 1 - The environmental audit process

It is necessary to take one more step - to switch to rationing the entire volume of accumulated waste in the places of their disposal, which would encourage landfill owners to deal with waste processing. The Ministry has an interdepartmental working group on waste management in various sectors, which focuses on problematic waste issues. The basis of waste management and economic management of waste streams by industry is the accounting and classification of waste. Only reliable, detailed and reflecting the real state of waste management in various sectors, the classification will allow the development of effective waste management.

Despite the new tax rules, the system of environmental payments still does not provide economic incentives to reduce environmental pollution. Therefore, strict control is needed over targeted planning and spending of environmental funds for environmental needs at all levels of management. The development of economic instruments for environmental protection requires the improvement of legislation, including budget and tax. The financing mechanism for environmental protection measures will become effective only if payments for violations of environmental requirements, as well as payments for emissions are purposefully used for environmental protection activities. For these purposes, we consider it necessary to establish a mechanism for the phased allocation of funds accumulated at the local level to finance environmental measures. At the first stage, 50% of environmental payments will be

accumulated in one source, for example, in the National Fund of the Republic of Kazakhstan, from which the transfer will be sent to the implementation of environmental investment projects.

CONCLUSION

Such projects will include the construction of plants for the processing of municipal solid waste, the construction of wind farms and other renewable energy production facilities, and projects to increase the energy efficiency of production. With the adoption of the Environmental Code, the concept of direct calculation methods has been introduced into the damage calculation system, which will increasingly be applied in practice. If a refusal to pay for regulatory environmental pollution occurs, then the payment calculation methodology can be used to calculate the damage. Along with this, it is necessary to seriously tighten the system of fines for violation of the law and in this matter carefully monitor international experience. The number of fines may well be established traditionally in the Administrative Code. It is important that the size of fines and lawsuits is very sensitive for negligent nature users. In the Czech Republic, for example, amounts of fines range from several tens of dollars to several million dollars. Moreover, the right to determine the amount of the penalty is granted only to the inspector, so that the company could not calculate what is more profitable for him - to break the law or pay a fine. Much more is necessary to apply measures to suspend enterprises, up to their closure. In general, it is gradually necessary to switch to practice when work without an environmental permit is impossible.

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АКТУАЛЬНЫЕ ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ РАЗВИТИЯ ЭКОЛОГИЧЕСКОГО АУДИТА В РЕСПУБЛИКЕ КАЗАХСТАН

Аннотация. Любое юридическое лицо, которое занимается определённой деятельностью, прекрасно знает, что для достижения успеха в своём деле необходимо правильное распределение финансовых средств и максимально эффективное управление. Следовательно, для правильного развития деятельности компании и получения при этом положительных результатов требуется проведение в процессе работы определённых действий, которые позволят своевременно найти ошибки и проблемы. Одним словом, успех эффективной работы кроется в проведении тщательного и постоянного анализа различных данных, которые касаются непосредственно всей работы предприятия. Экологический аудит должен быть ориентирован на внутренние индивидуальные потребности предприятия в соответствии с его политикой и установленными целями.

Ключевые слова: экология, аудит, проблемы, анализ, перспективы, нормативы.

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ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДАҒЫ ЭКОЛОГИЯЛЫҚ АУДИТТІ ДАМЫТУ

Аннотация. Белгілі бір қызметпен айналысатын кез-келген заңды тұлға өз ісінде жетістікке жету үшін қаржылық ресурстарды дұрыс бөлу және тиімді басқару қажет екенін жақсы біледі. Сондықтан, компанияның дұрыс дамуы және оң нәтиже алу үшін қателіктер мен проблемаларды уақытында табуға

мүмкіндік беретін жұмыс процесінде белгілі бір әрекеттерді орындау қажет. Қысқасы, тиімді жұмыстың жетістігі - бұл кәсіпорынның бүкіл жұмысына тікелей қатысты әртүрлі деректерді мұқият және тұрақты талдауды жүргізу. Экологиялық аудит саясат пен белгіленген мақсаттарға сәйкес кәсіпорынның ішкі жеке қажеттіліктеріне бағытталуы керек.

Түйін сөздер: экология, аудит, проблемалар, талдау, перспективалар, стандарттар.

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SYSTEM ANALYSIS OF THE INTEGRATION PURPOSES OF CORPORATE STRUCTURES

Abstract. The purpose of the article is to analyze the socio-economic goals of integration of corporate structures to determine the feasibility of their creation. The relevance of the work is due to the need for a comprehensive assessment of the feasibility of integrating financial and industrial structures in terms of the socio-economic development of society as a whole, as well as coordinating the economic interests of the integrated structures. The paper considers the criteria for evaluating and selecting projects for creating corporate structures. In addition, the article identifies the main directions for conducting a systematic study of the processes of integration and the results of integrated corporate structures. As the main integrative quality, the authors indicate the existence of a common goal of the economic system of the national economy. At the same time, the authors define the overall economic goal at the macroeconomic level as satisfying the socially necessary level of solvent demand of all segments of the population with a systematic reduction of socially necessary costs per unit of beneficial effect.

The main conclusions and practical recommendations developed in the framework of the study can be used as a methodological basis for further deepening research on this issue.

Keywords: integration, corporate structures, criterion, efficiency.

Introduction. Under the contemporary economic conditions characterized by sharp decrease of production volumes, narrowing of consumer demand, facilitation of its structure, and aggravation of competitive struggle, there is a necessity to reduce the risks, combine forces, means and opportunities of economic entities. In the developed countries this often is achieved by intersectional integration, through combining of banking and industrial capitals. However, the reasonability of creating integrated corporate structure depends much not only on institutional conditions of a placement country, peculiarities of industry sector, but on a lot of other factors. Therefore, the process of integration of financial sector enterprises and industry should be preceded by obligatory integrated estimation of such integration reasonability in a view of priority for the development of industry, concordance of economic interests to ensure real partnership of the integrated structures.

If the issues of estimation of economic effectiveness and financial stability, in a varying degree, can be solved on the base of existing methodical and legislative documents, the issues related to selection and optimization of forms and mechanisms of the corporative integration, organizational and economic structure of corporations and regulation of joint activity, implementation of financial management and control, and also estimation of reasonability of integration and development of indicators ensuring the selection of optimal options of corporations creation are methodically very poor, have serious problems and need additional elaboration.

Methodology of investigation. The investigation was conducted using different methods combined by a system approach to the study of integration of industrial and financial capitals. The theoretical and methodological bases of work are theoretical statements and conclusions described in the works of the national and foreign scientists on the issues of functioning and development of the integrated corporate structures.

Results and discussion. Study and analysis of literature sources, and investigation of experience on analysis of the integrated structures efficiency shows that there is still no complete theory of forming and functioning of large integrated structures of market type. This kind of theory is more or less elaborated for merger and acquisition under the conditions of the developed market system and became a classical section in different students' books on economics [1-6].

For Kazakhstan economy conditions where forming and development of the corporate culture on macro- and meso-level is at the initial stage it is necessary to consider a range of statements of foreign investigations on integrated structures especially building of competitive advantages, and also analysis of social effectiveness of integration.

Works [7,8] show expert estimations of topicality and significance of different aspects of analysis of social and economic effectiveness of corporations, forming of financial and industrial groups basing on the integration of industrial and financial capitals.

The complex analysis of integrated structures effectiveness should, to a varying degree, consider the indicated aspects of the problem. Note that the most of the presented aspects have high level of innovation and practical significance. Thus, the analysis of social effectiveness of integration, according to the expert assessment, has high indicator as empirical investigations are absent. The estimation of practical significance degree for the economy is also high as underestimation of social factor becomes the narrowest place in creative systems.

The decisions on economic reasonability for corporate structures creation are based on complex and overall estimate of different integration options on the base of qualitative (informatory) and quantitative (formalized) characteristics of a project and participants used as criteria.

The organizational project on creating a corporation is considered as justified, and integration – reasonable if there is correspondence to the main groups of criteria allowing estimating integration advantages in view of:

– Additional economic benefit from joining of participants and combined activity (effect of synergy);

– Optimal content of participants, organizational and economic structure of corporations and ensure of effective interaction of participants, transparency of corporate relations and management of corporation in the process of functioning;

- ability of corporation to achieve the set goals, implementation of investment and manufacture programs, ensure of competitiveness of products and receive of stable financial results.

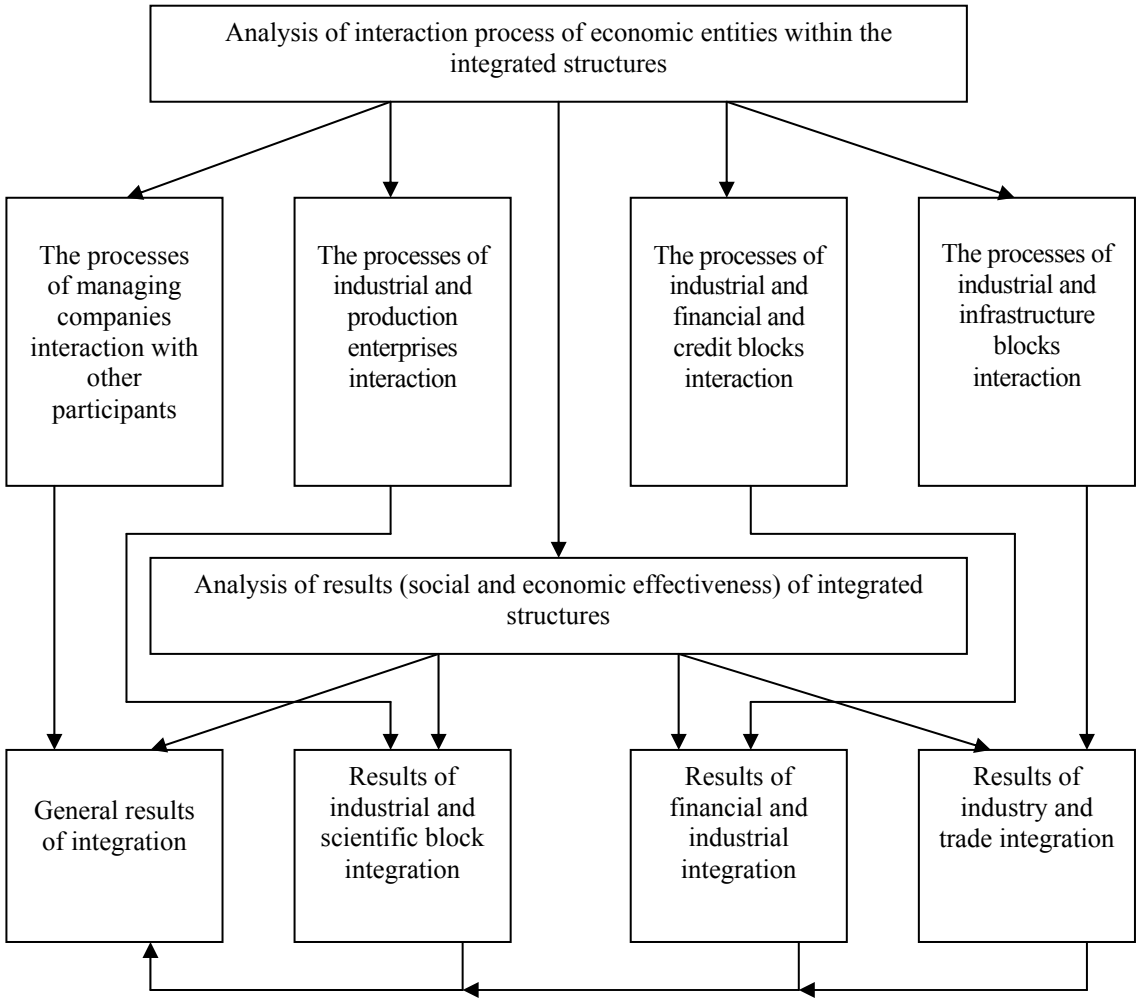
Criteria complex of estimation and selection of projects on corporate structures creation includes the following groups of criteria [9-14]:

– criteria and justification and reasonability of corporate structure creation – ensure selection of forms and mechanisms of corporate integration, optimization of organizational and economic structure and content of corporation participants; forming of "production and technological chains", mechanisms of mutual supplies and interaction with supply and sales agencies; forming of optimal structure of corporate assets, systems of mutual participation in capitals and other aspects of integration in view of implementation of main tasks of integration, ensure of management and coordinated activity in the process of investment and manufacture programs implementation;

– criteria of effectiveness and stability of corporation – characterize a strategy of corporation development in view of expected expenses and results caused by the integration, maximizing of profit under limitations ensuring financial stability (dependence of profit on parameters determining the stability) in the process of the corporate functioning, "traditional" indicators of projects effectiveness;

– criteria applied in the process of projects expertise on the governmental level – ensure making decisions on reasonability of creation and registration of corporation, necessity and ability to render governmental support.

Development of the integrated structures leads to different consequences. Work [15] shows a logical scheme of the integrated investigation of processes and results of corporation activity (Figure 1).



Note – compiled by the authors

Figure 1 – Logical scheme of the complex investigation of processes and results of the integrated structures activity

The positive aspect of the considered approach is that the social and economic efficiency of the integrated structures activity is related to optimization of the intercorporate and intra-corporate relations, selection of the most reasonable chains of interaction with suppliers.

The tightness of such approach is that it is not focused on prospective interaction of partners, possible change of technological and economic conditions of manufacture as a result of new targets and implementation of joint long-term programs.

The social and economic effectiveness of the corporation decreases significantly due to application of irrational forms and methods of managing companies work expressed in exaggerated motivation of managers to ensure the property control (owning of the corporation participants shares) and underestimation of managing aspects of integration, and effective use of social factors.

To describe the multisided phenomena that is a corporation it is necessary to base on the investigation of system property of economics hierarchy.

This statement determines the reasonability and the market economy functioning with the state regulation. A market is the system included into the integral system of the governmental management. Thus, without consideration of the included system interests, its subsystems cannot operate efficiently. Without following the subordination of economic interests the included system can damage significantly the system the organic part of which it represents.

First of all, it is necessary to adjust the interests of macroeconomics and microeconomics between which acute contradictions are being observed, adjust the integrity and its parts, national economy and economic entities. The development rate of the whole system depends much on synchrony of economic

interests of its subsystem with a higher management system. It is obvious that the crucial importance in the development of economy management system has a human, his focus on growth of labor effectiveness, on decrease of socially necessary expenses on a per-unit basis of useful effect. This conclusion will be understandable if the integrated system of the national economy management is considered as an organization able to coordinate people's activity to achieve a common goal.

Thus, the availability of the common goal of the national economy system is an integrated quality that cements its whole economic system.

The formulation of such common goal under the conditions of Kazakhstan economics is complicated and not yet developed methodologically. As a first approximation it can be formulated as follows: a common economic goal on the macroeconomic level is satisfaction of socially necessary level of effective demand of all population layers at systematic decrease of socially necessary expenses on a per-unit basis of useful effect.

It is obvious that the goals reflecting macroeconomic interests are identified with the national interests and cannot coincide with the interests of economic entities on the macroeconomic level the main goal of which is maximizing of the current profit. The solving of the indicated contradiction is impossible without application of the systematic property of economics – institutionality. This appears in forming of behavior rules of economic relations entities on finding the most effective ways to solve the appeared contradictions. Such statement of a problem implies the availability of clearly formulated tasks on the level of the national economics the solving of which requires application of the institutional rules and mechanisms.

In addition, this task should have an adequate methodological support, economic platform on the base of which a theoretical model of macroeconomic and microeconomic interests concordance can be constructed. The content of the model should reflect the main trend of institutional rules and mechanisms of its implementation. The desired model can be qualitatively formulated as follows: everything that is beneficial in view of the national interests (on macroeconomic level) should be beneficial in view of economic entities (on microeconomic level).

For the progressive advancement the society should always decrease time outlays on implementation of individual works in production and non-production spheres, and on arrangement of the whole labor activity so that the cumulative labor of society members become more effective. It is obvious that the labor time economy is not reached itself, but is achieved, first of all, as a result of adoption of scientific and technical achievements. This process includes the programs of research investigations, programs on enhancing the technical level of production. The implementation of such programs allows for systematical increase of social and economic effect volume received from every time unit expense.

According to the theory of effectiveness the criteria represent the main principle determining optimal choice. Therefore, the combination of requirements at implementation of which the admissible solutions satisfy best the set goals can be considered as criteria.

As the scientific and technical progress acts as means for implementation of social and economic development goals, so it would be reasonable to connect the criteria of its effectiveness with the criteria of public production effectiveness. At this, the individual indicator of public labor effectiveness growth is increased effectiveness of new machines use. Therefore, to determine the social significance, the system of natural technical and economic indicators reflecting poorly the influence of technical progress diversity on improvement of social conditions of manufacture, and on change of economic balance applied in practice is insufficient.

The criterion of social effects are not economic indicators, but such social values as increase of labor satisfaction, strengthening of its creative aspects, change of a human place in the labor process etc.

The criterion of social and economic effectiveness of the integrated structures activity should show in the most common form the final goal of choice. The final result is social criteria characterizing the conditions of a person development. The criterion should correspond to the essence of the existing economic laws on the level of national economy, corporations and individual enterprises, and meet the requirements on improving mechanism of its use in the process of definite social and economic tasks solving.

The criterion should such as on its base it would be possible, in the process of thorough analysis of comparative effectiveness of options, to combine the analysis of individual indicators ensuring the system

approach. The principle of the system approach regarding the tasks on determining social and economic effectiveness requires the decrease of expenses on the level of corporate integration and on the level of enterprises-participants. Any activity is considered as effective when it favors the decrease of all cumulative costs. It is quite possible to encounter the situations under which the achievement of economic and positive social results even within the same enterprise is not accompanied by the largest economy of all expenses of the corporation in whole. The system approach will allow revealing positive and negative sides of this activity for each element of production, corporation.

It should be noted that Kazakhstan has accumulated rather notable scientific and technical base: quite developed sphere of education and science, availability of knowledge-based manufactures and advanced technologies. Therefore, the social and economic trend of the integrated structure can be characterized as planned and consequent regulation and interaction of all elements, subsystems and its consistency with a common social and economic goal of society. This obviously shows that not every improvement of material and technical base of the integrated structures is useful, but only the one that serves as means to solve social and economic tasks of society.

The economic and social goals of society are organically interconnected and one cannot be unraveled correctly without another. At the same time, namely such integration could help to overcome the existing disproportion between relatively high technical level and its insufficient social tendency.

The activity of integrated structures should not be considered separately from improvement of natural resources use and nature protection, but as such improvement of material and technical base that includes preservation and rehabilitation of the environment. Under such understanding the nature protection and improvement of natural resources use becomes as one of the corporation activity trend, and not as a special system of activities on overcoming its negative consequences.

Only such understanding of the corporation activity that includes the improvement of natural resources use, preservation and rehabilitation of aerial and water basin, increase of lands productivity allows for the integrated structures to acquire a trend meeting the interests of a human and society under the market conditions.

Thus, maximum satisfaction of material and spiritual needs under the given resources can be achieved when useless labor expenditures are reduced to minimum, i.e. the highest public labor efficiency is achieved. The social results can either favor the achievement of the main goal of production if these are positive or sustain it if social factors are negative.

Enhancement of social results favors the preserving and strengthening of labors health, reduction of industrial traumatism, professional diseases, increase of labor efficiency, qualification growth. It is obvious that ensure of the social effect here is of the highest priority. However, it is important what efforts and costs should be spent to achieve it.

The improvement of social results is an essential reserve to enhance the labor productivity. It is obvious that the advanced machines allow not only liquidating hard physical labor, improving the conditions and state of labor, but, mainly, offer savings by replacing the manual labor with machinery. With the mechanical means advances the share of human labor reduces, and the share of earlier labor expenses materialized in labor means ensures the general decrease of cumulative labor expenses per production unit. Namely the decrease of the cumulative expenses of all resources causes the steady rise of labor productivity.

Conclusion. The precision of the integration goal facilitates the task of its results revealing. This issue, despite its clear topicality, is not described enough in social and economic investigations. The results of the integrated structures activity can be divided into material and technical, economic, and social.

The material and technical results could contain the following: increase of the technical level of production, improvement of quality and competitive ability of products, preservation and rehabilitation of environment.

The economic results of the integrated structures include the increase of production intensification level and rational use of resources, reduce of human labor expenses, natural, material, fuel and energy resources on production and utilization of user value unit.

The end result of the integration are social, characterizing conditions of a person development basing on the growth of material and technical base of society and technical progress that change radically not

only conditions, but content of labor. In many cases, the labor is based on organic unity of mental and physical functions, acquires more creative features and becomes socially homogeneous. The social results of integration have complicated and dynamic character and act as driving forces of the contemporary production intensification process.

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КОРПОРАТИВТІК ҚҰРЫЛЫМДАРДЫҢ ЫҚПАЛДАСУ МАҚСАТТАРЫН ЖҮЙЕЛІК ТАЛДАУ

Аннотация. Мақаланың мақсаты ықпалдасқан корпоративтік құрылымдарды құрудың қажеттілігін анықтау үшін олардың ықпалдасуының әлеуметтік-экономикалық мақсаттарын талдау болып табылады. Жұмыстың өзектілігі қоғамның әлеуметтік-экономикалық дамуы, сонымен қатар ықпалдасатын құрылымдардың экономикалық мүдделерін сәйкестендіру тұрғысынан алғанда қаржылық және өнеркәсіптік құрылымдардың ықпалдасу қажеттілігін кешендік бағалауды жүргізу керектігімен түсіндіріледі. Жұмыста корпоративтік құрылымдарды құру жобаларын бағалау және іріктеу критерийлері қарастырылған. Одан басқа, мақалада ықпалдасу процестері мен ықпалдасқан корпоративтік құрылымдар қызметінің нәтижелерін жүйелік зерттеуді жүргізудің негізгі бағыттары анықталған. Авторлар басты интегративтік сапа ретінде халық шаруашылығының экономикалық жүйесінің ортақ мақсатының болуын көрсетеді. Сөйте тұра, макроэкономикалық деңгейдегі ортақ мақсатты пайдалы эффект бірлігіне есептелетін қоғамдық қажетті шығындарды жүйелі түрде қысқарту арқылы жүзеге асатын, тұрғындардың барлық қабаттарының төлемқабілеттілігінің қоғамға қажетті деңгейін қанағаттандыру ретінде түсіндіреді.

Зерттеу барысында жасалған негізгі қорытындылар мен тәжірибелік ұсыныстарды осы мәселе бойынша зерттеулерді одан әрі тереңдету үшін әдістемелік негіз ретінде қолданысын табуы мүмкін.

Түйін сөздер: ықпалдасу, корпоративтік құрылымдар, критерий, тиімділік.

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СИСТЕМНЫЙ АНАЛИЗ ЦЕЛЕЙ ИНТЕГРАЦИИ КОРПОРАТИВНЫХ СТРУКТУР

Аннотация. Целью статьи является анализ социально-экономических целей интеграции корпоративных структур для определения целесообразности их создания. Актуальность работы обусловлена необходимостью проведения комплексной оценки целесообразности интеграции финансовых и промышленных структур с точки зрения социально-экономического развития общества целом, также согласования экономических интересов интегрируемых структур. Изучение критериев оценки и отбора проектов создания корпоративных структур позволило авторам построить логическую схему комплексного исследования процессов и результатов деятельности интегрированных структур. Кроме того, в статье определены основные направления проведения системного исследования процессов интеграции и результатов деятельности интегрированных корпоративных структур. В качестве главного интегративного качества авторы обозначают наличие общей цели экономической системы народного хозяйства. При этом общую экономическую цель на уровне макроэкономики авторы определяют как удовлетворение общественно необходимого уровня платежеспособного спроса всех слоев населения при систематическом снижении общественно необходимых затрат в расчете на единицу полезного эффекта.

Основные выводы и практические рекомендации, выработанные в рамках исследования, могут быть использованы в качестве методологической основы для дальнейшего углубления исследований по этому вопросу.

Ключевые слова: интеграция, корпоративные структуры, критерий, эффективность.

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MOTIVATIONS AND NEEDS IN THE MARKET ECONOMY

Abstract. The human resource management system will not function properly unless an effective motivation model is developed. Over the entire period of the study of human behavior, scientists have put forward a large number of different theories that classify needs according to one or another of the criteria. It is important for the employee to feel his importance in front of the organization's management and recognized ownership in its prosperity. An important role is played by the spirit of competition, the ability to work in a team, the possibility of self-realization and personal growth in the work process, pride in belonging to this organization, recognition of colleagues and management. One of the first behaviorists, from whose work leaders learned about the complexity of human needs and their impact on motivation, was Abraham Maslow. However, modern scientists have expanded the pyramid, adding aspects that meet the spirit of the times and reveal a new perspective on staff motivation.

INTRODUCTION

Motivation - this is the basis, means, sources and incentives for the development of people. She is a stumbling block for many managers. The need for motivation is due to the fact that managers have to work with people and among people and it is important for them to know the causes of certain actions of their subordinates in order to be able to direct their actions in the direction that is desirable for the organization (company)

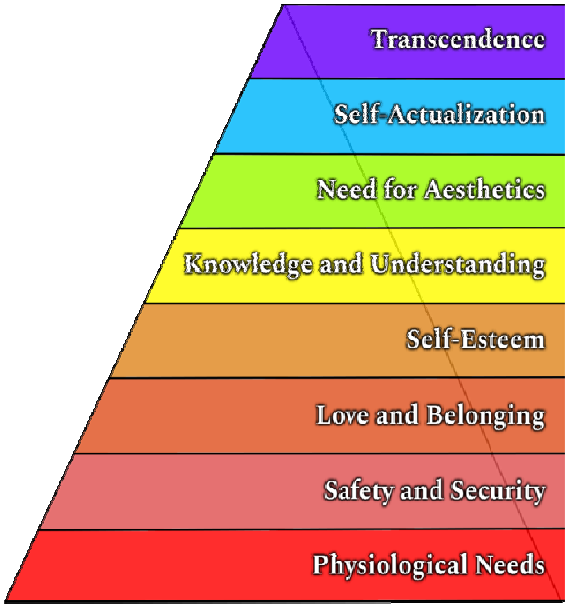
Need is an objective need of a person for something necessary to maintain his life and personality development. The last refinement in the definition was not given by chance: in addition to physiological needs, on which a person's life directly depends, there are a number of other needs. Therefore, depending on their paramount importance, it is customary to arrange needs in a certain hierarchy.

CONCLUSION

- According to his theory, the success of motivating workers to productive work depends on how well relevant human needs are considered. All human needs, according to the theory of A. Maslow, can be reduced to a strict hierarchy [4; 366]:
- • physiological needs. These include: food, water, shelter, recreation and sexual needs;
- • security needs and confidence in the future. This includes the need for protection from physical and psychological attacks from the outside world, as well as the belief that physiological needs will be met in the future, for example, by guaranteed and fairly well-paid work;
- • social needs. These include a sense of belonging to a social group.
- (family, relatives, friends, work and hobby colleagues);
- • need for self-respect. It includes the need for personal achievement, competence, recognition and respect from others;
- • the need for self-esteem is the need for self-expression, the realization of one's potential and growth as an individual.

The three new additions to Maslow's original Hierarchy of Needs model are:

- Knowledge and Understanding (Cognitive Needs)
- NeedforAesthetics
- Transcendence



Fugure 1 - The three new additions to Maslow's original Hierarchy of Needs model

Knowledge and Understanding (Cognitive Needs): This the need to learn and would clearly be a growth need. People have a desire to explore and learn new things or understand the world around them. The inability to meet the cognitive needs may make it difficult to reach Self-Actualization. Self-Actualization is about personally growing and is a more complex form of gaining knowledge and understanding.

Need for Aesthetics: This is about the desire for beauty and pleasing surroundings in our life. Through the chaos, we seek order and balance. We want to appreciate the things we find beautiful, you may stop to smell the roses.

Transcendence: Transcendence is the desire to move beyond ourselves. In the expanded hierarchy it is placed after Self-Actualization, making it the highest level in the hierarchy. People seeking to fulfill their Transcendent needs may be motivated by helping others or becoming wholly driven by factors that do not personally impact them. They are so confident in their lower level needs being met satisfactorily that they worry about the needs of others.

According to experts [5; 2], there are three main levels of satisfaction of needs:

• minimal - provides human survival and the possibility of the emergence of social and spiritual needs. In numerical terms and in relation to wages, the minimum level lies between the official minimum wage and the official poverty line, i.e. between the cost of the minimum grocery and minimum consumer basket;

• normal level - the optimal level of satisfaction of the needs of existence. Subjective expression: the employee spends no more than 10% of his wakeful time thinking about satisfying basic needs (housing, food, clothing, safety, etc.). Objective expression: consumer budget. The increase in the effect of exceeding it is not more than the increase in costs;

• level of luxury: meeting the needs from the 3rd level on the Maslow scale becomes an end in itself and a means of demonstrating a high social position. Consumption goes beyond physiological norms.

The Polish psychologist K. Obukhovsky made calculations and revealed 120 classifications. But most of them are too narrow a profile to apply them everywhere.

One of the first who tried to classify human needs was the ancient Greek philosopher Plato in his "State." He distinguished two groups of needs: necessary (inevitable) and deprived of necessity. To the first, he attributed those needs of a person that are impossible to get rid of, and, no less important, that benefit us. The second group - those needs that a person can refuse, for example, the need for plentiful food, wine, etc.

The need for self-actualization is the most difficult to satisfy, therefore it occupies the last place in the general classification. Its existence is connected with the desire of any person to realize their creative

potential, with the need for self-expression. According to statistics, only 4 percent of the world's population reach this level.

In general, the formation of needs is influenced by many factors of historical and dialectical development.

A significant influence is exerted by climatic factors. So, for example, people living in cold countries have a need for warm clothes, for heating their homes. More money goes to medical care.

There are also social group factors, including age and gender. In connection with them, the needs of children and adults, men and women, differ.

Cultural and historical factors also play an important role in shaping the needs of the individual. For example, Thanksgiving is inherent only to Americans, in connection with this, a number of needs are formed for certain food products, holiday paraphernalia, etc.

Scientific and technical factors mainly contribute to the evolution of the needs of modern society. With the advent of new technological advances, people have a need for a certain set of technological innovations (gadgets, the Internet, mobile communications).

Class-ideological factors form the needs characteristic of certain social strata of society, for example, the need for idleness, the elimination of boredom, the need for power, the need for self-realization.

New relative to other factors are information factors that form the demand for certain goods and services through information technology and advertising.

In addition to the concept of “need”, the concept of “interest” plays an equally important role in understanding the mechanism of motivation. If a need answers the question of what a person needs for his comfortable life, then interest shows how this need can be satisfied. Marx quite fully considered the category of economic interest in his teaching. He revealed that industrial relations are closely interconnected with the interests of social groups.

Indeed, material reward is of great importance in the motivation of staff, but not always determinative. There are a number of reasons for this.

Firstly, it is impossible to constantly increase wages to further stimulate employees. A person gets used to the achieved level of income, and his motivation is reduced.

Secondly, it is necessary to take into account the peculiarities of the Russian mentality. Berdyaev emphasized that “the soul of the Russian people was formed by the Orthodox Church, it received a purely religious formation. “The religious formation has developed some stable properties, dogmatism, asceticism, the ability to bear suffering and sacrifice in the name of faith, the aspiration for the transcendent, which refers either to eternity and another world, now to the future, now to this world.”

Hence the negative attitude to wealth, the contempt of "dirty" money, a certain asceticism. It is inefficient to only financially stimulate an employee who is prone to transcendence, whose life guidelines are not aimed at consumption.

Sociological studies show that, given the abundance that provides an acceptable standard of living by modern standards, 20% of people do not feel like working under any circumstances; of the remaining 36% agree to work if they are interested in it; 36% - will go to work to avoid boredom and loneliness; 14% - out of fear of “losing yourself”; 9% - because the process of work itself brings joy from the feeling of being useful. Only about 12% of respondents have money as the main motive for their work, while at the same time, up to 45% prefer fame to them; 35% - satisfaction with the content of the work

It is not surprising that today more and more top managers are looking for new forms of personnel motivation management, combining both material and non-material incentives.

Intangible incentives include the creation of comfortable working conditions. At the same time, comfortable working conditions mean not only an equipped workplace of an employee, but also a favorable psychological climate in the team. Corporate culture is also a powerful incentive. The task of the organization’s leadership is to develop a flexible system for managing staff motivation, remembering that this system is not a “one-time invention”, but a “result of evolution” that is constantly changing and developing.

Thus, the main emphasis must be placed on meeting social needs and the needs for respect for workers in enterprises and organizations. Competent managers, pursuing a policy of introducing employees to the goals and values of the organization, reinforcing the need for them to be involved in work at this enterprise, achieve high motivation to work and, as a result, increase the efficiency of the

organization itself. In small enterprises, especially those where staff is the main resource for achieving the goal (consulting, marketing, software development), the main attention should be paid to social needs, along with possible material incentives and satisfaction of security needs.

In Western companies, there is an unwritten rule "any ideas are worthy of attention." The organization has a common development vector, but no ready-made solutions for achieving results are known, employees learn to work efficiently, effectively and efficiently in the process of work. Therefore, it is customary in these companies to listen to others, to consider any new proposals. Employees participate in the discussion.

In many Western companies, employees receive bonuses for personal achievements that are not related to his job responsibilities. The development plan developed by the employee includes items that are not related to work. So, someone plans to lose weight, and draws up a program for weight loss for a quarter, six months, someone puts in a plan to learn how to play musical instruments, to study the work of a writer or poet, to achieve success in sports, etc. If an employee does not achieve personal growth goals, he will receive a bonus of about 5% less. Companies are interested not just in qualified personnel, but in diverse, creative and self-sufficient employees.

The personnel motivation management system is personified. Widely used are weekly conversations of the leader with each subordinate.

In the RK, a situation often arises that after a trial period a person is fired without giving an explanation why he does not like the employer. In Western firms, managers must conduct individual hourly meetings with their employees at least once a week to find out how he is doing, what suits or does not suit his work, whether the employee fits into the schedule of the development plan, and in what matters the help of the manager is needed. This is precisely the main function of a leader - to inspire employees, support them in their work, and help solve personal problems.

This attitude towards employees creates a family atmosphere, and it is no coincidence, because almost employees live in the office, working for 10-14 hours.

To summarize, we can conclude that in order to create an effective system for managing the motivation of the personnel of a modern organization, one must adhere to the following rules:

- management decisions of the leadership should be consistent, rational and logical;
- the majority of employees want to show their abilities and their importance in the work, so they need to recognize their professional opinion by management on those issues in which they are competent enough;
- if the work is monotonous and does not provide development opportunities, the change of activities should be practiced;
- each employee has his own point of view on how to improve his work, and it must be considered;
- if the employee feels the importance of his work, then this allows him to increase his self-esteem, self-confidence;
- employees receive satisfaction from the work and fulfill it with enthusiasm if they can achieve their goals, so the goals put forward should be realistic, be measurable in terms of level and deadlines;
- achieving success without recognition from management and colleagues leads to disappointment, therefore, an employee who has good results in work should receive both material and moral encouragement;
- as a rule, employees negatively perceive changes in work if they are adopted without considering their opinions and experience, even if these innovations are rational and useful;
- objective and timely informing the employee about the quality of his work is required, which will allow him to regularly analyze and adjust his activities;
- for the vast majority of employees, external control is unpleasant, it is necessary to strive for the maximum possibility of self-control, which increases self-esteem, responsibility and interest in the work;
- employees quickly lose their motivation and initiative if their efforts and the results achieved lead to the fact that they are even more loaded.

CONCLUSION

The essence of personal recognition is that particularly distinguished employees are mentioned in special reports to the top management of the organization, personally congratulated by the organization on the occasion of holidays and family dates. Public recognition consists in the wide dissemination of

information about the achievements of workers in the media at special stands, the rewarding of especially distinguished people with honorary signs and diplomas. Also, public recognition may be accompanied by awarding prizes, valuable gifts. Specific moral methods of motivation are praise and criticism.

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МОТИВАЦИИ И ПОТРЕБНОСТИ В РЫНОЧНОЙ ЭКОНОМИКЕ

Аннотация. Система управления человеческими ресурсами не станет должным образом функционировать, если не будет разработана эффективная модель мотивации. За весь период исследования челове-ческого поведения учеными было выдвинуто большое количество различных теорий, классифицирующих потребности по тем или иным признакам.Работнику важно ощущать свою важность перед руководством организации и признанную сопричастность в ее процветании. Немаловажную роль играет дух соревнования, возможность работы в команде, возможность самореализации и личностного роста в процессе работы, гордость за принадлежность к данной организации, признание коллег и руководства. Одним из первых бихевиористов, из работ которого руководители узнали о сложности человеческих потребностей и их влиянии на мотивацию, был Абрахам Маслоу. Однако, современные ученые расширили пирамиду, дополнив аспектами, которые отвечают духу времени и раскрывают новый взгляд на мотивацию персонала.

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НАРЫҚ ЭКОНОМИКАСЫНДАҒЫ МОТИВАЦИЯЛАР МЕН ҚАЖЕТТІЛІКТЕР

Аннотация. Тиімді мотивациялық модель жасалмайынша, персоналды басқару жүйесі дұрыс жұмыс істемейді. Адамның мінез-құлқын зерттеудің бүкіл кезеңінде ғалымдар қажеттіліктерді сол немесе басқа критерийлерге сәйкес жіктейтін көптеген теорияларды алға тартты. Қызметкер үшін оның маңыздылығын ұйым басшылығы және оның өркендеуі кезінде мойындау маңызды. Бәсекелестік рухы, ұжымда жұмыс істеу қабілеті, жұмыс процесінде өзін-өзі дамыту және жеке өсу мүмкіндігі, осы ұйымға мүше болу мақтанышы, әріптестер мен басшылықтың мойындауы маңызды рөл атқарады. Жұмыс жетекшілері адамның қажеттіліктерінің күрделілігі және олардың мотивацияға әсері туралы білетін алғашқы мінез-құлық иелерінің бірі Авраам Маслоу болды. Алайда, заманауи ғалымдар пирамиданы кеңейтіп, уақыттың рухына сәйкес келетін және кадрларды ынталандырудың жаңа перспективаларын ашты.

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POSSIBLE WAYS OF USING ASH AND SLAG WASTE

Abstract. A lot of TPPs operate on coal, as there are large coal reserves in the world. Particularly cheap are multi-ash coals. As a result, in addition to the impact of energy enterprises on the atmosphere, there arises the problem of the need to store the ash and slag formed, as a result, huge ash dumps appear. Ash and slag dumps occupying vast territories alienate them from economic use. The lack of land leads to an increase in the height of ash dumps, which accelerates the ingress of ash into the air basin due to wind erosion. As a result, ash dumps become a source of complex environmental pollution, endanger public health, pose a threat to the animal and plant world. Particularly dangerous are ash dumps located near water bodies, since the risk of the rapid spread of ash and slag with water flows in case of emergency increases sharply.

Keywords: waste, ash and slag, reserves, pool, environment, ways of use.

INTRODUCTION

Currently, there is a growing energy consumption in the world. TPPs prevail in the structure of energy generation, their share is about 60-65%. This figure correlates depending on the region, for example, in Latin America about 75% of energy is generated at hydroelectric power stations, the share of nuclear power plants is higher than the global average in foreign Europe and North America. There are also countries in which up to 98-99% of energy is generated at thermal power plants. An increase in energy production at TPPs entails an ever greater burning of fuel: coal, shale, peat, etc. Therefore, one of the main tasks in the operation of thermal power plants is the development of environmentally friendly and resource-saving technologies, reducing the negative impact of enterprises on the environment [1].

One of the ways to solve the problem is to utilize the formed ash dumps. To clarify the ways of utilizing ash and slag in this paper, we review the experience of other countries. It was found that the most successful countries in this area are the countries of the European Union, where all the ash and slag waste generated is almost completely utilized. Approximately half of them are used to fill spent mines, the remaining part is in the production of cement, building materials, in residential and road construction.

MAINPART

The increased interest in the use of recycled materials in developed countries is determined by economic considerations, as well as stringent environmental laws regarding the processing of production and consumption waste. In China, ash and slag is also used quite widely, mainly in the production of cement, concrete, bricks, aggregates for various purposes, in the construction of roads, as fertilizers. Particular attention should be paid to India. The share of coal prevails in the fuel balance of the country's energy sector (about 70%), the ash content of the used coal reaches 45%. This fact caused the formation of large volumes of ash and slag. In 1994, to solve this problem, the government created the Fly Ash Mission, which demonstrated the economic attractiveness of ash and slag plants. As a result of the Mission's activities, ash and slag utilization increased from 1.2 million tons (3% of the education volume) in 1994 to 80 million tons (50%) in 2008 [2].

One of the most acute problems in the North Kazakhstan region is the presence of ash dumps, which were formed as a result of the main source of heat and electricity in the region - Petropavlovsk CHP-2 (PTEC-2). Ekibastuz coal, the ash content of which reaches 40%, is used as the energy carrier at this TPP. This is a problem in many regions and countries in which coal-fired power plants are the source of energy [3].

Ash and slag of thermal power plants are of great interest for use as fertilizers or replacement of lime flour, to normalize acidic soils. Most of these works claim that ash is highly effective in improving the physicochemical properties of soils. In the studies of the Krasnoyarsk Research Institute of Agriculture, it was found that in the field, brown ash from the Achinsk and Krasnoyarsk thermal power plants was slightly inferior to limestone flour in neutralizing soil acidity. In an experiment with clover, ash increased the pH from 4.7 to 5.3, and lime flour - up to 5.6. Hydrolytic acidity when using these ameliorants decreased from 6.2 to 3.2-3.9 mEq / 100 g of soil. In the experiment with barley, ash and lime increased the pHKCl from 4.9 to 5.6-5.8; in another experiment, from 5.3 to 5.8-6.1 [4.5].

The data on the high efficiency of brown coal ash of the Kansk-Achinsk fuel and energy complex (KATEK) are presented: under the influence of these ashes against the background of N90P90K90, the pH increases from 4.5 to 6.2 in the variant on dark gray soil. A noticeable neutralization of hydrolytic acidity is observed - from 8.9 to 3.5 mEq / 100 g of soil [6].

Rudogo's research indicates the superiority of KATEK brown coal ash in terms of its effect on rapeseed over lime and belite flour.

Some authors, by contrast, did not reveal a significant effect of KATEK brown coal ash during chemical reclamation of dark gray forest soils on the productivity of barley and rape [7,8].

The results of the study by Andreeva S.G., which studied the coal ash of the Kansk-Achinsk basin from an environmental and hygienic point of view, showed that the ash contains highly and moderately hazardous minerals and polycyclic aromatic hydrocarbons involved in natural cycles due to migration into groundwater, soil and air. A study of the toxicological effect showed that coal ash of the main deposits of the Kansk-Achinsk basin does not have local irritating effects on the mucous membranes and skin of laboratory animals. Intra-gastric administration of ash at a dose of 5000 mg / kg caused in some cases in the first day the death of mice. Also, according to the results of pathomorphological studies, the following were revealed in surviving animals: in the kidneys and liver, an increase in size, changes in granulation and color; in the spleen - resizing; bloating and necrosis in the stomach; along the digestive tract, the expansion of blood vessels. When seeding ash from the burned coals of the Irsha-Borodinsky and Berezovsky deposits, pathomorphological changes were more pronounced. Andreeva S.G. it was found that under the acute action of ash, the minimum effective dose that causes statistically significant changes in the blood (increased hemoglobin, erythrocytosis, leukocytosis), as well as pathomorphological changes in the blood vessels, stomach, liver and kidneys, is a dose of 92 mg / kg (Nazarovskoye field) and dose of 50 mg / kg [9, 35c].

The use of Ekibastuz coal as an ameliorant has not been fully studied, it must be borne in mind that with large amounts of ash and slag applied to the soil, ecological balance may be disturbed, an excess of MPC for some trace elements contained in large quantities in ash and slag may appear (according to the results of the analysis commissioned by Ecosphere »Ekibastuz coal, they found a significant content of the following micro and macro elements: Mn (0.07%), Zn (0.0065%), Fe (3.89%), Cu (0.0062%), Co (0 , 0066%) Se (1.49 mg / kg), P (0.07%), K (0.4%), N (0.11%)), since the plants m Gut accumulate certain elements. It is also possible that the introduction of more ash and slag will not lead to an adequate increase in yield. The limits of the introduction of ash and slag volumes into the soil should also be determined experimentally and by biochemical analysis of the obtained crop, including using various crops, which will take more than one growing season.

Thus, an analysis of literary sources has shown that the use in agriculture of ash and slag waste generated during the burning of solid fuels abroad gives positive results. There is a decrease in soil acidity, an increase in the content of exchange potassium, mobile phosphorus and calcium, an increase in the yield of grain and vegetable crops while maintaining the quality of the products obtained. However, before the intended use of ash and slag waste in agriculture, a comprehensive hygienic assessment should be carried out with a comprehensive study of the toxicological, sanitary, chemical, and radiological characteristics of ash and slag: effects on warm-blooded animals, determination of the toxicity index, phytotoxicity, effects on aquatic organisms, determination of irritating and sensitizing activity . According to their physicochemical properties, the ash and slag of CHPP-2 is an erosion-hazardous material, finely dispersed and poorly connected. By granulometric composition, they are mainly represented by dust particles. The purpose of the study was the feasibility study of the reuse of ash and slag waste PTEC-2. During the study, emphasis was placed on the possibility of using ash and slag waste when growing crops. The

characteristics of ash and slag and agricultural soils were compared. The chemical composition of ash and slag was studied with a view to not exceeding the MPC of certain substances presented to agricultural soils according to Valuy (for European and Mediterranean countries) standards [10]. The results are shown in the table (table 1).

Table 1 - Analysis of ash and slag PTEC-2 conducted by the company "Ecorem"

Sample Characteristics		Polycyclic aromatic hydrocarbons (mg / kg)	
Dry matter (%)	65	naphthalene	0,043
Metals (mg / kg)		acenaphthylene	0,07
As	11	acenaphthene	0,26
Cd	<0,5	phenanthrene	1,6
Cr	<15	anthracene	0,44*
Cu	51*	fluorantent	0,6
Hg	<0,1	pyrene	0,39
Ni	6,2	benz [a] anthracene	0,11
Pb	14	chrysene	0,16
Zn	45	benzo [b] fluorantent	0,092
Volatile Aromatic Hydrocarbons (mg / kg)		benzo [k] fluorantent	0,046
benzene (mg / kg)	<0,02	benzo [a] pyrene	0,11
toluene	<0,02	dibenzo [a] anthracene	0,062
ethylbenzene	<0,02	benzo [g, e] perylene	0,13
o-xylene	<0,02	indeno [123-cd] pyrene	0,096
m, r-xylene	<0,04	Mineral oils	
xylenes (general)	<0,06	fraction EC> C10-12	<12
		fraction EC> C12-16	370
		fraction EC> C16-21	
		fraction EC> 21-35	26
		Total	410

According to the results of the analyzes, no significant excess for any parameters was found in the soil (recorded excesses of permissible concentrations in the table are marked with an asterisk *).

Similar studies have been conducted previously. Assumptions about the possibility of using ash and slag in crop production as fertilizer were made during the Soviet era, namely in the works of Lev Vladimirovich Tauson, a geologist and geochemist, academician of the USSR Academy of Sciences. He made the assumption that, in the previously existing low-temperature fuel combustion processes, coal ashes could not be introduced into the soil due to the presence of large amounts of such harmful impurities as arsenic, mercury, cadmium, zinc, lead, cobalt. In modern high-temperature combustion processes, the listed hazards in the ash do not exceed the MPC, which was already confirmed in the results of the analysis of the PTETs-2 ash in the Test Chemical-Analytical Center of GU “RNMTSAS" Ministry of Agriculture of the Republic of Kazakhstan (Shortandy), and was repeatedly confirmed in the studies of Ecorem company ".

In contrast to the Belgian company’s research, the Shortand study compared the ash composition with soil samples from the agricultural centers of the North Kazakhstan oblast (Table 2).

Table 2 - Results of analysis of ash from Ekibastuz coal of the Test Chemical and Analytical Center of the State Institution "RNMTSAS" Ministry of Agriculture of the Republic of Kazakhstan"

Name of the farm	Humus %	N-NO3 мг/кг	P2O2 mg/kg	K2O, мг/кг	pH	Cu, mg/kg	Zn, mg/kg	Pb, mg/kg	Cd, mg/kg	Mn, mg/kg	Co, mg/kg	Fe, mg/kg
Chernozem soils	4.3	6.5	17	429	7.2	8.6	7.8	14.9	0.3	243	9.5	177
Rost-Expert LLP	3.3	5.8	50	362	8.1	5.2	6.2	9.7	0.3	238	8.4	84
Chernozem soils	4.4	9.2	55	392	7.9	4.9	9	18.6	0.3	231	8.3	53
GSU Novokamensky	5.9	16.3	264	820	7.7	16.2	136	40	0.5	236	7.4	88
Chernozem soils	3.8	12.3	88	322	8.4	10.8	28.8	21	0.3	241	7.1	24
LLP S. lebur-Agro	5.2	17.2	114	822	8.1	6.0	13.2	10	0.4	242	9.1	31
Chernozem soils	6.6	1.9	30	151	8.4	7.2	3.8	5.5	0.2	142	3.2	350

It follows from the table that the indices of the content of chemical compounds of elements in the ash are close to the indices of soils of the named farms, generally fitting into the interval of their dispersion, excluding iron. Significantly less potassium oxide in the ash. The most surprising fact was the detection of humus in the ash and slag of the PTETs-2, moreover, in an amount significantly exceeding its content in the chernozems of the indicated farms. In practice, the humus content in ash is 1.5 times higher than its average level in the soil cover of the North Kazakhstan Oblast. It can be assumed that humus appeared in the ash during the transformations accompanying its presence in the ash dump for decades. In the process of studying this extremely interesting fact, ash samples were taken at different sites of ash dumps and sent to the specialized chemical laboratory "Centrgeoanalit" (Karaganda). Despite the fact that the dependence of the humus content on the age of the ash is not visible, in all samples the humus content is high - 5.8-7.3%.

It should be noted that the old reclaimed dumps of PTEC-2 on the surface are covered with perennial thickets of sea buckthorn, which also grows on recently reclaimed dumps, which indicates the fertility of ash and slag. Sea buckthorn is growing at an accelerated pace, growing instantly on recently reclaimed dumps. There is abundant flowering and the densest thickets in places, even where the restoration layer is minimal [11].

Table 3 - the results of the analysis of ash of Ekibastuz coal (Test Center LLP "Centrgeolanalit")

№ lab	Shelf life, лет	Pb, %	S, %	Mo, %	Cd, %	Na, %	Ca, %	Mn, %	Zn, %	Fe, %	Cu, %	Co, %	Se, мг/кг	Mg, %
1	ash up to 1 g	0.0019	0.078	0.00065	<0,0005	0.53	0.94	0.070	0.0065	3.89	0.0062	0.0066	1.49	0.53
2	ash 5-10 l	0.0021	0.072	≤0,0005	<0,0005	0.37	0.94	0.075	0.0074	3.86	0.0064	0.0045	2.60	0.48
3	ash 10-15 l	0.0014	0.078	≤0,0005	<0,0005	0.32	0.94	0.084	0.0083	4.35	0.0056	0.0066	2.00	0.48
4	ash 15-20 l	0.0022	0.034	≤0,0005	<0,0005	0.32	0.78	0.066	0.0081	3.41	0.0055	0.0044	2.97	<0,3

№ lab.	Shelf life years	P (gross) %	TO (gross) %	N, (gross), %	humus %
1	ash up to 1 g	0.170	0.40	0.110	5.88
2	ash 5-10 l	0.190	0.42	0.080	6.48
3	ash 10-15 l	0.200	0.44	0.110	7.26
4	ash 15-20 l	0.196	0.53	<0,010	5.69

A comparison of the quantitative data of the above definitions shows that there is a spread in the common components: copper, zinc, manganese, iron. Significant scatter can be caused by the quality of ash samples taken from its different generations, different methods of analysis (or even the error of the analyst) (table 3).

It is also possible that leaching or other transformations of elements and their compounds occur during prolonged storage of ash. From this point of view, the composition of the ash has not yet been studied. The cobalt content at the MPC equal to 5 mg / kg in ash is lower, and in the soils of the analyzed areas it is higher (9.5-7.1) of this value. In the ash, the lead content is also lower than the MPC, while on the lands of PE Burashnikov a certain excess of MPC (up to 40 mg / kg).

Based on the results of two analyzes of the ash and slag of the PTETs-2, a table was compiled that shows the indicators of metal content, MPC for these elements in the Republic of Kazakhstan and according to the Valuy standard (table 4).

An excess in this indicator is observed only in the Cu content (according to the Valuy standard). It should be noted that the results of analyzes on Cu, Zn, Pb are contradictory, the content of some elements is determined only in one of the studies, if defined in two studies, there could also be contradictions. Such contradictory data confirm that ash and slag have an uneven composition, and significant fluctuations in the content of some elements are often observed. The heterogeneity of the composition of ash and slag waste is also noted by studies of previous scientists who studied the ash and slag waste of other coal besseyn.

Table 4 - Results of analysis of Ekibastuz coal ash and soil samples for metal content (mg / kg)

Chemical element (mg / kg)	As	Cu	Cd	Cr	Zn	Pb	Co	Fe	Mn	Hg	Ni
Ash and Slag (Ecorem)	11	51	< 0,5	< 15	45	1	-	-	-	<1	6,2
Valui Standard	30	20	1	85	155	200	-	-	-	1	65
Ash and Slag (Shortandy)	-	7,2	0,2	-	3,8	5,5	3,2	350	142	-	-
MPC *	-	-	5	-	23	30	5,0	-	150	-	-

Note *: MPC approved by the chief state sanitary doctor of the RK on November 29, 1997; MPC for iron in Kazakhstan has not been established.

As noted above, in addition to the analysis of Ekibastuz coal ash and soil samples for the content of heavy metals in the “Test Chemical Analytical Center of the State Institution“ RNMTSAS ”of the Ministry of Agriculture of the Republic of Kazakhstan”, an analysis was carried out for the content of biogens and, as already noted above, the presence of humus in the amount close to , and often exceeding the humus content in the analyzed samples of soil of the North Kazakhstan region (Figure 1). The presence of humus, the absence of an excess of the content of heavy metals by MPC, the presence of macro- and microelements necessary for plant growth and life make it possible to consider the PTETs-2 ash as an alternative to the use of organo-mineral fertilizers [12].

It was decided to take ash samples of different ages to determine the humus content. It was expected that the longer the ash was stored, the higher the humus content. Analysis of ash samples of different ages was carried out in the Testing Center of Centrgeolanalit LLP (Karaganda). Analysis of ash samples of different ages was carried out in the Testing Center of Centrgeolanalit LLP (Karaganda). These data are shown in table 3.

The determinations were carried out by titrimetric, photometric, atomic absorption, fluorimetric. The expected regularity associated with the dependence of the humus level on the age of the ash has not yet been confirmed: it is possible that differences in the primary composition of coal make their adjustments. However, it was confirmed that in ash of different ages, the humus content is quite high (6-7%) (Figure 4), and ash can thus support soil fertility [13].

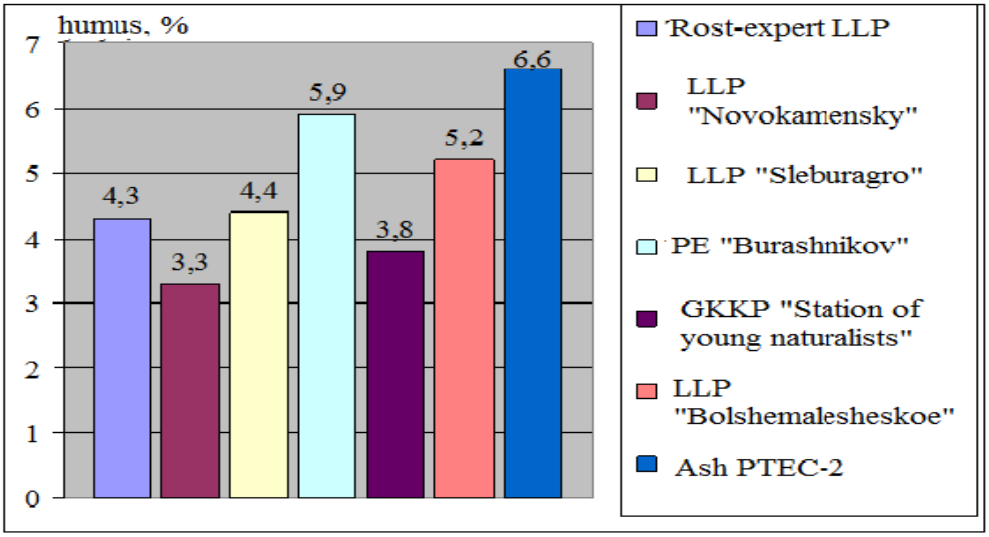

Figure 1 - Humus content in the ash of PTEC-2 and analyzed samples of soils of farms

Despite the fact that heavy metals are toxic when MPC is exceeded, many of them are necessary elements for all higher plants and animals. The composition of any plant tissue includes organic and mineral compounds. They form dry matter in plants. In addition to it, water enters the plant tissue. The ratio of these two components varies depending on the age, physiological state of the organ and plant, as well as on the growing conditions. The bulk of dry matter (about 90%) is made up of three elements assimilated during photosynthesis: carbon (45%), oxygen (40-42%) and hydrogen (6-7%). These elements are absorbed by plants from air and water. The remaining 5-8% of plant substances account for nitrogen, phosphorus, potassium, calcium, magnesium and iron, which come from the soil[14].

Elements of mineral nutrition, which are part of plants in significant quantities, ranging from a few percent to hundredths of it, are called macroelements. These include nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese. If there are chemical elements in plants from thousandths to hundredths of a percent, then they are called trace elements - these are boron, zinc, copper, cobalt, molybdenum, nickel, vanadium, iodine. The dense thickets of sea buckthorn on the surface of ash dumps testify to the rich trace element composition (Figure 2).

Figure 2 - Thick thickets of sea buckthorn on the surface of the ash dump PTEC-2

The results of chemical and agrochemical analyzes, as well as experiments, showed that the ash and slag waste of Ekibastuz coal generated during the operation of the PTEC-2 can be used in the national economy:

- agrochemical analyzes of the material composition of the Ekibastuz coal ash showed that ash is a real storehouse of valuable elements for plants. The content of heavy metals in the ash does not exceed the MPC, and the presence of the necessary nutrients allows us to recommend the ash as a valuable fertilizer for growing crops.
- Utilization of ash and slag waste through the use in the national economy is beneficial not only economic, but also environmental. Since, at the same time, the negative impact of ash dumps on the environment will be reduced.

CONCLUSION

Thus, if subsequent determinations of the level of humus content are confirmed, then ash can be useful for replenishing humus in the soil cover, and therefore can be used to increase crop yields. It can be of particular importance on depleted, humus-poor soils depleted in trace elements.

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ШЛАК ҚАЛДЫҚТАРЫН ҚОЛДАНУДЫҢ МҮМКІН ЖОЛДАРЫ

Аннотация. Әлемде көмірдің үлкен қоры бар болғандықтан, көптеген ЖЭС көмірмен жұмыс істейді. Әсіресе арзан - көп күлді көмір. Нәтижесінде, энергетикалық кәсіпорындардың атмосфераға әсерінен басқа, қалыптасқан күл мен қожды сақтау қажеттілігі туралы мәселе туындайды, нәтижесінде үлкен күл үйінділері пайда болады. Кең аумақты алып жатқан күл мен қож үйінділері оларды шаруашылық мақсатта пайдаланудан айырады. Жердің жетіспеуі күл үйінділерінің биіктігінің өсуіне әкеледі, бұл жел эрозиясына байланысты күлдің ауа бассейніне енуін тездетеді. Нәтижесінде күл үйінділері қоршаған ортаны кешенді ластау көзіне айналады, халықтың денсаулығына қауіп төндіреді, жануарлар мен өсімдіктер әлеміне қауіп төндіреді. Әсіресе су объектілерінің жанында орналасқан күл үйінділері қауіпті, өйткені апаттық жағдайда су ағындары бар күл мен шлактың тез таралу қаупі күрт артады.

Түйін сөздер: қалдықтар, күл мен шлактар, қорлар, бассейн, қоршаған орта, пайдалану тәсілдері.

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ВОЗМОЖНЫЕ ПУТИ ИСПОЛЬЗОВАНИЯ ЗОЛОШЛАКОВЫХ ОТХОДОВ

Аннотация. Много ТЭС работает на угле, так как в мире имеются большие запасы угля. Особо дешевыми являются многозольные угли. В итоге помимо воздействия предприятий энергетики на атмосферу появляется проблема необходимости складирования образовавшихся золошлаков, вследствие появляются огромные золоотвалы. Золошлаковые отвалы занимая огромные территории, отчуждают их от хозяйственного использования. Нехватка земель ведет к увеличению высоты золоотвалов, что ускоряет попадание золы в воздушный бассейн вследствие ветровой эрозии. В итоге золоотвалы становятся источником комплексного загрязнения окружающей среды, подвергают опасности здоровье населения, представляют угрозу животному и растительному миру. Особую опасность представляют золоотвалы находящиеся вблизи водоемов, так как резко повышается риск быстрого распространения золошлаков с потоками воды в случае чрезвычайных ситуаций.

Ключевые слова: отходы, золошлак, запасы, бассейн, окружающая среда, пути использования.

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PUBLIC-PRIVATE PARTNERSHIP IN KAZAKHSTAN: PROBLEMS AND PROSPECTS

Abstract. The article is devoted to the analysis of the development of public-private partnerships in the Republic of Kazakhstan. The assessment of the formed regulatory framework in the field of public-private partnership projects is given. The features of the implementation of public-private partnership projects in Kazakhstan are identified, the roles of the parties involved in them are indicated. The analysis of PPP projects in the regional context was carried out according to such indicators and criteria as the number of projects, the amount of financing, the ratio of attracted investments to government obligations for financing PPP projects, coverage of areas and sectors of the economy, development dynamics. The results of the analysis allowed the authors to highlight the strengths and weaknesses of the development of PPPs in each region of Kazakhstan. The conclusion is drawn about the extremely uneven development of PPP in the regions of the Republic of Kazakhstan. The inability of most PPP projects to reduce the overall burden on the country's budget is indicated as an unfavorable trend in Kazakhstan's practice of developing PPPs - in fact, they only allow deferring payments from the budget. Positive assessment of the transformation of the legislation of the Republic of Kazakhstan in the field of PPPs, the authors substantiate the need to create a more favorable and safe investment climate for more active involvement of the private sector in PPP projects.

Key words: public-private partnership, projects, concession, state budget, private sector.

Introduction. Under the conditions of continuing transformation of economic relations in the world and inclusion of the national economies into the integration processes, there is urgent need in structural changes and closer interaction of the State and private sector. The necessity to overcome the innovative and infrastructure underdevelopment under the conditions of limited budget resources in some countries, enforced, on the governmental level, to acknowledge the necessity to develop and adjust effective management and utilization of the public-private partnership institute (PPP). In Kazakhstan, PPP represents significant means and instrument to solve important national tasks for mid- and long-term perspective. New social and political conditions, events, challenges, real and declared actions of the State and business in the field of PPP development in Kazakhstan stipulate the necessity if its detailed analysis to develop further actions on improving existing PPP mechanisms for its wider application in significant sectors of social and economic sphere.

Methods. The investigation methodology is based on application of systematic, procedural and dialectic approaches to scientific cognition of the partnership features of the State and private sector. During the investigation the following general scientific research methods were used: observation, description, analysis and synthesis, comparative-legislative, formal-logical, and other methods of cognition. The information base of the investigation were the legislative acts of RK regulating the relations within the PPP projects implementation, the data of the Ministry of the National Economics and Kazakhstan PPP Centre.

Results and discussion. The relations of a public partner and a private partner in Kazakhstan are regulated by the Laws of RK “On public-private partnership” dated December 31, 2015, “On concessions”

dated July 7, 2006 and corresponding subordinate acts. According to the Law of RK "On public-private partnership" there are four signs identifying the PPP:

- Conclusion of the agreement between the State and a private partner;
- Mid-term or long-term implementation of projects: from three to thirty years;
- Joint participation of the State and private sector in project implementation;
- Combining of the resources of the State and private sector to implement the project [1].

Thus, the RK legislation considers the PPP as mutually beneficial cooperation between the State and private sector. At the same time, the PPP projects are implemented in the spheres subjected to the governmental control. In this case the private sector receives access to otherwise closed markets, and the State receives better methods of management, distribution of risks and expenses. According to the Law, the main tasks of the PPP in RK are:

- Creation of conditions for effective interaction of the PPP participants to ensure social and economic development;
- Attraction of investments into the national economics to develop the infrastructure through consolidation of public and private sector resources;
- Improvement of accessibility and quality of goods and services for population and other interested parties;
- Increase of innovation activity, particularly in high-tech sectors.

In its turn, these tasks should be implemented according to the PPP principles:

- Sequence – relations between the PPP subjects should be constructed step-by-step;
- Competition – the private subjects can participate in PPP on the base of a competition;
- Balance – obligations, risks and profits between the State and private sector should be distributed to mutual benefit;
- performance – the assessment of the PPP results should be based on the established criteria and indicators aimed at the result.

At the same time, under the PPP the private sector can manage the issues of any industry except soils, water, plants and animals, nature conservation area, military property belonging to the governmental organizations and other troop formations [2].

The PPP has two types: institutional and contractual. Under the institutional type the PPP is performed basing on the PPP agreement, and under the contractual form there are eight types of the PPP:

1. Concession – activity on reconstruction and exploitation of a facility at the expense of a person having a concession, but with the public co-financing [3].
2. Trust management of the public property.
3. Property lease of the public property.
4. Leasing.
5. A contract for development of technology, manufacture of a test sample, experimental-industrial trial or limited production.
6. Life cycle contract.
7. Service contract.
8. Other agreement having the PPP sign.

The PPP projects can be financed by the own means of the private sector, loans or budget means. At the same time, the PPP projects are controlled and managed by several public entities starting from the government and ending with regional local representative bodies and cities of national status. In addition, the Law "On public-private partnership" considers the participation of "Atameken" SPE that provides expert, consultation, monitoring support to the PPP participants from the public and private sector sides.

Basing on the official data it is possible to state that at the moment the most part of financing is allocated for the facilities under the construction, and not commissioned. If one looks at the number of facilities, not financing, the situation is reverse – more projects were accomplished, not being constructed (Table 1). This shows the large concentration of capital on facilities not accomplished yet.

Basing of the report of the Minister of National Economics, in 2018 the PPP structure was domineered be the education sphere – 63%, and 15% was for the healthcare system, 8% related to culture and sport.

Table 1 – The PPP status in RK as of 01.10.2019

Public-private partnership	Concluded agreements/facilities	Commissioned facilities	Facilities under construction
Amount (unit)	610	544	66
Sum (billion tenge)	1582	471.6	1088
Note – compiled by reference [4].			

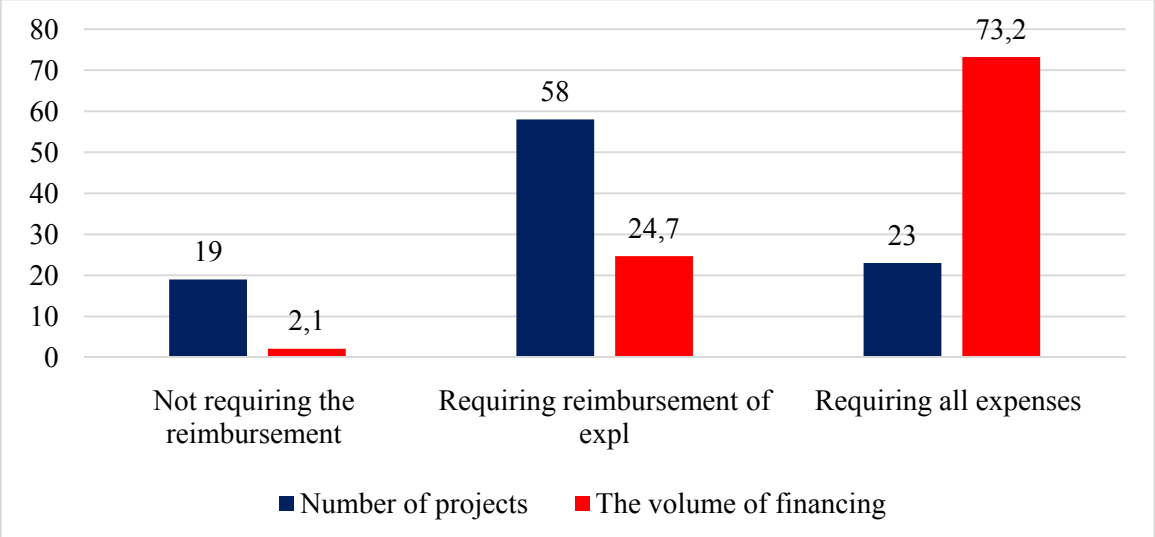
At the same time, the PPP practice is almost absent at such strategically important sectors as water supply, water disposal, and tourism the development of which is one of priority tendencies. According to the same report, the application of the PPP decreased the one-time burden on the state budget [5]. In addition, the report suggested new measures on stimulating local PPP projects, particularly the techniques on determining limits of the state obligations under the PPP projects. The investments into the large infrastructure projects at the cities of regional significance should be stimulated by new measures of currency risks compensation.

In whole, the State carries out a planned policy on building-up the financing and number of regional projects aimed at improving the base infrastructure of cities, and construction of educational and healthcare institutions. The work on specialists training is conducted in regions for effective elaboration of projects according to the OECD recommendations.

Basing on all mentioned above, it can be stated that the State is interested in the PPP development, especially at the regional level, as namely PPP allows improving the life standards of population at simultaneous burden decrease on the budget. In addition, the PPP favors the increase of economic processes efficiency in the traditionally national sphere of responsibility [6]. However, at the moment, the tendency of high financial and staff state participation in the PPP projects is still observed. This especially is seen in regions experiencing not only the shortage of investments into the social sphere, but the lack of staff too. In addition, as noted above, relatively cheap projects the effect of which is rarely beyond the bounds of local needs are implemented; however the regions need large scale infrastructure changes. All PPP projects can be divided into three large categories:

1. Not requiring the reimbursement from the state budget.
2. Requiring reimbursement of exploitation expenses.
3. Requiring all expenses [5].

The projects of the first category contain only 19% of all projects in 2018, and the exploitation expenses reimbursement is required for 58% of projects, and other require the complete reimbursement (Figure 1).



Note – compiled by reference [5].

Figure 1 – Distribution of the PPP projects by the types of expenses reimbursement (%)

Therefore, more than 73% of financial means expensed on implementing the PPP projects will be actually taken from the state budget, 24.7% will require the reimbursement of exploitation expenses, and only 2.1% will not require additional inflows from the budget. Basing on this it can be concluded that as of 2018 the PPP projects in RK represent mostly the form of the state expenses delay on the social and economic development, and not full-fledged cooperation of the State and business.

In this regard, in 2019, the Prime Minister of RK Askar Mamyn has charged the MNE RK and MIPD to study the infrastructure model of PPP under which the State reimburses to investors their investments using the payment for accessibility during long period of time and payment of non-medical services rendered to partners. Thus, an investor will be protected from the currency and inflation risks. Such scheme is applied by Turkey for construction of medical institutions; it allows distributing the risks among all partners by the most beneficial way for them.

In July, 2019, the President of RK highlighted nine issues of development, and 4 of them imply the application of the PPP practice.

The first area is development of tourism for which the company "Kazakh Tourism" was already established, and the National Program of Tourism Development in RK for 2019-2025 was adopted [7]. Even in the countries with developed tourist sector the State applies mechanisms of the sector entities support at simultaneous attraction of private investors. For tourism development in RK, Kazakhstan PPP Centre works out the opportunities of program PPP under the adopted program.

The second area is development of agro-industrial complex for which application of the PPP is quite topical for modernization of the infrastructure and material and technical base: construction of roads, repair and improvement of water disposal and water supply systems, starting of new sites exploitation. The major problem of the PPP application for the agro-industrial complex, especially in rural area is the issue of profitability. The agriculture, due to the inherent specifics of the production process, is subjected to additional risks. These risks are related to the climate changes, soil degradation etc. that hampers the attraction of private capital even on the base of the PPP agreements. For the PPP development in the agro-industrial complex it is necessary to develop such schemes of financing that would ensure sufficient profitability, but not limiting the consumer purchasing power, and control over the risks.

The third and fourth areas are improvement of the healthcare and education systems. The PPP in these areas are mainly aimed at improving the infrastructure that is the most topical for regional public utility companies [8]. In addition, the PPP allows purchasing the modern equipment that is urgent for the healthcare institutions.

In addition to internal measures, The Memorandum on Cooperation was signed by Kyrgyzstan, Kazakhstan, Uzbekistan, Georgia, and Tajikistan. This Memorandum allows the private enterprises of these countries to participate in the PPP projects in all countries that signed the document [9].

From May 2019, the Kazakhstan Centre for the PPP provides to investors the services on "one stop" principle. These services include the following:

- Consultations, information support, and training of investors;
- Selection of the interested area projects portfolio for an investor on the Republican or local levels;
- Informing of potential investors on forthcoming, and announced for competition PPP projects;
- Work with private partners at the stage of the PPP projects implementation [10].

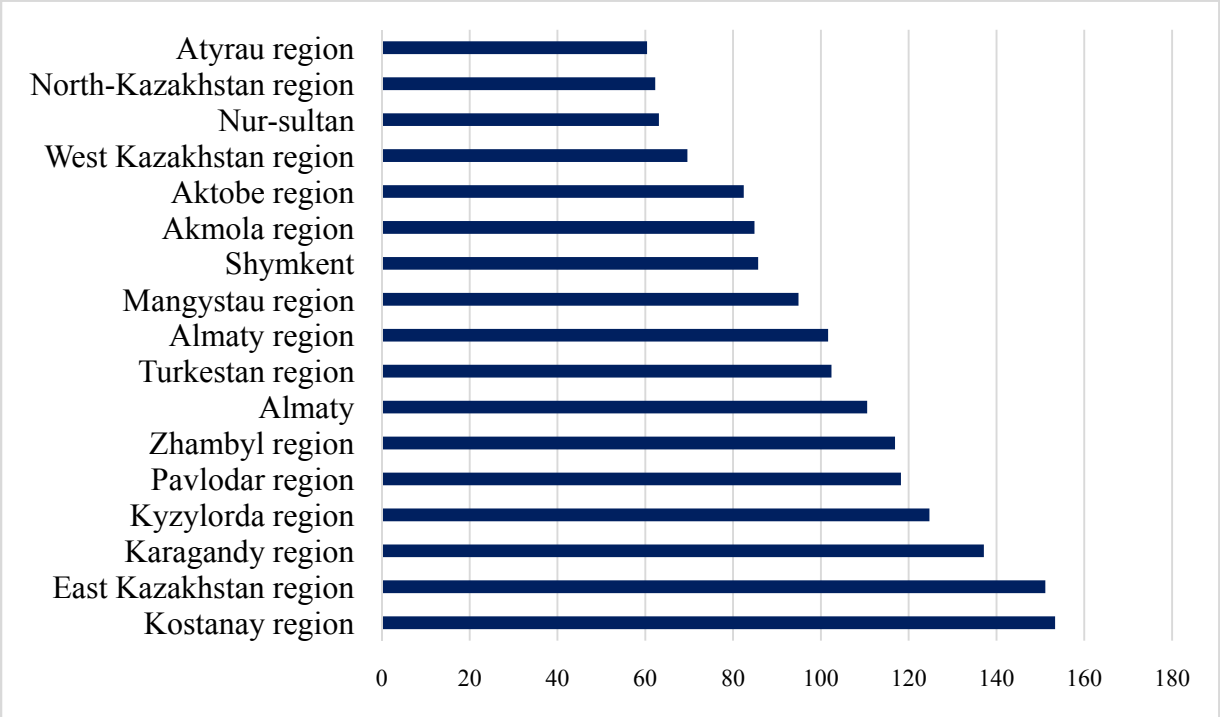
In addition, the Centre acquires statistics and forms ratings of regions basing on which it is possible to judge on the PPP development character in regions (Table 2).

Table 2 shows that the largest volumes of the PPP projects financing falls to Akmola and Almaty regions, and Nur-Sultan city, at the same time the financing indicator for Akmola regions is almost 9 times higher than for Nur-Sultan coming immediately after it. Akmola region also has the largest average volume of project financing, after it are Nur-Sultan city and Atyrau region. The smallest volume of financing falls to Zhambyl, West Kazakhstan, and North Kazakhstan region. As for the number of projects the absolute leader is East-Kazakhstan area, and then are Almaty city and Kostanay region.

Table 2 – The indicators of the PPP projects by regions in 2019

Region	Number of projects (units)	Financing (billions tenge)	Average financing of project (billions tenge)
Akmola region	40	263,9	6,60
Nur-Sultan	14	29,8	2,13
Almaty region	31	27	0,87
Almaty	53	24,4	0,46
Shymkent	15	20,5	1,37
Kostanay region	45	18,7	0,42
Atyrau region	8	17	2,13
East-Kazakhstan region	180	15	0,08
Kyzylorda region	41	11,5	0,28
Aktobe region	16	10,8	0,68
Mangystau region	10	9,2	0,92
Pavlodar region	30	7	0,23
Karaganda region	39	5	0,13
Turkestan region	24	3,7	0,15
North Kazakhstan region	23	3	0,13
West Kazakhstan region	7	1,8	0,26
Zhambyl region	30	1,7	0,06
Total	606	470	16,9
Note – reference [11].			

According to the general PPP rating by regions compiled by the KCPPP the leaders are Kostanay region, East-Kazakhstan, and Karaganda regions (Figure 2).



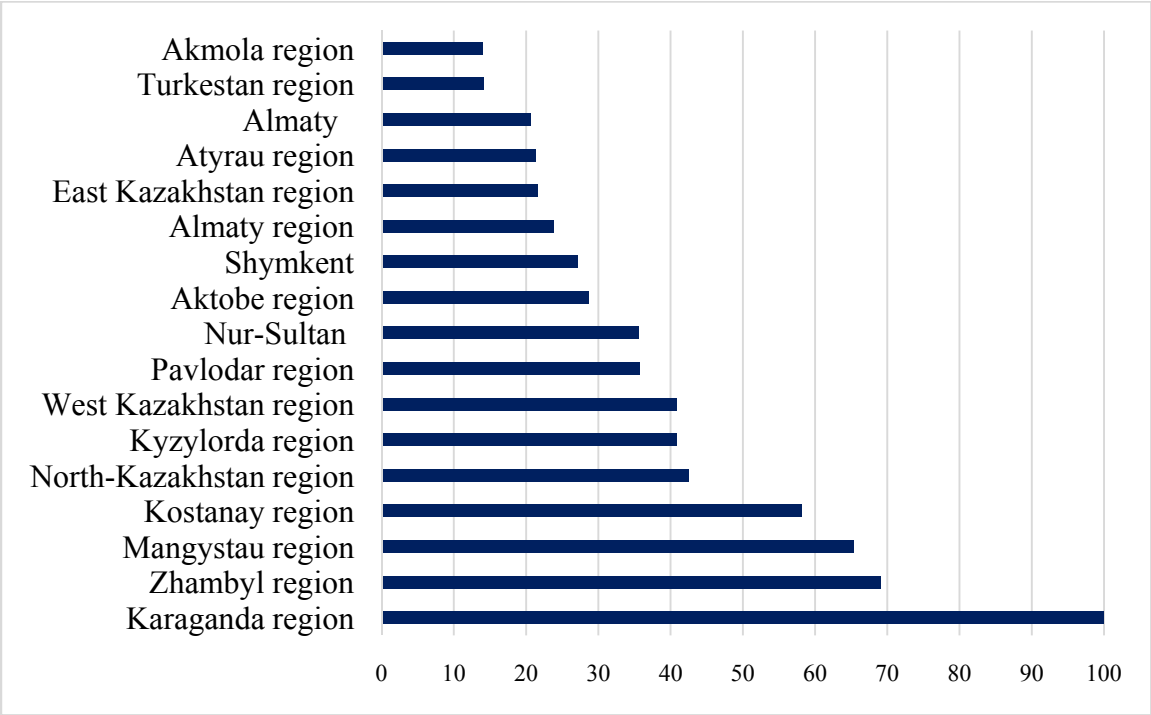
Note – reference [12].

Figure 2 – General PPP rating by regions according to the KCPPP

At the same time, Atyrau, North-Kazakhstan regions, and Nur-Sultan city are at the worst rating positions. This difference between the numerical indicators and integral rating is stipulated not only by the number of projects and its financing, but by the efficiency of its implementation.

If we compare the ratio of the attracted investments and the state obligations, the best ratio is observed for Karaganda, Zhambyl, and Mangystau regions, i.e. in these regions the largest volume of the attracted investments fall on a unit of the public obligations. The worst indicator in this case have Akmola

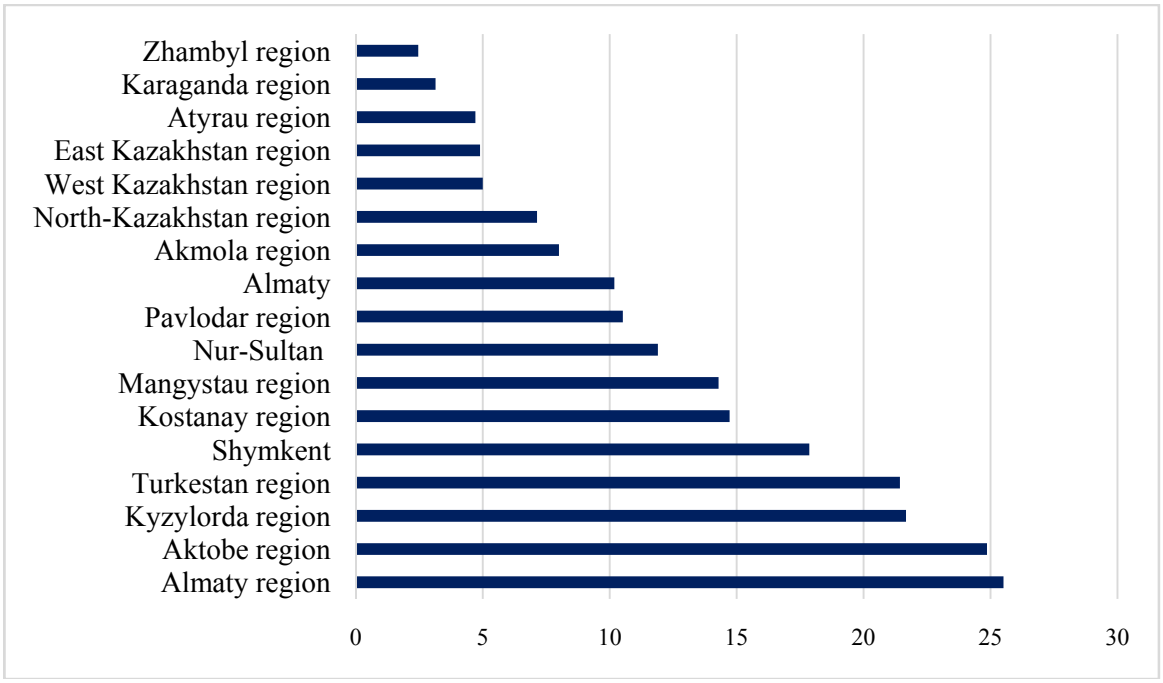
and Turkestan regions, and Almaty city indicating on large share of the state in the PPP projects in these regions. Considering the leadership of Akmola region on financing of the PPP projects, it is possible to say that the largest volume of the public obligations is also there (Figure 3).



Note – reference [12].

Figure 3 – The ratio of the attracted investments to the public obligations according to the KCPPP

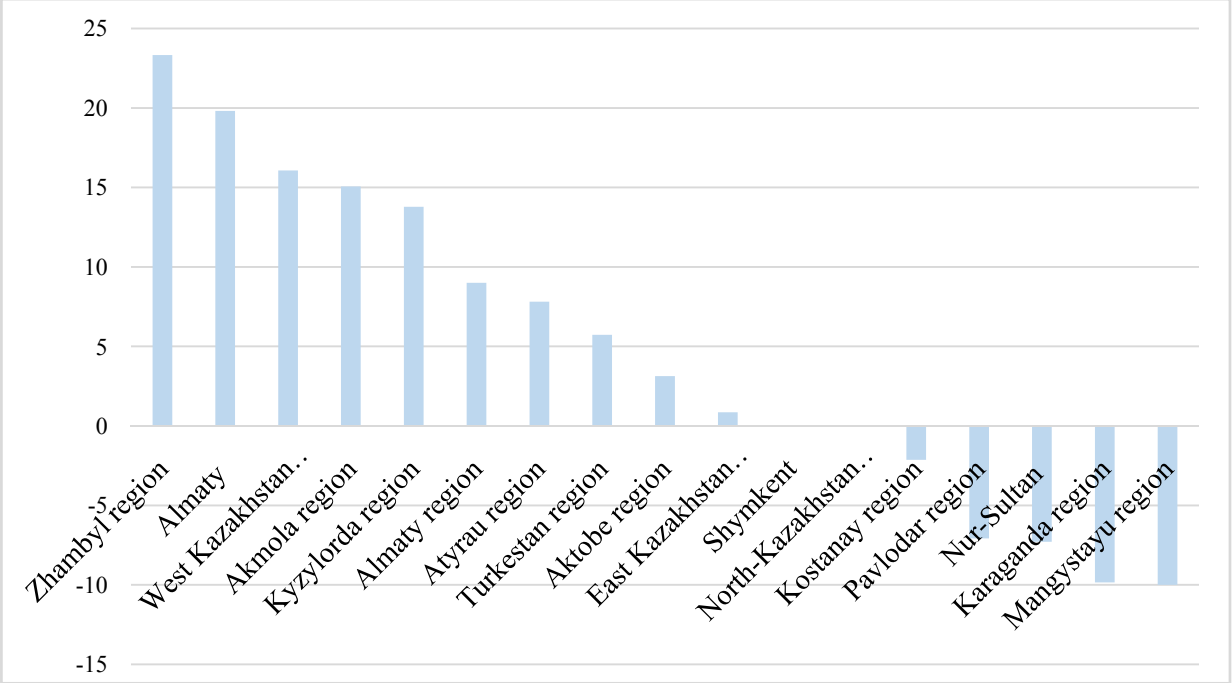
On the sectors cover the best positions belong to Almaty, Aktyubinsk, and Kyzylorda regions: the PPP projects in these regions are implemented in the largest amount of sectors comparing to other. The most highly specialized are Zhambyl, Karaganda, Atyrau regions (Figure 4).



Note – reference [12].

Figure 4 – Rating of spheres/sectors cover according to the KCPPP

Finally, the analysis of the PPP development dynamics in regions provides the following pattern: the best dynamics of the PPP development is in Zhambyl region, Almaty city, and West Kazakhstan region. The worse, but still positive PPP development is in the East Kazakhstan region. Shymkent city and North Kazakhstan regions do not show notable dynamics, and Mangystau and Karaganda regions, and Nur-Sultan show negative rating of the PPP development dynamics (Figure 5).



Note – reference [12].

Figure 5 – Rating of the PPP development dynamics according to the KCPPP

Basing on all mentioned above we have compiled a table of the PPP development in regions; the Table describes the strengths and weaknesses regarding each other as of 2019.

Table 3 – Strengths and weaknesses of the PPP development in the regions of RK in 2019

Region	Strengths	Weaknesses
Nur-Sultan city	Large volume of projects financing. High average cost of project	Bad development dynamics Low general rating of the PPP development
Almaty city	High positive dynamics of development	Low ratio of the attracted investments to the public obligations
Shymkent city	High cover of sectors	Low ratio of the attracted investments to the public obligations
Akmola region	High volume of financing High average cost of project	Low ratio of the attracted investments to the public obligations
Aktobe region	High cover of sectors	
Atyrau region	High average cost of project	Low cover of sectors Small number of projects Low general rating of PPP development
East Kazakhstan region	Large amount of projects High general rating of the PPP development	Low average cost of project Low cover of sectors Low ratio of the attracted investments to the public obligations

Zhambyl region	High positive dynamics of development High ratio of the attracted investments to public obligations	Low cover of sectors Small volume of project financing Low average cost of project
West Kazakhstan region	High positive dynamics of development	Low cover of sectors Small volume of project financing
Karaganda region	High ratio of the attracted investments to public obligations High general rating of the PPP development	Bad development dynamics Low cover of sectors Low average cost of project
Kostanay region	Large cover of sectors High ratio of the attracted investments to public obligations Large amount of projects High general rating of the PPP development	Bad development dynamics
Kyzylorda region	Large cover of sectors Large amount of projects	Small volume of project financing
Mangystau region	High ratio of the attracted investments to public obligations	Bad development dynamics Small number of projects
Pavlodar region	High general rating of the PPP development	Bad development dynamics Small volume of project financing
North-Kazakhstan region	High ratio of the attracted investments to public obligations	Low cover of sectors Low general rating Small volume of project financing Low general rating of PPP development
Turkestan region	High cover of sectors	Low ratio of the attracted investments to the public obligations Small volume of project financing
Note – compiled by authors		

Conclusion. Basing on the stated above the following can be concluded on the PPP development in Kazakhstan:

1. The rules and regulation framework able to ensure various ways of interaction between the State and the private sector is developed quite well in Kazakhstan.
2. The most part of financing falls to the PPP projects in the process of implementation, not on the completed ones, but the number of projects prevails among the completed. This shows that most of small projects are finished, and the large ones are under implementation and its effect is to be investigated.
3. Large number of the PPP projects, in its essence, represents the budget payment delay, i.e. decrease the on-time burden, but not the common. At the same time, the projects, not requiring additional budget inflows are less in number. Therefore, it is necessary to elaborate new mechanisms of the PPP financing that would stimulate the appearance of the first type projects not requiring additional expenses.
4. The application of PPP is possible in four of nine areas of economics development highlighted by the State, but the complete mechanisms of its application are to be formed.
5. The PPP development in regions can be characterized as extremely uneven. At the same time, there are significant contradictions observed, for instance, when the region has high volumes of project financing, but weak dynamics of development or low cover of sectors. The leveling of development is possible only through the creation of favorable and safe investment climate, and building of trust to the State on the side of the private sector.

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ҚАЗАҚСТАНДАҒЫ МЕМЛЕКЕТТІК-ЖЕКЕ ӘРІПТЕСТІК: МӘСЕЛЕ ЖӘНЕ БОЛАШАҚТАР

Аннотация. Мақала Қазақстандағы мемлекеттік-жеке әріптестіктің дамуына талдау жасауға бағышталған. Мемлекеттік-жеке әріптестік жобаларын іске асыру саласындағы Қазақстанда қалыптасқан нормативтік-құқықтық базасына баға берілген. Қазақстандағы мемлекеттік-жеке әріптестік жобаларын іске асыру ерекшеліктері анықталып, олардың қатысушы тараптарының рольдері көрсетілген. Аймақтардағы МЖӘ жобаларын талдау келесі көрсеткіштер мен критерийлер көмегімен жүргізілген: жобалардың саны, қаржыландыру көлемі, тартылған инвестициялардың мемлекеттік міндеттемелерге қатынасы, экономика салалары мен сфераларын қамту деңгейі, даму серпіні. Жүргізілген талдау нәтижелері авторларға Қазақстанның әрбір аймағындағы МЖӘ жобаларының дамуының күшті және әлсіз жақтарын бөліп көрсетуге мүмкіндік берді. Оған қоса, ҚР аймақтарындағы МЖӘ дамуының әркелкілігі туралы ұйғарым жасалған. МЖӘ дамуының қазақстандық тәжірибесіндегі жағымсыз үрдісі ретінде МЖӘ жобаларының көбісінің ел бюджетінің жалпы ауыртпалығын төмендетуге қабілетсіздігі, олардың шын мәнінде тек бюджет түсімдерінің уақытын жылжытуға ғана мүмкіндік беретіні көрсетілген. МЖӘ саласындағы қазақстандық заңнаманың өзгерісіне оңтайлы баға бере отырып, авторлар жеке секторды МЖӘ жобаларына белсенді түрде тарту үшін анағұрлым қолайлы және қауіпсіз инвестициялық климат қалыптастырудың қажеттілігін негіздейді.

Ключевые слова: мемлекеттік-жеке әріптестік, жобалар, концессия, мемлекеттік бюджет, жеке сектор.

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ГОСУДАРСТВЕННО-ЧАСТНОЕ ПАРТНЕРСТВО В КАЗАХСТАНЕ: ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ

Аннотация. Статья посвящена анализу развития государственно-частного партнерства в Республике Казахстан. Дана оценка сформировавшейся нормативно-правовой базе РК в сфере реализации проектов государственно-частного партнерства. Выявлены особенности реализации проектов государственно-частного партнерства в Казахстане, обозначены роли участвующих в них сторон. Анализ проектов ГЧП в региональном разрезе был проведен по таким показателям и критериям как количество проектов, объем финансирования, отношение привлеченных инвестиций к государственным обязательствам по финансированию проектов ГЧП, охват сфер и отраслей экономики, динамика развития. Результаты проведенного анализа позволили авторам выделить сильные и слабые стороны развития ГЧП по каждому региону Казахстана. Сделан вывод о крайне неравномерном развитии ГЧП в регионах РК. В качестве неблагоприятной тенденции казахстанской практики развития ГЧП указана неспособность большинства проектов ГЧП к снижению общей нагрузки на бюджет страны – по сути они позволяют только отсрочить платежи с бюджета. Позитивно оценивая трансформацию законодательства РК в сфере ГЧП, авторы обосновывают необходимость создания более благоприятного и безопасного инвестиционного климата для более активного вовлечения частного сектора в проекты ГЧП.

Ключевые слова: государственно-частное партнерство, проекты, концессия, государственный бюджет, частный сектор.

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FEATURES OF THE CONSIDERATION OF INDIVIDUAL LABOR DISPUTES IN THE EAEU COUNTRIES

Abstract. The Eurasian integration project was originally based on the idea of creating a single economic space. The issue of political integration in the framework of the EAEU, including the creation of a Eurasian parliament, was discussed in preparation for the launch of the Eurasian integration project. During this period, the Kazakh political institution sought to maximize the number of participants in the Union. Political integration was seen as a way to strengthen Eurasian integration.

The creation of the EAEU allowed the free movement of labor across the territories of five member states, which increased the need for harmonized working conditions, and therefore, the issue of harmonization of labor law became relevant for five states. In particular, the resolution of labor disputes, the main elements of which consider the institution of labor law, including the definition and classification of disputes in the EAEU member states. According to the authors, the legal regulation of labor disputes in all member states is based on Soviet legal traditions, that is, similar legal models and concepts.

Keywords: employment contract, commonwealth, EAEU, member states, law conditions.

INTRODUCTION

The EAEU is, first of all, a limited customs union, which managed to agree on external customs tariffs, abolish internal customs borders and transfer decision-making on tariffs to the level of the Union. However, a higher level of economic integration is unlikely to be achieved, as there is too much disagreement between member countries.

The main source of law of the Eurasian Economic Union (EAEU) is the Treaty on the Eurasian Economic Union (Treaty). Russia, Belarus and Kazakhstan signed the Treaty on May 29, 2014, and it entered into force on January 1, 2015. Armenia and Kyrgyzstan acceded to the Treaty on January 2, 2015 and August 12, 2015, respectively. Thus, the EAEU currently consists of five countries: Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia.

The agreement codified the provisions of pre-existing agreements governing the functioning of the Customs Union and the common economic space.

These agreements formed the basis of the Treaty, the purpose of which is to ensure their implementation and bring their provisions in line with the rules and regulations of the World Trade Organization. The implementation of the Agreement and the provisions included therein is scheduled for a 10-year period. This should lead to the transformation of the EAEU into a full-fledged economic alliance by 2025 (this implies the free circulation of goods, services, capital and labor, as well as the formation of a common market in the sectors of energy, finance, transport, etc.). Further deepening and expansion of integration will depend on whether the EAEU member states have achieved all the goals set by the Treaty by 2025.

The agreement defines the main objectives of the EAEU, its competence, its institutional structure and the procedure for the formation and activities of the EAEU bodies. In addition, the Treaty regulates

the mechanisms of economic integration of the EAEU member states and the obligation to pursue a single, conciliatory or coordinated policy in certain sectors of the economy.

However, at the final stage of negotiations under the Treaty, the parties did not consider the possibility of expanding integration into the political sphere or creating supranational political bodies for the following reasons. First, Russia's interest in political integration declined after Ukraine signed an association agreement with the European Union. Secondly, Kazakhstan and Belarus were against political integration and the creation of a Eurasian parliament. Thus, the final version of the Treaty does not contain any provisions providing for expansion of integration in the political sphere or the creation of a supranational political body (parliament or interparliamentary assembly).

MAIN PART

When writing the article, dialectical, historical, comparative legal, logical, systemic and other methods of scientific knowledge were used. as well as a complex of general scientific (system-structural, system-functional, analytical). Today, the EAEU is primarily a limited customs union. Thus, he achieved three goals: harmonized external customs tariffs, abolished internal customs borders and transferred decision-making on tariffs to the level of the Union instead of individual member countries. Being a customs union (even limited) is already a significant achievement when comparing the EAEU with other regional organizations around the world: although the EAEU is not able to cope with this task compared to the EU, like any other regional organization in the world without exception, and for most non-European integration projects, even the customs union seems to be an elusive goal. Being a customs union, the EAEU is potentially capable of stimulating trade between member countries and, thus, stimulating economic growth. However, the EAEU was created at the least favorable moment to achieve these goals, that is, during the period of economic stagnation in Russia, which makes cooperation with this country not very attractive. This stagnation is caused by fundamental factors that the EAEU is unlikely to change: weak protection of property rights, dominance of security interests in economic policy, high corruption, etc. The advantages of the EAEU for member states are not comparable with these serious problems that arise in the Russian economy.

There are also important problems associated with the design of the EAEU. Firstly, the EAEU still has many functions of a protectionist union, which introduces high tariffs to limit the access of foreign competitors to domestic markets. This type of protectionism, although it serves the goals of domestic lobbyists in Belarus and in Russia, is incompatible with the goal of economic modernization. The design of the customs union (where customs duties are set at the union level) limits the ability of individual countries to open their economies to world trade, even if they want to.

Secondly, the EAEU has not yet resolved the deep problem of non-tariff barriers. To gain access to the market of one of the EAEU countries, goods from another country still have to overcome numerous bureaucratic barriers. Finally, in order to benefit from international integration, the EAEU countries must change within the country: they need to reduce the degree of penetration of their economy into the state (which is the dominant entity in Belarus and very important in Russia). This has not happened, and is unlikely to change.

But for many observers, the main problem of the EAEU is not economic, but political: the EAEU is seen as a tool to consolidate and strengthen authoritarianism in Eurasia. Here, however, doubts are in order. The EAEU as such (due to Kazakhstan’s tough stance) is a purely non-political entity: there are no references to any ideology in the EAEU documents, there are no political institutions such as general citizenship or parliament, and there are no political goals. This does not mean that the autocratic regimes of member countries cannot use the EAEU against internal opposition: since the idea of Eurasian regionalism is very popular in some EAEU countries, the EAEU can, for example, increase the popularity of existing employees. But these effects are limited and indirect.

The implementation of the EAEU digital agenda is another priority. Under the Russian chairmanship, we propose implementing several promising projects in the field of online trading, technology for tracking goods, creating transport corridors and industrial cooperation. A forum on these issues was recently held at the initiative of the President of Kazakhstan. We fully support this and will work together. Naturally, the relevant initiatives of our partners will be carefully considered. I just talked about one of them.

Of course, additional steps need to be taken to form the EAEU common services market. Last year, tourism, research and advertising joined other sectors operating under supranational rules. By the end of the year, 60 percent of the total volume of services will be regulated by Union law.

A new Declaration on further integration into the EAEU was adopted, and nine sectors were added to the single service market. This means that about 55% of the total volume of services provided in the EAEU member countries will be regulated in value terms.

Kazakhstan, more than anyone else in the EAEU, won in the free trade zone with Vietnam. This was reported to the news agency Sputnik.kz by the Russian ambassador to Kazakhstan, Alexey Borodavkin. In 2017, the Kazakh-Vietnamese trade turnover increased by 48% and amounted to 542 million dollars. Exports from Kazakhstan to Vietnam grew by 63% due to an increase in the supply of food, agricultural products and metals.

The economic union provides for freedom of movement of goods, services, capital and labor, a coordinated, coordinated or uniform policy in individual sectors of the economy. Harmonization of labor legislation within the framework of this international organization is not currently planned. Nevertheless, the logic of economic integration can cause the so-called spill-over effect (literally - "splashing effect"). This term in the framework of the older regional economic and political association - the European Union - is called the situation when the process of unification, originally designed only for economic integration, leads to closer interaction in the political and legal field. In this regard, it is interesting to find out how individual legal institutions of labor law of the EAEU member countries are ready for harmonization today. Since the movement of workers within the EAEU member states inevitably leads to the emergence of cross-border labor disputes, it seems relevant to analyze how the basic elements of the institution of labor dispute resolution - the conceptual apparatus and typology of labor disputes - are comparable with each other in the EAEU member states. In labor codes of all five EAEU member states, labor disputes are divided into individual and collective. At the same time, the concepts of individual and collective labor disputes are separately fixed in the Labor Code of Russia and Kyrgyzstan, but there is no generalizing concept of "labor dispute" (part 1 of article 381 and part 1 of article 398 of the Labor Code of Russia, part 1 of article 411 and part 1 of article 428 of the Labor Code of Kyrgyzstan). The Labor Code of Kazakhstan, on the contrary, provides for the definition of only the generic concept of “labor dispute” (Clause 16, Article 1), although it also operates with categories of individual and collective labor dispute. In the Labor Code of Armenia, the category of labor disputes is considered as paired with respect to the category of collective labor disputes, i.e. in fact, it refers to individual labor disputes; the definition of the concept of an individual labor dispute is given in part 1 of article 263, and collective - in part 1 of Art. 64. In h. 1 Article 377 of the Labor Code of Belarus contains a definition of the term "collective labor dispute", and individual labor disputes are only mentioned, but their definition is not given.

In any case, in all five countries, individual labor disputes are resolved by labor dispute commissions (in Kazakhstan, by the conciliation commission) and courts, and collective ones are resolved through conciliation and arbitration procedures (however, in Armenia, judicial consideration of collective labor disputes is also possible).

Obviously, the key delimiting feature of collective and individual labor disputes is the actors involved.

On the part of the employer, the subject of a labor dispute in all EAEU countries is either the employer (in Belarus, the employer), or its separate structural unit, or the association of employers. In this case, the impossibility of resolving disputes at the level of groups of legal entities affiliated with each other can be called a significant gap in the labor legislation of all EAEU member states.

The parent company may be the owner of a group of legal entities and make decisions, for example, regarding the level of remuneration in all subsidiaries. But workers are deprived of the legal opportunity to submit claims to the parent company and can only address them to their immediate formal employer, who does not always have the competence to make the appropriate decision. In Kazakhstan, this body is called a conciliation commission, but its status is similar to the status of labor dispute commissions in other EAEU countries, and the name does not seem to accurately reflect the purpose of its activities.

CONCLUSION

The subject of a labor dispute is very important not only for delimiting disputes over disputes about law and disputes about interests, but also for determining exactly what rights and interests of the parties a dispute arises about. The ILO Freedom of Association Committee notes <1> that the professional and economic interests that workers protect through the right to strike relate not only to improving working conditions or meeting professional requirements, but also to finding solutions to issues and problems that arise at the enterprise and that directly affect interests of workers. The same can be said of labor disputes in general: the wider the legislatively established subject of a labor dispute, the more opportunities for workers to protect their rights and interests protected by law.

It seems that for the future harmonization of legislation on the resolution of labor disputes in the EAEU member states, it is not so much the refinement and coordination of the conceptual apparatus and typology of disputes that are important as the liberalization of mechanisms for protecting individual and collective labor rights of workers.

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ОСОБЕННОСТИ РАССМОТРЕНИЯ ИНДИВИДУАЛЬНЫХ ТРУДОВЫХ СПОРОВ В СТРАНАХ ЕАЭС

Аннотация. Проект евразийской интеграции изначально был основан на идее создания единого экономического пространства. Вопрос политической интеграции в рамках ЕАЭС, в том числе создания евразийского парламента, обсуждался в ходе подготовки к запуску евразийского интеграционного проекта. В течение этого периода казахстанское политическое учреждение стремилось максимально увеличить число участников Союза. Политическая интеграция рассматривалась как способ укрепления евразийской интеграции.

Создание ЕАЭС позволило свободно перемещаться рабочей силы по территориям пяти государств-членов, что повысило потребность в согласованных условиях труда, в связи с чем, вопрос гармонизации трудового права стал актуальным для пяти государств. В частности, разрешение трудовых споров, основными элементами которого, рассматривают институт трудового права, в том числе определения и классификации споров в государствах-членах ЕАЭС. По мнению авторов, правовое регулирование трудовых споров во всех государствах-членах основано в советских правовых традициях, то есть схожих правовых моделях и концепциях.

Ключевые слова: трудовой договор, содружество, ЕАЭС, государства-члены, права условия.

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ЕАЭО ЕЛДЕРІНДЕ ЖЕКЕ ЕҢБЕК ДАУЛАРЫН ҚАРАУ ЕРЕКШЕЛІКТЕРІ

Аннотация. Еуразиялық интеграциялық жоба бастапқыда бірыңғай экономикалық кеңістікті құру идеясына негізделген. Еуразиялық интеграциялық жобаны іске қосуға дайындық барысында ЕАЭО шеңберінде саяси интеграция мәселесі, соның ішінде Еуразиялық парламент құру мәселесі талқыланды. Осы кезеңде қазақстандық саяси мекеме Одаққа қатысушылардың санын көбейтуге тырысты. Саяси интеграция еуразиялық интеграцияны нығайтудың тәсілі ретінде қарастырылды.

ЕАЭО құру бес елдің мүше мемлекеттерінің аумақтарында еркін еңбекке көшуіне мүмкіндік берді, бұл үйлестірілген еңбек жағдайлары қажеттілігін арттырды, сондықтан еңбек заңнамасын үйлестіру мәселесі бес мемлекет үшін маңызды болды. Атап айтқанда, ЕЭО мүше мемлекеттердегі дауларды айқындау мен жіктеуді

қоса алғанда, еңбек заңнамасының институтын қарастыратын еңбек дауларының шешімі. Авторлардың пікірінше, барлық мүше елдердегі еңбек дауларын құқықтық реттеу кеңестік құқықтық дәстүрлерге негізделген, яғни ұқсас құқықтық модельдер мен ұғымдар.

Түйін сөздер: еңбек келісім-шарты, Достастық, ЕАЭО, мүше-мемлекеттер, құқықтық жағдайлар.

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COMMUNICATIVE COMPETENCIES – MODERN INSTRUMENTS UNDER ACADEMIC FREEDOMS

Abstract. This article discusses communication skills, language competencies, which are the main mechanism for the effective activity of an individual in a sociocultural and multilingual world. Learning a foreign language is a priority in preparing future specialists for the challenge of time and society. With this situation in the current world situation, it is extremely necessary to develop methods for the development of communicative skills in a psychological aspect, while, first of all, we are talking about the necessary optimization of the spent human and time resources aimed at success. The problem of the formation of students' communicative competence in the psychological aspect is the main criterion that must be taken into account when entering into intercultural communication, this can be seen in almost all studies, while students are the main object of study.

Key words: communication skills, communicative competencies, language training, language competencies, intercultural communications.

In the last decade, the use of the concepts of communication skills, language competencies in considering foreign language learning processes has been characteristic and there is no unequivocal opinion on their content, because these concepts most often mean the process of acquiring a certain amount of knowledge, competencies and skills that contribute to conducting speech activity in a foreign language language, including within the framework of academic mobility of students. And some scientists and practitioners also mean by language communicative skills and competencies a special activity or a system of educational institutions that conduct the educational process in a foreign language.

B. S. Gershunsky [1] presents training in a foreign language as a value and suggests considering it as "three axiological blocks":

- foreign language training as a state value;
- foreign language training as a social value;
- foreign language training as a personal value.

Knowledge of foreign languages, especially in the framework of academic mobility, is of paramount international importance.

The most important circumstances determining the demand for knowledge of foreign languages in Kazakhstan, as well as abroad, are as follows:

a) integration, globalized processes of society;

b) general access to the information field of educational programs;

c) the ability to access an international research source base.

The study of foreign languages, therefore, language training and language competencies, are the main mechanisms for the effective activity of the individual in the sociocultural and multilingual world.

Today, based on how modern countries are developing, it can be stated that knowledge of foreign language competencies is an essential, mandatory medium that is present in society, forms the individual's consciousness in a huge information stream, while the value of foreign language training should be determined by its personal psychological background , as it relates to the motivational and stimulating aspects of the individual. [2]

According to O.A. Vasilenko [3], in universities that do not train linguists, foreign languages are not specialized subjects, but at the same time, the increase and importance of a foreign language is achieved due to the fact that it must be considered as a tool in obtaining extrabudgetary competence for future professionals, expanding general knowledge, improving professional knowledge and skills, and all to achieve a special status. Today, there is everything necessary for the selection of innovative and, of course, productive tools in teaching a foreign language at universities in order to prepare "a specialist whose professional competence will become deeper thanks to the knowledge of a foreign language" [4].

Therefore, the study of a foreign language is a priority in preparing future specialists for the challenge of time and society.

With this situation in the current world situation, it is extremely necessary to develop methods for the development of communicative skills in a psychological aspect, while, first of all, we are talking about the necessary optimization of the spent human and time resources aimed at success.

The problem of the formation of students' communicative competence in the psychological aspect is the main criterion that must be taken into account when entering into intercultural communication, this can be seen in almost all studies, while students are the main object of study.

I.I. Opeshanskaya [5] considers the criteria and features of improving communication skills in different contexts: listening, grammar, social and cultural communication, and in general, a mechanism to achieve the required level of speech skills and abilities.

Studying the psychological conditions for improving communication skills, it must be noted that there is a large amount of work devoted to improving the formation of communication skills in the study of N.Yu. Grishina [6].

L. B. Dovgopolova [7] studies the process of intercultural communication as a means of actualizing the students' responsible attitude to education, T. A. Kovaleva [8] proposes ways to solve communicative-cognitive tasks in teaching such a type of speech activity as reading.

So, over the past decades, quite a lot of attention has been paid to the psychological condition in improving communication skills. Since the 1970s, the trend in psychological and pedagogical sciences has been traced to the psychological, social aspects of the analysis of a foreign language, when in the conditions of this paradigm, which is associated, in general, and in particular with psycholinguistic factors in the formation of oral abilities, everything is focused, first of all , on the concept of "communication skills." Communicative skills / abilities should be interpreted not only as a process of transmitting and receiving information flow, but also as establishing relations between communication objects. Since we are talking about differences in the substantive aspects of the communicative process and issues of relationships between people, therefore, the psycho-communicative nature of communication is regulated and adjusted. With regard to content, the main role is given to informational components at the level of relationships - psychological, social - extrapsycholinguistic and parapsycholinguistic. As you know, the theory of speech communication arose in the late 60s - early 70s of the XX century. as behaviorist psycholinguistics, its influence on the psychosocial characteristics of communicative skills, on the structure of speech, demonstrates the essence of the sense-speech communicative orientation in social positions during communication of communicants (A.A. Leontyev [9] and others).

In this regard, linguistics studies the assumption that the improvement of communication skills cannot be delimited only by linguistic competence, namely, knowledge of linguistic tools, the rules for their application in accordance with the standards existing in any language. In the 70-80s, scientific research acquired a clearly defined pragmatic orientation, caused not only by the general conceptual criteria of the methodology of teaching a foreign language, but also taking into account all the technologies used in teaching, which is certainly important, since these methods have a characteristic pronounced communicative color and thereby highlighted a radical emphasis in the direction of natural communication in the process of teaching a foreign language, thereby proving that the communicative skills of the student tongue should be implemented taking into account the psychological and personality, situational aspects that determine the specificity of foreign language speech behavior. [10]

Consequently, in the 70s, methodologists, linguists, linguists, psychologists, who put the position of communication skills at the forefront, focus on the psychological, social and functional factors of applying a foreign language in concrete conditions in communication, there is a transition to the principles of communicative learning a foreign language. As a result, the result of a comprehensive methodological

selection was the development of new methodological principles in teaching a foreign language, such principles as: a communicative approach (E.I. Passov, I.L. Bim), intensive training (G.A. Kitaygorodskaya).

In modern linguistics, the most practical attention deserves a communicative-oriented technique. [11] Communicative skills are important types of speech activity, in which significant attention is given to using it in real communication situations, where it acts more as a communication tool, and not as an object of theoretical structural analysis.

In the early 80s of the XX century, a significant number of effective tools in teaching a foreign language accumulated in psycholinguistics and pedagogy, aimed both at developing students' skills in practical use and at constantly improving the level of knowledge of the language being studied. In their studies, linguists practice, methodologists focused on advanced achievements in the field of psychology. Yu. N. Karaulov, in his work [12] writes about the psychological support of the development of a non-native language. So this process was posed in connection with the development and formation of the personality of a person as a whole. But on the other hand, the model for constructing teaching a foreign language in the methodology, even during this period, was oriented toward an already outdated language image, and not at the basic laws by which students learn a non-native language in the study environment.

High methodological requirements are imposed on modern methodological science in relation to psycholinguistic and extra-linguistic features and circumstances in the communicative aspect, to the personalities of the communicant, and all this within the framework of intercultural communication, the object of which is the study of a linguistic personality that operates with lexical, grammatical norms and forms that correspond to the standards of a verbal instrument a person who is a representative of a different nationality, a foreign language culture and another language group.

In this connection, teaching a foreign language looks like an interpretation of psycholinguistic cultural experience, which is based on the student’s self-presentation, his attitude to the world, on creative activity in the process of learning a foreign language, a different culture, which ultimately leads to the application of this experience to adaptation in society. This situation determines the essence of foreign language education as a whole as a value, as a system, as a process and as a result these days. [13]

At the present stage of development of the methodology of teaching foreign languages, an anthropological approach is used, according to which all the attention of researchers is concentrated on the role and significance of the human factor in the process of teaching a foreign language. [14]

Obviously, over the past 50-60 years, there has been a significant transformation of all aspects of teaching a foreign language, but we can distinguish those goals and objectives that are present in psychology, psycholinguistics, pedagogy and appear in studies of domestic, Russian, foreign linguists, linguists, psycholinguists, Methodist scientists.

Communicative skills suggest that a person masters a certain set of formal linguistic competencies and the corresponding skills associated with various norms of the language, namely, grammar, vocabulary, phonetics. In this case, the question is solved, which lexical units, grammatical forms and intonems are necessary for the process of communication for representatives of different ages, specialties, etc. Since words, grammatical constructions, intonems need to be studied to convert them into a semantic speech stream. Indeed, when teaching communicative skills in multilingualism, it is impossible to limit oneself to using only a linguistic code, because for the communicative process and interaction it is necessary to include speech communication in other activities so that they can perform the functions of exchanging the information flow and leading to success in communication.

With a huge variety of expressions of thought, statements, much can be learned and understood through the formation of linguistic and sociocultural competence.

Linguistic and sociocultural competence is one of the important categories in the formation of communication skills in learning a foreign language, it does not come down only to a dialogue of individuals, it is more a willingness of individuals to establish a dialogue between cultures.

Psychosocial and cultural competence is an important technology in which it is possible to form an individual of a new formation, focused on intercultural communication, aware of the complexity and interdependence of world society, the priority of interethnic interaction in the implementation and implementation of global international tasks.

However, the formation of psychosocial cultural competence underlies, not only and not so much, in the implementation of global problems of the world order, but also in solving communicative skills, for example, the English phrase “1 amgoingtothedrugstoretobuyanotebook” (going to a pharmacy for a notebook) may sound strange, because in America in pharmacies you can buy both medicines and stationery.

In this connection, the implementation of this problem of cultural outlook and knowledge is not sufficient, it is necessary to develop the skills that will help organize oral speech, build it in a logical sequence and this is an absolutely new frontier in communicative competence.

The understanding of psychosocial and cultural competence belongs to Professor V. V. Safonova, her classification (a set of competencies was supplemented by compensatory competence at the suggestion of I. L. Beam) was the basis of standards and norms for teaching a foreign language in 2004. [15]

Obviously, professionally-oriented training should be carried out, modeling the future professional activity of a specialist. [16] Nowadays, with the growth of the services market, as well as in the context of the globalization and integration processes of the post-industrial society, communication is becoming an increasingly important tool of activity in all areas, including academic mobility, and moreover, it is being implemented more often in a foreign language.

In the modern world, the formation of communicative skills is mainly always realized through the application of a communicative technique. As noted earlier, the principles of communicative learning appeared in the 70s of the last century and came to us from the West, where it originated a little earlier (in the 60-70s), at a time when English became international language.

Kazakh and Russian pedagogy of teaching foreign languages takes as a basis the research of E. I. Passov [17], in which he pays great attention to the communicative methodology and the concept of communicative teaching of a foreign language, highlighting the following characteristics of communicative competence:

- the motivation of any actions and all activities of the student, that is, in view of taking actions from an internal motive, rather than externally stimulated;
- the focus of any acts and activities of the student, namely, the commission of actions in order to fulfill a conscious communicative task;
- personal meaning in the activities of the student;
- verbal activity of the student in the process of achieving predetermined communicative goals, high thinking activity, cognitive and communicative;
- the attitude of personal interest in expressing their attitude to the problem and object of discussion;
- communication with different types of activities: educational, social, social, labor, sports, art, household;
- student interaction, meaning coordination of actions, mutual support and interaction, cooperation;
- situationality, expressed in communication between students and the teacher, students among themselves in the learning process, which is characterized as a system of interactions;
- functionality - the process of assimilation of speech content is performed in the presence of speech functions;
- heuristic – educational material and the process of its assimilation, excluding mechanical memorization and subsequent reproductive reproduction;
- content - an objective characteristic;
- information content - a subjective characteristic of educational materials;
- novelty - the constant variability of all types of speech activity;
- expressiveness - using various means of communication, both verbal and non-verbal.

The term "technique" is used in science in two meanings. Firstly, this is a private didactics, that is, the theory of teaching a subject as a whole (for example, the methodology of teaching English) as an applied discipline. In addition, this term can also refer to a pedagogical system based on a concept.

Communicative, therefore, is the methodology of teaching a foreign language, which prioritizes its communicative function, that is, its use in real life situations for communication between people.

So, this technique is sharply different from the traditional one, which implies a fundamental study of the language, as a system from a theoretical point of view, where language practice is used in much smaller quantities and is more likely to be educational in nature, which makes it somewhat divorced from life.

This technique is based on the communicative concept of teaching a foreign language, developed in domestic science by E. I. Passov. [eighteen]

With all the huge number of techniques, theories, and scientific directions in teaching foreign languages at the present stage, there are common goals in approaches to learning, which can be represented in this way: the formation of the communicative skills of a professional is an integral and integrated set of competencies.

In achieving the goals in the educational process, it is important to place emphasis on questions on the humanization of the unity of education and upbringing, namely the importance of forming a worldview, broadening one's horizons, raising the cultural and educational level of students, and the issue of upbringing when learning a foreign language will be implemented as far as students are ready to establish scientific, intercultural relations, present your state by participating in international conferences, forums, webinars, how they will respect respect for the spiritual and moral values of other peoples and cultures. [19]

According to E.I. Passova [20], the achievement of mutual understanding in a cross-cultural dialogue has four criteria:

- psychological - mutual understanding and cooperation, if:

a) the subject of communication has become personally significant for all its participants, b) empathy, empathy appears between them,

c) all communicating adopted the situation as a system of relationships.

- sociological –consciousness of a certain community, involvement in culture;

- sociocultural - each side of communication acquires the sociocultural status of the subject and his speech behavior is based on this;

- axiological - awareness and understanding of the values of another culture, which allows you to build a dialogue (polylogue) precisely on mutual understanding, and not on tolerance (tolerance).

Consider the question of improving communication skills in teaching foreign languages. From this question it follows that the priority task in teaching using a communicative technique is to overcome the psychological and linguistic barrier — the psychological fear of speaking a “foreign” language and perceiving a foreign language flow. Of course, the communicative process cannot be complete if the person does not feel psychological freedom. This kind of psychological restraint, basically, lies in the fear of making mistakes, mistakes, being misunderstood, etc.

Therefore, it can be stated that the task of working with speech activity, namely, listening, speaking, reading and writing - these are all means of communication, including intercultural.

So, the content of training programs in a foreign language should be presented in the form of a model of natural communication processes in which students with skills and abilities are involved, and the ability to correlate the means of the language with the norms of speech behavior that native speakers follow. [21]

In general pedagogy, as a rule, there are such principles of the formation of learning content in relation to teaching methods as any academic discipline, in particular a foreign language.

1. Humanism - the construction of the content of education in accordance with universal values, correlated with society and culture.

2. Scientific - knowledge intended for students to learn should be scientific facts so that it is possible to form a worldview that corresponds to the current scientific picture of the world.

3. Consistency - knowledge is not handed over to students intermittently, and subsequent ones should rely on previous ones and flow logically from them to ensure the effective formation of necessary skills.

4. Relationship with life - the need to give students such knowledge, as well as to develop their skills that could be not only the spiritual value of a comprehensively developed personality, but could also be used in real life, both professional and in the daily activities of a future specialist.

5. Correspondence to age-specific features - the transfer of knowledge, as well as the skills formed should correspond to this age group of students in terms of their interests and real life needs.

6. Accessibility - the feasibility of knowledge, skills for a particular group of students, both in terms of age and in terms of their level of general education, as well as language training. [22]

The psychological component of the content of education implies the inferiority of only phonetic, lexical, grammatical and cultural knowledge for the formation of communicative competence, the mandatory formation of speech skills.

A.A. Leontiev [23] believes that the presence of skills alone is not enough for creative activity, it is necessary to master imagination, emotions, thinking, because they contribute to the communication format and help to achieve the effect that the speaker wants to achieve.

Improving communication skills contribute to the use of:

1) lexical and speaking skills, formed on the basis of the number of lexical units outlined in the training program, which are included in the model of speech means.

2) grammatical speaking skills, which are formed on the basis of grammatical phenomena that lie in the structural basis of the speech system of a particular language.

3) the pronunciation skills of speaking, formed on the basis of the phenomena of phonetics, which make up the system of pronunciation of a given language.

4) following the rules of speech etiquette adopted in this collective of native speakers. These include: greeting, acquaintance, invitation, advice, request, proposal, consent and rejection, complaint, clarification, apology, condolences, sympathy, compliment, disapproval, reproach, congratulations, thanks, wishes, goodbyes, etc.

5) the ability to express basic speech functions: confirmation, objection, doubt, approval, promise, consent, offer, request, surprise, etc.

6) the ability to expressively speak, which includes: the correct tone, the correct syntagmatism of speech, the correct logical stress, precise intonation, etc.

7) the ability to speak holistically in a semantic and structural sense at all levels of speech units.

8) the ability to speak coherently and logically.

Integration and differentiation processes.

The integration in this case is that when teaching any type of speech activity, the student goes through all its types, while differentiating, a separate type of speech activity is being formed and the language aspect is used by performing various exercises and assignments built taking into account certain tools embedded in the basis of the formation of a single speech and language unit. Exercises have different communication opportunities for students. The following exercises are presented by Kazakhstani and Russian methodologists:

a) wildcard exercises, with the principle of action on the model;

b) transformational exercises, using accumulated knowledge, skills, taking into account realities or changes in the situation;

c) conditionally-communicative tasks with a situation according to a model close to realities and at the same time acting according to the rules;

d) genuinely communicative tasks are carried out through communication in the language being studied without recommendations and regulation by the teacher.

In foreign educational literature, there are three types of exercises based on the degree of freedom of students in their implementation:

a) clearly setting actions for students, correct execution;

b) implying some independence of students with a sufficient degree of control by the teacher;

c) actually communicative or free. [24]

G.A. Kitaygorodskoy [25] distinguishes the following principles. The principle of the role organization of the educational material and the learning process. It is proved that communicative skills acquire a creative, personality-oriented color when students do not copy communicative activity, using the accumulated amount of skills, but use its motives, which means they can perform motivated verbal activities.

Foreign language communication education at a higher school demonstrates insufficient communication skills, which is the main barrier to speaking fluently. V.L. Skalkin notes that “the generation of students of oral texts now and then takes place in a certain socio-ethnographic emptiness, in which people without personality, gender, age, real needs, emotions, family or social relations act” [26].

In communicative processes, students exchange linguistic knowledge, help each other with translations, select the right words, grammatical form, respectively, and communicate.

With a variety of teaching methods in general psychology and pedagogy, the main problem associated with this concept is the problem of classification. It is reflected in the works of such researchers as Yu.K. Babansky [27], I.Ya. Lerner [28], B.P. Esipov [29] and others.

The main tool in compiling the educational content of a foreign language is the educational-methodical complex of disciplines (UMCD), this is not about a single textbook, but about the integral communicative competence of the future professional, and not only and not so much as a process: to teach to speak, read and write in the language being studied, one textbook is clearly not enough.

Currently, there are a very large number of foreign language courses by both domestic, Russian and foreign authors. When drawing up teaching materials, the teacher should be guided by the following:

1. Does this course correspond to the complete methodological set;

2. Does it comply with the requirements of GOSO (State Compulsory Education Standard);

3. whether UMKD is compiled according to the age limit, whether it meets real interests, request and requirement, etc .;

4. whether the chosen course is correctly selected for the development of communication skills, speech, language, psychosocial skills, including all modern forms of academic mobility.

Conclusions for the second chapter

1) In domestic higher education and especially in non-linguistic universities, language training of specialists is traditionally carried out according to the grammar-translation method, and the communicative component is practically absent in it. The main ways to increase the effectiveness of such training on the basis of a communicative methodology are to improve its content, use an individual-communicative approach to students, which consists in taking into account their personal characteristics and improving the quality of their independent work outside the classroom.

2) It is possible to improve the content of the language training of university students by:

a) dividing groups into subgroups for learning a foreign language;

b) the acquisition of subgroups according to the level principle;

c) the use of modern communicatively directed educational materials and manuals;

d) the use of technical means of instruction in the classroom;

e) the use of relevant authentic materials in a foreign language;

f) organization of discussion forms of classes;

g) the regional and cultural studies.

h) An individually-communicative approach to students is based on personality-oriented communication. Its value lies in the ability to model in the pedagogical process real situations of social interaction, inside of which, its participants need to solve various communicative tasks. Person-oriented communication is different in that a teacher is required to partner with students. The first place in teaching is placed on the interest in the content and essence of student's statements, regardless of how correct their linguistic design is. Such communication allows you to reveal the full communicative potential of students, to make their speech creative, that is, concentrated on the meaning, and not on the formal side of the statement.

4) The organization of independent work of students is an integral part of the process of teaching a foreign language, since the number of classrooms is insufficient for the full formation of the communicative competence of students. Success in this process is impossible without constant stimulation of students to independent studies, which consists in organizing additional discussions on independently mastered materials, encouraging work with them, compiling lists of recommended materials, online resources, including professional topics.

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КОММУНИКАТИВТІК ҚҰЗЫРЕТТІЛІК-АКАДЕМИЯЛЫҚ ЕРКІНДІК ЖАҒДАЙЫНДАҒЫ ЗАМАНАУИ ҚҰРАЛДАР

Аннотация. Бұл мақалада коммуникативтік дағдылар, тіл құзыреті болып табылатын басты тетігі тиімді қызметі үшін индивидтің осы әлеуметтік және көптілді әлемдік кеңістікте. Шет тілін оқыту болашақ мамандарды уақыт пен қоғамды шақыруға дайындауда басымдық болып табылады. Қазіргі әлемдік

жағдайдың мұндай жағдайында психологиялық аспектіде коммуникативтік дағдыларды дамыту әдістемесін әзірлеу өте қажет, бұл ретте бірінші кезекте, бұл табысқа бағытталған жұмсалған адамдық және уақытша ресурсты қажетті оңтайландыру туралы болып отыр. Психологиялық аспектіде студенттердің коммуникативтік құзыреттілігін қалыптастыру мәселесі мәдениетаралық коммуникацияға кіру кезінде есепке алынатын негізгі критерий болып табылады, бұл барлық зерттеулерде байқалады, сонымен қатар студенттер зерттеудің басты нысаны болып табылады.

Түйін сөздер: коммуникативтік дағдылар, коммуникативтік компенциялар, тілдік дайындық, тілдік құзыреттілік, мәдениетаралық коммуникация.

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КОММУНИКАТИВНЫЕ КОМПЕТЕНЦИИ - СОВРЕМЕННЫЕ ИНСТРУМЕНТЫ В УСЛОВИЯХ АКАДЕМИЧЕСКОЙ СВОБОД

Аннотация: В данной статье рассмотрены коммуникативные навыки, языковые компетенции, которые являются главным механизмом для эффективной деятельности индивида в социокультурном и полиязычном мировом пространстве. Изучение иностранного языка является приоритетом в подготовке будущих специалистов на вызов времени и общества. При таком положении современной мировой ситуации, крайне необходима разработка методик развития коммуникативных навыков в психологическом аспекте, при этом, в первую очередь, речь идет о необходимой оптимизации затраченного человеческого и временного ресурса, нацеленных на успех. Проблема формирования коммуникативной компетенции студентов в психологическом аспекте является тем основным критерием, который предстоит учитывать при вступлении в межкультурную коммуникацию, это прослеживается практически во всех исследованиях, при этом студенты выступают главным объектом исследования.

Ключевые слова: коммуникативные навыки, коммуникативные компенции, языковая подготовка, языковые компетенции, межкультурные коммуникации.

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THE ESSENCE AND TYPES OF COMPETITIVE STRATEGIES

Abstract. The article defines the essence of the competitive strategies of firms on the basis of a retrospective analysis of the theory of competitive strategies development. As a starting point of the study, the author uses the work by M. Porter, the founder of the theory of competitive strategies. Without diminishing the high importance of his theory of competitive strategies, the author notes the absence in his works of a clear and comprehensive definition of the concept of competitive strategy and carries out a further search in the works of other scientists who have made a definite contribution to the development of the theoretical basis of this direction. Analysis of existing theoretical developments on this topic allowed the author to formulate an author's interpretation of the concept of "competitive strategies" and highlight the main features of competitive strategies. In addition, the concepts of "competitive actions" and "competition strategies" are distinguished in the work. The study of various scientific points of view and the evolution of diverse approaches to the classification of types of competitive strategies made it possible to develop the author's classification according to a new classification criterion - according to the level of competitive activity of a business entity with the identification of their types. According to the author, the classification of types of competitive strategies that he forms systematizes the existing competitive strategies in the scientific literature by combining them into three large blocks, and is also the most suitable for use in the practical activities of industrial enterprises.

Key words: competitive strategies, business entity, competition, strategic management, markets.

Introduction. The meaning of strategic behavior allowing a company to survive in the competitive struggle in the long term increased sharply in recent decades. All companies under the stiff competition and quickly changing situation should be focused not only on the internal state of the company business, but elaborate a strategy of long-term survival allowing them to follow the surrounding changes. At the moment, along with a task of rational application of potential in the current activity, especially important is such management that ensures competitive advantages in quickly changing environment.

Under the market economy development, for successful functioning of an enterprise the especially important are issues of competitive potential forming, determination, development and creation of prerequisites for reliable competitive advantages, selection of a correct form of competitive behavior.

For successful activity an enterprise should elaborate a correct strategy of competition based on its competitive advantages that makes topical the investigation of competitive strategies types under stiff competition conditions.

Results and discussion. The terms “strategy of competitive behavior” and “competitive strategies” are the key subjects of the strategic management investigation [1, P.45-51].

The basis in these definitions is “strategy” that in the management system accumulates the economic meaning of long-term planning based on a statement that all that is happening is a consequence of managerial decisions made for mobilization of internal resources under the uncertainty of external environment the change of which is predictable. Owing to flexible strategy of management even under the uncertainty of external environment all processes occurring inside the organization can be considered within the control and management, so it means that it takes a central position in ensuring economic capacity of entrepreneurship activity subject.

The strategy of business entity implies its positioning in the market and the tendency of its future development regarding the format of the entrepreneurship activity, set of relations inside the company,

responses to outside challenges. The general concept of the strategy is in forming of the development trends, planned responses to the problems appearing from the outside, predicted plan of actions regarding available limited resources of the organization that it can give for its implementation determined as resource management [2, p.18].

Depending on the cycle of business entity development its top management has an opportunity to select one of the corporate base strategies suitable for the company:

- strategy of growth reflecting the aspiration to increase the products volumes, profits, capital;
- strategy of stabilization the essence of which is the company response to outside pressure of the environment under the conditions of instable volumes of selling and income of the company;
- strategy of survival that is applied when the company is on the verge of bankruptcy and is considered as defensive [3, p.102].

Numerous theorists explain the competitive strategy in the form of a plan of action of the company in the market according to the response actions of competing companies [4, p.54]. I.Ansoff explained the existence of two interconnected strategies [5]. The first is portfolio, second – competitive. The essence of the first one is to determine and describe definite actions namely in strategic business domains (SBD) i.e. those within which a company is going to function, at the same time the SBD interaction way is explained. The essence of the second one is to determine and mark different approaches using which the organization is planning to conduct its activity in each strategic sphere (SBD). The corporative strategies, in practice, can be used in its pure form or in "singular number", but it is a rare case [6]. Other than reference strategies of growth, the competitive strategies are numerous.

M. Porter in 1980-s was the first who introduced a term "competitive strategy" into the strategic management. But, in spite of this, in his work "Competitive Strategy: Techniques for Analyzing Industries and Competitors" [7, p.54] M. Porter does not suggest a clear and comprehensive definition of the competitive strategy; however he was the first who initiated the active development and built a theoretical base of this trend in strategic management. The further investigations allowed concretizing the essence of the competitive strategy, develop new fields of its content, and broaden the application spheres considering the industrial features and market state requiring flexible behavior of the business entity in varying degree of the medium competition intensity on the selected niche of the market segment [8, p.72].

Especially interesting are the works by B. Karloff who determines the competitive strategy as a set of rules followed by the business entity management if its goal is achievement and support of competitiveness in the related field or at a given segment of niche of the market [9].

In addition to this opinion of B. Karloff, the Professor of Harvard Business School, M. Porter, rightly remarks that the competitive strategy forces to position its entrepreneurship activity in the way that maximizes its potential and allows increasing the gap from companies-competitors. Thus, making a common conclusion on the positions available regarding the competitive strategy, this strategy can be understood as an integrated system of actions oriented on implementation of strategic goals of business entity development that takes into account the influence of the outside and inside medium of a company for its achievement and to support the competitive ability in a long-term period [10, p.68].

The competitive strategy is a definite part of the corporate strategy of enterprise and includes a set of specific approaches to the competitive struggle in the market. The competitive strategy is based on the competitive advantages achieved by a company during the implementation of its activity. These competitive advantages are the properties of goods (products) allowing a company to acquire superior properties and distinctive features comparing to competitors [11, p.12].

The theory of competitive management relates the competitive strategies to a definite (independent to some extent) level in the hierarchy of competitive behavior of the entrepreneurship structures. For the company's behavior to be predictable, having a definite ground basing on operative procedures, first it is necessary to create it on the strategic level when this behavior will be reflected as a strategy [12, p.22].

Yu.B. Ryubin in his investigations pays attention to the fact that "Competitive strategies" (or "strategies of competition") are the notions the main meaning of which reflects everything that occurs on the strategic level within the undertaken competitive actions in the part of their management [13, p.34]. In the process of competitive actions management of business entity the following structural levels are noted: strategic, tactical, and situational. This division is the foundational in the investigation of competition.

Everything that is written and said regarding the competitive strategies implies the relation to strategies responsible for the competitive actions. When a company carries out its activity according to the competitive strategy, its whole business is filled with a deep sense and allows it to be a sustainable company able to counter all challenges of external environment. The term "strategy of competitive actions" means the most realistic degree of justification and motivation of all actions of a company oriented on other players in the market. Taking this into account, it is possible to explain why the strategy of competitive actions is the base of entrepreneurship activity of any economic entity [14, p.58].

The signs of the competitive strategy are: continuous competitive actions, sense of competitive results, and long-term prediction of successful entrepreneurship activity.

Therefore, the competitive strategies determine the essence of business entity actions in the competitive medium of the market and are laid to the base of competitive actions appearing in competitive operations. That is why the strategies of competitive actions are in the list of strategies taken as basic by all market participants for carrying out the activities. This list also contains other strategies – productive, selling, financial etc. All they are applied according to the features of the market environment in which (excluding monopolists) the competition exists [15, p.32]. Thus, any business entity in the market economy, independently on the stage of its economic activity development and strategic orientation, stipulates the strategic behavior or a range of competitive actions. For instance, decrease of expense portion on manufacture of homogeneous goods, redeployment of staff, application of credit leverage, introduction of E-commerce technologies, all this should be as a whole and should not exist separately from other problems related to competition [16, p.7].

At the same time "competitive actions" and "competitive strategies" are different in its strategic task and economic nature. The difference is that "competitive strategy" is a strategy for preparation and carrying out the entrepreneurship activity of the entity in long-term perspective, and its selection depends on the goals set by a company and what exactly its director wants to achieve [17, p.45].

Thus, the competitive strategy is a set of initiatives and actual actions of business entity selected to influence on external environment to acquire the competitive advantage. In other words, the competitive strategy determines a range of actions to achieve the competitive advantage at individual segment or niche of the market. Namely the competitive advantage or leadership by criteria important for the business entity became an object of first theoretical investigations in the sphere of competitive strategies highlighted as an individual field in the management strategy by M. Porter theory.

M. Porter determined the following as competitive strategies: absolute costs leadership, differentiated proposal of goods, focusing on individual sectors of the market.

Later J. Lamben added the classification proposed by M. Porter and considered already five types of competitive strategies and characterized them as:

- strategy of cost leadership that decreases commercial costs of procurement and selling of products and services that should attract large number of customers;
- strategy of wide differentiation that implies featuring of a company products that makes them different from the companies-competitors and attracts more customers;
- strategy of economic costs that provides customers an opportunity to purchase larger value for expensed funds, and allows a company to acquire competitive advantages by combination of small costs and wide assortment product line;
- strategy of market niche that is based on low costs and focused on small range of customers owing to which a company can be ahead of its competitors;
- focused strategy of product line differentiation the application of which allows a business entity to supply the target group with goods or services that satisfy the tastes and preferences of customers to maximum amount [18, p.36].

Ph. Kotler in his investigations focused the development of competitive strategy theory on the competitive advantage and noted that "The strategy is aimed at withdrawal of the margin of different fields of the organization activity. With this in mind, it is possible to note that all taken efforts work for strengthening potential competitive advantages of the organization in the process of its activity" [19, p.21].

In his opinion, the "competitive advantage" of the business entity can be named strategic only in the case if it appears in the main fields of its activity and is sustainable in time, and the competitors do not have reliable means to beat it off, but can keep a close eye on it.

Ryubin Yu.B. in his works develops the view of Ph. Kotler and characterizes the signs of "competitive advantage" as follows: "it appears in the fields that become leading in the company's activity and are identified by external environment the same way" [19, p.78].

Thus, the competitive strategy is not a necessary set of distinctive priorities regarding business entities considered as competitive advantage, but the system of strategic management allowing forming special positions at the selected niche of the individual segment of the market. M. Porter notes that "the strategy is creation of position on refusing to carry out definite types of activity, but agree on the most competitive fields of activity. Therefore, the strategy is a result of agreement on the selected types of company's activity" [7, p.76].

The key object in the theory of strategic management is selection of strategy not only for the business entity to survive economically under the conditions of varying competitive intensiveness of market medium, but implement the main goal of entrepreneurship initiative of business start aimed at making profit and its further maximization aimed not at its total sum, but the part that remains at the owner and named as "net profit". Thus the strategic management is the instrument that allows ensuring the achievement of business goal, and selection of competitive strategy is selection of behavior model allowing maximizing the size of net profit [20, p.44].

Table 1 shows the strategies types by M. Porter.

Table 1 – Types of competitive strategies

Types of competitive strategies	Description
Strategy of costs minimization leadership	Reduce of costs for manufacture of goods and services, and its selling. The aim of work under this strategy is search of ways to reduce these indicators maintaining the products quality.
Strategy of differentiation	The strategy implies the availability of positive qualitative features of the proposed product from the products of competitors. Under this strategy the minimization of production costs is not of first priority.
Strategy of focusing	The strategy implies the focusing on a definite segment of the market using the strategy of costs minimization and differentiation of product simultaneously, and separately. The main distinction from the previous competitive strategies is that a company will compete at narrow segment of the market.
Note: source [7, p.89]	

These types reveal the specifics of management mechanism the application of which allows maximizing the profit and creating definite positions of business entity at the niche of a selected segment of the market at applying each of them.

Table 1 shows that the strategies by M. Porter have two main constituents used to achieve a goal of special competitive positions due to applied strategies:

– strategy of leadership is based on acquiring competitive positions of business entity due to decrease of internal factors, or enhancement of effectiveness due to upgrade of manufacture, improvement of personnel management, optimization of management system or organizational structure etc., that finally will reflect on opportunity of possible price proposal suitable for a customer;

– strategy of differentiation is focused on quality or feature of entrepreneurship activity object that will be better for a customer than the same goods;

– strategy of focusing is assimilation of the strategy of differentiation and costs minimization to create a product of business entity activity and creation on a selected niche of the market segment a product that represents a special distinctive value, and sometimes determines its social status [21, p.227].

The strategies of competitiveness by M. Porter indicate clearly that distinction of the strategic management is that its aim is not elaboration of competitive properties of goods regarding the existing ones, but is an instrument to achieve the competitive positions of business entity on a selected segment of the market due to advantages important for a consumer in the activity product created by it. [22, p.13].

The base of the strategic idea was developed in different theories of the "competitive strategy" forming on the base of numerous competitive alternatives and this is proved by the classification of competitive strategies shown in Table 2.

Table 2 – Classification of competitive strategies

Authors of approach	Principle of classification	Considered strategies
Ph. Kotler., P. Doyle	Competitive position of the company in the market	Market leader, leadership candidate, follower, niche inhabitant
Treacy M., Wiersema F.	Form of consumer preferences satisfaction	Functional advantage, close connection with consumer, leading position on goods
Porter M.	Creation of competitive advantage	Leadership in costs minimization, differentiation of products, focusing
Miles R., Snow Ch.	Position of a company regarding development of goods/markets	"Prospector", "defender", "analyzer", "reactor"
Ramenskiy L.G., Frezinkel Kh..	Specifics of production	Force, niche, accommodative, pioneering
A. Thompson, A. Strickland	Competitive position of a company in the market	Costs leadership, wide differentiation, focused (niche) strategy on a base of low costs and products differentiation
Note: compiled by authors basing on source [23, p.145]		

The analysis of approaches by F. Kotler shown in Table 2 shows that he classifies the competitive strategies on the sign of market share taken by an enterprise:

– the strategy of market leader is used by enterprises having domineering position in the market/sector;

– the strategy of leadership candidate is inherent for enterprises striving to become market leaders using at the same time all possible strategies and attacks;

– the strategy of follower is used by enterprises to keep the market share and supposes imitation of a definite (another) strategy;

– the strategy of niche inhabitant (nicher) is inherent to enterprises having insignificant market share and specialized on definite types of products/services.

The American economists M. Treacy and F. Wiersema classify the competitive strategies depending on the type of consumer preferences:

– the strategy of functional advantage is used by enterprises servicing the consumers who need reliable, enough qualitative products for lower price;

– the strategy of close connection with consumer is for enterprises oriented on clients able to pay higher price to purchase namely the goods they prefer;

– the strategy of products leadership is typical for enterprises that require contemporary (innovation) products regardless the costs for its purchase [24, p.564].

A. Thompson, A. Strickland highlight the following types of competitive strategies:

– the strategy of costs leadership – assumes attraction of customers due to minimization of costs for goods and services production;

– the strategy of economic costs – assumes the strengthening of consumer value by higher quality at price much lower than competitor's;

– the strategy of wide differentiation – supposes attraction of consumers by distinction of company's goods from the similar products of competing companies;

– focused (niche) strategy on the base of low costs – orients a company on a quite small consumer segment and predation using the advantage of the smallest production costs;

– focused (niche) strategy on the base of product differentiation – orients a company on a quite small consumer segment and predation using the advantage of the best goods and services satisfying the consumers' needs [25].

The competitive strategies of business entity shown in Table 2 are implemented using functional marketing strategies. Table 3 shows a role competition for the market economy development.

Table 3 – Theories of competition

The role of competition for the market economy development			
⇩	⇩	⇩	⇩
Competition: notion and types	Scientific approaches to competitiveness management	Evolution of competitive advantages concepts	Stages of competitive advantages forming
⇩	⇩	⇩	⇩
Theories of competition: Atomistic Informational Conflicting By degree of intensity: Attractive Moderate Violent By forms of needs satisfaction: Functional Specific Subject Methods of competition: Price Non-price	Scientific approaches: System Innovation Integrated Marketing Exclusive Process Structural Situational Behavioral	Theory of absolute advantage: - theory of relative advantage - theory of production factors - theory of scale effect - theory of human capital - theory of competitive advantages - theory of entrepreneurship ecosystems - theory of intellectual leadership	Resource stage Investment stage Innovation stage
Note – compiled by the author basing on source [26, p.25]			

Different scientific points of view and evolution of approaches led to a variety of options and types of the competitive strategies classification. The generalization of theoretical investigations assumes application of division or classification of competitive strategies by a new classifying sign – by the level of competitive activity of business entity highlighting the following types:

– competitive strategies with high level of competitive activity (forward);

– competitive strategies with average level of competitive activity (defense);

– competitive strategies with low level of competitive activity (imitational) [27, p.81].

The proposed classification of the competitive strategies, first, systemizes the competitive strategies available in scientific literature by combining them into three large blocks, second, is the most suitable for application in practical activity of the industrial enterprises.

Conclusion. The competitiveness of an enterprise is not a simple and syllable notion, in its essence it is very wide and multilateral as its notion includes the whole complex on interaction of all constituents of enterprise potential. These can be: production, personnel, marketing, management, and finances.

Thus, the most important constituent of successful functioning and enhancement of enterprise competitiveness under the market conditions is development of the competitive strategy. The competitive strategy, being the means to enhance the enterprise competitiveness, allows the following: determining the current state of the enterprise, reveal problems experienced by the enterprise in the process of its functioning, select the ways for its solving, and determine the tendency of its further development. Moreover, the development and implementation of the strategy allows determining the main needs of the market and extend the period of the enterprise effective functioning.

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БӘСЕКЕЛІК СТРАТЕГИЯЛАРДЫҢ МӘНІ МЕН ТҮРЛЕРІ

Аннотация. Мақалада бәсекелік стратегиялар теориясының дамуына ретроспективтік талдау жүргізу арқылы фирмалардың бәсекелік стратегияларының мәні анықталған. Зерттеудің негізі ретінде бәсекелік стратегиялар теориясының негізін қалаған М.Портердің еңбектері қолданылған. Автор оның бәсекелік стратегиялар теориясының маңыздылығын мойындай отырып, оның еңбектерінде бәсекелік стратегиялар туралы нақты анықтама берілмегендігін белгілеп, осы зерттеу бағытына үлес қосқан авторлардың еңбектерін қарастырады. Осы тақырыптағы теориялық әзірлемелдерді талдау «бәсекелестік стратегиялар» түсінігіне авторлық анықтама қалыптастыруға және бәсекелік стратегиялардың негізгі сипаттамаларын анықтауға мүмкіндік берді. Одан басқа, жұмыста «бәсекелік әрекеттер» және «бәсекелік стратегиялар» түсініктерінің айырмашылықтары көрсетілген. Бәсекелік стратегиялар түрлерінің сыныптаудың түрлі тәсілдерінің эволюциясы мен оған ғылыми көзқарастарды зерттеу нәтижесінде оларды жаңа сыныптау сипаты – бизнес субъектілерінің бәсекелік белсенділігінің деңгейі бойынша олардың авторлық сыныптамасы жасалған, оған қоса, автор бәсекелік стратегиялардың типтерін де көрсеткен. Автордың ойынша, оның жасаған жаңа сыныптамасы ғылыми әдебиеттерде сипатталған бәсекелік стратегияларды жүйелейді және оларды үш блокқа бөледі, сондай ақ өнеркәсіптік кәсіпорындардың тәжірибелік қызметінде қолдану үшін қолайлы болып табылады.

Түйін сөздер: бәсекелік стратегиялар, бизнес субъектісі, бәсекелестік, стратегиялық менеджмент, нарықтар.

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СУЩНОСТЬ И ВИДЫ КОНКУРЕНТНЫХ СТРАТЕГИЙ

Аннотация. В статье определена сущность конкурентных стратегий фирм на основе проведения ретроспективного анализа развития теории конкурентных стратегий. В качестве отправной точки исследования автор использует работы М. Портера – основополагателя теории конкурентных стратегий. Признавая высокую значимость его теории конкурентых стратегий, автор констатирует отсутствие в его работах четкого и исчерпывающего определения понятия конкурентной стратегии и осуществляет дальнейший поиск в работах других ученых, которые внесли определенный вклад в развитие теоретического базиса данного направления. Анализ существующих теоретических разработок по данной тематике позволил автору сформулировать авторскую трактовку понятия «конкурентные стратегии» и выделить основные признаки конкурентных стратегий. Кроме того, в работе разграничены понятия «конкурентные действия» и «стратегии конкуренции». Исследование различных научных точек зрения и эволюции многообразных подходов к классификации видов конкурентных стратегий позволило выработать их авторскую классификацию по новому классификационному признаку – по уровню конкурентной активности субъекта бизнеса с выделением их типов. По мнению автора, сформированная им классификация видов конкурентных стратегий систематизирует существующие в научной литературе конкурентные стратегии, объединяя их в три крупных блока, а также является наиболее приемлемой для использования в практической деятельности промышленных предприятий.

Ключевые слова: конкурентные стратегии, субъект бизнеса, конкуренция, стратегический менеджмент, рынки.

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ELECTRICAL AND HEAT SUPPLY OF THE OBJECT BY MEANS OF INNOVATIVE MEANS - WIND-SOLAR STATION (BCC) OF MEDIUM POWER AND ELECTRIC ENERGY SOURCE

Abstract. Over the past decade, interest in renewable energy has been steadily increasing since it is practically unlimited. As fuel supplies become less reliable and more expensive, these sources become more attractive and more economical. The increase in oil and gas prices was the main reason that people again turned their attention to water, wind and the Sun. Interest in the problem of using solar energy has increased dramatically. The potentialities of energy based on the use of direct solar radiation are extremely high. Regardless of whether we use renewable energy or not, this will not affect the Earth's energy balance and the state of the biosphere.

Keywords: power supply, heat supply, innovation, wind, sun, source, energy.

INTRODUCTION

Solar energy is the kinetic energy of radiation (mainly light), generated as a result of reactions in the bowels of the sun, its reserves are practically inexhaustible. In natural ecosystems, only a small fraction of the solar energy is captured and stored in the form of potential energy of organic substances. Due to their decomposition, the energy needs of all other ecosystem components are satisfied.

Using only 0.5% of the energy of the Sun could completely cover the needs for the future world energy. The sun is a very powerful source of energy. Only 22 days of sunshine in terms of total power coming to Earth are equal to all the reserves of organic fuel on the planet. In Central Asia, for every square meter of surface perpendicular to the sun's rays, energy drops of about 1 kW per 1 hour. This is the amount of energy that is needed for a ten ton truck to accelerate from a standstill to a speed of 100 km / h.

MAIN PART

Using solar energy can be useful in several ways. First, replacing fossil fuels reduces air and water pollution. Secondly, replacing fossil fuels means reducing fuel imports, especially oil. Thirdly, replacing nuclear fuel, we reduce the threat of proliferation of nuclear weapons. Finally, solar sources can provide us with some protection by reducing our dependence on a continuous fuel supply. Undoubtedly, some damage to the environment can also be caused by ore mining, the manufacture of batteries and the much larger number of wires and transmission lines needed to collect electricity from its many sources. But in general, if we consider all the costs of protecting the environment, they will be very small.

Solar energy must be captured on a relatively large area, concentrated and turned into a form that can be used for industrial, domestic and transportation needs. In addition, one must be able to store solar energy in order to maintain energy supply both at night and on cloudy days. The listed difficulties and costs necessary to overcome them have led to the opinion that this energy resource is impractical, at least today. However, in many cases the problem is exaggerated. The main thing is to use solar energy so that its cost is minimal or even equal to zero. With the improvement of technologies and the rise in price of traditional energy resources, this energy will find new areas of application.

In practice, solar radiation can be converted into electricity directly or indirectly. Indirect conversion can be accomplished by concentrating radiation using servo mirrors to turn water into steam and then

using steam to generate electricity by conventional methods. Such a system can only work in direct sunlight. Direct conversion of solar energy into electrical energy can be carried out using the photoelectric effect. Elements made of a special semiconductor material, such as silicone, in direct sunlight expose the difference in voltage on the surface, i.e. the presence of electric current. The method of using solar energy without using a battery system, based on the conversion of temperature differences on the surface and in the depths of the ocean into electrical energy.

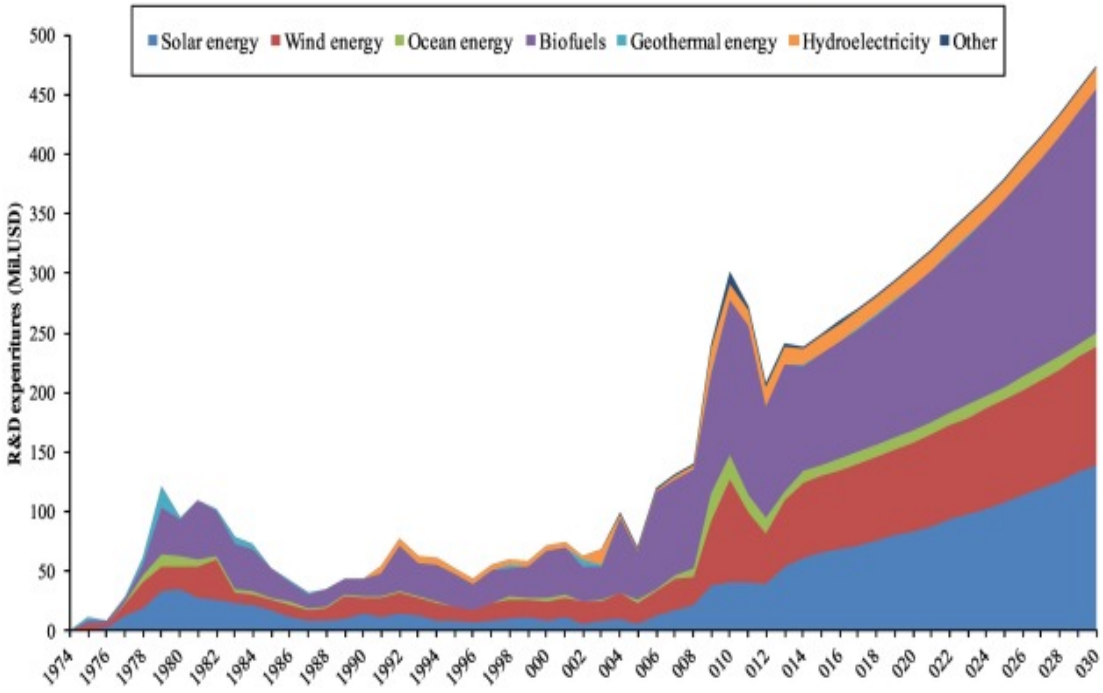

Figure 1 - The impact of public R&D and the dissemination of knowledge on the development of renewable energy sources

To show the application of the model, the Nordic countries as one of the pioneers in renewable technologies have been chosen. Results show the cumulative knowledge stock will increase to 2.4 billion USD until 2030, by focusing on biofuels, solar and wind energy. Results also indicate that the knowledge spillovers reduce the domestic R&D investment and may strengthen the knowledge stock. These impacts of knowledge spillovers are more effective when the absorptive capacity of the country becomes greater. The model helps policy makers to design effective policies for creating a balance between domestic R&D expenditures and knowledge spillovers. Finally, some important policy insights and some recommendations for further research are concluded.

American experts consider solar thermal energy to be promising, for the production of which solar reflectors are used, which collect and concentrate heat and light, through which water is heated.

Most solar heating systems are equipped with a solar collector. Only in the USA, solar collectors with an area of 10 million m2 are operated, which provides annual fuel savings of up to 1.5 million tons.

It appears that the direct conversion of solar energy will become the cornerstone of the energy system. Although photovoltaic solar systems are currently ineffective and the energy received is 4 times more expensive than solar thermal systems, they are nevertheless used in many remote areas. It is likely that the cost of electricity generated by this method will decrease rapidly. In the near future, systems with efficiency approaching 20% may appear, and by the end of the current decade, scientists hope to bring the cost of 1 kW. h of electricity up to 10 cents.

The energy of the Sun, experts believe, is the quintessence of energy, since photovoltaic installations do not affect the environment, are silent, do not have moving parts, require minimal maintenance, and do not need water. They can be mounted in remote or arid areas, the power of such plants ranges from several watts (portable modules for communications and measuring instruments) to many megawatts (an area of several million square meters).

Technically, the concentration of solar radiation can be achieved using various optical elements - mirrors, lenses, optical fibers, etc. The main energy indicator of a solar concentrator is the concentration coefficient.

The most economical way to use solar energy is to direct it to receive secondary types of energy in the solar regions of the globe. The resulting liquid or gaseous fuel can be pumped through pipelines or transported by tankers to other areas.

A review of various alternative energy sources shows that solar panels are on the verge of widespread industrial adoption. If you add energy saving to this, there is hope to solve the emerging energy problems in such a way as to significantly reduce the construction of new nuclear and thermal power plants. As for the distant future, first of all, it is necessary to develop systems for storing energy produced by solar and wind stations.

To collect and use the energy of the sun to heat water, you can use solar water heaters - collectors of various designs. The peculiarity of the collectors is that the radiant surface is treated with components that provide maximum heat perception due to their selectivity to the thermal spectrum of the solar flux and heat the water passing through the tubes inside. The solar water heater-collector consists of a box with a coil, a cold-water tank, a storage tank and pipes. The box is stationary installed at an angle of 30-500 with orientation to the south side. Cold, heavier water constantly enters the lower part of the box, where it heats up and, displaced by cold water, enters the storage tank. It can be used for heating, for showers or for other domestic needs.

To heat 100 liters of water, a solar installation should have 2-3 m2 of solar collectors. Such a water heater on a sunny day will provide water heating to a temperature of 90 ° C. In winter - up to 50 ° C.

In the climatic conditions of Central Asia, solar collector water heaters are especially effective.

A flat solar water heater-collector is a flat heat-absorbing panel - an absorber, with an area of 1-2 m2, in which there are channels for liquid. The surface of this panel facing the Sun is black for better heating. To reduce heat loss, it is installed in a housing made in the form of a flat frame. The bottom panel is thermally insulated, and the top is protected by transparent insulation - special glass, plastic or film.

As a heat-receiving panel, you can use any metal or plastic sheet with channels for the coolant. Metal absorbers are made of aluminum or steel of two types: sheet-pipe and stamped panels (pipe in sheet). Plastic panels are not widely used due to rapid aging under the influence of sunlight and low thermal conductivity.

To achieve higher coolant temperatures, the surface of the panel is coated with spectrally selective layers that actively absorb the short-wave radiation of the sun and reduce its own thermal radiation in the long-wave part of the spectrum. The layers are created on the basis of “black nickel”, “black chromium”, copper oxide on aluminum, copper oxide on copper.

Another way to improve the performance of flat collectors is to create a vacuum between the heat-receiving panel and transparent insulation to reduce heat loss (fourth-generation vacuum solar collectors).

In a vacuum water heater-collector, the volume in which the black surface absorbs solar radiation is separated from the environment by a vacuum space, which allows almost completely eliminating heat loss to the environment due to heat conduction and convection. Radiation loss is largely suppressed by the use of selective coating. Since the total loss coefficient in the vacuum manifold is small, the coolant in it can be heated to temperatures of 120 - 160 ° C.

There are several types of solar collector vacuum water heaters:

Vacuum solar water heater-collector of low pressure (open circuit) with thermosiphon system.

Thermosiphon systems operate on the principle of natural convection when warm water tends to rise. In thermosiphon systems, the tank should be located above the collector. When the water in the manifold tubes is heated, it becomes lighter and naturally rises to the top of the tank. In the meantime, the cooler water in the tank flows down into the tubes, thus circulating throughout the system. In small systems, the tank is combined with a collector and is not designed for main pressure, so thermosyphon systems must be used either with water from an upstream tank or through pressure reducing gears.

A thermosiphon with an integrated heat exchanger provides the ability to work at main pressure. The heat carrier is heated through a heat exchanger from a spiral copper pipe located inside the heat accumulator. The principle of operation of this type of solar water heater is the same as that of a conventional low-pressure thermosiphon.

But instead of using water directly in the heat accumulator, the main pressure collector uses a copper spiral heat exchanger in the tank. The advantage is that the system can be used with low water quality, because there is practically no corrosion and scale formation inside the vacuum tubes and heat accumulator. For areas with low temperatures, the heat accumulator is filled with antifreeze.

The most efficient and common solar water heaters. Easily integrates into existing heating or hot water systems. Suitable for all types of climate and recommended for areas with low temperatures (up to -50 ° C) and low values of solar radiation. Equipped with a controller, the collector automatically maintains the most optimal circulation parameters, has an anti-freeze mode, and provides a predetermined temperature. In case of insufficient solar activity, the controller may include an additional electric heater installed in the heat accumulator.

The combination of the use of solar and wind energy in these installations allows us to provide consumers with electricity during virtually any weather conditions during the calendar year.

• In cloudy weather or at night, when there is no sun, but there is wind, wind turbines are the main source of electricity.

• In sunny weather, when the wind subsides, the proportion of electricity generated by photovoltaic panels increases.

• In the absence of favorable conditions (for example, cloudy, windless weather, nighttime without wind), consumers are supplied with batteries from the power station. With sufficient wind-solar activity, when energy is supplied to consumers from wind generators and solar panels, the excess electricity generated at that time is stored in batteries and can be used to cover power shortages in adverse weather conditions.

Wind-solar power stations have the technical prospect of using the company mainly in areas where solar and wind potentials are high enough to generate electricity.

At present, the fundamental possibility of using wind-solar energy at oil production facilities of the company, where the main consumers of electricity are:

- high-voltage electric motors of pumping units for oil preparation and transport systems;
- high-voltage electric motors of pumping stations of the reservoir pressure maintenance system;
- electric motors of submersible pumping units for oil and water wells;
- electric heating system for field and trunk pipelines;
- industrial and repair bases, shift housing estates.

The company makes high demands on the reliability and uninterrupted power supply of this category of consumers in order to: prevent a halt and violation of a complex technological process, the restoration of which in the event of a power outage requires large time costs; prevention of environmental disaster and the danger of a threat to the life and health of staff; exclusion of a possible stop of production and under-supply of oil products.

To ensure the required level of reliability of power supply to consumers, the company must use mutually redundant power sources that provide 24-hour load coverage at any time of the year, as well as a stable supply of energy with short-term increases in load due to the launch of powerful electric motors.

Wind-solar power plants, considered as the main sources of electricity for the company's facilities, should ensure the reliability of power supply to these consumers.

Currently, the most serious drawbacks that cast doubt on the feasibility of using wind-solar power plants as the main power sources are the following.

Wind-solar energy refers to unregulated energy sources, the generation of electricity of which directly depends on the strength of the wind and solar radiation (factors that are very volatile in the regions where the company operates).

The impossibility of accurate forecasting of electricity production and changes in the capacity of a power plant.

The need to use land plots of a large area ten times larger than the area for traditional power sources (for example, the specific area for traditional gas piston and gas turbine power plants is 0.06–0.08 ha / MW, for wind-solar power plants this figure reaches 1 ha / MW). This circumstance leads to an increase in land allotment areas and the volume of engineering training in hard-to-reach areas.

The installed capacity of a wind-solar power plant is several times higher than the required installed capacity of traditional sources with the same connected loads. As part of a wind-solar power plant, it is

necessary to provide for a large number of solar panels and wind generators, whose total power in conditions of inconsistent wind-solar activity should provide objects with electricity in normal mode and at the same time accumulate it in battery packs for guaranteed power supply to consumers in adverse weather conditions.

Wind power plants of large installed capacity lag significantly behind traditional sources in economic terms. Today, the unit cost of building a power plant based on alternative energy sources in Russia is approximately 100–120 million rubles / MW, which is commensurate with the unit cost of building a gas turbine power plant equal to 90–110 million rubles / MW. However, with a comparable unit cost, a significant increase in the total cost of constructing alternative power plants arises from the fact that their installed capacity and the number of units of generating equipment significantly exceed the performance of traditional sources.

CONCLUSION

The use of wind-solar power plants as the main source of power for energy-intensive oil facilities will require additional costs for the utilization of oil gas, previously expected to be used to generate electricity in gas power plants.

Despite the significant advantage of traditional power supplies over wind-solar power supplies for large consumers, the use of alternative energy sources can be the most rational and economical solution. The best option for the use of wind-solar power plants at the company's facilities is their use as AIP of remote linear objects of small power

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ОБЪЕКТІНІ ЭЛЕКТР ЖӘНЕ ЖЫЛУ ҚАУІПСІЗДІГІ - ИННОВАЦИЯЛЫҚ МӘСЕЛЕЛЕР - ЖОЛ ЖӘНЕ ЖОҒАРЫ СТАНЦИЯ (ЭЦК) ОРТА ҚУАТ ПЕН ЭЛЕКТР ЭНЕРГИЯ КӨЗІ

Аннотация. Соңғы он жылдықта жаңартылатын энергияға деген қызығушылық тұрақты түрде артып келеді, өйткені ол іс жүзінде шектеусіз. Жанармай жеткізілімі аз және қымбат болған сайын, бұл көздер тартымды және үнемді бола бастайды. Мұнай мен газ бағасының өсуі адамдардың назарын су, жел мен күнге аударуының басты себебі болды. Күн энергиясын пайдалану проблемасына қызығушылық айтарлық тай өсті. Тікелей күн радиациясын қолдануға негізделген энергияның мүмкіндіктері өте жоғары. Жаңартылатын энергияны қолданатындығымызға қарамастан, бұл Жердің энергетикалық балансына және биосфераның күйіне әсеретпейді.

Түйін сөздер: электрменжабдықтау, жылуменқамтамасызету, инновация, жел, күн, энергия, энергия.

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ЭЛЕКТРО И ТЕПЛОСНАБЖЕНИЕ ОБЪЕКТА С ПОМОЩЬЮ ИННОВАЦИОННЫХ СРЕДСТВ-ВЕТРО-СОЛНЕЧНОЙ СТАНЦИЕЙ(ВСС) СРЕДНЕЙ МОЩНОСТИ И ЭЛЕКТРИЧЕСКОГО ИСТОЧНИКА ЭНЕРГИИ

Аннотация. В последнее десятилетие интерес к возобновляемым источникам энергии постоянно возрастает, поскольку практически они неограниченны**.** По мере того, как поставки топлива становятся менее надежными и более дорогостоящими, эти источники становятся все более привлекательными и более экономичными. Повышение цен на нефть и газ послужило главной причиной того, что человек вновь обратил свое внимание на воду, ветер и Солнце. Интерес к проблеме использования солнечной энергии резко возрос. Потенциальные возможности энергетики, основанной на применении непосредственно солнечного излучения, чрезвычайно велики. Независимо от того, будем мы использовать возобновляемую энергию или нет, на энергетическом балансе Земли и состоянии биосферы это никак не отразится.

Ключевые слова: электроснабжение, теплоснабжение, инновации, ветер, солнце, источник, энергия

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GLOBALIZATION OF THE WORLD ECONOMY AND THE WORLD FINANCIAL CRISIS

Abstract. Any national economy is part of the global economic system, which appears as a set of interconnected and interacting with each other national-state economic systems. This mutual influence is reflected in all countries of the world, about which this article describes in detail, a forecast is made for future years regarding the upcoming crisis, and the reasons for its occurrence are presented. According to the authors, the fact that in the entire sphere of socio-economic globalization it has most powerfully invaded the field of international finance, creating an atmosphere of extreme instability not only of the financial system itself, but also of the global economic system.

Keywords: globalization, world economy, financial crisis, mutual influence, transformation.

INTRODUCTION

The world economic system is the external environment in relation to national-state economic systems, which, as a system, must resist the external environment in order to maintain their integrity, the World economy and national-state economic systems have a mutual influence on each other.

Currently, the main and natural tendency for the transformation of the world economy is the process of globalization, which manifests itself in an increase in the volume and diversity of world economic relations, which is accompanied by an increase in the economic interdependence of the countries of the world.

Carriers of globalization are financial markets, international movements of capital, credit, and currency. Empirical evidence suggests that financial globalization is ahead of the curve compared with globalization of the real sector. The process of globalization facilitates the possibility of instant overflow of huge liquid assets to anywhere in the world where there are favorable conditions or liberal legislation. This leads to a change in the geographical distribution of capital flows.

MAIN PART

Global problems of the world economy are problems that concern all countries of the world and need to be resolved by joining efforts of all members of the world community. Experts identify about 20 global issues.

The most significant are the following:

1. The problem of overcoming poverty and underdevelopment.

In the modern world, poverty and backwardness are characteristic primarily for developing countries, where almost 2/3 of the world's population live. Therefore, this global problem is often called the problem of overcoming the backwardness of developing countries. The growing social tension due to the aggravation of the backwardness problem is pushing various groups of the population and the ruling circles of developing countries to search for internal and external culprits of such a disastrous situation that manifests itself in an increase in the number and depth of conflicts in the developing wider, including ethnic, religious, territorial.

The main focus of the fight against poverty and hunger is the implementation of the United Nations Program of the New International Economic Order (NMEP), which involves:

- affirmation in international relations of the democratic principles of equality and justice;
- unconditional redistribution of accumulated wealth and newly created world incomes in favor of developing countries;
- international regulation of development processes in backward countries.

2. The problem of peace and demilitarization. The most acute problem of our time is the problem of war and peace, the militarization and demilitarization of the economy. The long military-political confrontation, which is based on economic, ideological and political reasons, was associated with the structure of international relations.

3. The food problem. The world food problem is called one of the main unresolved problems of the 20th century. Over the past 50 years, significant progress has been made in food production - the number of undernourished and starving people has almost halved. At the same time, a large part of the world's population still experiences a shortage of food. The number of those in need exceeds 800 million people. About 18 million people die of hunger every year, especially in developing countries.

4. The problem of natural resources. In the last third of the XX century. Among the problems of world development, the problem of exhaustibility and lack of natural resources, especially energy and mineral raw materials, has been identified. In essence, the global energy and raw materials problem is two problems very close in nature to the origin of the problem - energy and raw. At the same time, the problem of providing energy is largely derived from the problem of raw materials, since almost the majority of the currently used methods for generating energy are essentially the processing of specific energy raw materials.

5. The environmental problem. Conventionally, the whole problem of degradation of the global ecological system can be divided into two components: environmental degradation as a result of irrational nature management and its pollution by human waste.

As examples of environmental degradation as a result of irrational nature management, deforestation and depletion of land resources can be cited. The process of deforestation is expressed in the reduction of the area under natural vegetation, and especially forest. According to some estimates, over the past 10 years, the area of forests has decreased by 35%, and the average forest cover - by 47%.

6. The demographic problem. The average annual growth rate of the world population is gradually slowing. This is due to the fact that the countries of North America, Europe (including Russia) and Japan switched to simple reproduction of the population, which is characterized by a slight increase or relatively small natural decline in the population. At the same time, the natural population growth in China and the countries of Southeast Asia decreased significantly. However, a slowdown practically does not mean a softening of the severity of the global demographic situation in the first decades of the 21st century, since the noted slowdown is still insufficient to significantly reduce the absolute increase.

7. The problem of human development. The development of the economy of any country and the global economy as a whole, especially in the modern era, is determined by its human potential, i.e. labor resources and most importantly - their quality. Changes in the conditions and nature of work and everyday life during the transition to a post-industrial society led to the development of two seemingly mutually exclusive and at the same time intertwining trends. On the one hand, this is an ever-increasing individualization of labor activity, on the other hand, the need for teamwork skills to solve complex production or management tasks using the brainstorming method.

Changing working conditions presently place high demands on the physical qualities of a person, which largely determine his ability to work. The reproduction of human potential is greatly influenced by factors such as balanced nutrition, housing conditions, the environment, economic, political and military stability, the state of public health and mass diseases, etc.

The global crisis, the possibility of which economists have spoken, is growing. About what sizes it will take when the fall of the indices reaches the bottom, how strong the recession will be and when the new rise will begin, one can only guess. It is even possible that, according to economic indicators, not only individual countries, but the whole world will be thrown back several years ago. Nevertheless, some

assumptions about the nature and significance of this crisis can already be made. True, every crisis, like every revolution, a major social turning point, always has many causes.

Common causes of the raging financial crisis may include:

• Cyclical dynamics of the world and national economies of developed countries and increased synchronization of these processes in the main centers of the world economy.

• The globalization of the world economy and world finances against the general background of growing political instability and threats of armed conflict in different regions of the world - this increases the instability of the world economy and the global movement of capital flows.

• The specific impact of high oil prices on the movement of loan capital, the "separation" of pricing for this product from the "classic" pricing and the "pressure" of huge amounts of "free money" on world financial centers, the creation of "soap bubbles" and, accordingly, the unusual growth in fictitious capital.

• Formation of processes leading to the elimination of competition in the field of large financial capital, the growth of global monopoly, which suppresses competition.

• Decrease in efficiency and quality of management in the USA, EU and Japan, unjustified risks allowed by him in pursuit of super profits.

• The crisis of the Bretton Woods financial institutions created at the end of World War II to regulate the global financial system, the lack of supranational institutions for regulating the movement of financial flows adequate to the current situation.

• Inadequacy of the methodological base (liberal monetary approaches), which is the basis of modern financial and economic policies of most countries of the world (developed and transition economies).

The depreciation of the world's leading currencies is a stable tendency of the last decades, which is decisively associated with neoliberal monetary doctrines that advocate the omnipotence of money and monetary success in human activities, the maniacal commitment of modern business exclusively to profit at all costs while ignoring social goals and moral values inherent in Western societies up to the 80s. XX century From here, by the way, the emergence of another trend is a decrease in the general level of management throughout the world, its de-intellectualization, the attraction of excessively risky financial and other business operations that managers easily go for, hoping to get quick and easy super-profits.

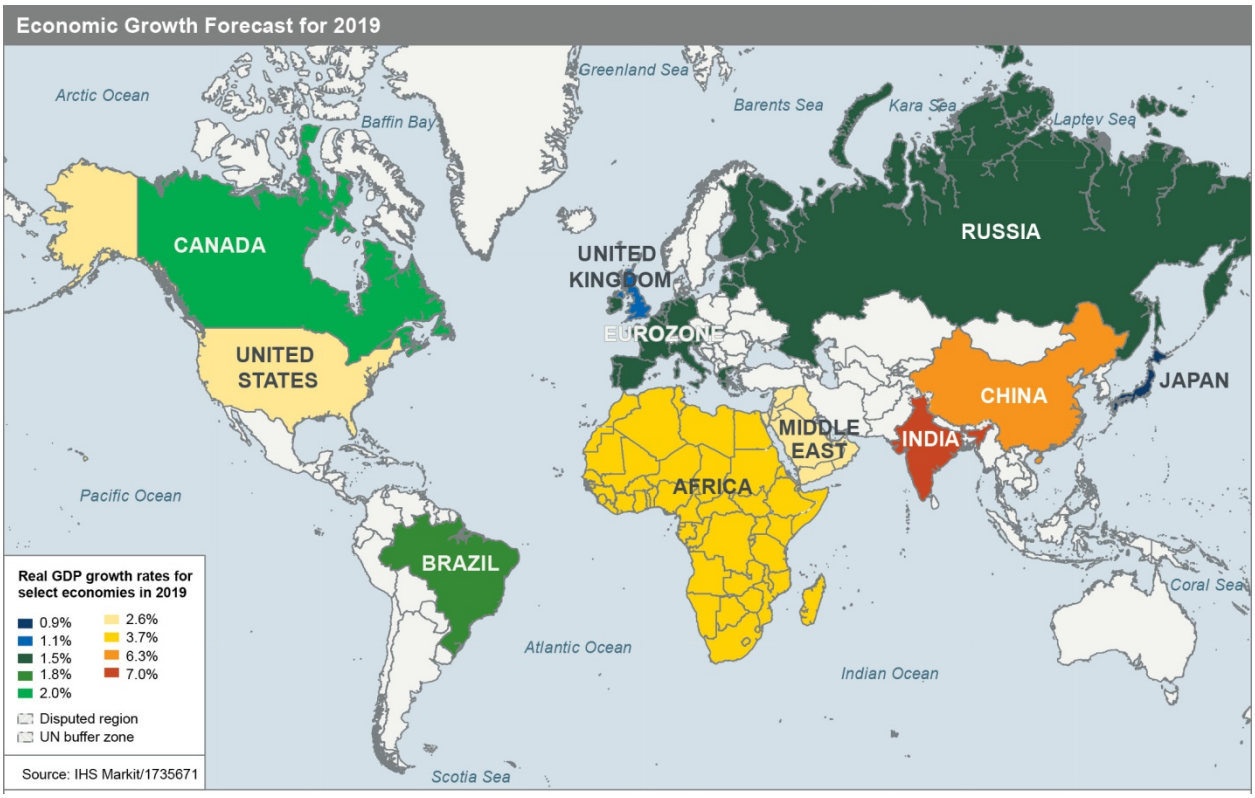

Figure 1 - World Economic Outlook

One major risk in the coming year is the sharp drop-off in world trade growth, which fell from over 5% at the beginning of 2019 to nearly zero at the end. With anticipated escalation in trade conflicts, a contraction in world trade could drag down the global economy even more. At the same time, the combined effects of rising interest rates and surging equity and commodity market volatility mean that financial conditions worldwide are tightening. These risks point to the increasing vulnerability of the global economy to further shocks, and the rising probability of a recession in the next couple of years.

All these processes, among which deformations in pricing and suppression of competition, both in the oil sector and in the spheres associated with it, giant money arrays, which narrow circles of financial and industrial groups began to control autonomously, inflation and volatility of energy prices, are especially important, their "separation" from pricing factors, together with global political instability, lead to the undermining of the global financial system and its individual links. And this, in turn, has a direct and indirect impact on the economies of countries due to the close interconnectedness of various parts of the world economy and finance. These features of the dynamics of the modern global business cycle have had an impact on the specific unfolding of the global financial crisis, including the American mortgage system.

Globalization is transmitting crisis infections, and national economies that are immune to them are becoming less and less. Globalization makes it difficult to achieve effective national public policies. The contradictions are caused, first of all, by the fact that globalization is gaining momentum against the background of the continued differentiation of national-state economic systems - participants in world cooperation in terms of general economic development and the experience of state regulation. The high degree of openness of national economies significantly increases their interdependence in trade, credit, financial and foreign exchange terms, which increases their vulnerability to external shocks.

The place of a country in this hierarchy may change based on which country or region is considered more suitable for the accumulation of world capital, but in general this structure is quite stable. In other words, in the world division of labor, some states are producers of industrial goods with higher added value, while others are among the suppliers of raw materials or, at least, processed raw materials that meet the needs of industrialists. With the elimination of trade barriers in the flow of capital and financial sources, the international division of labor will increase even more, which will further increase the profits of the world economy and strengthen the prevailing system in it.

Globalization of the economy works on the principle that the power of national governments over their own economic systems is reduced. This leads to the fact that governments are faced with a number of problems associated with the connection of the national economy and the market, and inevitably realize the need to rethink this connection. The fact is that with economic globalization the importance of national legislation is reduced and international norms and laws come to the fore.

In the future, international organizations will receive even more powers of national authorities of various countries. With the advent of globalization, the economic systems of individual states will depend on each other even more. The situation is so serious that if a crisis arises in at least a number of small countries, it will instantly spread to other countries of the world.

Thus, the world economic system, which was discussed above, faced with some serious crises. The global financial crisis was caused by a complex of economic problems and its consequences are visible today. The main feature of this crisis was the reduction in liquidity in the banking and credit sector.

The crisis began when the housing bubble in the United States burst. In fact, the economic conditions of this country are such that a large share of the price of housing (approximately 90%) is determined by economic structures and provided by buyers in the form of a loan. The active policy of the US government to reduce interest rates and increase loans provided has led to increased demand and an increase in the number of transactions in the housing market. Gradually, as this market expanded, housing demand exceeded supply. This marked the beginning of the crisis in the residential sector of the American economy, covering almost 15% of the country's economic system.

This circumstance led to a situation in which the loan recipients lost the opportunity to pay it, and their property, which was recorded as collateral, could not be sold. The number of houses for sale reached its maximum level, namely four million, of which almost three million were already empty.

Following this, many American banks, such as Goldman Sachs, JPMorgan, Merrill Lynch and Lehman Brothers, faced a serious crisis. As a result, Lehman Brothers went bankrupt, thereby causing enormous damage to the US economy. On October 6 of the same year, the Paris Exchange and the Dow Jones suffered a severe collapse, later known as Black Tuesday. Thus, it can be called the beginning of the global economic crisis.

CONCLUSION

Thus, the existing international regulatory institutions are virtually neutralized, they need not just deep reform, but their replacement with real supranational institutions that could operate efficiently, adequately to modern conditions, implementing global trade, economic and financial regulation. The current global financial crisis clearly confirms the previously identified patterns. He demonstrated once again that in the context of globalization, the intensification of interaction between national-state economic systems and their interdependence is increasing the speed of spread and the scale of crisis phenomena.

Multilateral cooperation remains indispensable to maintain the recent dynamics of global activity, strengthen medium-term prospects and ensure a wider distribution of the benefits of technological progress and global economic integration. Priority areas cover the continuation of the global financial regulatory reform program; prevention of a “race of concessions” in the field of taxes, standards in the field of labor and the environment; the modernization of the rules-based multilateral trading system; strengthening the global financial security system; preservation of correspondent banking relations; limiting cross-border money laundering, organized crime and terrorism; climate change mitigation and adaptation.

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ГЛОБАЛИЗАЦИЯ МИРОВОЙ ЭКОНОМИКИ И МИРОВОЙ ФИНАНСОВЫЙ КРИЗИС

Аннотация. Любая национальная экономика является частью мировой экономической системы, которая предстает как совокупность взаимосвязанных и взаимодействующих друг с другом национально-государственных экономических систем. Это взаимовлияние отражается на всех странах мира, о чем в данной статье подробно описано, сделан прогноз на будущие годы относительно предстоящего кризиса, представлены причины его возникновения. По мнению авторов, то обстоятельство, что во всей сфере общественно-экономической глобализации она наиболее мощно вторглась в область международных финансов, создавая обстановку крайней неустойчивости не только самой финансовой системы, но и общей глобальной экономической системы.

Ключевые слова: глобализация, мировая экономика, финансовый кризис, взаимовлияние, трансформация.

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ДҮНИЕЖҮЗІЛІК ЭКОНОМИКА ЖӘНЕ ӘЛЕМДІК ҚАРЖЫЛЫҚ ДАҒДАРЫСЫНЫ ГЛОБАЛИЗАЦИЯЛАУ

Аннотация. Кез келген ұлттық экономика бір-бірімен ұлттық және мемлекеттік экономикалық жүйелердің өзара байланысты және өзара әрекеттесетін жиынтығы ретінде көрінетін жаһандық экономикалық жүйенің бөлігі болып табылады. Бұл өзара әсер әлемнің барлық елдерінде көрініс табады,

онда осы мақалада егжей-тегжейлі сипатталған, алдағы дағдарысқа қатысты алдағы жылдарға болжам жасалынған және оның себептері көрсетілген. Авторлардың пікірінше, әлеуметтік-экономикалық жаһандану дың бүкіл саласында халықаралық қаржы саласына барынша күшпен еніп, қаржы жүйесінің өзінде ғана емес, сонымен бірге әлемдік экономикалық жүйеде тұрақсыздық атмосферасын құрды.

Түйін сөздер: жаһандану, әлемдік экономика, қаржылық дағдарыс, өзара әсер, қайта құру.

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SOCIO-ECONOMIC EFFICIENCY ANALYSIS OF THE SKI RESORT PROJECT «KOK-ZHAILAU»

Abstract. In this article is shown the natural and climatic peculiarities of Almaty, which has a positive impact on the formation of tourist and recreational complex and especially on the creation of the ski resort "Kok-Zhailau".

The organization of the resort will contribute to the tourist and recreational development of the territory and provide employment of the local population. There was investigated the analysis of development factors of the ski resort complex "Kok-Zhailau" and made the justification of the priority directions, which are necessary for realization of the concept of the region's tourism development. It is shown that the natural and climatic peculiarity has a positive impact on the formation of the tourist and recreational complex of the region, and especially on the creation of the ski resort "Kok-Zhailau". The organization of the complex will contribute to the tourist and recreational development of the territory and employment of the local population.

Key words: tourism, tourist and recreational complex, project efficiency.

Introduction

The tourist-recreational industry has a positive impact on the social sphere, providing recreation and health of the people also on the socio-economic development of the country as a whole. Therefore, the development of recreation means not only the growth of the tourism industry itself, but also many other sectors of the region's economy, which also require their development [1].They are such industries as transportation, communications, agriculture, trade, construction and local crafts. In addition, the development of recreation into the least extent (compared to other sectors of the economy) pollutes the environment. Accordingly, the overall effect on the region's economy from the development of tourism can be compared with the benefits from oil production and the development of the port economy.

According to the calculations of WTO experts, in average, income is generated from one foreign tourist is equivalent to export of about 9 tons of coal, or 15 tons of oil, or 2 tons of high-grade wheat to the world market. At the same time, the sale of raw materials exhaust the country's energy resources and the tourism industry operates on renewable resources. 100,000 tourists, spending an average of two hours in the city, spend at least $350,000, or $ 17.5 per person, every hour. Tourism revenues are steadily in third place-after revenues from exports of oil, petroleum products and cars. As for the prospects for the development of the industry, according to WTO forecasts, the growth of tourism should occur mainly due to the emergence of new visited territories, since traditional areas of the world tourism market which have almost reached the limit of recreational capacity [2].

Main part

The ski resort industry is developing rapidly. Last year, the 21st New ClubMed resort in the Alps, ClubMed Grand Massif Samoens Morillon was opened in Switzerland. In winter 2019, a new resort IdreHimmelfjäll will be opened with the construction of a hotel for 10,000 seats In Sweden. The implementation of a large-scale project to build a ski resort called "Akdag" in 35 kilometers from Alanya (Antalya, Turkey) is in realization. Its opening is scheduled for this year. The total area of Alanya ski resort will be more than 300 hectares [3].

In the neighboring countries in recent years there has also been an intensive development of tourism, in particular the ski industry. This year, Uzbekistan plans to open a large resort with a planned investment of $ US100 million. The construction of 2 large resort areas in the area of "Karakol" has begun in Kyrgyzstan. A new modern resort with a gondola road was built in Tajikistan 2 years ago. A new resort with a total investment of $ US 250 million was launched in Azerbaijan last year, which has been visited by 100 thousand people. Georgia has a state program for the development of the ski industry: the state invests in the development of three resort areas [4]. Russia has implemented the largest ski cluster "Krasnaya Polyana-Sochi", today it is visited by about 4 million people a year and now the government is working on the implementation of the project "Resorts of the North Caucasus" with a projected investment of $ US 7.5 billion.

In the People's Republic of China, more than 100 ski resorts are currently united in 10 clusters. There is being implemented a state program to attract 300 million people to winter sports, and dozens of cable cars are being built [5].

Almaty city authorities decided to implement a project to build a sports and entertainment complex on the plateau "Kok-Zhailau" in 2011, which will include: a ski resort, hotels, restaurants, an ice rink and dance floors. The master plan envisages the development of 470 kilometers of mountain trails, 85 kilometers of bike trails, 45 kilometers of horse trails and 250 kilometers of ski trails, which is six times more the current length of the trails. In the framework of the project Kok-Zhailau, it will be divided into two parts – the Valley and Kumbel. The Valley will host all major activities. There will be a hotel with 100-250 beds, a restaurant, a ski school, entertainment for children and much more. Kumbel will become a nature Park. It is also planned to create an artificial lake with a capacity of not more than 100 cubic meters. It is planned that the design and estimation documents will be ready by 2019, and construction will begin in 2020 and it will be completed in 2022.

The plateau "Kok-Zhailau" until 2014 was part of the Ile-Alatau national Park. The Ile-Alatau national park was created in 1996 to preserve the unique ecosystems and landscapes of the TRANS-ili Alatau.

The flora of the plateau has 811 species of plants, 17 of which are listed in the Red book of Kazakhstan.

The fauna is represented by more than 1700 species of animals, 13 species of birds and 8 species of mammals are listed in the Red book [6].

In total, the project is planned to spend $ 200 million, including the construction of cable cars and all infrastructure.

The construction of a new ski resort in Almaty and the development of tourism in Kazakhstan, in our opinion will have positive influence on the national economy development. It will allow increasing of the new job places and to reduce the level of social tension in the region, increase the tax base, create a favorable investment climate thereby it helps in the creation of a positive image of the Republic.

Today, project management is a multi-level, multi-stage process. Operational project management consists of a very wide range of functions (construction works; financing in accordance with monthly plans; operation of commissioned facilities; implementation of operational activities).

The project aims are [7]:

1. Creating a business in the perspective tourism industry of the Republic of Kazakhstan.
2. Payback incurred investment costs and profit, incl. from development.
3. The development of the region’s economy in a specialized industry.
4. Construction of infrastructure for the development of tourism in the region.
5. An increase in tax revenues, the formation of a non-subsidized budget of the Republic of Kazakhstan.
6. Increasing activity in the labor market, creating new jobs.
7. Raising the average wage for workers in the tourism industry.
8. Improving the welfare of citizens living in the republic.

The goal of the implementation of this project is to develop the tourism industry in the territory of Kazakhstan. With the successful outcome of the plans for the development of the tourism industry, the task is to make the region's budget in surplus. Thus, it is planned to solve the social, economic and infrastructure problems are existing in the region. Taking into account the capital-intensive nature of the

costs, the construction of a ski resort is extremely important that the resort was cost-effective and had the optimal scale according to its characteristics. Financial and economic evaluation of investment projects is Central to the process of justification and selection of possible options for investing in transactions with real assets.

Determining the reality of achieving such results of investment activity is the key task for assessing the financial and economic parameters of any project of investing in real assets [8].

Conducting such assessment is always challenging due to a number of factors: first, investment costs can be either one-time or repeatedly over a sufficiently long period of time; second, the lengthy and the process of obtaining results from the implementation of investment projects (in any case, it exceeds one year); third, the implementation of long transactions leads to an increase of uncertainty in the evaluation of all aspects of the investment and the risk of error. Existence of these factors are the reasons of the need to create special methods for evaluating investment projects, allowing to make sufficiently informed decisions with the lowest possible level of error (although absolutely reliable decisions in the evaluation of investment projects, of course, cannot be).

Financing in this project is considered in terms of determining the necessary funds for the construction of the ski resort. The development concept foresees the construction of targeted ski facilities linked to the resort centre, which could attract skiers and visitors from local, regional or target markets.

The established capital expenditures were divided into project accounts, generally accepted in the ski industry. Within each of the main accounts, the subproject accounts were split into lump sums or, if it is necessary, per unit. The decision about the established capital expenditures are based on construction and / or installation costs incurred in the development of other ski resorts, like in the United States, Canada and Europe, taking into account local conditions and the regulatory legal norms of the Republic of Kazakhstan [9].

Budget funds are considered as a source for financing of investment costs for the construction of the ski infrastructure of the resort. For the implementing of this project the following financing conditions were adopted, which means allocations of money from the national budget, at a zero rate.

Working capital financing for the first year of the ski resort's functioning the project provides working capital to pay workers wages and other operating costs. The calculation of the working capital requirement is given in table 1.

№	Name of the expenditure items	Annual demand million tenge	One- day stock costs	Norm of stock, in days	The amount of working capital for the first year of projects million, tenge	The amount of working capital for the future functioning of the project million tenge
1	Electricity	42,06	115,2300	30	42,06	3,46
2	Water	4,47	12,25	30	4,47	0,37
3	Sewerage	1,55	4,25	30	1,55	0,13
4	Hard domestic wastes	7,76	21,26	30	7,76	0,64
5	Petroleum products	42,03	115,15	30	42,03	3,45
6	Wage fund	831,36	2277,70	45	831,36	102,50
Total		929,23	2545,84	195	929,23	110,54

Each part of the ski resort has its own performance characteristics, which are largely influenced by the location of the site and the geographical location of the site, as well as the proximity of the main settlements. The territory is considered as an international mountain resort, as well as a place for short - term and medium-term recreation of residents of Almaty and its suburban area.

The following performance characteristics were adopted for the project:

- Duration of winter walking season-164 days
- Duration of winter ski season-130 days
- Duration of the summer walking season-185 days

For the forecast of ski visits it is necessary to take into account the number of skiers staying overnight, winter tourists, as well as summer tourists who will visit the mountain resort.

The following assumptions were made to prepare the preliminary income statement:

a) The number of skiers staying overnight will make up 10 per cent of the projected number of ski visits to the resort during the day;

b) The number of summer tourists will be equal to 50 percent of the projected visits in winter;

c) The number of summer tourists will be equal to 70 percent of the projected number of skiers visiting the resort in the winter.

Parameters of income from the operation of ski lifts are: during the 2016/17 season, the maximum cost of a lift ticket for adults at the existing mountain resort was 6474 tenge, with the effective share of the ski lift cost is 60.6 percent of the cost of the day ticket.

Since in Phase 1a the resort will have more ski facilities than the existing resort, it is assumed that the maximum cost of an adult lift ticket to the resort will be 7,500 tenge.

The total income from the ski lifts will be on average 50-60% of the cost of a lift ticket for adults. This discount is used to include in the cost of children's tickets, off-season tickets, and tickets for several days and in the cost of other incentive tickets that can be used during the season. This lift ticket revenue margin is in line with the mid-range adopted by the ski industry.

In Phase 1b, the ticket price increases to 8250 tenge with the installation of 4 new large lifts. It is proposed to set the cost of a ticket for skiing at night in the amount of 4050 tenge with 80 percent net income from the sale, based on the results of discussions with the senior Executive management of the existing resort. The resort offered lift tickets to tourists visiting the resort in the summer at a price of 2988 tenge with a valid ticket price of 64.2 percent of the maximum daily cost during the 2016/17 season. In the summer season of 2018, the cost was increased by 339 tenge. The project proposes to set the ticket price for tourists visiting the resort in the summer, in the amount of 3600 tenge with the current ticket rate, which is 56 percent of the maximum daily cost [10].

The total income from the activities of the ski school is set at 456 tenge per ski visit. This is slightly higher compared to the existing mountain resort, where the cost per ski visit is 429 tenge for the 2016/17 ski season. Since the ski school offers services, the cost of goods sold (COGS) does not apply.

Labor resources and costs are estimated at 70 percent of gross sales. The income margin of the ski school is set at 30 percent. This contributes to an additional 136.5 tenge of revenue from ski visits compared to the margin at a functioning resort. This margin was 20.7 percent during the 2016/17 ski season [11].

During the ski season 2016/17, the total income from the activities of the objects of sale of food and drinks in the resort amounted to 522 tenge per visit. Revenues from the sale of food and beverages in the project are determined in the amount of 600 tenge per visit. These revenues can only be generated at food and beverage outlets in mountain areas and ski bases, and not at restaurants located at different ends of the resort center. The value of goods sold (COGS) is estimated at 30 percent of sales. The labor resources and costs of the ski resort's food and beverage sales activities are estimated at 45 percent of total sales, provides a profit of 25 percent or Tg 150 per visit.

Revenues from ski rental at the existing resort amounted to 261 tenge per ski visit for the 2016/17 season. Income from ski rental at the projected resort will be in the amount of 300 tenge per ski visit. Such revenues could only be generated from ski rental outlets operating in mountainous areas. It is assumed that the rental of ski equipment will be located throughout the resort center, as they bring a little more profit in the ski industry. The cost of sales (COS) of rental items as a rule is a very low across the industry. It is estimated at 10 percent. The labor resources and costs for the rental activity are estimated at up to 30 percent of total sales based on industry standards, resulting in a profit of 60 percent or 180 tenge per ski visit.

In the existing resort, limited retail trade was carried out only through information and reference centers for guests. Over the next few years, it is planned to expand opportunities for this type of service. Total revenues for the retail/accessories store at the projected resort are estimated at 450 tenge per visit. These revenues can only be generated in retail outlets located in mountain areas and ski bases, and not in other retail outlets and commercial stores located in different parts of the resort center.

The cost of goods sold (COGS) is estimated at 50 percent of sales, which is the relative norm for the retail industry. The labor payments and operating costs of the ski resort's retail stores are estimated at 20 percent of total sales. The profit from the operation of retail stores / sale of accessories can be 30 percent,

i.e. 135 tenge. The operating costs include material costs, fuel costs for own needs, energy costs, maintenance costs, staff salaries and deductions for social tax and social insurance, depreciation charges [12]. Depreciation charges for tax purposes are determined by fixed assets, according to the Tax Code of the Republic of Kazakhstan. The direct costs of paying the workers and employees servicing the ski lifts, the wage rates for working on the lifts, the activities of the ski patrol, clearing the slopes, maintenance and repair, ticket sales and other rates are set depending on the size of the ski resort, taking into account the capacity of the ski arena (constant factor) and the number of ski visits (variable factor). Other direct costs include engineering support, fuel, consumables, spare parts and materials for repair and maintenance, uniforms, ski safety equipment, lift tickets and any other costs directly related to the ski resort maintenance service [13]. These costs can be between 10 and 15 percent of the total income from the operation of the lifts.

Activities to maintain real estate in proper operational condition are: The costs of maintaining the properties in good condition include the costs of operating and maintaining the ski resort, which are not directly related to the service of the operations Department. These costs, on average, account for 2 and 4 percent of income from the ski industry. The operating costs associated with the properties were set at around 2 percent and further decreased by 0.3 percent each year until they were reduced to 0.

General and administrative expenses of the project are referred to as "General expenses" and they include salaries, remuneration and payments to management, Finance and accounting services and all other employees of these departments. This account also includes clerical, postal, telephone, computer, office expenses, Director's or Trustee's fees, fees and dues, travel expenses, etc. Marketing expenses are set before the start of the ski season as a percentage of the planned income. Marketing expenses include salaries, remuneration and payments to all employees working in this Department. All operating expenses, postage, telephone, travel, entertainment, specialized exhibitions and other sales expenses incurred by the marketing Department are expenses included in this category. Expenses for advertising, in the form of outdoor billboards or other signs, media, radio and television, exchange of goods or services (Vice versa) refer to marketing expenses. Marketing expenses also include all costs related to the production of promotional materials, payments and rewards to advertising agencies, etc. marketing Expenses for ski resorts usually vary between 6 and 10 percent of total income from activities. Introducing new products to the market at the outset may require significant marketing efforts. Given the fact that the project will be a new ski resort in the Kazakh market, as well as in connection with its plans to enter the international market, the volume of marketing costs is set at 10 percent of total revenue for the first year to reach the level of 2.0 million us dollars annually [14]. Insurance costs are divided into two main groups: liability insurance and property insurance. Liability insurance covers the costs of visitors suing the ski resort as a result of injury. Liability insurance usually depends on ski visits or total revenues [15]. The project sets the cost of expenses for liability insurance at $ 0.50 per ski visit. Property insurance costs are set at 0.08 percent of the original cost of fixed assets. Snowmaking costs are mainly fixed costs as snowmaking work is done before the start of the ski season. Operating costs include the cost of electricity, labor and maintenance of the snowmaking system. The cost of operating costs is expressed in US dollars per hectare - hour of operation. Based on data from SMI, the cost is set at $ 7.50 per hectare per hour.

Snow clearance costs.

Snow removal costs include the cost of snow removal from the main driveways and the Parking lot. As the number of ski visits to the resort increases, the need to clear a large number of Parking spaces from snow increases. The natural snowfall rate in the region is very low, but it is possible that periodic snow removal or sanding of the car Park area may be required, and snow removal costs of us $ 0.05 per ski visit have been set.

The obtained results (conclusions). Tourist zones, in particular, the implementation of this project could give a serious stimulus to the development of the respective regions and in times of crisis is a real opportunity to "ride the horse of economic growth". However, the implementation of the tourist and recreational potential of the region is currently restrained by the protests of Kazakh citizens and foreign experts against the construction. The development of the leisure and tourism industry can and should be the most important regional growth point.

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АНАЛИЗ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОЙ ЭФФЕКТИВНОСТИ ГОРНОЛЫЖНОГО КУРОРТА КОК-ЖАЙЛАУ

Аннотация. В данной статье показано, что природно-климатическое своеобразие г. Алматы положительно влияет на формирование туристско-рекреационного комплекса и в особенности на создание горнолыжного курорта «Кок-жайлау».

Организация курорта будет способствовать туристско-рекреационному освоению территории и занятости местного населения. Проведен анализ факторов развития горнолыжный комплекса «Кок-жайлау» и обоснование приоритетных направлений, необходимых для реализации концепции туристского развития региона. Показано, что природно-климатическое своеобразие положительно влияет на формирование туристско-рекреационного комплекса, и в особенности на создание горнолыжного курорта «Кок-жайлау».

Ключевые слова: туризм, туристско-рекреационный комплекс, проект эффективность.

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КӨК-ЖАЙЛАУ ТАУ ШАҢҒЫСЫ КУРОРТЫНЫҢ ӘЛЕУМЕТТІК-ЭКОНОМИКАЛЫҚ ТИІМДІЛІКТІ ТАЛДАУ

Аннотация. Курортты ұйымдастыру аумақтың туристік-рекреациялық дамуына және жергілікті тұрғындардың жұмыспен қамтылуына ықпал етеді.

Түйін сөздер: туризм, туристік-рекреациялық кешен, жобаның тиімділігі.

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INNOVATION IN ENERGY: CHALLENGES AND PROSPECTS

Abstract. One of the industry's most pressing innovation needs is energy digitalization. Right now, power engineers need to develop domestic software for managing electric networks and micro energy systems, information security systems of critical infrastructure, data analysis technology and predictive analytics. World crisis and energy. Oil reserves are depleted. Experts say that it will end on the planet with a continuing level of consumption in 20-30 years. There are more optimistic forecasts that indicate the existence of a large number of undiscovered reserves and the possibility of increasing production efficiency.

Keywords: energy, innovation, problems, prospects, crisis, raw materials.

INTRODUCTION

The limits of the oil economy are determined not by the threat of exhaustion of hydrocarbons, but by whether “black gold” allows production to develop on the achieved technological base. The years of the global crisis show that the existing energy sector is not able to provide cheaper goods, and consequently, to expand their sales and achieve economic growth. Given the environmental dimension, one cannot discount the negative consequences of using hydrocarbon fuels.

The reduction in oil and natural gas consumption under the influence of the economic crisis will not create a basis for overcoming it, although it will somewhat ease the situation of the industry due to lower prices. The modern crisis is a crisis of demand, a crisis of the end consumer. To overcome it, on the one hand, a policy of stimulating consumption is required, and on the other, it is necessary to create conditions for reducing the cost of industrial products. It is impossible to do this on the old technological base, since the limit of possibilities for using cheap labor has been reached, and raw materials are expensive. Sustainably low prices are needed for sustainable recovery, which is also impossible to achieve. Attempts by companies and governments to further reduce the cost of labor are destroying demand (narrowing the consumer market).

MAINPART

The crisis is extremely acute raises the question of new sources of energy. There is a version that investments in the development of alternative energy sources based on renewable resources made in Western countries can provide a gradual replacement of old sources.

“Before starting to introduce innovations, it is necessary to clearly calculate the consequences. Support for innovations that optimize current technological activities, which significantly reduce the operating costs of companies and thus increase their competitiveness, is clearly needed. In this direction the attention vector should be directed.”

Factors determining the development of new technologies:

• The volume of consumption of electric and thermal energy, which has recently been falling;

• Consumption pattern, changing towards decentralized consumption;

• Fuel policy, which is based on the rejection of coal, gas and nuclear energy, and the transition to fundamentally new sources;

• Automation of control and monitoring systems.

Based on these factors, we can conclude that in the near future a transition to a combined system of centralized and decentralized energy supply will be made.

At the same time, people will abandon traditional sources of energy that harm their health and have a devastating effect on the environment; instead of obsolete and inefficient resources, more productive sources, such as methane and hydrogen, will be used.

New technologies need to be introduced in the following segments:

• Private sector;
• Networks;
• Local generation;
• Industrial capacitive capacitors (drives);
• Heat supply.

It is worth noting that work on the introduction of innovations in each of the sectors is ongoing in our time, but the development has not yet found widespread acceptance and widespread adoption.

The development of small-scale energy requires various types of state support - from the formation of regulatory legal conditions to financing programs for the development and implementation of advanced technologies. The work is ongoing, but a new impetus will be given to it after all interested parties are actively involved in the process and the priorities of the transition of the Russian economy to an innovative development path are provided. And this will happen thanks to technology platforms, the formation of which began by decision of the Presidium of the Government Commission on High Technologies.

Technological platforms are a communication tool aimed at intensifying efforts to create and implement promising commercial technologies, new products, services, and to attract additional resources for research and development with the participation of business, science, the state, and civil society.

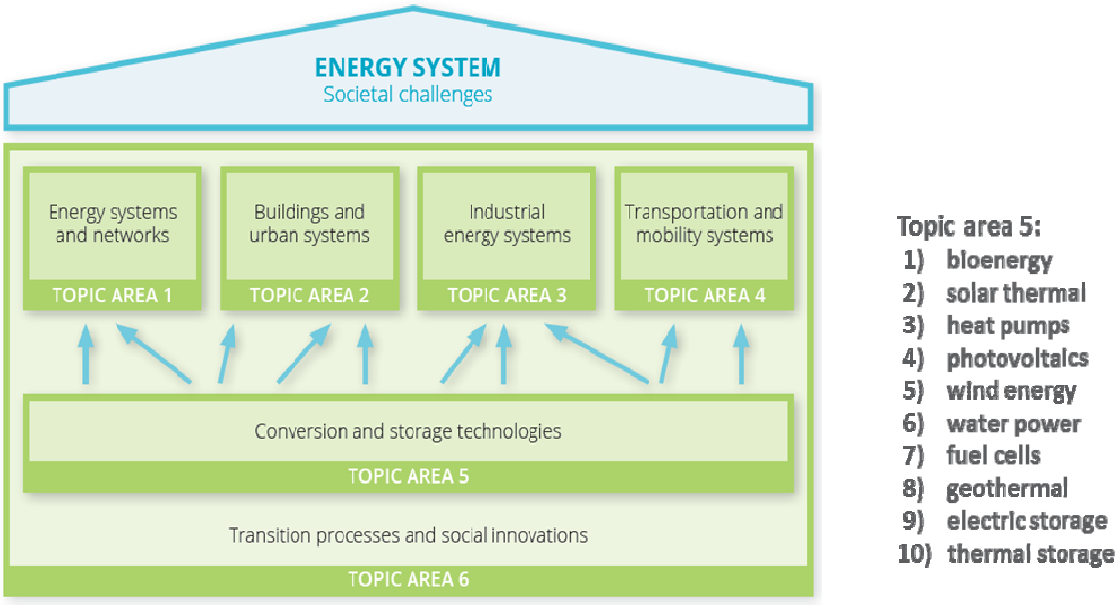

Figure 1 - Types of energy systems

We will examine each category in more detail to understand how new technologies in the electric power industry will help to improve them.

Energy-saving innovations in the private sector will help consumers significantly reduce utility bills. To accomplish this task, solar panels, wind generators, climate control systems, home generators, smart homes, heating elements, batteries, thermal insulation, building materials with enhanced operating characteristics are being developed.

Networks need to be upgraded primarily to increase their efficiency, security and the ability to manage a decentralized connected load.

To achieve these goals, we need automatic and automated control systems, new network technologies and micro-network complexes.

Local generation should develop the construction of electric and thermal stations that operate on alternative energy sources, for example, solar panels, wind generators, small hydropower plants, tidal energy, bio-generation, geothermal energy, waste generation, low-power hydrogen generators, small thermonuclear plants.

Industrial drives are being upgraded very rapidly, respectively, and their popularity among owners of residential and commercial premises is growing. With the invention of new technologies in this sector, the cost of finished products is significantly reduced, because experts predict that the cost of capacitors in 1-2 years will be one and a half to two dollars per 1 MW.

Heat supply needs modernization in the field of accounting, control, monitoring and management of decentralized networks and optimization of the configuration of load systems.

Investments are being made in the electric power industry to create a new level of a safe working environment for power plant personnel, and one of the leading directions here is the commercialization of robots that are resistant to extreme working conditions and remotely controlled. The reduction in oil and natural gas consumption under the influence of the economic crisis will not create a basis for overcoming it, although it will somewhat ease the situation of the industry due to lower prices. The modern crisis is a crisis of demand, a crisis of the end consumer. To overcome it, on the one hand, a policy of stimulating consumption is required, and on the other, it is necessary to create conditions for reducing the cost of industrial products. It is impossible to do this on the old technological base, since the limit of possibilities for using cheap labor has been reached, and raw materials are expensive. Sustainably low prices are needed for sustainable recovery, which is also impossible to achieve. Attempts by companies and governments to further reduce the cost of labor are destroying demand (narrowing the consumer market).

The crisis is extremely acute raises the question of new sources of energy. There is a version that investments in the development of alternative energy sources based on renewable resources made in Western countries can provide a gradual replacement of old sources.

Biofuel is a dead-end branch of technological evolution. It is acceptable for automobile corporations and does not seriously bother commodity monopolies. It is powerless to provide increased efficiency. Biofuel producers cannot do without government subsidies. A picture of the future with the widespread use of biofuels is nothing more than a conservative illusion. In addition, it must be borne in mind that biofuel production reduces food production and depletes soils.

Wind power. Along with biofuels, excessive hopes are placed on wind energy. It represents the electricity industry specializing in converting the kinetic energy of air masses in the atmosphere into electricity. To solve this problem, special units are used - wind generators.

Wind generators are often aesthetically perceived as a symbol of the energy of the future. Wind power plays an important role in the projects of the "green economy". From the point of view of the theory of limited resources for development, mankind can no longer do with extracted irreplaceable energy resources. The advantages of wind energy are reliance on natural sources of kinetic energy. But the wind far from everywhere on the planet can possess the necessary strength to provide a solution to the energy problem even at a local level. The convenience of wind generators for supplying power to remote farms or coastal zones does not yet make this technology convenient for industry and megacities. Even the rise in electricity prices in the 2000s. did not make wind generators comparatively economical. The noise and vibration they produce is additional interference. Another problem is the possible icing of the installation blades.

Wind power is rather a means of private solution to the energy problem than a general fundamental response to the energy challenge of time.

Geothermal energy. Geothermal energy provides a model of "inexhaustible energy", which is extremely important in the face of rising prices for the main XX century. sources of energy. This direction of energy is based on the production of thermal and electric energy due to the thermal energy contained in the bowels of the earth. Its receipt is provided by special geothermal stations. Geothermal sources are used economically in New Zealand, Iceland, Italy, France, Lithuania, Mexico, Nicaragua, Costa Rica, the Philippines, Indonesia, China, Japan, Kenya and the United States.

In the context of expensive hydrocarbon fuels, geothermal sources began to acquire greater importance: not so much government support for this area as the cheapness of obtaining heat and electricity made this line promising. Its main problem is the nature of the application associated with the limited availability of geothermal energy sources. Their operation cannot replace hydrocarbon fuel, which retains the significance of the world's main energy source. Geothermal energy remains a promising area, but cannot become a new locomotive in the energy sector. Its successful development is possible only in conjunction with other trends.

Solar energy. In solar forecasts, the forecasts predict the production by 2060 of 20-25% of all electricity needed by mankind.

Of much greater importance in the countries of southern Europe is the use of solar panels for heating water in homes. The limited domestic use of solar energy indicates its modest capabilities.

There are plans for the industrial development of electricity generation through solar power plants. One of the most famous projects is the construction plan for a huge power plant in the Sahara Desert (Tunisia). It is assumed that the deployment of huge solar panels in this region will allow to receive a significant amount of energy. The problems of the project lie in the difficulty of supplying electricity to Europe, unreasonably high costs for the construction and maintenance of units, sandy winds and other “climate tricks”.

Environmentalists say the harmfulness of solar cell production. The construction of solar power stations is also expensive. Their payback is directly related to the increased situation on the world market of electricity, oil and gas. The development of solar energy is ensured by a rise in the cost of energy production using traditional - previously more economical - sources. The possibilities of the expanded use of solar energy devices directly depend on whether mankind can find new solutions in the energy sector. With a radical reduction in the cost of electricity (obtained in large volumes by new methods), the solar energy field will not be able to grow rapidly. On the contrary, the absence of such breakthroughs will provide more favorable conditions for it. But even adherents of this direction do not see the revolutionary future of solar energy.

The first concept involves the instantaneous calculation of the cost of energy consumed by an enterprise or household, up to the conclusion of the exact cost of daily consumption on a special panel or on mobile devices of consumers. The second is to create and use an interactive network resource control panel that real-time optimizes load balancing to prevent blackouts.

Hydrogen Energy The use of hydrogen as a means of accumulation, transportation and energy consumption is the basis of hydrogen energy. The development of this industry allows the use of hydrogen in production and for the needs of transport infrastructure. Hydrogen is very common on the surface of the Earth. The heat of combustion is extremely high. In oxygen, water becomes the combustion product. The problem is only the need to obtain hydrogen fuel from water.

Hydrogen energetics gives a lot of hope. In South Korea, a plan has been adopted to build up its importance in the economy, even building a "hydrogen economy". By 2050, it is planned to produce 22% of all energy, electricity consumed by the private sector on hydrogen fuel cells - 23%. No less impressive are the plans of the United States. The country expects to build "hydrogen energy" by 2025. Iceland's plans determine the date of the wide transition of the economy to hydrogen by 2050. However, the main use of hydrogen is associated with the production of ammonia and gasoline. The United States receives about 11 million tons of hydrogen annually. This amount is considered sufficient for annual consumption of 35-40 million cars. In the EU and the USA, special hydrogen pipelines operate; in Europe their length is 1,500, and in the USA - 750 km. Pipelines through which natural gas is transmitted can be used to transfer hydrogen to a distance after minor refinement. The problem is only economic feasibility.

The situation of the global energy impasse is characterized, on the one hand, by the exhaustion of the economic resource of oil and gas energy, and, on the other hand, by the presence of alternatives that are not capable of ensuring the revolutionary development of the energy sector in the near future. A sharp reduction in the cost of electricity as a result of a coup in the energy sector should ensure the expansion of applications in the production of robotics. It is also necessary to reduce the cost of production of synthetic materials, the development of new types that are advantageous in production. The emergence of opportunities to generate large amounts of cheap electricity can be a decisive condition for the emergence of new industries.

They use the kinetic energy of tidal waves to generate electricity. Their disadvantages are obvious: low power and the ability to use only in coastal areas. However, governments are eager to subsidize all of the alternative energy projects outlined, recognizing that they are not a threat to the old energy sector and are not even able to influence the decline in oil and natural gas prices. It is logical to conclude that the limitations of well-known alternative projects are their main attractive side. In no country of global capitalism do corporations and government bureaucracies seek to discount their investments.

CONCLUSION

Traditional power engineering needs not so much to be supplemented as to crowding out, swiftly replacing it with innovative technologies. This means the inevitability of a kind of "investment shock", when significant investments made earlier will be devalued at the same time and there will be a need for massive new investments. Development in such conditions can hardly be achieved without the active participation of the state and the nationalization of the industry, which allows it not only to withstand the investment shock, but also to carry out the transformation comprehensively and effectively on the basis of a single scenario.

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ЭНЕРГЕТИКАДАҒЫ ИННОВАЦИЯ:
ҚАУІПТІЛІКТЕР ЖӘНЕ ПРОЦЕПТЕР

Аннотация. Саланың ең маңызды инновациялық қажеттіліктерінің бірі - энергияны цифрландыру. Қазіргі уақытта энергетиктерге электр желілері мен микроэнергияны басқаруға арналған отандық бағдарламалық қамтамасыз етуді, маңызды инфрақұрылымның ақпараттық қауіпсіздік жүйелерін, деректерді талдау технологиясын және болжамды аналитиканы әзірлеу қажет. Әлемдік дағдарыс және энергетика. Мұнай қоры таусылды. Сарапшылардың пікірінше, бұл планетада 20-30 жылдан кейін тұрақты тұтыну деңгейімен аяқталады. Ашылмаған қорлардың көптігін және өндіріс тиімділігін арттыру мүмкіндігін көрсететін оптимистік болжамдар көп.

Түйін сөздер:энергетика, инновация, проблемалар, перспективалар, дағдарыс, шикізат.

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ИННОВАЦИИ В ЭНЕРГЕТИКЕ:
ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ

Аннотация. Одной из более актуальных потребностей отрасли в инновациях является цифровизация энергетики. Прямо сейчас энергетикам нужны разработки отечественного ПО управления электрическими сетями и микроэнергосистемами, систем информационной безопасности критической инфраструктуры, технологии анализа данных и предиктивной аналитики. Мировой кризис и энергетика. Запасы нефти исчерпаемы. Эксперты констатируют, что она закончится на планете при сохраняющемся уровне потребления через 20—30 лет. Существуют и более оптимистические прогнозы, указывающие на существование большого количества неразведанных запасов и возможность повышения эффективности добычи.

Ключевые слова:энергетика, инновации, проблемы, перспективы, кризис, сырье.

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ANALYSIS OF ECONOMIC ACTIVITY AS THE BASIS FOR THE ADOPTION OF MANAGEMENT DECISIONS

Abstract. Analysis of the economic activities of the organization is the basis for making management decisions in business. To justify management decisions, problems should be identified, production and financial risks should be assessed, possible consequences of the decisions made should be determined. As a general indicator of the financial and economic activity of the enterprise, the level of profitability is used, which is calculated as the ratio of net profit to the sum of fixed and circulating production assets.

Keywords: analysis, economic activity, enterprise economics, management decisions.

INTRODUCTION

Economic analysis (otherwise - the analysis of economic activity) plays an important role in improving the economic efficiency of organizations, in strengthening their financial condition. It is an economic science that studies the economics of organizations, their activities in terms of evaluating their work in fulfilling business plans, assessing their property and financial condition and in order to identify unused reserves for improving the efficiency of organizations.

The subject of economic analysis is the property-financial condition and current economic activities of organizations, studied in terms of its compliance with the objectives of business plans and in order to identify unused reserves to increase the efficiency of the organization.

MAINPART

The content of the economic analysis is a comprehensive and detailed study, based on all available sources of information, of various aspects of the functioning of this organization, aimed at improving its work by developing and implementing optimal management decisions that reflect the reserves identified during the analysis and the ways of using these reserves.

Economic analysis is divided into internal and external depending on the subjects of analysis, that is, from those bodies that conduct it. The most complete and comprehensive is the internal analysis conducted by the functional departments and services of this organization. External analysis conducted by tax authorities, banks, debtors and creditors and other organizations, as a rule, is limited to establishing the degree of stability of the financial condition of the analyzed organization, its solvency and liquidity both at the reporting dates and in the future.

A comprehensive economic analysis of the economic activity of the enterprise with the wide involvement of all employees, identification of unused internal production reserves on this basis, the selection of optimal management decisions, and the improvement of the scientific feasibility of plans will contribute to further growth in production efficiency and quality of work. When conducting a system analysis, as a rule, 6 stages are distinguished.

Consider the content of these stages in relation to the economic analysis of the economic activity of the enterprise. The balance sheet, statement of financial performance and the additional data listed above can serve as a solid information basis for the economic analysis of the economic activities of enterprises and other commercial structures. On their basis, one can judge the fulfillment of obligations, first of all, to shareholders, investors, buyers, as well as possible financial difficulties, sometimes leading to a pre-infarction financial condition. The economic analysis of economic activity in a market economy is

increasingly acquiring the character of a system analysis. When conducting a system analysis, six stages are usually distinguished. Consider the content of these stages in relation to the economic analysis of the economic activity of the enterprise. Using the analysis of the organization's economic activities, the general trends of the enterprise's development are studied, the reasons for the change in the results of activities are investigated, the development plans of the enterprise are developed and approved and management decisions are made, the implementation of the approved plans and decisions are monitored, reserves are identified to improve production efficiency, the results of operations are evaluated firms, an economic strategy is being developed for its development.

Analysis of the economic activities of the organization is the basis for making management decisions in business. To justify management decisions, problems should be identified, production and financial risks should be assessed, and possible consequences of decisions made should be determined.

In practice, performance indicators are profitability, profitability.

There are also individual indicators that characterize the effectiveness of individual aspects of the enterprise.

These indicatorsinclude:

• the efficiency of use of production resources that are available to the organization, namely:

- the effectiveness of fixed assets (used indicators such as capital productivity, capital intensity);

- the effectiveness of labor resources (indicators such as profitability of personnel, labor productivity are used);

- the effectiveness of material resources (such indicators as material output, material consumption, profit per one ruble of material costs are used);

• the effectiveness of the investment activity of the organization (such an indicator as the payback period of capital investments is used, profit per one ruble of capital investments);

• the efficiency of use of the organization's assets (indicators such as turnover of current assets, profit per ruble of the value of assets, including current and non-current assets, etc. are used);

• capital efficiency (used by indicators such as net income per share, dividends per share, etc.)

Profitability characterizes the profit that the company receives from each ruble of money invested in the formation of the assets of the company.

The change in profitability reflects the dynamics of the effectiveness of all aspects of the enterprise. For example, an increase in the level of profitability indicates an increase in the effectiveness of the organization's activities,

The actually achieved performance indicators are compared with planned indicators, with data for previous reporting periods, as well as with indicators of other organizations.

When developing plans, proceed from the fact that the development of market relations and. new management methods necessitates the use of a systematic approach to organizing the economic analysis of the economic activity of the enterprise. The level and effectiveness of planned work to a decisive degree depends on the efficiency of the employees of the economic service of the enterprise. The leading link in this service is the planning and economic department, which is called upon to deal with economic planning, statistical accounting and analysis of the economic activity of the enterprise. The employees of this department must have high professional qualifications, have a sense of new, have a good knowledge of production technology. Of great importance was the introduction of the post of chief economist, who coordinates the work of the planning and economic department, the labor and wage department, the financial department, research groups and economic services in the shops and departments of enterprises. Features of the analysis are determined by the tasks of the body that analyzes the enterprise, they are manifested in the sequence of studying the economy, in the subject of analysis (the issues that the organization is interested in are analyzed), in the forms of analytical work. The information support of the analysis is, as a rule, the consolidated reporting of the main business link, the economic indicators of the economic activity of the enterprise as a whole, without detailing by units.

Analysis of the economic activity of the enterprise is based on the use of a wide range of planned, accounting, statistical and non-accounting information, as well as on the actual data of various statements. The information used for analysis is that it is multilateral information characterizing the economic side of the production and economic activity of an enterprise or other production unit. An important type of work involves quality training in the materials extracted for analysis, depending on its goals.

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The effectiveness of the organization is influenced by a large number of factors of different levels. These factors are:

- general economic factors. These include: trends and patterns of economic development, the achievement of scientific and technological progress, tax, investment, depreciation policies of the state, etc.
- natural and geographical factors: the location of the organization, climatic features of the area, etc.
- Regional factors: economic potential of a given region, investment policy in this region, etc.
- industry factors: the place of the industry in the national economic complex, market conditions in this industry, etc.
- factors caused by the functioning of the analyzed organization - the degree of use of production resources, compliance with the savings regime in the costs of production and sale of products, rationality of the organization of supply and marketing activities, investment and pricing policies, the most complete identification and use of on-farm reserves, etc.

It is impossible to control what cannot be reliably estimated; this is a well-known fact. And it only confirms the relevance of the investigated problem - the problem of evaluating the effectiveness of the company. Efficiency, as an indicator that determines the accuracy of the chosen direction when striving for the final result, should have quantitative and qualitative certainty. This article will focus directly on the quantitative aspect, which at this stage of the development of economic thought is more deterministic than qualitative. In this paper, we consider the five most formalized approaches, and on their basis a number of key indicators are derived that allow you to get the most complete picture of the financial and economic condition of an economic entity when it is examined for operational efficiency.

The first approach is economic. When using this approach, the greatest importance is assigned to the effectiveness of resource management. Most often, the economic approach is used to determine the current effectiveness of the organization’s core business. Efficiency is considered here as cost-effectiveness and physical performance - a definition proposed by costly and potential approaches. The most widely used valuation method for this approach is to determine profitability.

The second approach takes as a basis the comparison of costs with the effect of cash flows. The financial approach has always been used to assess the effectiveness of investment. Subsequently, the methods proposed by him were also applied to the assessment of business activities in general.

The third approach is based on the creation of a company’s market value, reflecting the strategic goals of management, namely, meeting the needs of all interested parties and maintaining a balance of interests. The company’s market value is used as a comprehensive indicator, and the primary profitability here is only one of the factors influencing the value of a business.

The fourth approach - the process one - is built on enhancing cooperation between the subjects of management, and intensifying relations between them. The processes taking place in the organization ensure the existence of the types of activities of the company, which in turn form indicators. And it turns out that if you improve the quality of the processes, then the final result will improve as a result.

The fifth approach is a complex of all of the above approaches. He recognizes the entire proposed range of indicators - financial, cost and non-financial - linking them and bringing them into a single system. The beginning of this approach in economic thought in the beginning of the 1990s was laid by the famous American scientists Norton and Kaplan with their concept of a balanced scorecard, which implies the organization of such a strategic planning system that would allow us to direct all the company's activities to the implementation of strategic plans and decisions by solving everyday tasks. In this concept, special attention is paid to the responsibility of each individual link - unit, department, employee. For this, it is necessary to establish clearly defined strategic numerical indicators - KPI (key performance indicators). The advantage of the BSC is that it allows the company management to get a complete picture of the business, to avoid critical situations, and also to simplify the system of interaction between different organizational levels in the company.

Type of economic analysis	**When should the specific type of analysis be chosen?**
Cost-minimization analysis ⇓	1. When the compared technologies are equally effective - then it is only necessary to collect data about costs
Cost-effectiveness analysis ⇓	1. When the effectiveness of the compared technologies are different - i.e. the difference in costs have to be weighted against the difference in effectiveness 2. When a technology dominates the other technologies* - i.e. is more effective and cheaper than the compared technology 3. When activities with the same aim and measure of effectiveness are compared
Cost-utility analysis ⇓	1. When health-related quality of life is an important health outcome 2. When activities across specialities or departments in the health care sector have to be compared
Cost-benefit analysis	1. When non-health effects are also important - e.g. the treatment process itself, utility of information. 2. When only one technology is assessed (net-benefit) 3. When there is a wish that individual lives are valued in monetary units 4. When activities across society have to be compared

Figure 2 - chart of choice of type of economic analysis from publication

Economic analysis involves assessing or examining topics or issues from an economist's perspective. Economic analysis is the study of economic systems. It may also be a study of a production process or an industry. The analysis aims to determine how effectively the economy or something within it is operating.

CONCLUSION

Thus, based on a review of approaches to assessing the effectiveness of an organization, it can be concluded that in a well-structured system, evaluation indicators should express not only the quantitatively measurable result of the enterprise's activity, but also the way it was achieved. The basic principle of the formation of a system of indicators for assessing effectiveness is the ratio of the final result and its economic effect - direct profit with expended resources.

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БАСҚАРУ ШЕШІМДЕРІН БАСҚАРУ НЕГІЗІНДЕГІ ЭКОНОМИКАЛЫҚ ҚЫЗМЕТ ТАЛДАУ

Аннотация. Ұйымның экономикалық қызметін талдау бизнесте басқару шешімдерін қабылдау үшін негіз болып табылады. Басқару шешімдерін негіздеу үшін проблемалар анықталуы керек, өндірістік және қаржылық тәуекелдер бағалануы керек, қабылданатын шешімдердің ықтимал салдары анықталуы керек.

Кәсіпорынның қаржылық-шаруашылық қызметінің жалпы көрсеткішіретінде таза пайданың тіркелген және айналымдағы өндірістік активтердің сомасына қатынасы ретінде есептелген кірістілік деңгейік олданылады.

Түйін сөздер: талдау, экономикалық қызмет, кәсіпорын экономикасы, басқару шешімдері.

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АНАЛИЗ ХОЗЯЙСТВЕННОЙ ДЕЯТЕЛЬНОСТИ КАК ОСНОВА В ПРИНЯТИИ УПРАВЛЕНЧЕСКИХ РЕШЕНИЙ

Аннотация. Анализ хозяйственной деятельности организации является основой для принятия управленческих решений в бизнесе. Для обоснования управленческих решений следует выявлять проблемы, оценивать производственные и финансовые риски, определять возможные последствия принимаемых решений. В качестве обобщающего показателя эффективности финансово-хозяйственной деятельности предприятия применяется уровень рентабельности, который рассчитывается как отношение чистой прибыли к сумме основных и оборотных производственных средств.

Ключевые слова: анализ, хозяйственная деятельность, экономика предприятия, управленческие решения.

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INCREASE OF COMPETITIVENESS OF THE ENTERPRISE (EXAMPLE OF THE OIL PRODUCT MARKET)

Abstract. Today, the issue of competition is the main problem of a modern market economy. That is why there is a need for search and development of new methodological approaches in improving the competition mechanism of organizations involved in various areas of production activity, and processing enterprises in particular. In the current environment of business administration, it is necessary to develop new scientific approaches in identifying and substantiating indicators, strategies, analysis methods and evaluating the competitiveness of enterprises. During the period of development of the post-industrial economy there is a need in determining the formation of production potential and increase the competitiveness of the company, which shows the relevance of the studied problem. The aim of the study is to develop practical recommendations to improve the competitiveness of the company in the oil market.

Keywords: competition, competitiveness, oil products market, questionnaires, SWOT analysis, marketing research, efficiency.

Introduction. The competitiveness can be called the most important moment in reaching the top in any entrepreneurial project that is beneficial to cooperation. This definition is very versatile, and it should be understood as a comparison of what the company produces in the form of specific products and how these products can meet the needs of customers.

It should be borne in mind that goods should not only fit their parameters, but also need to bring together the requirements of the market and the commercial sector to obtain the greatest effect.

It is required to develop new scientific approaches to the identification and justification of indicators, strategies, methods of analysis and assessment of the competitiveness of enterprises.

The way we apply the aspects that are significant for management and the conditions that enterprises face is what makes it possible to identify how strong the company is in the field of oil products sales.

To study the theoretical provisions of the studied object, it is necessary to turn to the experience of conducting and studying similar works in the field of increasing competitiveness in various markets of Kazakhstan and make efforts to correctly formulate the main idea, which is associated with the importance of such a study. A deeper study of foreign literature on improving competitiveness is necessary in order to put into practice the best of them with the aim to an effective policy of economic development.

Without competitive products, there cannot be an effective activity of an enterprise, the success of which is largely determined by the conditions of the region where it is located, by the involvement of enterprises in the national economy [1].

Modern theories of competitiveness are conditionally divided into three types: theories of American, British and Scandinavian schools of science. Developed by researchers, these approaches have quite successfully been used in business [2]. The development of this factor in Kazakhstan determined at this stage of development of Kazakhstani society the importance of the economic component of any life concept. Since the economic sphere being systemically important, this fact has its own significance [3].

The concept of competitiveness in domestic economic science until recently was a poorly developed category, due to the following objective reasons:

- changes in Kazakhstan were not supported by research;
- the problems have become versatile;
- the industry has sufficient experience [4].

Research methods. To solve this problem, we used the methods of comparative and SWOT analysis, conducted a selective study of participants in the target market, studied the theory and practice of organizing management in enterprises.

The results of the study. Having set the goal of the study to assess the company's competitiveness,it is necessary to conduct a detailed analysis of its current state. It is obvious to us that the competitiveness of a product or service is a relative concept and we need to talk about it only in comparison with another object. We evaluate the competitiveness of the enterprise under study using well-known practice methods.

Having covered the study with a large number of subjects and partners of a company immediately in the entire market for these services, we can compare the competitiveness of competing firms operating in this market.

The method includes [5]:

1) selection of assessment indicators or customer requirements for the service;
2) assessment of expected results based on the expectations of the firm's customers;
3) a comparison of the marketing aspects of the company relative to competitors;
4) determination of the main parameters to increase competitive advantages.

We used the following sources of primary data: questionnaire survey, observations and sample measurements, data from statistical agencies on the market of fuels and lubricants of the Southern region.

For customer surveys, requirements or wishes of customers were set, which were ranked depending on the degree of their priority by interviewing the population using the services of our company.

The study involved over 100 consumers who applied to the LLP. A questionnaire was prepared, and the results were entered in the intermediate and final tables. The calculation was carried out by assessing the importance of each indicator using statistical methods. The processed data obtained as a result of a survey of the company's customers indicate that there is an elastic demand of customers for the company's pricing policy.

Over 55% of the respondents said that the price component is important for them, for 12% - the communication policy is important, more than 20% noted quality in the first place. To assess the competitiveness of the company, we will evaluate its real position in the oil products market.

The surveywas conducted using the questionnaire (table 1).

Table 1 - The results of the survey

Position	Rating (1-5)
Price range	4,2
Quality difference	3,9
Market Coverage Opportunities	4,33
Communication policy	4
Location	3,8

The question of how often customers resort to the services of gas stations, more than 30% noted that once a month, 25% - once every two weeks, the largest number of customers 40% - often use the services.

As an advantage, one can note the fact that more than 80% of respondents are satisfied with the quality of services provided by the studied company. The convenient location of gas stations was noted by about 60% of customers.

In the age context, the main clients of the company are men with higher and secondary specialized education aged 20 to 50 years.

The study of customer loyalty revealed that it is the price factor that is important and comes first in the scale when choosing the services of the gas stations.

Among the factors influencing the choice of a gas station, the survey participants named the quality of services, the price is shown below and only after that aspects such as its range and location were taken into account.

Competitive firms are an important factor for studying and monitoring them allows you to see the peculiarity of the customer's requests and respond to them in time [6].

Two networks of gas stations were identified as the main competitors of the company under study (table 2).

The choice fell on them for the following reasons:

a) proximitytoourcompany;
b) a similar range of services for the sale of petroleum products;
c) adequate and similar pricing policy.

Table 2 - The competitiveness of companies in selling petroleum products

Property	level	Score		
		Company A	Company B	Company C
Price range	0,40	5,0	5,0	4,0
Market Coverage Opportunities	0,10	5,0	4,0	4,0
Discount availability	0,10	3,0	4,0	4,0
Quality difference	0,15	5	4,5	3,8
Communications (brand support)	0,15	3,0	5,0	3,0
Location	0,10	5,0	4,0	4,0
Overall rating	1,00			

The location of all firms is mainly the proximity of industrial enterprises (private firms), ease of parking, good access and exit.

Thus, as a result of counting by the criterion, we have the following:

- Company A - 4.40 points;
- Company B - 4.55 points;
- Company C - 3.85 points.

The management of the company got the opportunity to look critically at the results of their work and pay attention not only to the volume of sales, but also to other related tools.

The SWOT analysis is still a reliable means of assessing the status and advantages of the company, we are used to presenting it as the ratio of the pros, cons, expectations and anxieties that certainly accompany each company in the market (table 3).

Table 3 - SWOT analysis of company A

1. Opportunities	2. Threats
- company services should be better and provided faster - it is necessary to pay attention to large partners - you need to work directly with a number of suppliers - promotiontothecountry	- change in tax legislation - depreciation of fixed assets - the emergence of new players on the market - real disasters in the economy - distrust from existing and potential partners
3. Strengths	4. Weaknesses
- good price offers - market segment coverage - availabilityandcustomerconfidence	- lack of marketing marketing efforts - cons in advertising

This method is used in practice more and more often due to the ability to openly analyze the criteria of the company, both from the inside and from the outside, and also to understand what the company expects if it does not use its potential to achieve the main goals and mission.

The performed SWOT analysis gave as a result a picture of the promotion of the company to its customers and partners, as well as suppliers, the possibility of integration and diversification.

For the company, the maximum quality of services and a competent approach to customer service should become important for the current stage of activity.

Using the possibilities of positioning the pros and cons, the following should be noted:

- the company may have problems when a strong player appears in the market, as well as when changing partners for the supply of goods for sale;

- one cannot but bear in mind the impact of crisis situations in the economy; there are also industry specifics and financial aspects.

So, having looked at the pros and cons of the company under study, as well as assessing potential expectations and concerns, we can begin to create strategic projects and serious decisions to consolidate the firm's market position.

Given the fact that the company operates in a developed market and the competitive potential of such firms is evident, the company needs to focus on combinations that will yield results in the shortest possible time and help the company to adequately present its products at any competitive sites.

The proposed approach will lead to the strengthening of competitive positions both by improving the quality of goods sold, and as a result of the breadth of services rendered in the company, a number of events are necessary.

Let's carry out an example of analysis of the influence of STEP - factors using two main directions for implementing the strategy [7]:

- improvement of marketing activities;
- the acquisition of new equipment and technologies.

The moments causing the need to improve the quality of marketing (commercial) activities [8]:

- expanding the market for their services;
- increase in the number of consumers;
- increase in competitiveness;

Assessing the effectiveness of the company, we can conclude that as a result of involvement in the process of the proposed approach, the company's place on the market will be more stable.

We will see the socio-economic effect in more detail below (table 4).

Table 4 - Theeffectsofimplementation

Suggestions	Effect for society	Effect for the economy
Pay more attention to marketing	1. The activities of the company are stable. 2. There will be motivational factors among specialists. 3. Buyers will receive the expected result from the acquisition. 4. The level of service will become much higher.	1. Product distribution will increase by 20%. 2. Profitability will increase by 10% 3. The effectiveness of employees by 30%. 4. Pay for specialists will increase by 20% + bonuses. 5. The company's expenses as a whole will decrease by 10%.

The main goal of company A is the quality and speed of the provision of services for the sale of fuels and lubricants to customers. From here we can derive the main directions of increasing competitiveness (table 5).

Table 5 - Directions for improving the competitiveness of the company

CompetitiveAdvantages	Quality Maintenance Methods
Set of Services	Introduction of new types of services, revision of attitude to old types of services
Outwardappeal	Improvement of gas stations, changes in external and internal design
Convenience of access and parking	Optimal border entry and exit
Pricerange	Sales increase
Buying Incentives	Organization of marketing companies
Informativeness	Conducting an information and advertising company through social networks, local television, newspapers, radio

At the moment, company A was able to withstand the difficult situation, but this does not mean that the company is in crisis. On the contrary, timely measures taken to prevent strategic mistakes and taking into account all factors will allow the company to achieve high results and will reliably occupy a market niche in the target market.

Today, company A has every opportunity to capture the most promising market segment, for this it has:

1. A network of gas stations known in the city and region.

2. Material base and human resources.

The survey results showed that over 58% of potential customers have information about the non-cash service system, but do not use it, and less than 3% of respondents said that they do not trust such systems.

The discussion of the results. Summarizing the survey data in this area, we can distinguish:

1. From year to year, terminals independent of the operator of gas stations will be introduced, allowing the client to receive the service of refueling vehicles as comfortably as possible. Over 25% of those who answered about the quality of service through a cashless system expect this opportunity to appear.

2. Banking products and their cost are becoming more accessible. An important factor in choosing a cashless service system (over 30%) customers noted the impact of these banking tools on price reduction.

3. Non-cash services will soon be used on republican routes (it is desirable to expand this area of operation indicated by 43% of respondents).

What the company does is to be shared through social networks and other channels, both through the placement of simple ads and through advertising calls.

The company under study in the market of fuels and lubricants, sales promotion, that is, methods to accelerate the perception of the product by potential consumers, plays an important role in the work.

The following methods have been proposed to enhance the communication component [9,10]:

a) active advertising and promotion on social networks;

b) providing small gifts to customers;

c) organization of contests and lotteries;

d) the use of flyers and other printed materials.

As a recommendation, it is proposed to regularly retrain company employees on such issues as:

- quality management system;
- ecology and life safety;
- culture of communication and ethics;
- marketing and promotion of goods;
- consulting;
- public relations.

Table 6 shows the methods of sales promotion in the market for the sale of finished petroleum products.

Table 6 - Marketing activities for sales promotion

Process	Advantages	Disadvantages
Freedom of choice	Make the client adapt to the new service faster	Costlyprocess
Agency work	Work with individual groups	Need continuous monitoring
Social activity	Fast customer response	Much depends on user feedback.
Useofdistributionmedia	Customers show interest very quickly.	Need a good planning process
Salespromotion	Quick and practical	Interest disappears for a regular customer
Discounts	Sales will increase	Addictive and lack of creativity
Bonuses	Convenience in implementation	The circle of clients is small

The distribution of marketing and sales promotion events in the form of coupons implementation is becoming more and more an option of marketing communications.

Here the client receives a good discount, and he is also offered the service of re-service at the gas station. This is usually done in order to check customer feedback [11-14].

Another option for marketing communications is working in social networks, the press and television.

Many companies are currently conducting separate advertising campaigns as a way to increase competitiveness, which we offer to this network of gas stations.

The term for the implementation and realization of the advertising campaign is evenly distributed over time; publications in social networks, the press and television are planned.

Conclusion. Thus, we can summarize the following results and give recommendations of the following nature:

a) constantly pay attention to the appearance of the gas station;

b) pursue a reasonable policy to promote services in the market;

c) work on increasing the customer base;

d) introduce a system of discounts, conduct promotions to constantly monitor the opinions of customers.

The organization of these events does not require special financial and labor costs, the risk for the company is small, and the technology for implementing events will not require major changes in strategic and tactical management.

The analysis of the competitiveness of company A revealed that the company has good prospects for improving the efficiency of its activities in the market.

In order to obtain an adequate attitude and customer loyalty, one should use methods of communication policy, which include advertising, communication and promotion of services.

Thus, the company will be able to enter a new round of its development, having the opportunity to enter new markets and obtain long-term effects both in operational management and in strengthening its competitive advantages.

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КӘСІПОРЫННЫҢ БӘСЕКЕГЕ ҚАБІЛЕТТІЛІГІН АРТТЫРУ (МҰНАЙ ӨНІМДЕРІ НАРЫҒЫНЫҢ МЫСАЛЫНДА)

Аннотация. Бүгінгі күні бәсекелестік мәселесі - қазіргі нарықтық экономиканың басты проблемасы. Сондықтан да өндірістік қызметтің түрлі салаларымен айналысатын ұйымдардың және өңдеуші кәсіпорындардың бәсекелестік тетігін жетілдірудің жаңа әдістемелік тәсілдерін іздестіру және әзірлеу қажеттілігі туындайды. Қазіргі жағдайда бизнес әкімшілендіруде кәсіпорындардың бәсекеге қабілеттілігін талдау және бағалау көрсеткіштерін, стратегияларын, әдістерін анықтау мен негіздеудің жаңа ғылыми тәсілдерін әзірлеу қажет. Постиндустриялық экономиканы дамыту кезеңінде компанияның өндірістік әлеуетін қалыптастыру және бәсекеге қабілеттілігін арттыру қажеттілігі айқындалады, яғни бұл зерделенетін мәселенің өзектілігін көрсетеді. Зерттеудің мақсаты мұнай өнімдері нарығында компанияның бәсекеге қабілеттілігін арттыру бойынша практикалық ұсыныстарды әзірлеу болып табылады.

Түйін сөздер: бәсеке, бәсекеге қабілеттілік, мұнай өнімдері нарығы, анкеталау, SWOT-талдау, маркетингтік зерттеулер, тиімділік.

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ПОВЫШЕНИЕ КОНКУРЕНТОСПОСОБНОСТИ ПРЕДПРИЯТИЯ (НА ПРИМЕРЕ РЫНКА НЕФТЕПРОДУКТОВ)

Аннотация. На сегодняшний день вопрос конкуренции - главная проблема современной рыночной экономики.Именно поэтому возникает необходимость в поиске и разработке новых методических подходов к совершенствованию механизма конкуренции организаций, занимающихся различными сферами производственной деятельности, и перерабатывающих предприятий в частности. В нынешних условиях в бизнес администрировании необходимо выработать новые научные подходы к выявлению и обоснованию показателей, стратегий, методов анализа и оценки конкурентоспособности предприятий. В период развития постиндустриальной экономики определяется необходимость формирования производственного потенциала и повышения конкурентоспособности компании, что показывает актуальность изучаемой проблемы.Целью исследования является разработка практических рекомендаций по повышению конкурентоспособности компании на рынке нефтепродуктов.

Ключевые слова: конкуренция, конкурентоспособность, рынок нефтепродуктов, анкетирование, SWOT-анализ, маркетинговые исследования, эффективность.

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METHODOLOGICAL APPROACHES TO ASSESSING THE EFFECTIVENESS OF INTERNATIONAL INTEGRATION ASSOCIATIONS

Abstract. In the article, the author attempted to build a unified approach to measuring the effectiveness of integration associations regardless of their regulatory formats and species. existing approaches were analyzed to achieve this goal, while composite index methods were subject to detailed analysis. The author reveals the essence of this method, shows their main four subspecies, identifies their differences, advantages and disadvantages. The limitations of using the composite index technique in terms of compliance with the aggregation of indicators are given. It is proposed to use a three-stage method of constructing a composite index of regional integration taking into account these limitations. An important step in the development of a composite index is the determination of the significance (weight) of each indicator (sub-index), which can be determined using mean, parametric and non-parametric methods. For each of these methods, the specific characteristics peculiar to each of them are given. The results of the study made it possible to develop basic methodological principles for the formation of indicators of the composite index for measuring the effectiveness of integration. Moreover, the author justified possibility of joint use of the methods of aggregation of indicators considered in the work, at the same time it has been revealed that the composite index using the method of the main components is the most informative.

Major results and conclusions of a research can be applied in the course of measurement of efficiency and the level of integration associations integratedness for matching and comparing relevant indicators of several integration associations.

Keywords: international integration, integrative associations, efficiency assessment, integration level, composite index.

Introduction. At present, the continued progressive and sustainable development of the world economy in the context of globalization necessitates the use of the potential of integration associations to increase the growth reserves of individual national economies. As the established world practice of international integration groupings shows, the achievement of a positive effect of integration is possible in the context of the systematization and complexity of the integration process itself, the strategy, the model and the tools for its development. Thereby, further development of the theory and methodology for determining the effects of integration, as well as the justification of methodological approaches to assessing the effectiveness of integration associations is becoming increasingly relevant.

Results and discussion. In consequence of spreading different forms of international integration, the world economy has currently formed two approaches to its classification. According to the first approach, integrations differ in goals when integrating countries pursue the same or different goals. Herewith national economies can be at the same stage of economic development, and differ in level of development, and the purpose of integration for them is to obtain additional markets, attract investment, open new jobs, etc. Under the second approach, forms of integration can be classified according to regulatory objectives: integration to improve the efficiency of the market economy, and integration for development [1]. In the first case, it is about integration associations that contribute to increased competition in the domestic integration market, in the second case, about associations of production factors, knowledge and efforts to build up the competitive advantages of the integration association on the world stage.

On the one hand, the approaches considered could facilitate the task of choosing methods for assessing the effectiveness of integration associations, on the other hand, today there are such integration associations in the world that cannot be specifically classified fully as groups of integration associations considered. For example, the Eurasian Economic Union (EAEU) and the Association of Southeast Asian Nations (ASEAN) have mixed goals [2], they have elements of different forms of integration, while the European Union (EU) model can be defined by a second approach. Therefore, the methodological approaches to measuring the effectiveness of integration applied in the EU cannot be applied in an unadapted form in relation to the EAEU and ASEAN.

At present, composite indices are often used to assess the effectiveness of integration associations, less often - indices of industry level. The latter are aimed at identifying the specific characteristics of a particular integration Association. Industry-level indexes may include the intraregional trade intensity index, which is determined by the ratio of intraregional trade to the region 's share of world trade; an asymmetric indicator reflecting the degree of attachment of intraregional trade to its region, which is determined by the ratio of the share of intraregional trade to the share of the region in world production [3], [4].

According to the method of composite indices, the processes of development of international economic integration are divided within the stages put forward by B. Balass professor of Yale University: free trade zone; customs Union; common market; economic and monetary Union; political Union [5]. The method of composite indices involves the assessment of the identified stages by 20-25 indicators, such as the unity of markets for goods, services, labor, fund, the level of economic convergence, the conformity of institutions with the goals of integration, etc. The composite index itself is determined by simply summing up the indicators of the five stages, while an index of 100 points means full integration [6]. Currently, the methods of composite indices used in the world practice vary greatly due to the dissimilarity of integration associations. There are the following subspecies of composite indices of the integration effect measurement:

The main focus in the assessment is on the institutional progress of integration. The classification of stages is based on the 5-stage scheme of regional integration development proposed by B. Balass. Each stage is rated between 0 and 25 points, and the composite index is between 0 and 100 points. The index allows periodic monitoring on a continuous basis. However, any of the estimated indicators can be estimated randomly, depending on the preferences of the researcher.

1) The composite index used by the European Commission aims to assess progress in creating a single European Union market. The main data sources are the value of contracts as a percentage of gross domestic product. The advantages of the index include traceability of the dynamics of integration over time, the disadvantages-the inability to use it to assess other underdeveloped integration projects, such as the EAEU.

2) The composite index of Berger H. and Nisch F. in fact, it is similar to the first subspecies, but with three stages of analysis: the elimination of quantitative restrictions in trade; the rejection of tariff restrictions; the completion of the formation of the single market. Indicators reflecting the essence of the integration process within its time frame are selected for each of them. The index allows to evaluate the progress of each country in the integration process. The disadvantages are similar to the first subspecies of the index above.

3) The fourth sub-type of composite index was developed by the University for Regional Integration [7]. The essence of the method was to rank the participating countries according to the degree of their share in strengthening the integration association on the basis of the most important indicators, as a share of the volume of trade within the integration association in the total volume of foreign trade of each share of countries in GDP in an integration association; degree of convergence; homogeneity of integration integration; GDP per capita; the purchasing power of the country in relation to the total in the integration association, etc. The methodology was developed specifically for the European Commission. Approbation of the research results on the example of the European Union showed growth in the gap in economic performance between the core and the periphery of the EU, which had a negative impact on enhancing

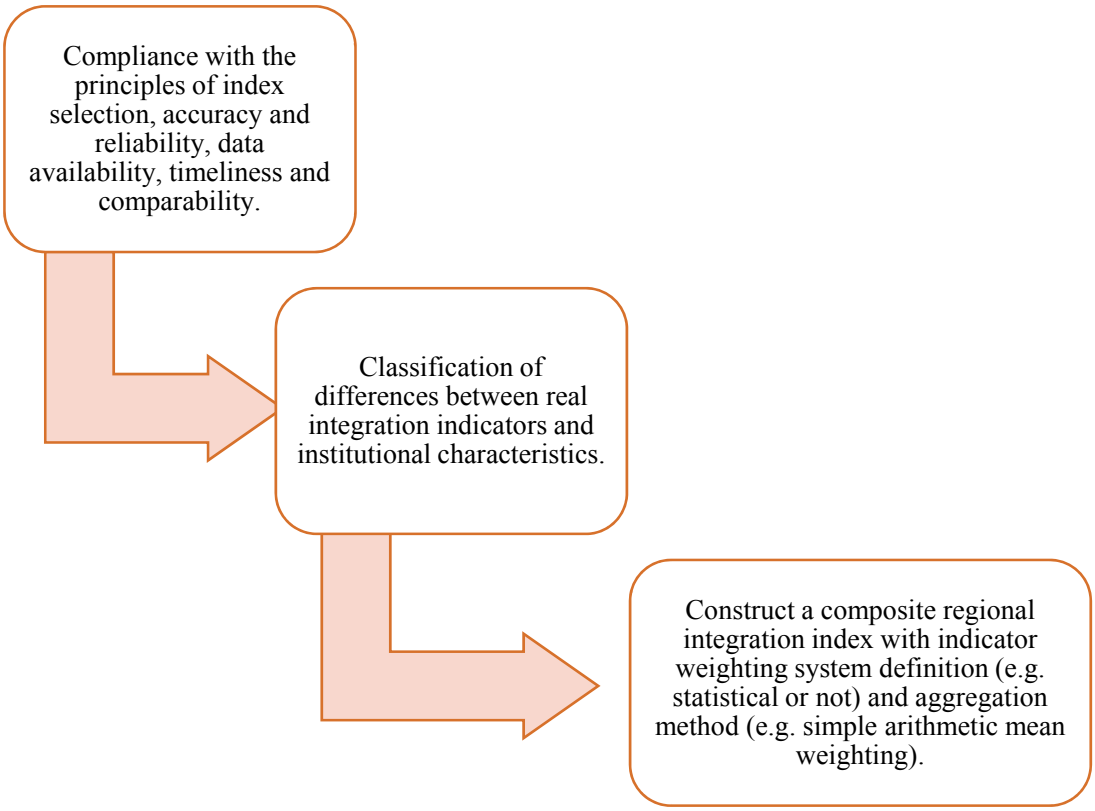
connectivity. Besides this methodology revealed that EU cycles and trends were least extended to Italy, Spain and Greece.

As D. Lombarde and others rightly point out, despite a number of attempts to develop composite indices of regional integration, none of them can be applied systematically on a permanent basis [8]. Indeed, the differences in approaches to monitoring and evaluation of regional integration identified in the article and significant differences within the selected approaches in time make it difficult to use the developed indices and indicators in practical activities.

When using the method of composite indices, it is necessary to observe aggregation of indicators, which are expressed in the following [9]:

- not the volatility of the index values, since the index reflects the gradual process of economic integration;
- the proportion of each constituent index does not have to be high to dominate the aggregate index.

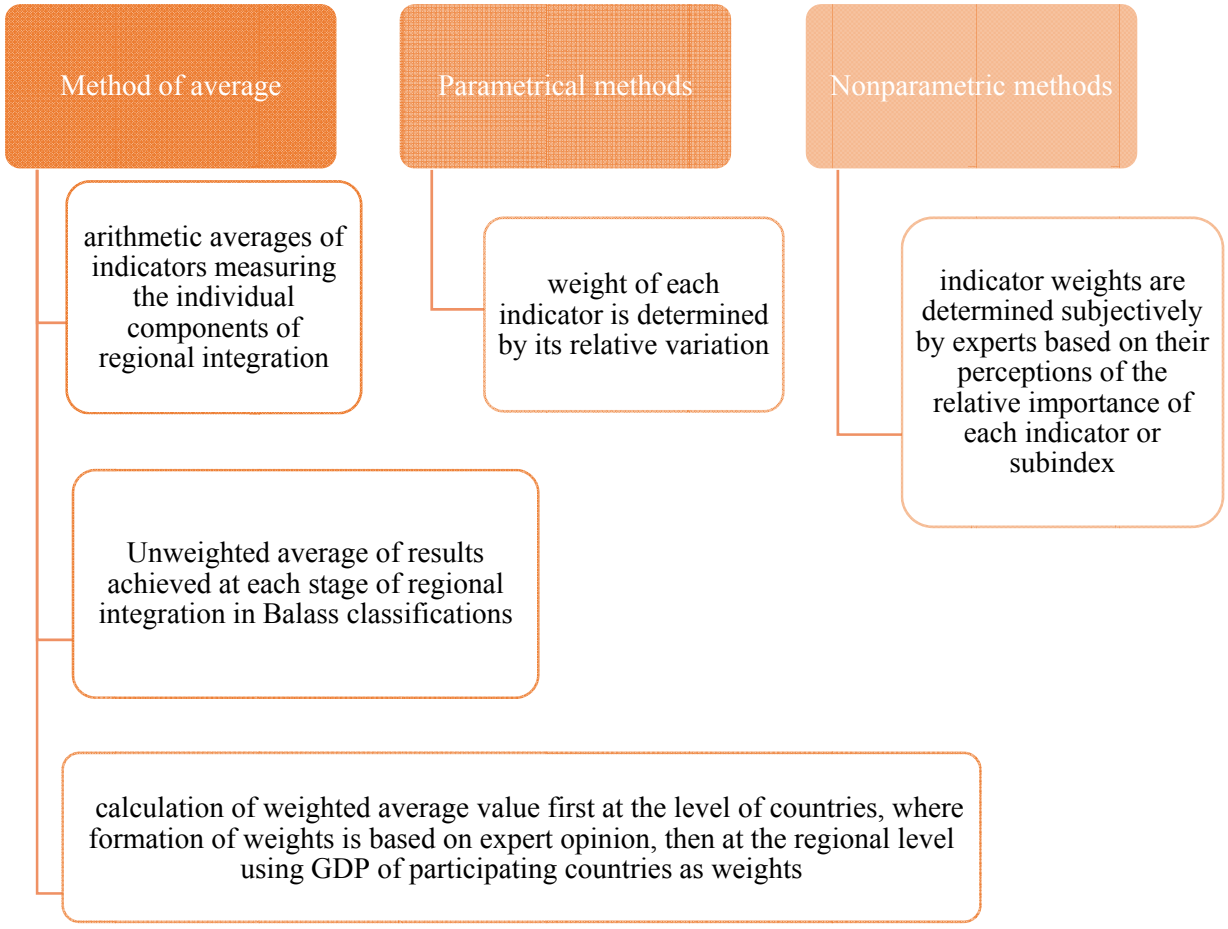
The limitations indicated require a clear elaboration of the possibilities of using summary indicators, which is feasible by using the following three-step method shown in Figure 1.



Note: made by source [10]

Figure 1 - Three-step method of constructing a composite regional integration index

During composite index construction it is important to determine the weights of the index components. However the issue is typical non triviality since neither the scientific community nor international organizations have established generally accepted principles for weighing the importance of individual indicators in the composite index. At the same time, there are three more common approaches to aggregation of indicators: the method of averages, parametric and nonparametric methods (figure 2).



Note: compiled by the author based on sources using [11], [12], [13], [14].

Figure 2 - Approaches to aggregation of composite index indicators

The method of averages is the oldest and it was popular before the spread of B. Ballass' theory. However, arithmetic averages are increasingly used in practice. According to the B. Balassa method, the unweighted average is calculated by the European Commission, and the more complex, third type of average method, shown in figure 2, is used by the United Nations Economic Commission for Africa, despite the duration and complexity of the procedure. Among all the approaches under consideration, parametric methods, in particular the principal component method, have recently been increasingly used [15]. The method of principal components allows one to reduce the dimensionality of data by losing the least amount of information [16]. Among the disadvantages of the method, one can single out the lack of an economic interpretation of the estimation of regression parameters.

Conclusions. The lack of a unified approach to measuring the effectiveness of regional integration in the scientific literature and practice is due to a number of reasons. These reasons are, first, the inability to fully harmonize the activities of statistical services of integrating countries, which causes the problem of comparability of different indicators, second, methodological difficulties in determining the weights (in importance) of subindexes included in the composite index of indicators.

The development of a unified approach to measuring the effectiveness of regional integration groupings is also complicated by their diversity and management formats, as well as by the specific economies of the integrating countries. Nevertheless, the comparison of indicators of integration indicators based on common methodological approaches makes it possible to estimate the level of integration in any integration association, provided that the following methodological principles for the formation of indicators of the composite index of integration effectiveness assessment developed by the author are observed:

- compliance with the stages of economic integration;
- Separation of types of economic integration (global and regional; Macroeconomic and sectoral integration);
- comparability of the integration degree assessment of a particular integration association with estimates for other integration associations.

After formation of composite index indicators taking into account the above principles, calculation of composite index should be performed by summation of weighted average subindex of integration directions. Herewith fair index value depends heavily on the method of selecting the weights of each subindex that were described in the article. The importance of each sub-index for the integration Association can be determined by the form of integration, the level of development of the integration association and its participants, etc. For this reason, the approaches studied in this work can be applied jointly. However, based on the diversity of integration indicators and their different values for different integration groups, the determination of the weight of each sub-index is preferably carried out using the principal component method, which allows to determine the contribution of each indicator to the information content of the sub-index.

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ХАЛЫҚАРАЛЫҚ ИНТЕГРАЦИЯЛЫҚ БІРЛЕСТІКТЕРДІҢ ТИІМДІЛІГІН БАҒАЛАУДЫҢ ӘДІСТЕМЕЛІК ТӘСІЛДЕРІ

Аннотация. Мақалада автор интеграциялық бірлестіктердің тиімділігін оларды реттеу форматы мен түрлеріне байланыссыз бағалаудың бірегей тәсілін құрастыруға талпыныс жасаған. Осы мақсатқа жету үшін қолданыстағы тәсілдер талданып, оның ішінде композиттік индекстер әдістері түбегейлі зерттелген. Автор осы әдістің мәнін ашып, олардың төрт түрінің айырмашылықтарын, артықшылықтары мен кемшіліктерін анықтаған. Композиттік индекстер әдістемесін қолдану барысында көрсеткіштердің агрегациясын қадағалаудағы шектеулер көрсетілген. Осы шектеулерді ескеретін аймақтық интеграцияның композиттік индексін қалыптастырудың үш баспалдақты әдісін қолдану ұсынылған. Композиттік индексті әзірлеудің маңызды кезеңі ретінде әр көрсеткіштің маңыздылығын (салмағын) анықтау белгіленген, олардың орташа мәндер әдісі, параметрлік және параметрлік емес әдістер арқылы есептелетіндігі көрсетілген. Осы әдістердің әрқайсысының ерекше сипаттары көрсетілген. Жүргізілген зерттеу нәтижелері интеграция тиімділігін бағалаудың композиттік индексін қалыптастырудың негізгі әдістемелік қағидаларын әзірлеуге мүмкіндік берген. Одан басқа, автор көрсеткіштерді агрегациялаудың осы жұмыста қарастырылған әдістерін бірге қолдануға болатындығы туралы ұйғарым жасаған және солай бола тұра, композиттік индексті құрастыруда ақпараттылық деңгейі ең жоғарғы әдіс ретінде негізгі компоненталар әдісін атаған.

Зерттеудің негізгі нәтижелері мен ұйғарымдары бірнеше интеграциялық бірлестіктердің тиімділігі мен деңгейін бағалау көрсеткіштерін өзара салыстыру барысында қолданысын табуы мүмкін.

Түйін сөздер: халықаралық интеграция, интеграциялық бірлестіктер, тиімділікті бағалау, интеграциялану деңгейі, композиттік индекс.

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МЕТОДИЧЕСКИЕ ПОДХОДЫ К ОЦЕНКЕ ЭФФЕКТИВНОСТИ МЕЖДУНАРОДНЫХ ИНТЕГРАЦИОННЫХ ОБЪЕДИНЕНИЙ

Аннотация. В статье автором осуществлена попытка построения единого подхода к измерению эффективности интеграционных объединений вне зависимости их форматов и видов. Для достижения этой цели были проанализированы существующие подходы, при этом к подробному анализ были подвержены методы композитных индексов. Автором раскрыта сущность данного метода, показаны их основные четыре подвида, выявлены их различия, преимущества и недостатки. Приведены ограничения при использовании методики композитных индексов в части соблюдения агрегации показателей. Предложено использование

трёхступенчатого метода построения композитного индекса региональной интеграции с учётом этих ограничений. В качестве важного этапа разработки композитного индекса указано определение значимости (веса) каждого показателя (подиндекса) которые могут быть определены посредством использования методов средних значений, параметрических и непараметрических методов. По каждому из этих методов приведены специфические характеристики, свойственные каждому из них. Результаты проведенного исследования позволили выработать основные методологические принципы формирования показателей композитного индекса оценки эффективности интеграции. Кроме того, автором обоснована возможность совместного использования рассмотренных в работе методов агрегации показателей, при этом выявлено, что композитный индекс с использованием метода главных компонент является самым информативным.

Основные результаты и выводы исследования могут быть применены в процессе измерения эффективности и уровня интегрированности интеграционных объединений для сопоставления и сравнения соответствующих показателей нескольких интеграционных объединений.

Ключевые слова: международная интеграция, интеграционные объединения, оценка эффективности, уровень интеграции, композитный индекс.

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INVESTMENTS IN TECHNOLOGIES OF THE AGRICULTURAL SECTOR

Abstract. The agricultural sector of Kazakhstan has enormous potential for further increase in production, provided that appropriate investments are attracted and advanced technologies and scientific achievements are introduced. The economic mechanism is a complex system, which in our understanding is considered as part of the economic mechanism and as a form of organizational and economic relations. Its essence is to establish optimal ratios of various methods and levers, including price and financial-credit mechanisms, insurance and taxes, budget support and investment in the agricultural sector.

Keywords: agriculture, technology, potential, investment, forecasting, business, sustainable development.

INTRODUCTION

In agriculture in Kazakhstan, there are such elements of the economic mechanism of state regulation as financial, credit and budget, tax, price, investment, etc., aimed at realizing both current and future tasks of the development of the agro-industrial complex. The point is their effective and targeted use and understanding that the standard of living of the rural population largely depends on the development of the agricultural economy. It is supposed to reliably ensure the food security of the country and to steadily develop the production potential of agriculture in real market conditions.

Borrowing funds for the implementation of economic activity may have different effectiveness, which depends on the rational formation of the structure of the sources used. In addition, managing under market conditions requires enterprises to be able to repay short-term debts at any time, that is, to be liquid.

MAIN PART

The situation that has developed in the republic's agriculture in the course of agrarian reforms makes it necessary to develop fundamentally new and clear approaches to financial and credit policy that correspond to the active role of the state in the economic regulation of agrarian and all agro-industrial production, taking into account regularities adequate to market economy. In this regard, maintaining solvency, liquidity and creditworthiness, carrying out bankruptcy proceedings, it is necessary to take into account that the ultimate goal of managing in the market is profit making, which would allow the enterprise to carry out expanded reproduction.

The American Investment Council (AIC) released its 2018 Q2 Industry Investment Report that shows private equity invested $99 billion into U.S. businesses in the first half of 2018. The top three sectors that received the most investment were Consumer Products and Services ($19 billion), Business Products and Services ($18 billion), and Information Technology ($18 billion).

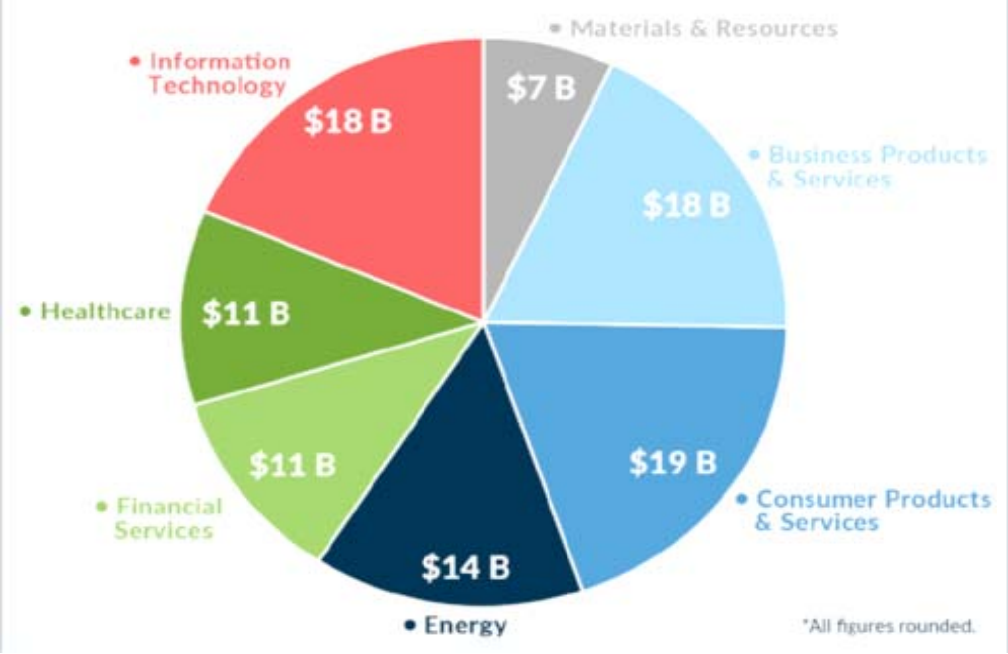

Figure 1 - The following are the total amounts that private equity invested per sector in the first half of 2018

AIC member Silver Lake Partners invested in the largest deal of the second quarter in its $3.5 billion acquisition of Blackhawk Network Holdings, a global financial technology company that operates a leading physical and digital gift card and prepaid payments network. AIC members GTCR, Clearlake Capital Group, and The Carlyle Group also invested in companies among the top three deals last quarter in IT and Materials & Resources.

The problem of sources of credit resources for agriculture requires a comprehensive solution, which is possible through the cooperation of agricultural producers through the centralized use of traditional domestic sources (land rent, insurance payments, free cash of the population). Due to these sources, annual accumulation in the republican budget and subsequent targeted use of credit resources for agricultural needs in the amount covering about half of the needs of agricultural producers is possible.

In conditions of multistructure agricultural production, small-scale rural entrepreneurship plays an increasingly important role, which includes peasant (farm) households, households, consumer cooperatives, without whose support it is impossible to achieve a revival of agriculture and an improvement in the life of the rural population.

1. Peasant farming allows its subjects to overcome and eliminate alienation from the means of production, to become their true master with the development of motivation for efficient work on the earth, and the organization of corporate governance allows to maintain this motivation and at the same time strengthen it through collective work aimed at combating market competition and to achieve an increase in the effectiveness of its results by combining all types of resources and accumulating their potential in larger volumes providing significantly greater opportunities for sustainable development in the production of agricultural formations, than it allows the small peasant production, operating in a market environment.

2. This provides the basis for the following conclusions:

3. 3. The agrarian sector of the Republic of Kazakhstan is slowly but dynamically starting to overcome the crisis situation of the reform period. Almost all sectors of the agro-industrial complex of Kazakhstan have found positive trends in their development.

4. 4. In the agricultural sector of Kazakhstan in the process of market reforms, the predominance of small-scale production has created. This requires a corresponding increase in production due to integrated processes that need to be developed among small agricultural businesses on the principles of rationality, reasonableness and efficiency in order to strengthen the financial, investment and factor-resource potential of domestic agricultural enterprises, capable of creating conditions for increasing the competitiveness of national agricultural products.

5. 5. Many problems of taxation should be considered when developing a stimulating fiscal policy. In particular, the tax base should be scientifically justified and take into account both differences in the resource supply of farms and territorial soil and climatic features, on which agricultural production productivity depends to a large extent, i.e. be differentiated by region of the republic.

6. Under the difficult climatic conditions of Kazakhstan, when some seasonal agricultural work needs to be done on strictly defined dates, renting is difficult, as similar work is being carried out simultaneously in all neighboring farms. In our opinion, it is necessary to develop a concept for conducting leasing operations as a form of subsidizing rural producers, raising their income level. The policy of leasing operations should be based on the principles of alternativeness, the possibility for the lessee to choose options for technical equipment from the proposed leasing packages.

To create an effective investment mechanism in the agricultural sector of the economy, it is necessary to significantly increase investment in fixed assets from all sources; to increase the share of own funds of agricultural enterprises in the total volume of capital investments; place public investments for production purposes on a competitive basis; expand the practice of public-private project financing; strengthen state control over the targeted spending of budgetary funds allocated for investments.

The intensification of investment in the agricultural sector will make it possible to modernize and technically re-equip agricultural enterprises, create the necessary conditions for the production of competitive products on the world market, integrate domestic agricultural production into the world, increase the employment rate of the rural population due to the growth of production capacities. The special importance of the agricultural sector for stimulating investment activity is due to the inter-industry relationship of the industry with the processing complex, as a result of which investments in their development create the greatest effect, stimulating demand for products and forming their own investment potential, the products of these sectors are characterized by massive and steady demand in domestic the market.

This direction of government policy contributes to the development of organizational and legal measures to open the sector to credit resources and foreign investment, to orient investment demand to domestic manufacturers of technological equipment.

Supporting innovation in the Republic of Kazakhstan is aimed at developing innovative potential, increasing the share of high-tech products in the structure of gross domestic product, facilitating the transition of the economy of the Republic of Kazakhstan to the path of innovative development based on the introduction and use of high technology. It is carried out by observing national interests in innovation, ensuring equality in obtaining state support, and taking comprehensive and systematic measures to ensure the constant interaction of its entities.

Organizational and legal problems are caused by the lack of an existing regulatory framework governing innovation policy. The Law of the Republic of Kazakhstan “On state support of innovation” contains the basic legal, economic and organizational provisions governing innovation. At the same time, issues of agrarian innovative development were not reflected either in agrarian (for example, the Law of the Republic of Kazakhstan “On state regulation of the development of the agro-industrial complex and rural territories), or in civil law.”

In addition, a system of institutional support for the implementation of innovations has not been formed. As noted in KazAgroInnovation JSC, the purpose of which is to increase the efficiency of managing the state’s scientific and technological assets in the agricultural sector, there is currently no single development strategy for agricultural science. This leads to the loss of the existing system of knowledge generation, ineffective tools for transferring knowledge to the real sector. Weak infrastructural development and an ineffective mechanism for transferring knowledge in rural areas indicate the underdevelopment of the innovative structure in agriculture.

The most important factor and tool for introducing innovations is information resources. Insufficient integration of participants and the level of information culture of consumers (scientific environment, producers, legal and financial structures, etc.) in the information space are the reason for the limited use of innovations and indicate inefficient management in this area [1].

Resource problems include a constant lag behind the standards of developed countries and low technological equipment of the industry against the backdrop of inefficient rural employment and a lack of financial resources even for reproduction. As a result, low labor productivity and innovative activity.

For the development of competitive agricultural production and food supply for the population of Kazakhstan, it is necessary to introduce an innovative mechanism by increasing investment in fixed assets in agriculture, namely:

• the acquisition of high-performance agricultural machinery that allows the introduction of advanced resource-saving technologies;

• construction of livestock complexes;

• acquisition of technological equipment and special equipment.

The Sybag program of preferential loans is aimed at the development of farming, which allows farmers to obtain loans according to the most simplified scheme at 6% per annum, providing livestock as collateral. It is aimed at conducting activities on expanded reproduction, pedigree transformation of the commodity herd. As part of the project, the mechanism for subsidizing pedigree farms is being reformed. If previously subsidies were directly received by pedigree farms, now their recipients are buyers of pedigree products - agricultural producers. A new subsidy mechanism increases the interest of breeding farms in improving the quality of pedigree goods.

Thus, the special importance of the agricultural sector for stimulating investment activity is due to the fact that, firstly, this industry has an intersectoral relationship with the processing complex, as a result of which investments in their development create the greatest cumulative effect, stimulating demand for products from related industries and forming they have their own investment potential, secondly, the products of these industries are characterized by massive and steady demand in the domestic market, and thirdly, most types of light and The abati industry is competitive not only in the domestic but also in the foreign market. To create an effective investment mechanism in the agricultural sector of the economy, it is necessary to significantly increase investment in fixed assets from all sources; consistently decentralize the investment process; to increase the share of own funds of agricultural enterprises in the total volume of capital investments; place public investments for production purposes on a competitive basis; to carry out return centralization of capital investments; expand the practice of public-private project financing; strengthen state control over the targeted spending of budgetary funds allocated for investments.

CONCLUSION

The priority direction of investment policy for the future should be support for investments in small and medium-sized enterprises. The intensification of investment activity in the agro-industrial complex will make it possible to modernize and technically re-equip agricultural enterprises, create the necessary conditions for the production of competitive products on the world market, integrate domestic agricultural production into the world, increase the level of employment of the rural population due to the growth of production capacities.

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АУЫЛШАРУАШЫЛЫҚ СЕКТОРЫНЫҢ ТЕХНОЛОГИЯЛАРЫНА ИНВЕСТИЦИЯЛАР

Аннотация. Қазақстанның аграрлық секторы тиісті инвестицияларды тарту және алдыңғы қатарлы технологиялар мен ғылыми жетістіктерді енгізу шартымен өндірісті одан әрі ұлғайту үшін үлкен әлеуетке ие. Экономикалық механизм - бұл біздің түсінігімізде экономикалық механизмнің бөлігі және ұйымдастыру-шылық-экономикалық қатынастардың бір түрі ретінде қарастырылатын күрделі жүйе. Оның мәні әр түрлі әдістер мен тетіктердің, оның ішінде баға мен қаржы-несие тетіктерінің, сақтандыру мен салықтардың, бюджеттік қолдау мен агроөнеркәсіптік кешенге инвестициялардың оңтайлы арақатынасын белгілеу болып табылады.

Түйін сөздер: ауыл шаруашылығы, технология, әлеует, инвестиция, болжам, бизнес, тұрақты даму.

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ИНВЕСТИЦИИ В ТЕХНОЛОГИИ СЕКТОРА АПК

Аннотация. Аграрный сектор Казахстана располагает огромными потенциальными возможностями для дальнейшего увеличения объемов производства при условии привлечения соответствующих инвестиций и внедрения передовых технологий и научных достижений. Экономический механизм представляет собой сложную систему, которая в нашем понимании рассматривается как часть хозяйственного механизма и как форма организационно-экономических отношений. Его сущность заключается в установлении оптимальных соотношений различных методов и рычагов, в том числе ценового и финансово-кредитного механизмов, системы страхования и налогов, бюджетной поддержки и инвестиций в АПК.

Ключевые слова: сельское хозяйство, технологии, потенциал, инвестиции, прогнозирование, бизнес, устойчивое развитие.

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ANALYSIS OF THE IMPACT OF THE DEVELOPMENT OF DIGITAL TECHNOLOGIES ON THE LABOR MARKET

Abstract. The relevance of this issue is determined by the need to create social and economic opportunities in the country for highly productive work of workers in the digital economy, their continuous development and professional realization, high incomes of digital knowledge and skills holders, and a decent standard of living for their households. This will create a competitive economy in the country with attractive conditions for life, work and employment, ensure the attractiveness of the image of Kazakhstan in the global digital economy, as well as its safety in the human dimension. The scientific idea is to form a single concept of orientation of a person, society, organizations in the professional division of labor, taking into account the interests of all subjects of social and labor relations, the prospects for the transformation of the world of professions and the labor market.

Keywords: digitalization technologies; labor market; industrial Revolution; technological structure; new forms of employment.

INTRODUCTION

Now the world is approaching a transition (leap) to a qualitatively new stage, on the basis of a new 6th technological structure, which is able not only to rebuild the entire lifestyle of a person, but also to fully expand its potentialities, being built into a new social structure. “The more we think about how to take advantage of the enormous advantages of the technological revolution, the more carefully we integrate ourselves into the basic social models that embody and create these technologies, the wider are our opportunities to shape this new revolution to make the world a better place.”

Thus, only a targeted increase in the specific gravity of the technologies of the sixth order creates an adequate technological platform that ensures a reduction in the resource consumption of production on the basis of an increase in its knowledge of capacity. The material basis of production is determined today, primarily by the level of technology. For the modern level of technology, when the 4th and 5th technological modes dominate in industry, the need arises for at least an active industrial policy and strategic planning within the framework of a market economy. This caused a mosaic of equipment and technologies used in the country's economy: it has all production options — from craft to high-tech, and therefore the employer's requests for staffing are equally different.

The third way is in the phase of stagnation, the fourth in maturity, and the fifth in the phase of intensive growth.

MAIN PART

The change in technological patterns causes changes in the institutional system of the country's economy, which ensure the development of engineering and technology of a new way. The result is its rapid expansion. It is finally changing the sectoral structure of the economy, becoming the basis and main factor of its growth. At the same time, the next technological order is emerging, and the substitution process is repeated on a different basis.

The technological structure (wave), in the opinion of the authors, is a combination of technologies characteristic of a certain stage in the development of productive forces. It is a system of interconnected industries (including technological chains dependent on each other) with an equal technological level.

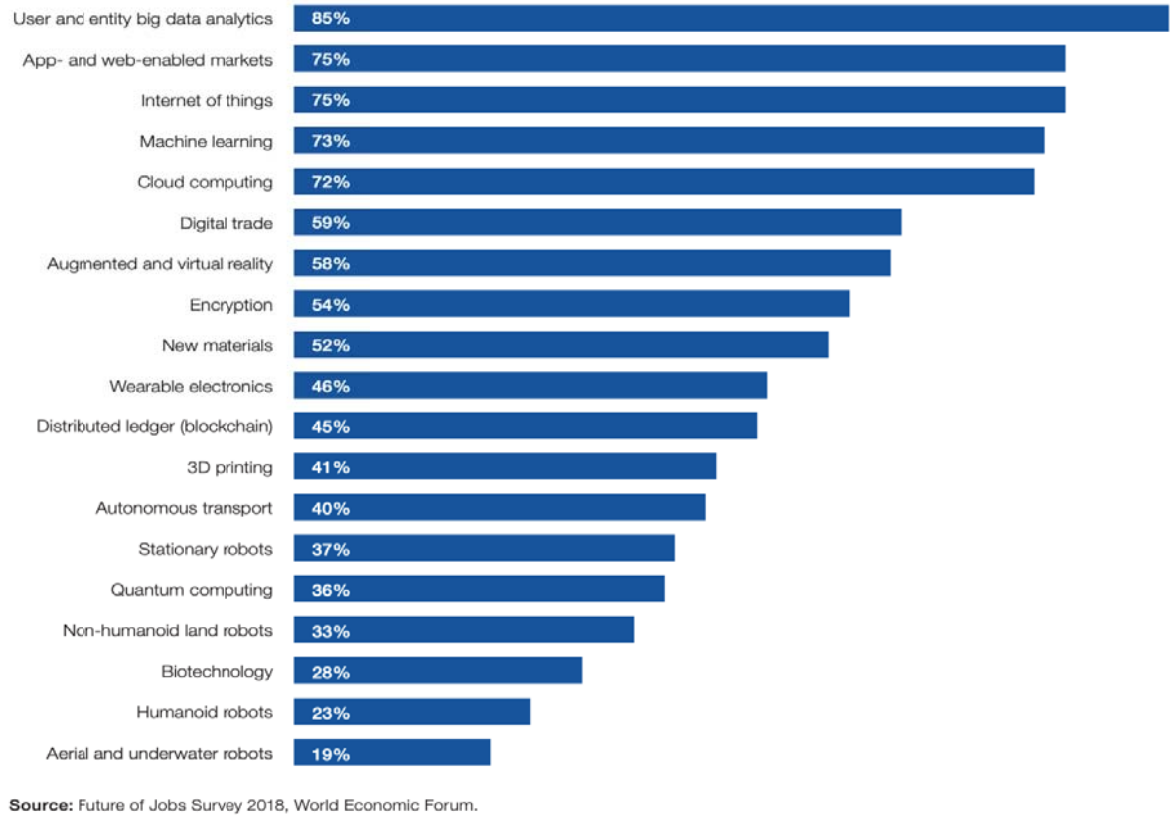

Figure 1 – Technologies by proportion of cjmpanies likely to adopt them by 2022 (projected)

At least 133 million new roles generated as a result of the new division of lab our between humans, machines and algorithms may emerge globally by 2022, according to the World Economic Forum. There will also be strong demand for technical skills like programming and app development, along with skills that computers can't easily master such as creative thinking, problem-solving and negotiating. A short-term solution to filling these skills gaps would be for companies to pay a premium to acquire talent with skills in demand. But even if they can find people with the right skills and are happy to bear the cost, it will not help in a few years time when those new skills are no longer needed.

Its core is a certain set of technologically related processes that are used (or characteristic in virtually all areas and sectors of the economy) for a fairly long time. The effectiveness of its functioning and the speed of transfer of new technologies depend on the degree of technological and economic connectedness of the links in the technological structure.

Now the necessary technological prerequisites are beginning to be created for the transition to a qualitatively new production and the satisfaction of human needs. The technological basis of the upcoming 4th industrial revolution is: robotization, additive technologies and digitalization. Basic research in this area is still not enough, although there are many populist publications

The robot today is becoming an active player in the labor market, making more and more noticeable competition to humans. Soon, robots will design and manufacture their own kind. Almost all the functions that a person can perform will be transferred to them, except for strategic, social and the sphere of creative thinking. According to Dell's research, while moving production to countries with a cheap economy can save up to 65% on labor costs, replacing workers with robots can reduce costs by 90%, that is, very soon, robotics can give businesses tangible benefits.

At the same time, they are called: information detectives - employees digging into the employer's data reserves and issuing recommendations for optimizing the business; managers of team interaction between people and machines - ensuring effective cooperation between people and computers; cyber city analysts - designed to ensure that the digital processes of municipalities function smoothly; genetic diversity inspector, virtual store guide, keeper of personal memories, etc.

The main question generated by automation is whether robots will compete with or help workers. Initially, people were afraid that robots would destroy jobs in the economy, but real practice and research by scientists have shown that those companies will benefit from robotics:

– correctly selected operations for robotization;

– improved the technologies and procedures for the selection and training of personnel, since people who have lost their jobs due to robotization are unlikely to take new jobs, as they require other skills and abilities that workers do not have;

– ensured the phased introduction of robots taking into account the time for retraining of employees.

In addition, in the long run, robots due to increased labor productivity will lead to an increase in real income per capita.

Speaking of competition between robots and humans, three possible options can be considered. According to the first - basic, robots compete with people in all types of work and operations, in the second - only in some of them and in the third - they displace low-skilled labor, but increase demand for specialists

The development of digital technologies, robotics and automation should become the basis for predicting the development of the division of labor and the transformation of professions, the content of labor. This, in turn, is the basis for predicting the development of the labor market and employment, hence the requirements for education and the formation of competencies.

From the perspective of practice, it is necessary to evaluate the effectiveness of the applied methods of career guidance and professional self-determination in terms of their compliance with the requirements of the industrial revolution, the prospects for the development of the labor market, forms of employment, etc. It can be noted that in recent years, spontaneously, obviously as an unconscious reaction to the challenges of practice, new one's career guidance methods, new actors. The projects "Quantorium" (centers for robotics and digital technologies) and "Sirius Centers" (centers for personal and professional development) can be called interesting. As a result, there are contradictions between them, inconsistency and multidirectional actions, duplication. Career guidance methods make little use of modern technology, which reduces the effectiveness of career guidance measures. 67% of applicants do not have a sustainable choice of profession and university, even if they participated in at least three career guidance events.

In addition, the existing career guidance systems are more focused on choosing a profession in accordance with the current abilities and preferences of the student (young people, less often the unemployed population). Labor market forecasts, changes in professions, and employment conditions are poorly taken into account. The forecast horizon does not exceed 5 years. Meanwhile, the system should not be based on existing abilities, but on potential, the horizon should be at least 10 years old, and not professional inclinations should be used, but competencies, including over-professional, cross-cutting ones. Almost completely there are no independent methods of career guidance (professional self-determination) for the employed population. Career planning systems are more focused on securing personnel in the organization, rather than on the free movement of people in the labor market, which creates personal and professional contradictions, and inhibits the development of the country's human resources. Therefore, it is necessary to develop a concept that allows overcoming these contradictions and form a unified theoretical base for building a modern perspective system of career guidance and professional self-determination, integrating the efforts of various actors to achieve common goals.

The scientific idea of this concept is to consider career guidance and professional self-determination as a mechanism that ensures unity and continuity of the process of reproduction of human resources from the position of a person choosing his path of professional development, which is due to the cross-cutting nature of changes in the technological, professional and functional division of labor under the influence of the principles of the fourth industrial revolution , the digital economy and the innovative nature of social and labor relations genius. The limitations of the existing approaches to career guidance and professional self-determination are related to the fact that they break the unified process of professional self-determination of a person during all labor activity into at least three parts:

- career guidance in the traditional sense as the choice of a profession by schoolchildren and youth. As part of this, we are talking about assessing our preferences and potential, about choosing an educational institution as a sphere of forming primary professional abilities and developing personal qualities, and about job opportunities. These aspects are limited to vocational education, vocational

training, vocational diagnostics (most often based on psychological testing), vocational counseling (mainly for schoolchildren and parents, less often for people changing their profession). This part to a greater extent reflects the interests of man (to find work in accordance with his abilities) and society (to provide the national economy with the necessary amount of human resources);

- regulation of the labor market in terms of the distribution of human resources by sectors of employment, forms of employment, between organizations (employment) and by levels and forms of training (education). To provide themselves with appropriate personnel, enterprises work with schoolchildren and students, hold job fairs, and form an appropriate HR-brand (the brand of the employer in the labor market). In this part, the issues of supply and demand of labor, the formation and return of human capital, forecasting employment, and the formation of competencies are included in the traditional career guidance;

- professional self-determination as a mechanism for planning professional activities, careers, career movements, development of competencies in the process of work. These issues are resolved within the framework of human resources management systems at the level of organizations, corporations and consulting services, business education. It should be noted that the positive aspects of career guidance (namely orientation, choice) are lost in these mechanisms, since the interests of organizations and business prevail and only the trends of "freedom of labor" persistently form the vector of the interests of the employee in this area.

In the digital economy, an employee can be employed remotely outside the territorial and country boundaries of the employer, wherever his competitiveness and working conditions allow, and, last but not least, an attractive income for him. The employee's social profile includes justification of the types of his employment and the principles and forms of organization on a flexible basis, but with observance of basic labor and social rights, as well as justification of the priority areas of his activity, professional and social status. The economic profile of the employee includes the justification of the size of his remuneration and social benefits that meet the requirements for maintaining and developing his competitiveness, including in comparison with foreign counterparts. The employee's economic profile in the digital economy should enable him to provide expanded reproduction and a decent standard of living for his family (household).

The subsystem of analysis and forecasting of the labor market, assuming:

- demographic monitoring and forecasting of demographic processes, including their migration component;

- analysis and forecast of the main parameters of the economic development of the region as a whole and its individual regions and republics in the context of the most important sectors of activity, the most labor-intensive enterprises, with an assessment of the extent of the possible release of workers;

- monitoring and forecasting structural changes in the economic complex of the region, trends in the redistribution of labor;

- analysis and forecast of the number of graduates of educational institutions that fall on the labor market;

- analysis and forecast of the number and composition of applicants for employment on employment issues;

- analysis and forecast of the number and composition of the unemployed;

- analysis and forecast of employment opportunities for the unemployed, taking into account the available vacancies;

- analysis and forecast of the possibilities of labor redistribution between regions and republics of the region, as well as labor migrations beyond its borders.

Subsystem for programming employment. This subsystem includes organizational procedures for the development of targeted comprehensive programs to promote employment in the region for short, medium and long term periods.

1. Assessment of the problem situation in the field of employment, the severity of the problems (the result of the functions of the 1st subsystem).

1. Setting goals, objectives.

2. The selection of priority areas of labor market regulation.

3. Formation of a bank-instrument of regulation (a set of principles, forms and methods of regulation).

4. Development of relevant measures, their ranking by implementation time, determination of resource sources and responsible persons (organizations).

III. Subsystem of labor market regulation. The subsystem includes procedures for making specific management decisions on implementing programs to promote employment in the region at various levels of government and administration:

- the level of republican and regional administrations, employment committees, centers, employment departments of the population of the republics and regions;
- the level of city and district administrations, employment services of cities and regions;
- level of enterprises (organizations, institutions);
- level of public organizations. Providing subsystems.

Scientific and methodological support, assuming:

- development of a methodology and methodology for analysis and forecasting of the labor market, programming of employment of the population of the Karaganda region and its regions;
- Conducting specific research on priority issues of ensuring employment, regulation of the labor market, the introduction of advanced organizational technologies in the activities of territorial employment services;
- scientific and methodological support for the development and implementation of programs to promote employment;
- scientific examination of the most important management decisions that have a comprehensive impact on processes in the field of employment in the region.

Information support assuming the presence of:

- an automated databank on the number, composition and location of vacant jobs;
- a databank on the number and composition of the unemployed working-age population who applied to the territorial employment services for help in finding employment;
- databank on public works;
- a databank of educational institutions providing training and retraining of personnel, including those from the unemployed (unemployed) population;
- a bank of statistical, reference, analytical materials, forecast calculations of the labor market, etc.

Of all the supporting subsystems, this subsystem of the mechanism for regulating the territorial labor market is the least developed. It seems advisable to create a working group of 3-5 people to develop draft legislative proposals, put forward legislative initiatives, prepare draft local regulations governing certain aspects of social and labor relations in territories subordinate to legislative bodies.

Resource support. The resource subsystem of the labor market regulation mechanism assumes the presence of the following main blocks:

1) staffing;
2) material and technical support;
3) financial security.

The functions of this subsystem are resource support for the implementation of programs to promote employment of the population, the functioning of the state employment service.

Despite the presence of most of the components, it will take time to debug and pair the individual subsystems of the mechanism for regulating the territorial labor market.

The mechanism of state regulation of the economy is constantly being improved, regardless of whether governments are guided by the monetarist principles of economic policy or are inclined to use more stringent budget regulatory tools. In modern conditions, the practice of state regulation of the economy has been successful enough to prevent general crises and socially dangerous scales of unemployment.

At present, the situation on the labor market is acquiring new features, and this is expressed in the following: firstly, long-term hidden unemployment, which is accompanied by a consequent shortage of labor, continues, and secondly, there are significant disruptions in the reproduction of the vocational qualification structure of employed , i.e. the natural retirement of older workers in many vocational qualification groups is not being made up, primarily due to graduates of educational institutions, which jeopardizes the development of sectors of the national economy and leads to serious problems.

CONCLUSION

Thus, the scientific idea is to form a single concept of orientation of a person, society, organizations in the professional division of labor, taking into account the interests of all subjects of social and labor relations, the prospects for the transformation of the world of professions and the labor market. Unfortunately, there is no single universal solution that would allow enterprises to focus on the future of their employees. Nevertheless, thanks to the priorities of continuing education, retraining and retention of employees, as well as the release of resources necessary to create a culture of continuous learning, enterprises will have every opportunity to prosper in the framework of the Fourth Industrial Revolution.

УДК 338.2

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САНДЫҚ ТЕХНОЛОГИЯЛАР ДАМУЫНЫҢ ЕҢБЕК НАРЫҒЫНА ӘСЕРІН ТАЛДАУ

Аннотация. Бұл мәселенің өзектілігі цифрлық экономика саласындағы жұмысшылардың жоғары өнімді жұмысы үшін олардың әлеуметтік-экономикалық мүмкіндіктерін құру қажеттілігімен, олардың үздіксіз дамуы мен кәсіптік іске асырылуымен, цифрлық білім мен дағдылардың иегерлерінің жоғары табыстарымен және үй шаруашылықтары үшін лайықты өмір сүру деңгейімен байланысты. Бұл өмір, жұмыс және жұмыспен қамту үшін тартымды жағдайлары бар елде бәсекеге қабілетті экономика құруға мүмкіндік береді, жаһандық цифрлық экономикадағы Қазақстанның имиджінің тартымдылығын, сонымен қатар оның адами өлшемдегі қауіпсіздігін қамтамасыз етеді. Ғылыми идея - бұл әлеуметтік, еңбек қатынастарының барлық субъектілерінің мүдделерін, кәсіптер әлемі мен еңбек нарығын қайта құру перспективаларын ескере отырып, адамның, қоғамның, ұйымдардың кәсіби еңбек бөлінісіндегі бағдарлануының біртұтас тұжырымдамасын қалыптастыру.

Түйін сөздер: цифрландыру технология; еңбек базары; өнеркәсіптік революция; технологиялық құрылым; жұмыспен қамтудың жаңа нысандары.

УДК 338.2

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АНАЛИЗ ВЛИЯНИЯ РАЗВИТИЯ ЦИФРОВЫХ ТЕХНОЛОГИЙ НА РЫНОК ТРУДА

Аннотация. Актуальность данной проблематики определяется необходимостью создания в стране социальных и экономических возможностей для высокопроизводительного труда работников в цифровой экономике, их постоянного развития и профессиональной реализации, высоких доходов носителей цифровых знаний и навыков, достойного уровня жизни их домохозяйств. Это позволит создать в стране конкурентоспособную экономику с привлекательными условиями для жизни, труда и занятости населения, обеспечить привлекательность образа РК в глобальной цифровой экономике, а также ее безопасность в человеческом измерении. Научная идея заключается в том, чтобы сформировать единую концепцию ориентации человека, общества, организаций в профессиональном разделении труда с учетом интересов всех субъектов социально-трудовых отношений, перспектив трансформации мира профессий и рынка труда.

Ключевые слова: цифровизация; технологии; рынок труда; промышленная революция; технологический уклад; новые формы занятости.

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ANALYSIS OF THE PRICE-MECHANISM ON THE OIL MARKET OF KAZAKHSTAN

Abstract. The oil industry of Kazakhstan is not only the most important industry, it is one of the main components of the economic security of the country, its independence. Tax revenues from the development of oil fields and the sale of oil allow for the implementation of social programs and strengthen domestic political stability. Oil export from Kazakhstan is the most important factor in expanding world economic relations, including the country in globalization processes, and implementing not only economic interests, but also political goals. The choice of the route for export oil pipelines will largely determine Kazakhstan's foreign policy and foreign economic strategy.

Keywords: oil, pricing, market, mechanism, investment, globalization.

INTRODUCTION

In international cooperation to strengthen its position in world oil markets, Kazakhstan focuses on strengthening ties with industrialized countries, as well as with Russia and China. Efforts are being made to expand cooperation within the framework of the Commonwealth of Independent States. However, the possibilities of such cooperation are realized only to a small extent. The development of the oil industry in Kazakhstan is hampered by the lack of necessary own investments for the exploration, production, refining and transportation of oil, as well as the lack of the latest equipment, technologies, know-how, and modern management experience. Foreign companies express a high degree of interest in investing in the oil industry, giving it priority over other industries. At the same time, despite the signing of a large number of contracts in the field of geological exploration and oil production, until recently this did not lead to the inflow of the required amount of foreign capital and the opening of industrial reserves, and there was no expected increase in oil production and refining.

MAIN PART

One of the important factors holding back the inflow of foreign capital and the development of the oil industry in Kazakhstan is the lack of capacity for exporting oil from the country. Kazakhstan is not yet provided with sufficient transport routes. This slows down the process of final selection by potential foreign investors in favor of Kazakhstani projects. In the future, it is planned to optimize and diversify export routes in relation to the situation on world hydrocarbon markets. The implementation of decisions on the construction of pipelines can significantly change the balance of power in the global oil market. The general approach to the formation of export routes is the multivariance of oil transportation to world markets, based on the geopolitical position of the country and the interests of its socio-economic development.

Kazakhstan uses Transneft pipelines and Russian sea terminals to export part of its oil. In this regard, one of the main issues is how much oil Kazakhstan will export and what proportion of export volumes will be transported through the Russian system.

As Kazakhstan grows economically, its own investment opportunities increase. Domestic investors, in accordance with national interests and without prejudice to the interests of foreign partners, are ready to channel their capital into the oil business.

The current state of the oil refining industry does not yet satisfy the needs of the domestic market for oil products. The performance of Kazakhstani refineries is significantly behind that of advanced oil refineries.

One of the main problems in the development of the oil product market in Kazakhstan

- low level of competitiveness of oil refineries.

The republic's refineries, built back in Soviet times, do not meet modern standards. The lack of high-tech production of petrochemical products after deep purification of hydrocarbon raw materials does not allow to establish the release of sufficient volumes of high-quality high-value-added products. Kazakhstan is significantly behind the developed countries in terms of oil refining depth. According to experts, the level of oil refining at the republican refineries is about 45-50%. For comparison: in the USA, Canada and Great Britain this indicator approaches 86-92%. At Kazakhstani refineries is very high.

The development of the oil complex and the increase in the export of liquid fuel is fraught with the threat of deepening the raw material orientation of the economy of Kazakhstan. It can turn into a raw materials appendage of industrialized countries with all the negative consequences of this state. To prevent the development of events in this scenario, it is necessary to diversify the country's economy and its exports. It is necessary to find growth points not only in the oil complex, but also in other sectors of the economy.

High dependence on hydrocarbon exports makes Kazakhstan's economy vulnerable. Effective protection of its national interests requires the development of a development strategy for the oil complex. First of all, it should be aimed at ensuring the economic security of the country and help strengthen its position in the world market.

The Government of the Republic of Kazakhstan, in order to resolve the problems associated with insufficient revenues to the state budget, as well as taking into account some structural and market aspects of supply and demand for domestic crude oil and petroleum products, a number of political decisions and regulatory acts were adopted. According to the decisions taken, restrictions on oil exports (which have already been lifted) and requirements on mandatory supplies of crude oil to Kazakhstani refineries were simultaneously established. Without sufficiently compelling reasons, tariffs for the transportation of crude oil through pipelines and rail were increased. A requirement was also established for investors to use Kazakhstani goods and services. However, such actions of the Government aimed at solving the above problems can lead to the opposite effect, leading to a decline in investment and a reduction in oil revenues to the state budget.

The problems of the oil industry under consideration are very complex and do not have a definite solution. Their presence is due to the imperfection of the legislative and regulatory framework currently undergoing reform, the existing tax system, and the presence of complex budgetary problems (including ongoing calls for subsidizing the agricultural sector and financing the activities of regional administrations, servicing external debt, reconstruction of infrastructure, and other social and sectoral obligations). In the absence of full transparency, any attempt on the part of the Government of Kazakhstan to address certain problems of the oil sector not in a complex, but in isolation, can lead to additional complications of the situation.

The very nature of the oil business is determined by the desire of oil companies for long-term investments in stable operations. First of all, their implementation takes into account the total cost of the project, the assessment of potential risks and the profitability of investments, in comparison with other investment opportunities. As a rule, coordinated, consistent and transparent government policies attract more investment. As a result, unemployment is reduced directly or indirectly, infrastructure is improving, tax revenues to the budget and other social benefits are growing. It should be recognized that the level of long-term investments largely depends on potential risks and state guarantees of stability, as well as on the existence of a regulatory regime that recognizes the inviolability of the contracts in accordance with which investments are made. In turn, oil companies must recognize that they are partners of the Government of Kazakhstan both under the contract and in their commercial relations, and must respect the political, economic, and social challenges that they face, especially in a difficult period for the country to transition to a market economy.

Therefore, oil companies need to be flexible and willing to cooperate in difficult situations that may require their immediate assistance and resources. Companies should also recognize their role as “corporate citizens”, with appropriate social responsibility, and invest (naturally, within reasonable limits) in profitable long-term projects and activities that enhance the welfare of the country and its population.

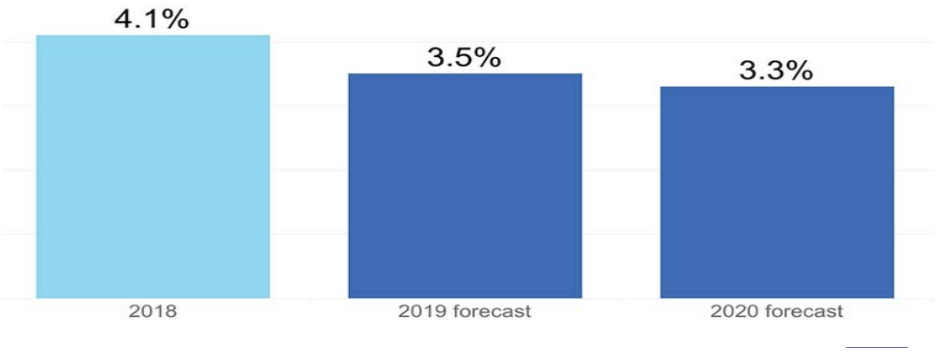

Figure 1 - Forecast of rising oil prices in Kazakhstan

As you can see, experts predict a decline in oil prices until 2020, which will negatively affect the country's economy.

This study provides a comparative analysis of operations, from oil production at the field to retail sales of oil products in Kazakhstan and other regions. The aim of the study is to find opportunities to improve the balance of the oil industry in the domestic market. The analysis process traces how fluctuations in world crude oil prices affect the mechanisms and individual segments of the oil sector in Kazakhstan.

Recommendations and alternative solutions of a structural and organizational nature:

• Establishment by an Edict of the President of the Republic of Kazakhstan of an Advisory Council on Oil and Gas, in which representatives of the Government and the industry participate, to consider structural, organizational, political and market initiatives.

• Creation of a comprehensive state monitoring system for tracking data on oil, gas and oil products, as well as revenues to the state budget from the oil and gas sector.

• A clear delineation of functions and the strengthening of government bodies responsible for implementing policies, regulation and commercial activities in the oil and gas sector.

• Strengthening the role of the Ministry of Energy, Industry and Trade in the implementation of public policy.

• Creation of an “independent” Regulatory Agency for Oil and Gas, within the exclusive competence of which is regulation of the industry.

• Limitation of liability of the National Oil and Gas Company KazakhOil and its branches solely by representing the commercial interests of the Government of Kazakhstan in carrying out oil and gas operations.

• Limitation of liability of the National Pipeline Oil Company KazTransOil and its branches engaged in the transportation of oil, exclusively representing the commercial interests of the Government of Kazakhstan in the transportation of oil through pipelines.

• Establishment of tariffs for oil transportation in accordance with the methodology based on reimbursement of reasonable costs and ensuring a fair rate of profit, and their approval using the public hearing procedure.

The government recognises FDI is essential to promote economic diversification and the modernisation is key industries, such as oil and gas, and there is, therefore, a well-developed investment promotion strategy and an associated incentive programme in place to encourage FDI. The government organisation 'KAZNEX Invest', operating under the Ministry of Investment and Development, offers support, advice and information to foreign investors through its online portal, Invest in Kazakhstan. The website also details the country's investment incentive programme. Investors in any industry may receive exemption from customs duties on raw materials and production equipment, as well as grants of up to 30% of the value of fixed assets.

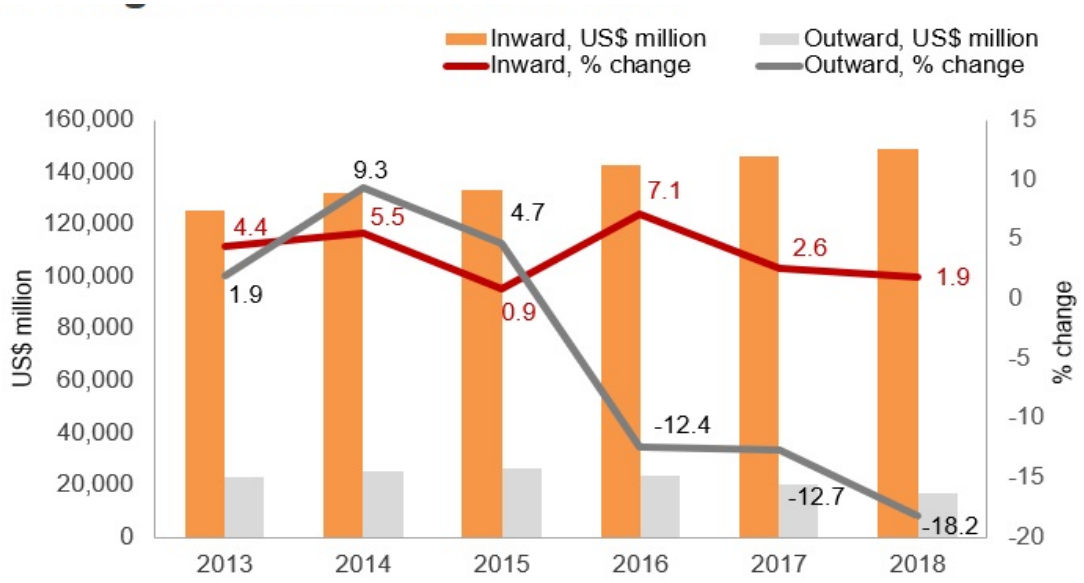

Figure 2 - Foreign direct investment in the oil sector of Kazakhstan

Одной из целей этого исследования была попытка «определить осно obvious reasons for chronic imbalances in the supply of crude oil and petroleum products to the domestic market. ” The study was conducted on the following, the most important problems and imbalances that continue to restrain the development of the oil sector in Kazakhstan.

• Regional geoeconomics and geopolitics in the oil sector in terms of excess refining capacities and production of petroleum products. Oil refineries in Central Asia, Azerbaijan, Western Siberia and Western China operate at approximately 50% of their design capacity, which is why they are able to satisfy and even exceed market demand in the region. Neighboring countries, due to differences in laws and regulations, in economic conditions, in subsidy regimes and taxation policies, are able to sell petroleum products imported to Kazakhstan at reduced prices.

• The presence of complex problems affecting the management and operation of Kazakhstani refineries. There are certain political and economic factors that create problems for the operations of Kazakhstani refineries. These factors include government subsidization policies, problems of general non-payments, the presence of excess production capacities in the region, the import of cheap or smuggled oil products, constant changes in the ownership and management of oil refineries, the inability of oil refineries to pay competitive market prices for crude oil, problems of monopolistic practices, and a number of others problems.

• Obtaining clear advantages for Russia in bilateral intergovernmental agreements on crude oil. This is likely due to the allocation by Russia of pipeline quotas to Kazakhstan. Bilateral intergovernmental agreements on crude oil provide for a 7.3% gain by Russia when replacing West Kazakhstan crude with West Siberian crude oil, delivered to the Pavlodar refinery. Another factor explaining such an unbalanced interchange mechanism is the opinion that Kazakhstani crude oil is of lower quality. The Kazakhstani oil companies that are participating in this interchange mechanism are concerned about the loss of revenue due to these bilateral intergovernmental agreements.

• The influx of contraband oil products to Kazakhstan, as well as the supply of oil products at low prices. According to some unofficial estimates, the volume of imports of gasoline and diesel fuel to Kazakhstan in the smuggled manner and at clearly lower prices is 50% of the total sales volume of products on the wholesale market. The Government of Kazakhstan responded to the situation by adopting Decree No. 339 “On the Program for Strengthening State Regulation of the Turnover of Petroleum Products in the Republic of Kazakhstan”. Such a program, if properly implemented, could solve many problems of the refining, marketing, and marketing of petroleum products in the domestic market.

Taking into account the comparative analysis, problems and imbalances affecting the domestic oil sector, this study concludes that it is necessary to create a more rational state organizational structure with a clear delineation of the functions of conducting policy, regulating and conducting commercial activities in the oil and gas sector. This would serve the interests of both the industry and the state as a whole.

In addition, the study concluded that it was necessary to revise the issues of oil supply and demand economies on a national scale in order to gain a better understanding of the production and financial needs of the industry. In particular, this concerns issues of the interdependence of exploration, development and operation of fields and operations on the processing, sale and marketing of oil and petroleum products, which will ensure their mutual effectiveness for the long term. This is crucial for overcoming the practice of the Government of the Republic of Kazakhstan taking short-term or temporary measures aimed at solving specific problems, instead of making comprehensive long-term decisions.

CONCLUSION

When considering issues related to the oil industry, it is important to recognize that there are unequal conditions for private companies, founded, as a rule, through foreign investment, and state-owned companies that are supported by the Government and are not subject to commercial risks. Despite the fact that there may be a need for different approaches to the activities of private and state-owned companies, nevertheless, the principles of balance, objectivity and justice should be respected in relation to all economic entities of the oil industry, regardless of ownership. In addition, it is necessary to develop a unified system for collecting data on prices for crude oil and petroleum products and budget revenues, as well as to improve the system for tracking and monitoring such prices and revenues. The availability of more consistent and reliable data would improve the quality of economic planning and political impact for a more focused solution to the problem of revenue to the state budget. The logical conclusion to the above is the conclusion about the need for closer cooperation between the Government of Kazakhstan and oil companies in the development and implementation of a policy for the development of the oil sector.

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ҚАЗАҚСТАННЫҢ МҰНАЙ НАРЫҒЫНДАҒЫ БАҒА-МЕХАНИЗМ ТАЛДАУ

Аннотация. Қазақстанның мұнай өнеркәсібі - бұл ең маңызды сала ғана емес, ол елдің экономикалық қауіпсіздігінің, тәуелсіздігінің маңызды құрамдас бөліктерінің бірі. Мұнай кен орындарын игеруден және мұнай сатудан түскен салық түсімдері әлеуметтік бағдарламаларды жүзеге асыруға және ішкі саяси тұрақтылықты нығайтуға мүмкіндік береді. Қазақстаннан мұнай экспорты жаһандану процестерінде және экономикалық мүдделерді ғана емес, сонымен бірге саяси мақсаттарды іске асырумен қатар, әлемдік экономикалық қатынастарды кеңейтудің маңызды факторы болып табылады. Экспорттық мұнай құбырлары бағытын таңдау көбінесе Қазақстанның сыртқы саясаты мен сыртқы экономикалық стратегиясын анықтайды.

Түйін сөздер: мұнай, баға, нарық, механизм, инвестиция, жаһандану

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АНАЛИЗ МЕХАНИЗМА ЦЕНООБРАЗОВАНИЯ НА РЫНКЕ НЕФТИ КАЗАХСТАНА

Аннотация. Нефтяная промышленность Казахстана не только важнейшая отрасль промышленности, она является одной из главных составляющих экономической безопасности страны, её независимости.

Налоговые поступления от разработки нефтяных месторождений и продажи нефти позволяют осуществлять социальные программы, укреплять внутриполитическую стабильность. Экспорт нефти из Казахстана - важнейший фактор расширения мирохозяйственных связей, включения страны в глобализационные процессы, реализации не только экономических интересов, но и достижения политических целей. Выбор пути экспортных нефтепроводов во многом будет определять внешнеполитическую и внешнеэкономическую стратегию Казахстана.

Ключевые слова: нефть, ценообразование, рынок, механизм, инвестиции, глобализация.

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ANALYSIS OF THE FOREIGN EXPERIENCE OF THE DEVELOPMENT OF SMALL AND MEDIUM BUSINESSES IN AGRICULTURAL COMPLEXES AND THE POSSIBILITY OF ITS APPLICATION IN SME IN THE APK OF KAZAKHSTAN

Abstract. Small and medium-sized businesses play an important role in any country: it provides employment, generates healthy competition, saturates the market with new goods and services, and provides for the needs of large enterprises. Medium-sized business is a segment of entrepreneurship that has a significant impact on the development of national markets in the world, linking large businesses, small enterprises and consumers. Medium-sized businesses are characterized by such features as a high share in the economy, leadership in innovation, focus on domestic markets, flexibility and, at the same time, scale, limitation in number and revenue, and government support. Medium business is the backbone of the economy of any developed country as it creates jobs, produces new types of goods and creates the preconditions for the development of healthy competition.

Keywords: agriculture, state support, state functions, integration.

In the Republic, many concrete measures are being taken to develop small and medium-sized enterprises. The number of permits is being reduced, a reduction is being made in the circle of entities whose activities are subject to licensing as part of activities in the field of environmental protection and agriculture. In order to reduce time costs, simplification of licensing procedures is provided. Extending the principle of “one window” to all government agencies will significantly accelerate the passage of all documents. The new bill also introduces such rules as the mandatory verification of documents for completeness within 2 days, the exclusion of the mandatory notarization of documents submitted. In cases where the state agency fails to submit a reasoned refusal within the established time period, an authorization document shall be deemed issued. The implementation of these standards will certainly contribute to the revitalization of business in the country, the development of entrepreneurship.

Efforts are also being made to develop the institutional environment of the business. In particular, aimed at improving the mechanisms of interaction between state and regional bodies with business. The thing, however, is that at present there is no unified information system that would provide the most relevant information on activities in the field of small and medium-sized businesses. And this is also a limiting factor for the development of the business sector in the republic. In this regard, one of the main tasks should be the establishment of a branched sieve for the provision of information and advisory assistance to SMEs.

Since the development of SMEs largely depends on access to material resources and service infrastructure, ensuring conditions for free access of SMEs to resources becomes a determining factor in the implementation of modernization of the economy. In parallel with this, business incubators should be developed and the selection system for SMEs to be placed in them should be improved. For this, it is necessary to move away from the current model of development of business incubators as platforms for the development of simple business forms. The modern model of business incubators should be integrated with the system of technology parks and universities.

Particular attention should be paid to the development of interaction between the SME sector and large business. The solution to this problem involves not only leasing SMEs of unused areas of large enterprises and organizing the production of high value added products by SMEs. The essence of solving

the problem of interaction between small, medium and large businesses is associated with the creation of cluster-network structures of SMEs operating around large enterprises based on subcontracting and outsourcing. One of the main problems of SMEs is the lack of demand for their products. This is especially true for economies with a low income level, which determines a high degree of homogeneity of market demand and, as a result, limits the opportunities for small businesses to strengthen and grow. What is being done in developed countries in terms of the development of SMEs, we consider in table 1.

Table 1 - State policy to support SMEs in terms of increasing the availability of financing

Government support measures for the SME sector	A country
Increased support in the form of guarantees for loans to SMEs; Implementation of a policy for smoothing industry cycles	Canada, Chile, Denmark, Finland, Hungary, Italy, Korea, Netherlands, Slovakia, Slovenia, Spain, Switzerland, Thailand, United Kingdom, United States, Spain
Providing special conditions for guarantees for startups	Canada, Denmark, Netherlands
Increased government guarantees for export operations	Canada, Denmark, Finland, Netherlands, New Zealand, Sweden, Switzerland, Spain, United Kingdom
State co-financing (including through pension funds)	Switzerland, Ireland, Denmark
Increase in the share of direct financing of SMEs	Canada, Chile, Hungary, South Korea, Serbia, Slovenia, Spain
Interest rate subsidies	Hungary, Portugal, Russia
tax breaks, deferred payments	France, Ireland, Italy, New Zealand, Spain, United Kingdom, Russia
Banks specialized in lending to SMEs: negative discount rate	Ireland, Denmark
Central Bank Funding of Credit Organizations	United Kingdom
Creation of an infrastructure to support small innovative businesses	Australia, Austria, Israel, India, Indonesia, Canada, USA, Thailand, Finland, France, Czech Republic, Switzerland, Japan
Small business support programs based on a cluster-network approach	Belgium, Brazil, United Kingdom, Germany, Denmark, Italy, Mexico, Republic of Korea, USA, France, Chile, Japan
State order to small firms for the implementation of innovative projects or the provision of scientific and technical services	Great Britain, Denmark, Israel, New Zealand, USA, Finland, France

In this regard, the state should pay attention not only to providing access to the markets, but also to the development of the markets themselves, where the most important factor is improving the welfare of the population.

The work on the development of the principles of self-government in the business environment should be intensified. Currently, Kazakhstan has a large number of organizations supporting SMEs. These are both state and public organizations. However, at the same time, there is no single body directly responsible for coordinating their work and the quality implementation of SME support programs. Meanwhile, the experience of many countries shows that the most effective state policy for supporting and developing SMEs can be implemented through a specialized government body that has sufficient resource capabilities and powers.

Therefore, in order to institutionalize strengthening the SME support system, it would be advisable to transform it into an independent state body - the Agency, whose mission should be to increase the share of small and medium enterprises in the real sector, diversify their activities and increase innovative activity.

In agricultural production in Kazakhstan, a preferential tax system for producers is operating. For legal entities (production cooperatives, partnerships), the patent tax system - corporate income tax, value added tax, social tax, land tax, fees for the use of land, vehicles, property taxes, calculated in the generally established manner, are reduced by 70%.

Peasant farms pay a single land tax instead of all types of taxes in the amount of 0.1% of the value of the land.

Social tax is calculated at a rate of 20% of the monthly calculated indicator for each employee established for the financial year.

The use of the patent system of taxation for legal entities with generally established norms in Kazakhstan makes it possible to reduce the amount of taxes by 2 times, the single land tax for peasant farms - by 3 times.

The main factors of state financial support are direct and indirect state subsidies. The first includes direct government compensation payments, payments for damage caused by natural disasters, for damage associated with the reorganization of production (payments for the conservation of sown areas, etc.). Indirect state support includes supporting domestic prices for agricultural products; setting quotas, tariffs, taxes on export and import of food; compensation for the acquisition of capital goods; the provision of subsidies for the purchase of fertilizers, pesticides and feed; payment of interest on loans and insurance; subsidies for the storage of products and transport work on the transportation of products, the construction of industrial premises, the implementation of irrigation projects, land restoration, the creation of farmers associations.

The main problems holding back the development of small and medium-sized agricultural enterprises in the regions are:

1) structural imbalance in the development of small and medium enterprises by type of economic activity: at present, the vast majority of small enterprises are concentrated in trade;

2) the imperfection of the regulatory framework of existing federal and regional state programs to support small and medium-sized enterprises of the agro-industrial complex;

3) insufficient support for small and medium enterprises in the field of innovation and modernization of the agricultural sector;

4) conditions of a bank loan unacceptable for most small and medium enterprises in the agro-industrial complex;

5) lack of qualified personnel in the small business of agribusiness;

6) lack of infrastructure and a developed system of support for small and medium-sized enterprises in municipalities;

7) significant costs associated with certification of manufactured and developed products, patenting of inventions, as well as state registration of other results of intellectual activity.

Direct and indirect subsidies are widespread in developed countries, for example, agricultural support in Japan is 49%, Canada - 45%, USA - 30%, Belarus - 18.1%, Russia - 7.2%, Kazakhstan - 2.5%.

According to the study, a 50% increase in the US agricultural economy is provided by government funding of science. Here, 30% more is invested in the development of agricultural production per unit of output than in other sectors. About 60% of all budget funds for agriculture are directed to income stabilization

Small Business Support in Japan

Particularly interesting in the field of construction of the PMP infrastructure is the study of Japan's experience in creating a nationwide enterprise support system (see figure 3 on page 40). All Japanese PMP structures are coordinated by the independent Organization for SME Support and Innovative Development of the Regions of Japan (Organization for SME and Regional Innovation of Japan) form the state enterprise support infrastructure.

One of the main tasks of the small business support system in developed countries is to represent and protect the interests and needs of small businesses at various levels.

The modern system of state support for small and medium enterprises in China includes the following elements:

- Creation of a special state fund to support small and medium enterprises;
- Establishment of a preferential tax regime for small and medium enterprises;
- implementation of financial and credit support;
- ensuring access for small and medium-sized businesses to receive government orders;
- the use of other measures of a stimulating nature.

Each of these elements has certain characteristics and purpose.

Thus, the funds of the Small and Medium-sized Enterprises Support Fund are allocated for organizing consultative and legal services, creating and supporting a guarantee and subsidizing system for lending, supporting innovative activities of SMEs, encouraging the specialization and cooperation of SMEs with large companies, and training qualified managers and specialists for small and medium enterprises, support of their foreign trade activities, development of environmentally friendly industries.

Tax incentives for small and medium enterprises in China are concentrated in the field of large, high-income taxes [13]: corporate income tax, value added tax, business tax and sales tax.

The system of financial and credit support for small and medium enterprises in China is still in its initial stages and has not yet reached the level of developed countries. An important role is played by the China Development Bank, which is subordinate to the Government of the PRC. This development bank provides, among other things, direct lending to SMEs. However, a prerequisite is the availability of guarantees from local administrations. Nevertheless, lending to SMEs is not yet sufficiently developed. This is evidenced by the following facts: the share of small business in the total volume of loans issued by credit institutions in China is less than 20%; more than 60% of all small enterprises with an international credit rating are classified as BBB.

In India, since 2015, the Interest Equalization Scheme, which provides for 3% compensation for exporters of certain goods (416 tariff lines), has been operating for small and medium-sized enterprises in India.

To reduce the duration and cost of customs clearance, reduce transaction costs and eliminate bureaucratic barriers to trade, the Indian government is improving the system of "one-stop shop" and "electronic document management".

An important role in supporting Indian exports is played by the Export Credit Guarantee Corporation of India Ltd. (ECGC), which provides Indian exporters with various types of insurance cover against the risk of non-receipt of export earnings for a number of commercial or political reasons, as well as guarantees to banks and other financial institutions that provide loans to exporters on favorable terms. The corporation accounts for more than 90% of the Indian market for credit insurance services to exporters. The Government of India takes various measures to ensure favorable conditions for doing business for foreign investors, and pursues a policy of attracting foreign investment and technology to the country.

In Indonesia, the central administrative body, as a rule, has an extensive network of field offices and the entire administrative system is backed up by a significant number of institutions supporting SMEs at the state or public level. This includes a large number of institutions and organizations from chambers of commerce to associations of entrepreneurs, exporters, industry groups, etc. for example, in developed Asian countries, the share of SMEs in GDP reaches: in Japan - 52%, the Republic of Korea - 44%, and in developing countries - Indonesia - 30%, Myanmar - 71%.

The results of numerous studies suggest that Brazil has nevertheless become a country of entrepreneurs. In Brazil, an effective system for supporting and developing small business exists and is constantly being improved. A legislative framework has been created for the functioning of this sector of the economy; there is a structure to fulfill his needs - Brazilian Small Business Support Service (SEBRAE); the mechanism of stimulating entry into the foreign market is being formed. The Brazilian leadership pays constant attention to improving the legal framework for small business: in recent years, laws and regulations have been adopted to simplify and expedite the registration of small businesses; on the creation of funds for their soft loans; to simplify and reduce taxation; on the formation of a structure that organizes the entry of small enterprises into the foreign market. The analysis shows that the main factors in the rapid development of the private sector are, on the one hand, the desire of citizens to open their own economy, company or bureau and conduct an independent business on the basis of free market rules. On the other hand, the active privatization of state property, which entailed a sharp reduction in the number of jobs in large plants and factories, also had an impact on the increase in the number of small enterprises. The legislative framework, financial and fiscal rules for organizing a business, and increasing competition have led to the fact that up to 15% of newly created enterprises were not fixed on the market and went bankrupt. However, ongoing small business support programs aimed at tax cuts, investment assistance, lower rents, etc., allowed private firms to develop production and work confidently in the Brazilian market for goods and services.

The specifics of agribusiness in Nigeria is especially true for innovations in organization and technologies, since the latter are not distributed among several companies with their own technologists, but should reach thousands of commodity producers (small enterprises account for more than 80% of Nigeria's agribusiness) [3]. Moreover, any innovations require their adaptation to various agro-climatic conditions of the regions and often to the equipment and intellectual features of each company [4]. These circumstances necessitate the formation of information and consulting services (ICS) and management companies (UK) for organizational assistance to rural producers and modernization of the agro-industrial complex.

The development of agro-industrial complex in Nigeria requires the identification of “growth points” to form a new level of quality of life in rural areas. The development and testing of organizational and social innovations, including the introduction of ICS and management companies, leads to the creation of the concept of a “new village”. It is presented in the form of an agricultural-territorial cluster, working on the principle of "from the field and farm to the counter."

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АУЫЛШАРУАШЫЛЫҚ КОМПЛЕКТІЛЕРДЕГІ ШАҒЫН ЖӘНЕ ОРТА БИЗНЕСТІ ДАМЫТУДЫҢ ШЕТЕЛДІК ТӘЖІРИБЕСІН ТАЛДАУ ЖӘНЕ ОНЫҢ ҚАЗАҚСТАН ҚАЛАСЫНДАҒЫ ШОКСЫНДА ШЫҒЫС ҚОЛДАНЫЛУЫ МҮМКІНДІГІН ТАЛДАУ

Аннотация. Шағын және орта бизнес кез-келген елде маңызды рөл атқарады: ол жұмыспен қамтамасыз етеді, салауатты бәсекелестік туғызады, нарықты жаңа тауарлармен және қызметтермен қанықтырады және ірі кәсіпорындардың қажеттіліктерін қамтамасыз етеді. Орта бизнес – бұл әлемдегі ұлттық нарықтардың дамуына үлкен әсер ететін, ірі бизнес, шағын кәсіпорындар мен тұтынушыларды байланыстыратын кәсіпкерлік сегменті. Орта бизнес экономикадағы жоғары үлес, инновациялар саласындағы көшбасшылық, ішкі нарыққа бағдарлану, икемділік және сонымен қатар масштаб, сан мен кірісті шектеу, мемлекеттік қолдау сияқты ерекшеліктермен сипатталады. Орта бизнес кез-келген дамыған ел экономикасының тірегі болып табылады, өйткені ол жұмыс орындарын ашады, тауарлардың жаңа түрлерін шығарады және салауатты бәсекелестікті дамыту үшін алғы шарттар жасайды.

Түйін сөздер: ауылшаруашылығы, мемлекеттік қолдау, мемлекеттік функциялар, интеграция.

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АНАЛИЗ ЗАРУБЕЖНОГО ОПЫТА РАЗВИТИЯ МАЛОГО И СРЕДНЕГО БИЗНЕСА В АГРОПРОМЫШЛЕННЫХ КОМПЛЕКСАХ И ВОЗМОЖНОСТЬ ЕГО ПРИМЕНЕНИЯ В МСБ В АПК КАЗАХСТАН

Аннотация. Малый и средний бизнес играет важную роль в любой стране: он обеспечивает занятость населения, порождает здоровую конкуренцию, насыщает рынок новыми товарами и услугами и обеспечивает нужды крупных предприятий. Средний бизнес - это сегмент предпринимательства, который оказывает существенное влияние на развитие национальных рынков в мире, связывает между собой крупный бизнес, малые предприятия и потребителя. Средний бизнес характеризуется такими особенностями как высокая доля в экономике, лидерство в инновациях, сосредоточение на внутренних рынках, гибкость и, вместе с тем, масштабность, ограничение по численности и выручке, государственная поддержка. Средний бизнес является опорой экономики любой развитой страны так как создает рабочие места, выпускает новые виды товаров и создает предпосылки для развития здоровой конкуренции.

Ключевые слова: сельское хозяйство, государственная поддержка, функции государства, интеграция

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FINANCIAL ANALYSIS AND ITS DEFINITION

Abstract. This article is devoted to explanation of financial analysis as a concept, including its methodology and all topics related to this problematics. The findings will subsequently be used for the creation of the actual financial analysis of the selected company. Where financial analysis is determined, explains various approaches to this problem, identifies individual users of financial analysis, as well as sources of information for its creation. It also describes the methodology of a specific approach to financial analysis. Thus, the main attention is paid to the explanation and interpretation of all individual indicators and possible procedures in their formation. The article also contains information about the main characteristics of the selected company and industry and gives the reader an idea of how this company works. Based on the presented financial statements for the past five years, the company will be subjected to analysis of all the indicators explained in the methodological part of the article, and based on correctly interpreted results, conclusions and potential recommendations will be presented. For this purpose, part of the indicators used in financial analysis will be compared with the average values in the industry in which the company operates. This will provide a wider range in which this particular analysis can be used.

Keywords: Financial analysis, Financial health, Absolute indicators, Differential indicators Ratiometric indicators Indicator systems.

Financial analysis can be characterized as a systematic tool for monitoring the financial condition of the company on the base of the analysis of information that are primarily to find in the financial statements of the company. However, financial analysis is not only a sort of statistical assessment of the current situation, but it is also reflective of the past management and to some extent it can also predict the future financial conditions.

In business sphere, where due to the economic environment many unexpected changes occur, financial analysis represents for many a very useful, for others absolutely vital instrument to regulate corporate planning, to which the finances are obviously inseparably connected. Long story short, whoever creates the financial analysis (be it of one's own business or e.g. of potential business partners) acquires additional information and thus also a certain amount of benefits with it. (Fabozzi, Peterson Drake, & Habegger, 2003).

The purpose of financial analysis is to provide its user with the information in such form, on the base of which he can more easily decide about further plans for functioning of his business or generally about his intentions with the company that is being assessed. As already mentioned, the source of such information is the financial statements. While they provide the information about management of the company, they rather have the character of hard data. It is only the processing with financial analysis, during which the financial statements data is mutually compared, that transforms it in a form with much higher informational value. The hard data is then displayed in required context that can assess the so called financial health of the company.

As a financial health is considered a satisfactory financial situation of the company, meaning the company is able to achieve required appreciation of the invested capital, with regard to the risks the company is willing to take. Financial health is therefore generally determined by the profitability. The higher it is the better situation and better financial health it means. At the same time, however, it is

necessary to secure long-term liquidity that derives from good cash flow. Together with the profitability, it can ensure stable and long-term operation. (Synek, 2010)

Various approaches to financial analysis

Financial analysis can be seen from different perspectives. In terms of its extent, there are three basic types that differ in the content. The narrowest conception is regarded as an analysis of finance in a true sense of the word. It is purely an investigation and analysis of the financial statements. The wider option adds to the output an evaluation process. In addition of the data from accounting, the most extensive option includes other financial and nonfinancial sources of information about the company and its environment. Generally speaking, the more extensive option we choose the more precisely we are able to predict future development. On the other hand, we expose ourselves to a higher risk of subjectivity. (Higgins, 2012)

As for the approach to the financial analysis, there are two basic types; the first is technical or quantitative analysis and the second is called fundamental or qualitative, while both of these have its pros and cons and it is therefore recommended to combine these approaches. (Higgins, 2012)

Technical analysis applies its final conclusions on the base of mathematical and statistical methods, through which the investigated data can be quantitatively compared and thus later assessed and evaluated from the qualitative point of view. Generally, the creation of technical analysis proceeds as follows. The first thing to do is to characterize the environment. That means the required data is gathered, then, on the base of the investigated subject, the relevant indicators are chosen, the applicability of the indicators is verified and the comparable entities are selected. The next thing on the list is to select the most suitable method, which is followed by primary data processing. Finally, after appropriate processing, the data is evaluated on the base of selected criteria. Methods that are used for technical analysis are: absolute indicators analysis, differential indicators analysis, ratiometric indicators analysis and indicator systems analysis. Technical analysis will be the main focus of this thesis during the investigation of the selected company in the following chapters. (Higgins, 2012)

Fundamental analysis (or qualitative analysis), in contrast to technical analysis, does not use numerical methods and algorithmic procedures, but leans on the relation between economic and noneconomic phenomena that have direct or indirect impacts on the company. The foundation of fundamental analysis is the identification of environment and the impacts of the macroeconomic and microeconomic environment on the company, in regard to its set goals and the stage of its life. This method is based rather on a verbal evaluation resulting from the experience and the opinion of the expert who carries out the analysis. The methods used forfundamental analysis are e.g. SWOT analysis, critical factors method, BCG matrix, Argenti's A-score, portfolio analysis and more. (Higgins, 2012)

Users of financial analysis

The final documents created on the base of analysing the financial statements can be handy for a variety of subjects. These subjects are generally divided into external and internal users. According to their particular interest, each of these subjects prefers more or less different information. (Sedláček, 2007)

When assessing the company, the external users of financial analysis can utilize the mandatory publications of financial statements or other publicly accessible sources. Compared to the internal users, they usually have a limited amount of information. The investors, banks, creditors, business partners, competitors and government are considered as external users. (Sedláček, 2007)

The investors include shareholders, partners and other persons that own or are considering ownership of a certain stake in the company. Above all, the potential investors benefit from the results of financial analysis in order to find out the possible return on their investment and related risks. They also use the information in terms of control, when they are interested in the previous management of the business, which include its stability and perspective (also of the possible investment) and the size of profit shares payments. (Sedláček, 2007)

Banks and creditors are primarily interested in the creditworthiness and liquidity so they can properly assess the ability of the company to meet its obligations. Based on these factors, the creditor makes his decision of granting or rejecting a loan or under what terms. They also evaluate the return on the potential project, of which the client requires financing. (Sedláček, 2007)

By **business partners** we mean both suppliers and customers. While the suppliers are like the banks and creditors interested in liquidity and solvency to establish a long-term smooth relationship, the

customers are rather interested in the financial stability of the company and the ability to meet its obligations. (Sedláček, 2007)

The competitors mostly care about the comparison with their own business results. The numbers they are particularly interested in are the amount of sales, profitability, profit margin, solvency or inventory turnover period, which may possibly inspire them or let them discover mistakes in their own actions. (Sedláček, 2007)

Above all, **the government** uses the results of financial analyses to publish the statistical data for the whole industry. They also provide a way to check the taxes payments or drawing grants. The analyses can also serve as a base for the application of fiscal and monetary politics. (Sedláček, 2007)

Compared to external users, the internal users have the advantage of having access to much more detailed financial or nonfinancial types of information. Aside from the mandatory published financial statements, they have access to detailed data of the financial, managerial and intercompany accounting including the calculations, plans, strategies etc. Financial analyses for the company's own use are usually carried out by the company's departments, auditors or rating agencies. Internal users include managers, employees and unions. (Sedláček, 2007)

Managers use the results of financial analyses for establishing an appropriate future financial strategy. Specifically, this includes the amount and structure of the assets, sources of financing, allocation of available resources, profit distribution, decisions about future business goals or business valuation. The results also serve as a certain self-reflection and an indicator of the correctness of managerial decisions. (Sedláček, 2007)

Employees and unions are primarily interested in the wages and social conditions, as well as long-term jobs preservation. They therefore mainly concentrate on the overall stability and profitability of the company, within the results of financial analyses. (Sedláček, 2007)

Sources of information for financial analysis

Given that the financial analysis is based directly on the financial or nonfinancial statements, the quality of the output strongly depends – besides correct execution – on the quality of the information sources. In case these sources lacked quality and complexity, they would not be able to provide sufficient informational value and the results of the financial analysis could be therefore distorted and provide the user with false information about the financial health of the company and related problems. (Grünwald & Holečková, 2007)

As a source of information, the financial statements can be divided into two basic groups, into financial statements and intercompany financial statements.

Financial statements are considered to be external statements, for they present publicly accessible information that the company is under certain circumstances obliged to publish annually. This type of statements provides information to all; it is primarily intended for the external users though. They provide information about the asset portfolio and its financing, generating and managing of profit or loss and an overview of the cash flows of the company. They can be considered as the fundamental data for the financial analysis. (Synek, 2010)

On the other hand, the **intercompany or internal statements** does not have any form, which is set by the law so it's up to the companies to decide about the form this data will have according to their needs. Generally, these statements are useful, because they are created in a narrower timeframe and this more frequent and more detailed classification leads to more accurate results with lesser risks of deviation from reality. (Synek, 2010)

The balance sheet is a basic financial statement with assets on one side, liabilities on the other, while the balance between those two must always be preserved. To a certain moment they together show the state of the assets, sources of its financing and the financial situation given by the profit and its distribution. When analysing the balance sheet, we're not only interested in the structure of assets and liabilities and the development of the balance, but also in the relations between the individual items. There is one drawback, when analysing the balance sheet and that is that the items are reported in historical values, which can distort the analysis, for there is no consideration of the time value of the money or the current value of assets and liabilities in the balance sheet. (Růčková, 2015)

Chart 1: Balance sheet

ASSETS	LIABILITIES & EQUITY
RECEIVABLES FOR	EQUITY
SUBSCRIBEDCAPITAL	
FIXED ASSETS	Share capital
Intangible fixed assets	Capital funds
Tangible fixed assets	Reserve funds, indivisible fund and other funds from profit
Non-current financial assets	Retained earnings Profit or loss for the current period
CURRENT ASSETS	LIABILITIES
Inventories	Reserves
Long-term receivables	Long-term liabilities
Short-term receivables	Short-term liabilities
Current financial assets	Bank loans and borrowings
OTHER ASSETS	OTHER LIABILITIES

Source: of own making according to (Pelák, 2009)

Profit and loss account or income statement shows expenses and income for a period, which makes them flow quantities. Similarly to the balance sheet, this statement is also a vital part of the financial statement. The purpose of this account – apart from displaying income and expenses – is to show profit or loss, that is why the analyst always wants to know what individual items influenced the final profit (when the income exceeds the expenses) or loss (vice versa). We recognize three subtypes – operating, financial and extraordinary profit or loss. These partial results together give the final profit or loss for the current period. (Pelák, 2009)

Operating profit or loss includes items that represent main part of the business. It includes sales of products, goods and services, from which the operating expenses are subtracted. According the Czech accounting standards, the operating profit or loss comprises of:

+ Sales of goods
- Cost of goods sold
= GROSS MARGIN + Production
- Purchased consumables and services
= ADDED VALUE
- Staff costs
- Taxes and charges
- Depreciation of tangible and intangible fixed assets
+ Sales of fixed assets and material - Net book value of fixed assets and material sold
- Change in reserves and provisions relating to operating activities and complex deferred expenses
+ Other operating income - Other operating expenses
+ Transfer of operating income - Transfer of operating expenses
= OPERATING PROFIT OR LOSS (Kislingerová & kol., Manažerské finance, 2010)

Financial profit or loss consists of expenses and income mostly related to speculative securities, shares and interest on loans. It comprises of these accounts:

+ Proceeds from the sale of securities and investments - Cost of securities and investments sold
+ Income from non-current financial assets
+ Income from current financial assets
- Costs of financial assets
+ Income from the revaluation of securities and derivatives - Costs of the revaluation of securities and derivatives
- Change in reserves and provisions relating to financial activities
+ Interest income
- Interest expenses
+ Other financial income - Other financial expenses
+ Transfer of financial expenses - Transfer of financial income

= FINANCIAL PROFIT OR LOSS (Kislingerová & kol., Manažerské finance, 2010)

The sum of operating and financial profit or loss makes after subtracting the income tax on ordinary activities the **profit or loss from ordinary activities**. (Kislingerová & Hnilica, Finanční analýza - krok z krokem, 2008)

Since January 1 2006, the extraordinary profit is not recognized due to an amendment of the accounting methods and the original accounts became parts of other accounts. (Königová, 2016)

Until then, the **extraordinary profit or loss** consisting of random transactions was found out from these accounts:

\+ Extraordinary income - Extraordinary expenses

\- Income tax on extraordinary activities

= EXTRAORDINARY PROFIT OR LOSS (Růčková, 2015)

The sum of profit or loss from ordinary and extraordinary activities makes **profit or loss for the current period.**

For the purposes of financial analysis, there is a term net profit, which is identical with the profit or loss for the current period. There is also profit or loss before tax that is also reported in the profit and loss account. Other versions of profit are also used, modified by certain items. These profits or losses and their mutual relationships are displayed in following table: (Schnaiberg, n.d.)

Chart 2: Profit or loss types

			EBITDA		
		EBIT			Depreciation
	EBT			Interest	
EAT		Tax			
Net profit, P. or L					

Profit before tax, Profit or loss
Profit before tax and interest, Operating profit or loss
Profit before tax, interest and depreciation
Source: (Schnaiberg, n.d.)

The cash flow statement shows the flows of intake and expenditure of funds, unlike the profit or loss account, which displays income and expenses. It is then obvious that income does not necessarily mean intake and expense does not have to mean expenditure. We often encounter situation when the business is profitable, but does not have any funds to pay its obligations with. Cash flow statement informs the user about the amount of generated funds and how they were handled with. Compared to the income statement, the cash flow statement has the advantage of not including depreciation, which gives many ways to approach them and thus influence the profit or loss without any impact on the amount of funds. The same as for depreciation goes for accruals. (Pelák, 2009)

Based on the way it is compiled, cash flow statement has two forms. **Direct method** means that the increases and decreases of cash are recorded during the appropriate period. When you use the **indirect method**, total cash flow is summed from partial calculations of operating cash flow, cash flow from investing activities and cash flow from financing activities. The starting point for operating cash flow is profit or loss, to or from which are then added or subtracted item differences from the start and the end of the current period (i.e. changes). It is typically a change of provisions (depreciation values), inventories, receivables, payables, reserves and accruals, while a general rule says that the asset accounts increases and liability accounts decreases are added and vice versa. The same goes for cash flow from investing activities, which is the result of fixed assets changes, and cash flow from financing activities, which is given by long-term loans and credits changes. (Vachtová, 2013)

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ҚАРЖЫЛЫҚ ТАЛДАУ ЖӘНЕ ОНЫҢ АНЫҚТАМАСЫ

Аннотация. Бұл мақала қаржылық талдауды тұжырымдама ретінде, оның әдістемесі мен осы мәселеге қатысты барлық тақырыптарды түсіндіруге арналған. Нәтижелер кейіннен таңдалған компанияның нақты қаржылық талдауын жасау үшін қолданылады. Қаржылық талдау анықталған жерде осы мәселеге қатысты әр түрлі тәсілдерді түсіндіреді, қаржылық талдаудың жеке пайдаланушыларын, сонымен қатар оны құру үшін ақпарат көздерін анықтайды. Онда сонымен қатар қаржылық талдаудың нақты тәсілінің әдістемесі сипатталған. Осылайша, барлық жеке индикаторларды және оларды қалыптастырудағы мүмкін процедураларды түсіндіруге және түсіндіруге басты назар аударылады. Мақалада сонымен қатар таңдалған компания мен саланың негізгі сипаттамалары туралы ақпарат бар және оқырманға компанияның қалай жұмыс істейтіні туралы түсінік беріледі. Соңғы бес жылдағы ұсынылған қаржылық есептілік негізінде компания мақаланың әдістемелік бөлімінде түсіндірілген барлық көрсеткіштерге талдау жүргізеді және дұрыс түсіндірілген нәтижелерге, қорытындыларға және ықтимал ұсыныстарға сүйене отырып ұсынылады. Осы мақсатта қаржылық талдау кезінде қолданылатын көрсеткіштердің бір бөлігі компания қызмет ететін саладағы орташа мәндермен салыстырылады. Бұл нақты талдауды қолдануға болатын кең ауқымды қамтамасыз етеді.

Түйінді сөздер: Қаржылық талдау, қаржылық жағдай, абсолютті көрсеткіштер, дифференциалды көрсеткіштер, коэффициенттік көрсеткіштер, индикаторлық жүйелер.

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ФИНАНСОВЫЙ АНАЛИЗ И ЕГО ОПРЕДЕЛЕНИЕ

Аннотация. Эта статья посвящен объяснению финансового анализа как концепции, включая его методологию и все темы, связанные с этой проблематикой. Результаты будут впоследствии использованы для создания фактического финансового анализа выбранной компании. Где определяется финансовый анализ, разъясняет различные подходы к этой проблеме, определяет отдельных пользователей финансового анализа, а также источники информации для его создания. Так же описывает методологию конкретного подхода к финансовому анализу. Таким образом, основное внимание уделяется объяснению и интерпретации всех отдельных показателей и возможных процедур при их формировании. Так же статья содержит информацию об основных характеристиках выбранной компании и отрасли и дает читателю представление о том, как работает эта компания. На основе предоставленной финансовой отчетности за последние пять лет компания будет подвергнута анализу всех показателей, объясненных в методологической части статьи, и на основе правильно интерпретированных результатов будут представлены выводы и потенциальные рекомендации. Для этой цели часть показателей, используемых в финансовом анализе, будет сравниваться с показателями средних значений в отрасли, в которой работает компания. Это обеспечит более широкий диапазон, в котором этот конкретный анализ может использоваться.

Ключевые слова: Финансовый анализ, финансовое здоровье, абсолютные показатели, дифференциальные показатели, ратиометрические показатели, индикаторные системы.

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AGROTOURISM AS AN ALTERNATIVE TO THE SOCIO-ECONOMIC DEVELOPMENT OF RURAL TERRITORIES

Abstract. The main problems highlighted are those related to the development of the labor market and non-agricultural employment. The authors proposed directions for the development of alternative employment for rural residents, including through the comprehensive socio-economic development of the village, the formation of a favorable living environment. The popularity of rural tourism is largely due to the desire of urban residents to relax in a relaxed atmosphere in isolation from the bustle of the city and in an environment characterized by more favorable climatic and environmental conditions. The relevance of the topic of this article is due to the fact that at present, the problems of rural development associated with the degradation of agriculture, the lack of optimal working conditions in this area and the depreciation of rural labor are becoming increasingly acute.

Keywords: rural development problems, rural labor market, alternative employment of rural residents, agritourism.

INTRODUCTION

If we add hidden forms to the forms of open unemployment, expressed in a decrease in wages, then the problem of labor redundancy in rural areas remains one of the most acute [2]. Currently, many large farms are forced to keep redundant workers, workers with low qualifications or without any qualifications at all, for a number of interrelated reasons:

1) underdeveloped labor market, lack of new jobs, alternative employment;

2) agricultural production and agricultural employment remain the main sources of household income;

3) any dismissal, therefore, affects the financial situation of families and the social situation in the countryside.

It should be added that the labor market in rural areas is generally in its infancy; there is simply no civilized market adequate to modern conditions. If you try very briefly to group the features and simultaneously the problems of the labor market in rural areas, the analysis will look as follows:

1) excess supply in connection with the intensification of production, the use of new technologies and increased labor productivity with a simultaneous shortage of qualified and highly skilled workers;

2) restrictions on labor migration, in particular low density of the rural population and remoteness from cities, which makes labor migration difficult. Moreover, one must be aware of the following fact. Labor migration also has objective limitations associated with the rural way of life and a special habitat. Labor migration to the cities of low-skilled workers can also lead to tensions in the labor markets of nearby cities;

3) in the countryside - one of the lowest wages.

4) a high proportion of employed pensioners. I must say that today employed pensioners play a kind of shock absorber in connection with the reduction in the number of able-bodied people.

5) the lowest proportion of workers with higher education.

6) the labor market and rural areas remain not attractive for employment and living.

Firstly, technological differentiation and uneven renewal of fixed assets in agriculture. That is, today at the same time

in agriculture, advanced technologies and the presence of patriarchal production are observed.

Secondly, the imbalances in the development of food markets (agriculture itself, processing, wholesale and retail trade) and the redistribution of profit in favor of processors, which generally affects the long-term competitiveness of the food markets of the Republic of Kazakhstan. Persistent disparity in prices in agriculture. In particular, the existing disparity in prices is one of the main reasons for the decrease in the profitability of agricultural enterprises, their insolvency, loss making.

Thirdly, the weak pace of development of cooperation (sales, procurement, production), small commodity production and deep processing, focused on local markets. Today in the industry one of the lowest rates of development of integration and cooperation ties is observed.

Fourth, the lack of a civilized agricultural insurance market and three-level responsibility (state, insurance company, agricultural producer); the need to diversify risks in agriculture and their insurance sources, including through the formation of insurance reserves at the level of regions and the farms themselves.

Fifth, undeveloped infrastructure of food markets, backward logistics.

In recent years, some areas of non-agricultural activity have begun to develop in our country. One of them is rural tourism. Its essence lies in the fact that a tourist, for example, via the Internet or upon arrival at the place, orders himself a hotel house or stops in a rural hotel, where all the necessary conditions for a good rest are created. Various recreational activities can be organized for tourists, such as sightseeing walks to get acquainted with the culture and traditions of the region, horseback riding, fishing, hunting and much more. Throughout the stay, vacationers will eat organic food. Another type of rural tourism may be the rental of housing for temporary use for the summer period as a summer residence where urban residents can spend their vacations. All this is necessary for the modern urban resident, "mired in the routine of office life." These rural hotels will be serviced by staff consisting of local residents.

The world tourism industry has significantly globalized and with its rapid development dynamics has become a contender for a leading global industry. Already, distances have ceased to matter, as well as the dividing lines of geographical borders between countries, and the development of the transport sector has made it reachable for tourists anywhere in the world in less than a day. With the beginning of the process of intensification of tourism and the emergence of its new species, often positioning themselves as completely independent types of leisure activities, agrotourism occupies a special place.

Currently, agrarian tourism, as a representative of an innovative diversified type of tourism, is able to solve many issues of sustainable development of the country in terms of its environmental friendliness and sociality. Agritourism as a relatively new phenomenon, existing for about 40 years and only in the last decade has received rapid development abroad and has become recognizable in Kazakhstan, has many definitions and is classified in different ways, depending on the adopted model. Initially, the classical model of agritourism suggested that the organization of tourism in the village is exclusively carried out by farmers or members of their families, extracting additional income from this, but not changing their production profile. However, as this type of entrepreneurship develops, the existing interpretation has fundamentally changed, refined and supplemented by many researchers and scientists, some of which are presented in table 1.

In this regard, the authors proposed their own definition of this concept. Agrotourism is a sector of the tourism industry, focused on providing physical and / or psychological relaxation, knowledge of historical sights and ethnic culture, including rural tourism (based on developed agricultural production, infrastructure and entrepreneurial activity of the rural population) and nature tourism (focused on unique natural , geological objects and countryside with pristine ecology).

In the practice of developing the tourism industry in many countries, ecotourism and agrotourism are complementary and interrelated concepts. Agritourism is a wide and developing area in the tourism industry. It is not always equally understood in different countries, its forms are dynamic, it penetrates the areas of tourism activity, which were previously far from the ecological orientation, and it is hardly reasonable to limit it to too strict frameworks and a single correct definition. Modernity requires investing

in the concept of agritourism a different, broader meaning, not limited to the goals of environmental education.

Table 1 - Definitions of the concept of "agritourism"

Author	Definition
Dubinicheva L.V., Sovetov P.M.	type of tourism activity on the use of natural, cultural, historical and other resources of the countryside to create a comprehensive product, when the host takes over the accommodation of tourists [2].
Dugina E.L., Petushinova V.Ts.	a type of tourist-cognitive, active activity in which a tourist takes a direct part in the household life of the host country and minimally has an anthropogenic impact, within the framework of sustainable development [3].
Elagin V.I.	type of tourism, which involves the temporary stay of tourists in rural areas for the purpose of recreation and / or participation in agricultural activities [4].
Korsunova T.M., Imenskenova E.G.	the form of rest is oriented towards acquaintance with rural life, the specifics of local agricultural nature management, the peculiarities of local cuisine, and the traditions of ethnic groups [5].

* Note - compiled by the authors.

Focusing on ecological upbringing and education creates the temptation to attribute all trips with nature conservation goals to agritourism. For this reason, visiting nature museums is almost always equated with the form of ecological tourism. The development of agro-ecotourism is possible with the creation of special agrotourism (landscape) parks in localities adjacent to nature conservation areas, where the activities of local residents in the sale of reception services and household products to tourists would have benefits and incentives. This would be more consistent with the goals and objectives of national parks.

At the same time, the services of national parks are entrusted with the functions of maintaining the road-path network in proper condition, organizing public events, and monitoring the recreational load on natural complexes.

In other words, of fundamental importance for rural agritourism is: a) either the presence in the countryside of free or conditionally free households (estates, cottages, grounds on the estate for camping, in some countries - historical buildings of rural palaces, monasteries, etc. .), which were not originally created as hotels, but suitable for their conversion into tourist accommodation facilities; b) either the construction of special agritourism facilities - tourist accommodation facilities ("national villages", "hunter / fisherman houses", "cultural centers", campsites, etc.) that serve as rural hotels. For tourists, such a vacation is a cardinal change of scenery, allowing you to relieve the stress that has accumulated over a year of work in tense urban conditions, to get your portion of health and psychological stress. Such a kind of agro-tourism in Kazakhstan is unlikely to reach such proportions in the foreseeable future as in Europe and the USA, however, according to some experts, it is quite suitable for the role of fashionable entertainment for citizens, and with the proper approach, an effective national project can be obtained.

Excursions with accommodation in farms for tourists (cows, pigs, horses, turkeys, chickens, goats, sheep, gardens, nurseries of agricultural and garden plants and much more) - this is farm agritourism. To expand this direction, you can also include excursions to farms for agricultural specialists - for enterprises, organizations and individuals seeking to expand their ties in the field of professional communication (visiting specialized enterprises, organizing meetings and negotiations with heads of agribusiness enterprises, holding conferences, round tables, seminars, retreats, trips to international and specialized agricultural exhibitions, etc.). This perfectly matches the new values that are affirmed in the psychology of modern man - unity with nature, life-giving air, organic food, a change of scenery, lack of crowding, a different image, routine and culture of life, the opportunity to participate in agricultural work and, of course , importantly, cheapness. The development of rural tourism is not only an additional income for the local population, but also a factor stimulating the development of the village and the countryside as a whole. The regions plan such investments, hoping that in the conditions of the crisis this type of tourism will turn out to be more flexible and, in addition, will help to survive agriculture, will increase the number

of rural residents engaged in non-agricultural activities, increase the level of employment in villages and create additional jobs.

In connection with farm tourism, special attention is paid to the social aspect of agricultural tourism. The philosophy of socially responsible tourism is to exchange cultural traditions, to consolidate on the basis of national identity, getting acquainted with the life of local residents, their customs and customs. It is important here that tourists behave as guests who were kindly allowed to live in the house, and not as owners, whom everyone around should serve. At the same time, local residents should not treat tourists as annoying intruders, whose presence must be endured. They should understand that newcomers contribute to improving the economic and social situation in their homeland.

Thus, in the light of studies on the formulation of a methodological concept that systematizes the collection of concepts defining the scientific definition of agritourism, we state the following theses:

- Agritourism today is a new tourism product that can satisfy the ever-growing tourist demand;
- agritourism is a global social process, which over time will involve all countries of the world where there is agriculture;
- a common element connecting the semantic sphere of the concepts of agritourism should be considered that modern agritourism is considered in a complex of three areas: ecological, farming and rural, in connection with which the sustainability of tourism, its socialization and development of rural territories are equally taken into account.

The globalization process opens up new development opportunities associated with the worldwide dissemination of the latest technology and forms of organization of production, at the same time ensures a high material status of the employee, requires scientific knowledge from him and mobilizes his creative initiative and intellectual abilities. In these conditions, as a pattern, state participation in the creation of high technologies should increase. This can be achieved on the basis of continuous development and diversification of state scientific policy, ensuring the implementation of the most significant results of basic research.

In Kazakhstan, the agritourism market is under development, the demand of Kazakhstanis is poorly understood. Foreign leaders of the tourism industry have no special policy to promote their agro-tourism product in Kazakhstan yet. In addition, there is not enough experience in terms of forming an agro-tourism product from the existing tourism potential, competently conducting marketing, entering a wide, minimum regional market with its offer and providing it with the necessary advertising, as well as guarantees of quality standards for tourism services, and hence the competitiveness of the sector agritourism in general.

However, international experience shows that in Kazakhstan the development of agrarian tourism can be just as effective, both from a social and economic point of view. At the same time, the maximum effect can be achieved if agrotourism develops not spontaneously, but within the framework of state and regional programs.

CONCLUSION

The creation of alternative employment in rural areas is one of the most important tasks, the solution of which is also necessary to increase the efficiency of agricultural production. Currently, there is an urgent need for the formation of strong rural households and a new social structure in the countryside. Along with new land owners, farms, large agricultural producers, it is necessary to stimulate the development of small commodity production oriented to the local market, stimulate primary processing (meat, milk), and the development of cooperatives (sales, procurement, production). “Strong rural households and families will and are already experiencing the need for kindergartens and schools, domestic and commercial services, medical and cultural services, and developed infrastructure. The emergence in the countryside of the middle class and new social groups forming an alternative self-organization from below can prove to be a powerful catalyst for all social processes in rural areas. ” Rural tourism is multiplicatively able to have a positive impact on the development of rural areas, the rational use of their limited resource potential. The development of rural tourism also stimulates the activities of private farms, expands the demand for natural and environmentally friendly food products, contributes to the development of rural areas, rural construction, the development of traditional crafts, and the preservation of rural identity and culture. In other words, rural tourism contributes to the resolution of

acute socio-economic problems of the village, and especially the problems of employment of the rural population.

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АГРОТУРИЗМ АУЫЛДЫҚ АУМАҚТАРДЫҢ ӘЛЕУМЕТТІК-ЭКОНОМИКАЛЫҚ ДАМУЫНЫҢ БАЛАМАСЫ РЕТІНДЕ

Аннотация. Аталған негізгі проблемалар еңбек нарығының және ауылшаруашылық емес жұмыспен қамтудың дамуымен байланысты. Авторлар ауыл тұрғындарын балама жұмыспен қамтуды дамыту бағыттарын, соның ішінде ауылдың жан-жақты әлеуметтік-экономикалық дамуы, қолайлы өмір сүру ортасын қалыптастыру жолдарын ұсынды. Ауылдық туризмнің танымалдылығы көбінесе қала тұрғындарының қаланың шулы ортасынан және жайлы климаттық және экологиялық жағдаймен ерекшеленетін ортада жайлы жерде демалғысы келетіндігіне байланысты. Осы мақаланың тақырыбының өзектілігі қазіргі уақытта ауыл шаруашылығының деградациясымен байланысты ауылды дамыту проблемалары, осы салада оңтайлы еңбек жағдайларының болмауы және ауылдық жерлердегі жұмыс күшінің төмендеуімен байланысты.

Түйін сөздер: ауылды дамыту мәселелері, ауыл еңбек нарығы, ауыл тұрғындарын балама жұмыспен қамту, агротуризм.

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АГРОТУРИЗМ КАК АЛЬТЕРНАТИВА СОЦИАЛЬНО-ЭКОНОМИЧЕСКОГО РАЗВИТИЯ СЕЛЬСКИХ ТЕРРИТОРИЙ

Аннотация. В качестве основных выделены проблемы, связанные с развитием рынка труда и несельскохозяйственной занятости. Авторами предложены направления развития альтернативной занятости сельских жителей, в том числе и через комплексное социально-экономическое развитие села, формирование благоприятной среды обитания. Популярность сельского туризма во многом обусловлена тягой городских жителей к отдыху в спокойной обстановке в отрыве от городской суеты и в среде, отличающейся более благоприятными природно-климатическими и экологическими условиями. Актуальность темы настоящей статьи обуславливается тем, что в настоящее время все в большей степени обостряются проблемы развития сельских территорий, связанные с деградацией сельского хозяйства, отсутствием оптимальных условий труда в этой сфере и обесцениванием сельского труда.

Ключевые слова: проблемы развития сельских территорий, рынок труда сельских территорий, альтернативная занятость сельских жителей, агротуризм.

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INNOVATIVE MANAGEMENT IN THE DEVELOPMENT OF SMALL AND MEDIUM-SIZED BUSINESSES

Abstract. The article discusses innovation in small and medium-sized businesses, as well as features of innovation management. The innovative economy of any country is mainly determined by the presence of innovative organizations. The innovation of the organization depends on internal factors (this group includes, first of all, the potential and resources of the organization, intellectual capital, material, financial and organizational resources). In addition, the level of development of innovative activities of the organization depends on the characteristics of the industry and the sector in which the organization operates. External factors include: national conditions, such as legal acts related to the support of innovative activities or conditions for the development of innovations in a particular region, as well as legal, cultural, economic and technical factors.

Keywords: innovation, innovation management, small and medium business, potential.

INTRODUCTION

Innovation as an object of control is characterized by such a set of features that require the use of special techniques and methods for managing them. Over the past forty years, innovation management (MI) has been formed as a special professional field of activity and an independent discipline that equips managers with technologies and tools for planning, control and coordination. Innovations are necessary so that enterprises have the opportunity to: remain in business management, achieve their goals in the competition, improve the quality of products and services, attract consumers, and interest them in further cooperation with the best performers. Enterprises must be able to control change and implement innovation in a way that allows them to take advantage of the changes that are taking place. The organizational culture of the enterprise, ultimately, determines the number and type of ongoing innovation.

MAIN PART

Today, the effectiveness of innovation management is determined by the specific ability to save the appropriate amount of labor, time, resources and money per unit of all necessary useful effects of the created products, technical systems. [3] The effectiveness of innovation management is characterized by a system of economic indicators that reflect the ratio of associated costs and results, and allow judging the economic attractiveness of innovations. Assessing the effectiveness of innovation management retains several significant problems. Some of them, such as accounting for inflation, measuring different indicators at different times, bringing investments and production costs to a single annual dimension, are technically solved in practice using various methods, ratios, etc. Today, small enterprises that implement small innovations are increasingly starting to approach to prepare, plan and control the implementation of their innovations using methods and management tools. The role of companies specializing in the development and implementation of innovations has grown significantly, and the position and profession of manager (Project Manager) has become one of the most prestigious.

The analysis of all modern models of the implementation of innovative activities in the organization and research within the framework of innovative processes show that the key to regulating the effective implementation of innovative processes is the organization's internal innovative potential.

Theory of innovative potential based on the concept of organization resources. This concept, developed in the early 1990s, suggests that the organization's ability to develop all aspects of its activities is closely related to the availability of appropriate resources. Edith Penrose is the forerunner of this position. In her publication, she showed the role of resources in shaping the competitive advantage of an organization. A detailed analysis of the factors that determine the innovative potential of an organization is the subject of numerous studies and scientific publications. For the first time, a general idea of the factors determining the innovative potential of an organization was provided by Bircell and Armstrong. These authors have developed a model of conditions for the development of innovation, which includes the following factors:

- external environment;
- internal environment;
- innovation process;
- development management.

A similar view was presented by Mkosh, Smart, Barer and Lloyd. This group of researchers conducted an analysis of the impact of managerial personnel of organizations on the creation of innovation. The basis of the list of conditions necessary for the effective implementation of innovative processes includes:

a culture of innovation support;
market implementation;
desire and learning ability;
the ability to profit from the competencies of the organization for innovative processes.

A slightly different point of view on the conditions for creating innovation was presented by Teed, Bessant and Pavitt. They emphasized internal organizational factors, which, in their opinion, stimulate the development of innovative processes. These include: the foresight of management, the corresponding organizational structure; willingness to participate in the innovation process; ability to conduct teamwork; willingness to learn and make new management decisions.

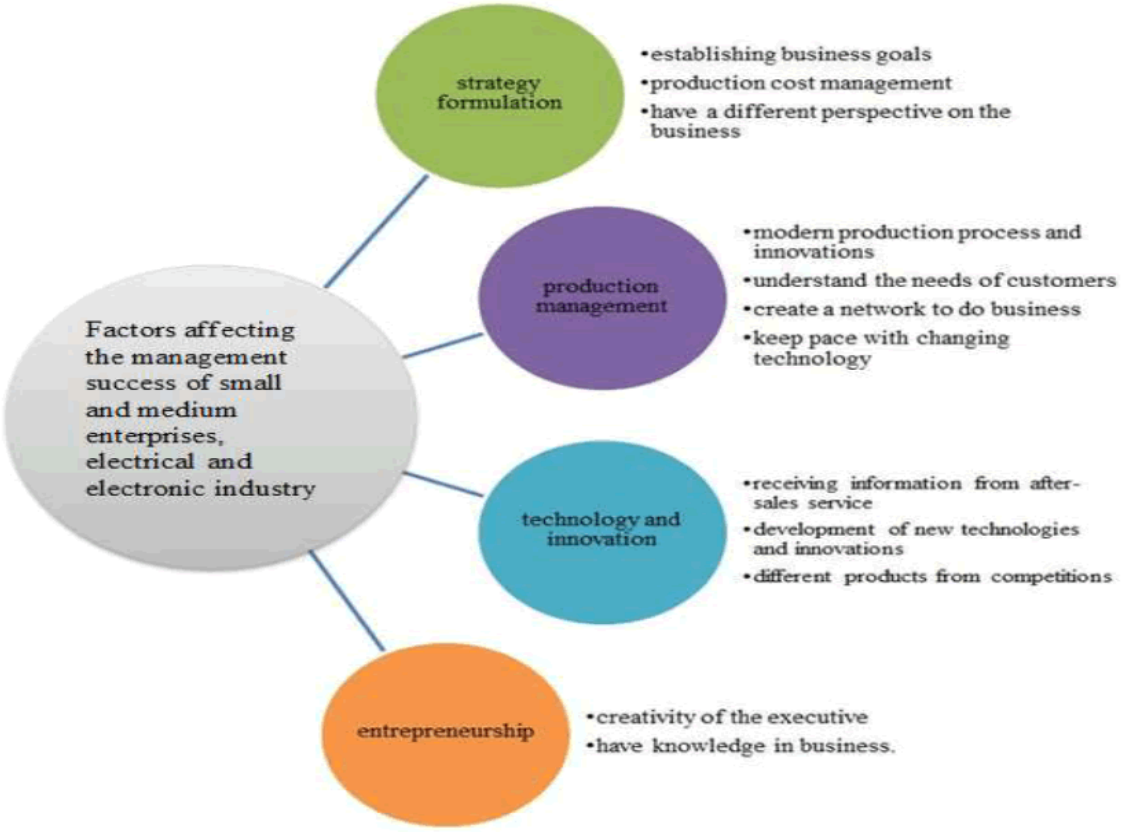

Figure 1 – Factor affecting the management success of small and medium enterprises

In practice, a company has an impact only on internal factors in the process of creating innovative potential and creating a strategy related to innovative activities in the long term. For this reason, the ability to analyze and evaluate the internal factors that shape the innovative potential is extremely important. Recently, studies of conditions affecting the innovativeness of enterprises and the methodology for measuring innovation have gained significant importance. These studies are supported by numerous publications and have both academic and practical value. Large enterprises have developed effective methods and tools for assessing their own innovative potential. An example of such tools is a map created by the Bostan Consulting Group.

The one-sidedness and complexity of the phenomena that form the innovative potential of an organization require the development of optimal methods for its analysis and evaluation. This problem is especially true for organizations in the field of small and medium-sized businesses. The authors of many works propose new methodologies for measuring the innovative potential of organizations, taking into account the influence of regional conditions on the innovativeness of an organization. New methods for measuring innovative potential are often used by various organizations, for example, service organizations or high-tech organizations. Small business is accompanied by a small margin of sustainability and significant competition, and the innovation process, as in a large enterprise, includes the entire technology for creating new products and services. A small business quickly responds to changing market conditions and quickly brings the changed tasks to employees. The reaction of creative employees is accompanied by instant decision-making and changes in work. Therefore, the management of an innovative small enterprise differs from the methods of managing employees in a large enterprise. In a small business, there is a close interaction between the leader and employees, and most often, the leader initiates innovations and leads the process of innovation management.

In this process, teamwork and focus on innovative results are of great importance. Successful leaders in managing creative employees are not just technologically minded autocrats and not ordinary drafters of business agreements and deals. They are not outside innovative activity, but create conditions that allow creative workers to introduce innovations. Management of creative employees is an indispensable component of the management and development of a small innovative enterprise. For the effective functioning of any enterprise in personnel management, the principles of the scientific organization of labor have always been used. And managerial innovation must be considered as a methodology that is significantly different from NOTs and first used at this enterprise. A feature of innovations in personnel management is a reference to the innovative goals of a small enterprise, accompanied by uncertain results and the emerging conflict between existing achievements and innovations. The model of innovative management of creative employees of a small enterprise should take into account the fact that the innovation process can be very complex. The innovation process includes many different steps, steps, phases.

Innovative projects are more unique, they are not repeated. And at the beginning of the innovation process, an idea appears from which innovations are modeled. And the main goal of innovative management of creative employees of a small enterprise is to constantly maintain a basket of ideas full to the brim with rich innovations. These ideas should come from all creative staff, university research centers, and basic science. To improve the development efficiency of an innovative small enterprise, it is necessary to develop a model for managing creative workers to highlight innovation as a key component of a small enterprise strategy, as the main source of its development. The model for managing creative workers is based on creating platforms for the development of an innovative small business.

Overall, Switzerland topped the 2019 ranking with a score of 67.24 out of 100, the ninth time it has been named the world leader in innovation.

Last year, the Netherlands came second but has now been displaced by Sweden, dropping down to fourth place. The top-three is completed by the United States which has a score of 61.73. Last year was notable with China managing to make the top-20 for the first time when it came 17th. Increasing levels of innovation in Asia has seen it improve its position even further and it has now moved up to 14th. India has risen the most in the rankings since 2018, jumping five places to become the 52nd most innovative nation.

Figure 2 - 2019 rankings of the Global Innovation Index

The basis of the platform for innovative employee management is to lay the growing role of the personality of a creative employee. It has been established that innovative changes in small business simultaneously bring both great opportunities and serious threats to a creative employee, and introduce a significant degree of uncertainty into the life of almost every employee. In order to eliminate the uncertainties that have arisen, it is necessary to study the motivational attitudes of each creative employee and learn how to form and direct them in accordance with the tasks facing a small innovative enterprise. Innovative management of creative employees should include the development of an individual personnel strategy in a continuous mode. The leadership of a small enterprise in order to increase the efficiency of innovative activities of creative workers must manage the processes of creating and disseminating innovations, create organizational structures that allow developing the necessary knowledge, competencies, and maintain a constant learning process in a small enterprise.

A special place in the innovative management of creative employees is occupied by the process of creating a platform for the development of a small enterprise based on the integration of technologies and competencies in order to maintain and develop certain “baskets” of innovations. Such technology and competency platforms are focused on stimulating the innovative activity of creative employees, which is a key factor in the development of a small enterprise.

In order to enhance the creative, intellectual activities of employees, the processes of creating and disseminating innovations, the model of innovative management of creative employees involves a systematic approach to developing a strategy and structure for a management platform.

During the analysis of innovations of Kazakhstani organizations of the sector of small and medium business, the author of this publication put forward the following hypotheses:

1. Kazakhstani organizations in the field of small and medium-sized businesses do not have sufficient internal innovation potential.

2. Insufficient internal innovation potential is the main obstacle to the effective implementation of innovation processes of Kazakhstani organizations in the field of small and medium-sized businesses.

The author conducted a detailed review of existing studies of other authors in the field of innovative potential. In particular, the author took into account the results of studies conducted by D. Miller and S.A. Zahrom (research at the level of innovation), K. Koberg, D., Davin and K. Cheetah (study of cooperation in the organization), K. Cameron and R. Quinn (research on organizational culture).

In each area specific factors were considered):
1. Analysis of the internal and external situation of the company.
2. Questions regarding the search for ideas for innovation.
3. Matters relating to planning projects taking into account innovative developments.
4. Financing innovative projects.
5. Culture of innovation and human resources development strategy.
6. The internal environment of the organization and its organization.
7. Matters relating to the diffusion and transfer of innovation to the market.
8. Issues related to the implementation of innovative projects.

CONCLUSION

These hypotheses have a research goal, which is to analyze and evaluate the internal innovative potential of Kazakhstani organizations in the field of small and medium-sized businesses in order to identify barriers to the effective implementation of innovative processes.

All important internal determinants that affect the organization's ability to effectively carry out innovative activities are examined in detail in the study.

The authors note that in companies belonging to different industries or sectors, when implementing the innovation process, the application of one method of measuring innovative potential leads to incorrect results. All this leads to the need for an in-depth study of the innovative potential of the company.

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ШАҒЫН ЖӘНЕ ОРТА БИЗНЕСТІ ДАМЫТУДАҒЫ ИННОВАЦИЯЛЫҚ МЕНЕДЖМЕНТ

Аннотация. Мақалада шағын және орта бизнестегі инновациялар, сондай-ақ инновациялық менеджменттің ерекшеліктері қарастырылады. Кез келген елдің инновациялық экономикасы негізінен инновациялық ұйымдардың болуымен анықталады. Ұйымның жаңашылдығы ішкі факторларға байланысты (бұл топқа, ең алдымен, ұйымның әлеуеті мен ресурстары, зияткерлік капитал, материалдық, қаржылық және ұйымдастырушылық ресурстар кіреді). Сонымен қатар, ұйымның инновациялық қызметінің даму деңгейі саланың және ұйым жұмыс істейтін сектордың сипаттамаларына байланысты. Сыртқы факторларға мыналар жатады: ұлттық жағдайлар, мысалы, инновациялық қызметті қолдауға байланысты құқықтық актілер немесе белгілі бір аймақтағы инновацияларды дамыту шарттары, сондай-ақ құқықтық, мәдени, экономикалық және техникалық факторлар.

Түйін сөздер: инновация, инновацияны басқару, шағын және орта бизнес, әлеует.

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ИННОВАЦИОННОЕ УПРАВЛЕНИЕ В РАЗВИТИИ МАЛЫМ И СРЕДНИМ БИЗНЕСОМ

Аннотация. В статье рассмотрена инновация в малом и среднем бизнесе, а также особенности управления инновациями. Инновационная экономика любой страны в основном определяется наличием инновационных организаций. Инновационность организации зависит от внутренних факторов (в эту группу

входят, прежде всего, потенциал и ресурсы организации, интеллектуальный капитал, материальные, финансовые и организационные ресурсы). Кроме того, уровень развития инновационной деятельности организации зависит от особенностей отрасли и сектора, в которой организация осуществляет свою деятельность. Во внешние факторы включаются: национальные условия, например правовые акты, связанные с поддержкой инновационной деятельности или условия для развития инноваций конкретного региона, а также юридические, культурные, экономические и технические факторы.

Ключевые слова: инновации, инновационное управление, малый и средний бизнес, потенциал.

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