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EXPERIENCE OF FORMATION OF FUTURE PRESCHOOL TEACHERS' PROFESSIONAL COMPETENCE AT HIGHER EDUCATION INSTITUTION

Abstract

The paper deals with the formation of future preschool teachers' professional competence at higher education institution. The author views the conditions promoting formation of professional competence of a teacher (bachelor degree level), who is capable to solve professional tasks. The most important of them are use of pedagogical technologies modeling future professional activity in educational process of higher education institution; mastering components of professional competence during pedagogical practice; involvement of future bachelors in research activity from first years of learning, etc. The relevance of the paper is connected with strengthening of interest in problems of preschool education in general, and with the need to improve quality of training preschool teachers.

Keywords

federal state educational standard of preschool education, professional competence of a teacher, pedagogical technology, research activity, student teaching

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Introduction

In recent years, society makes more demands to quality of preschool education, considering it as the prerequisite providing success of a child at the following steps of educational system. Certainly, quality of education is directly connected with professional competence of a teacher working in the sphere of preschool education. Considering specifics of preschool age, it should be noted that a teacher plays an important role in development of basis of personal culture of a child, ensuring his emotional wellbeing, creation of psychological-pedagogical conditions for his development. Therefore, it is very important to have competent teachers fully realizing a worthiness of preschool childhood at preschool education organization.

It is also necessary to note that problems of staffing preschool education and problems of professional competence of preschool teachers become even more actual for a variety of reasons (updating of regulatory base of preschool education, increase in number of children of preschool age, aging of pedagogical shots of the preschool education organizations).

Now there are many various definitions of the essence of professional competence of a teacher. E.F. Zeer considers professional competence as the integrated quality of a personality including system of necessary knowledge, skills and abilities sufficient for performance of a certain type of professional activity (Zeer, 2002).

V. I. Baydenko determines competence of a teacher as manifestation by of his aspiration and ability to realize the potential for successful creative activity in practice in the professional sphere (*Baydenko 2006*).

V.A. Slastyonin believes that professional competence of a teacher expresses unity of his theoretical and practical readiness for implementation of pedagogical activity (*Slastyonin, 2000*).

Considering competence as a complete integrative education, V. S. Lazarev allocates four components: cognitive, approximate, operational and experience (*Lazarev, 2001*).

We understand professional competence as readiness of a preschool teacher to solve professional problems, relying on knowledge, skills, abilities and experience of practical activities.

To have the complete idea of the essence of professional competence of a preschool teacher at the present stage it is expedient to address to the existing normative documents regulating its activity.

The Federal State Educational Standard of Preschool Education (FSES) noted that the most important purpose of preschool education is personal development of a child, his positive socialization. To achieve this purpose teachers, have to own the competences necessary for creation of a social situation of children development:

- ensuring emotional wellbeing;
- support of identity and initiative of children;
- creation of conditions for positive, benevolent relations between children;
- creation of variable developing education focused on a level of child's development;
- interaction with parents concerning education of a child and their direct involvement in educational activity (FGOS TO, 2013).

The Federal State Educational Standard of Preschool Education imposes qualitatively new requirements to the organization of educational process. Readiness of a teacher to subject-subject model of interaction with a child allows to give him an opportunity to take an active position in educational process, not to master information offered by an adult, but to learn the world by an active dialogue with him. Formation of subject position of a child in activity, communication and knowledge provides development of such personal qualities as activity, independence, initiative.

The Federal State Educational Standard of Preschool Education demands teacher's readiness for organization of the variable developing education focused on a zone of the next development of a child. Thus, a teacher has to be ready to realize the key principle of FSES - to support the variety of childhood, form individual trajectory of development for each child. He has to be able to design educational process on the basis of specific children's kinds of activity - game, communicative, informative-research, motive, labor, musical, constructive, etc.

One of the key conditions for realization of the main educational program of preschool institution is creation of developing subject-spatial environment providing full physical, art and esthetic, informative, speech and social-communicative development of a child.

The actual direction of pedagogical activity of a preschool teacher is his interaction with preschooler's parents. FSES of preschool education staticizes ability of a teacher to interact with parents concerning education, upbringing and development of a child, their direct involvement in educational activity

Course and Results of Research

In modern conditions formation of a competent teacher capable to solve professional problems according to new normative documents in the sphere of preschool education becomes the most important purpose of higher education.

Requirements to professionalism of preschool teacher are described in such normative documents, as: "The uniform qualification reference book of positions of heads, experts and employees" (the section "Qualification Characteristic of Positions of Educators", the professional standard "The teacher (pedagogical activity in the sphere of preschool, primary general, main general, secondary general education) (tutor, teacher) (The uniform qualification reference book of positions of heads of experts and employees, 2010; The Teacher (pedagogical activity in the sphere of the preschool, primary general, main general, secondary general education) (the tutor, the teacher), 2013).

Changes in the purposes of training experts demanded formation of uniform target reference points of all subject matters. For example, if requirements to professional readiness of a graduate are formed by means of competencies (description of a group of professional tasks, which should be solved by a graduate), the purposes of subjects have to be focused on formation of professional competence of a student in this or that area. The main reference point here is the expert's model developed by university teachers and examined by employers.

It is necessary to form student's ability to use scientific contents to solve professional problems. During constantly operating methodical seminars-practices, production meetings we discussed the general strategy and all-pedagogical approaches to questions of formation of future teachers' professional competence and coordinated the efforts. The purpose of each subject was formulated as a specification of a general objective on formation of professional competence of future teacher. Problems of a subject determined the purpose and they were oriented on formation of knowledge, development of professional and pedagogical abilities within the discipline, formation of student's subject position and professional position of future teacher. System, personal-activity and competence-based approaches to training students assumed the analysis of the scientific content of each discipline, interdisciplinary process of problems solution, creation of models for their decision.

One of conditions for formation of future preschool teachers' professional competence is use of modern educational technologies in educational process. We consider that contextual, position and module-rating techniques are the most effective for formation components of future teachers professional competence.

We were guided by the following features of contextual technology:

- the purpose is not assimilation of information, but formation of ability to solve professional problems;
- cognitive activity of students has problem-search character;
- during training we use situations approached to practice; situations and production tasks creating favorable conditions for development students' professional thinking are analyzed;
- use of such educational forms as problem lecture-visualization, joint lecture, lecture with planned mistakes, seminar-discussion, role-playing and business game, etc. create the conditions most approached to future professional activity;
- emphasis on socially professional context of activity.

From the aforesaid follows that use of contextual technology in our research allowed to solve the problem of formation of future teachers' professional competence.

The translation of students from actually educational activity through quasi-professional and educational-professional to own-professional activity allows to give a

complete idea of pedagogical activity, promotes formation of professional motivation and cognitive, approximate and operational components of professional competence. Wide use of professional situations on studies promotes formation of ability to put theoretical knowledge into practice and develops reflection and professional thinking of students.

Problem-search nature of students' cognitive activity in various forms and methods of the "making active" training (problem lecture, projects method, business game, lectures-debates, etc.) promoted development of students' creativity, flexibility, ability to self-development. Wide use of professional situations (carrying out fragments of "lessons", discussions of problems at "faculty meeting", watching video movies with students practice, etc.) developed professional motivation, reflection, ability to work in collective.

Technology of position training allowed to create not only ability to the standard solution of pedagogical situations, but also promoted development of students' mobility and adaptability, ability to be guided in quickly changing conditions. Acceptance by students of a certain position during such occupations created conditions for the maximum judgment of alternative decisions, definitions of personal and semantic positions in the course of the solution of a professional task. Use of various roles (positions) during discussion developed flexibility, substantiality of students' thinking, which became more and more independent and was characterized by courage in judgments, focus and other qualities inherent to a creative person. At the same time, students have skills of pedagogical communication, ability to respect others' opinion, perceive an alternative position, show tolerance and empathy in the course of interpersonal interaction, etc..

The modular-rating training technique acted in our research as a technology of training individualization according to the contents, training methods, level of independence and rate of educational activity of students. Representing the purpose of studying and modules as its structural parts to the student at the beginning of training allowed to understand and realize personal and significant result of studying of the concrete discipline for formation of his professional competence. The choice of training methods or professional actions passed on such an algorithm: from information training methods (lecture, conversation, consultation, etc.) to operational (method of projects, practical training, etc.) and search (discussion, business game, etc.) methods. In a complex they form professional orientation of personality, develop the generalized ways of activity, the corresponding competences necessary for future teacher for this kind of activity.

Rating as the monitoring system of training results on the module allows to provide regular feedback between subjects of educational process, to correct training process, to stir up educational activity of student and his independent work. Such characteristics of a rating as an integration of total estimates, and also hierarchy, regularity, procedural clearness of control and its degree of structure help the student to take a subject position in training. It allows to understand and realize the potential opportunities, to find experience of planning and reflexive assessment for personal and professional development.

Techniques of educational process organization for formation of future preschool teachers' professional competence were the techniques of group and dialogue communication, during which abilities important for the modern teacher were formed (to hear other person, to ask questions, to participate in discussion, to work in team, to cooperate, solving the general problems). The special importance an algorithm of a task solution (formulation of a task, definition of steps according to its decision, registration of result and its analysis), which can be transferred to professional activity.

In educational process of higher education institution, student as the subject of vocational training seizes a profession, which result is his professional competence. The

academic forms of interaction of students with teachers and other students is not enough for an adequate translation of future expert's professional knowledge to the ability to think and work professionally. Experience of using knowledge in the course of professional interaction with subjects of receiving services that promotes formation of the corresponding competences is necessary. Accumulation of this experience has to happen in the course of the organization of educational and production practices of students.

During practice students learn to embody the concept of personally focused model of education and development of children, to solve the developing problems taking into account individual opportunities of each child. It was promoted by the organization of practical activities of students with children on a diagnostic basis: all training and educational events were based on the results of children's studying and level of their achievements.

During various pedagogical practices, students performed the various research tasks connected with ability to watch the child, to study and estimate activity of colleagues, etc. Students were convinced that the research component is very significant in the structure of teacher's activity. A poll among students showed that such early inclusion in research practical activities allowed them to come quickly into contact with children and teachers, to feel themselves more free and surely in the course of organization of directly educational activity, regime processes, diagnostic procedures.

And the most important is the fact that students get the most important component of professional competence - experience. It is experience of analysis, planning, organization and control of personally focused educational process, experience of planning and reflexive assessment of personal and professional development, communication with children and their parents, creations of favorable psychological climate in children's collective, participations in collective actions, etc. It should be noted that an important condition for the successful organization of student teaching is the choice of practice base, tutors of preschool institutions, heads controlling student practice. Emotional and constructive support of teacher-mentor and head of practice had an important value for the students experiencing difficulty in performing professional functions.

Thus, during student practice, the following objectives are achieved: formation of special competence of students in the course of professional tasks solution in conditions of real pedagogical process of preschool educational institution. Practice promotes students' formation of the main components of future teachers' professional competence:

- development of interest in professional activity, activization of processes of personal and professional self-knowledge and self-education, formation of individual style of future activity;
- increase knowledge of features of pedagogical process organization at preschool education institution, features of children development;
- development of research competence of studying a child, analysis of conditions providing efficiency of development, education and training of children;
- development of ability to the analysis and critical reconsideration of personal and others' pedagogical experience;
- formation of ability to design and organize pedagogical process focused on personal development of a child, readiness for communication with children and adults on the principles of cooperation and co-creativity, etc.

Feature of students' training process consists in its orientation on concrete professionalizing, therefore research work gets sense of professional characteristic of future expert. It increases spatial limits of self-realization of future expert, mobilizes personal potential of students, provides the birth of ideas in a situation of professional problem solution, helps understanding and experiencing of satisfaction from own activity.

Formation of professional competence of a modern expert is provided with inclusion in scientific and search activity, aspiration to creative, purposeful approach in the solution of professional tasks. I.A. Zimnyaya notes: "Students are the central period of formation of a person, personality in general, manifestations of the most various interests. The students age is a time of the most difficult structuring intelligence, intensive and active socialization of the person as a future "professional figure" (Zimnyaya, 1999).

Future teacher owning skills of research activity is capable to join the solution of pedagogical tasks creatively and from scientific positions. Research activity is a component of educational process and relies on cognitive readiness and personal relation of students to research.

Formation of students' readiness for research activity was carried out gradually. On the first and second courses it is motivation to research activity, acquaintance with research methods, ways of processing and submission of empirical data, understanding need of its implementation (cognitive and approximate component). Further it is formation of ability to plan and organize experimental work: formulate its purposes, tasks, hypothesis (operational component), have experience of implementation of this activity in preschool institution (experience).

For providing conditions for development of future preschool teachers' research competence the department organized problem and research groups of students and teachers. Organization and carrying out scientific and practical conferences as a form of students' involvement to vigorous research activity promoted development of interest in it and fixing skills of independent research. Both seniors, and junior students took part in conferences. It developed their motivation and aspiration to acquisition the experience of research activity.

Since the first course through research tasks were used during course and degree design. Opportunity for continuous work in the chosen scientific direction led to the fact that by the time of writing of the thesis students possessed theoretical information, collected empirical material in sufficient volume, seized various ways of solution of professional research tasks. Thus, the thesis accumulated all research experience gained by students during training.

Research work created necessary prerequisites for self-education and self-development of personal creative opportunities of students:

- provided conditions for identification, disclosure and development of abilities, personal interests of students;
- assisted all-round development of the personality, formation of objective self-assessment, acquisition of skills to work in creative collectives;
- developed ability to independent reasonable judgments and conclusions;
- gave opportunity to try the forces in the solution of actual problems of pedagogical science.

Strengthening of the developing function of education causes a need to design courses and practical works directed on formation of professional-significant competences of a preschool teacher.

Future bachelors of preschool education had the course "Innovative Programs and Techniques in the System of Preschool Education" providing them ability for self-determination in the conditions of variability of educational programs and pedagogical technologies when developing the main educational program of preschool education. The educational program of training specialists included elective courses. Let's characterize some of them.

The special course "Professional Activity of a Teacher in Conditions of the Federal State Educational Standard of Preschool Education" opened essence, contents and structure of expert's activity in modern conditions. In the course of studying, students

analyzed the variety of approaches to the characteristic of professional competence of a preschool teacher. The professional activity focused on development of child's identity was considered as the condition providing effective implementation of teacher's professional functions and improvement of preschool education quality. The special course promoted formation of professional motivation of students and improvement of their cognitive and approximate components of professional competence.

Special practical work "Management of Cognitive-Research Activity of Preschool Children" was directed on improvement of cognitive, approximate and operational components of professional competence of future teachers. Main objectives of the course are understanding the purpose and ways of its achievement in organization cognitive-research activity of preschool children; acquaintance with possible models of interaction between teacher and children taking into account their age and specific features, formation of individual style of interaction with children. Three primary activities on formation of professional competence of future teachers to management of preschool children's cognitive activity were planned: 1) theoretical, connected with judgment of essence and features of management of cognitive-research activity; 2) theoretical-practical, consisting in purposeful mastering ways of management of cognitive-research activity; 3) practical, connected with inclusion of students in educational process of kindergarten. At preschool organization students observed activity of a tutor, performed practical tasks, joined in activity that promoted formation of their special professional competence.

One of features for organization of educational process in higher education institution is discretization of control that influences decrease in its quality. In our research control is the system of ways for obtaining information on formation of professional competence indicators. It is about control of results of educational cognitive activity as the level of development of a complex knowledge, which possession is necessary for the solution of professional tasks, formation of planning ways, statement and decision, methods of performance of actions, which are required for the solution of problems of this type. It causes need of an optimum choice of forms and control methods taking into account their specifics.

The monitoring system of professional competence formation of future preschool teachers is directed on tracking the process of its formation on all main components and include monitoring and self-monitoring of professional and personal development of future teacher.

Process of professional formation of pedagogical shots demands application of pedagogical monitoring: personal development, quality of knowledge, formation of professionally significant qualities of a teacher. The results of professional development monitoring during students practice are the unique material reflecting a way of professional formation personality. The card of monitoring of future preschool teacher's readiness for personally focused pedagogical activity developed by us allows to trace dynamics of formation of significant professional competences. The judgment and acceptance of monitoring results induces the personality to self-development, self-change. Understanding external information on merits and demerits of the subject of professional development, in our opinion, promotes interiorization and transition of the subject to a condition of self-control and self-monitoring.

Change of relations in the system "teacher - student" is considered as one of the major conditions providing formation of professional competence of future teacher. The analysis of psychology and pedagogical literature and our experience show that process of formation of partnership between educational process subjects in higher education institution is caused by objective and subjective factors. We refer to subjective factors readiness of teachers for creation of partnership with students and readiness of students

to accept subject position in the course of training. It is promoted by creation of training on a dialogue basis, creation of conditions for individual manifestations, development and self-realization of students in independent work, learning-research activity of teacher and student focused on joint scientific search.

Conclusion

Our experience has no prescription character; it is only one option of vocational training of future teachers for the modern preschool education organizations. The major conditions are the following:

- modeling of future professional activity in educational process of higher education institution by means of appropriate training techniques;
- orientation of standard and elective courses on implementation of pedagogical support of students in educational process and formation of their professional competences;
- interaction of students and teachers on the principles of personally focused education;
- mastering components of professional competence during pedagogical practice;
- involvement of students in educational and research and research activity since the first year of training;
- implementation of continuous monitoring and self-monitoring for development personal and professional competence of future preschool teachers.

Recommendation

Our conclusions do not apply for the exhaustive solution of the considered problem; they assume some reference points for further researches of vocational training process of teachers for preschool education organizations at higher education institution.

The materials of the research can be used in educational practice at pedagogical higher education institutions and in the system of increasing professional and scientific qualification of educators.

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ECONOMIC GROWTH MODELING IN THE THEORY OF CYCLIC DEVELOPMENT

Abstract

Nowadays in the economy full of crises and general instability there appears the need to broaden and deepen the theory of cyclical development and economic growth. The development of the theory of economic growth shows that in the most general sense the economic cycle can be explained by different effects of feedback and multipliers acting in the economic system. Factorial structure of the growth is open enough, it is not limited by the interaction of labor and capital, or new technologies. The purpose of this article is the analysis of the main approaches to the modeling of economic growth. Under the conditions of the instability of the modern economy theories have greater diagnostic power, when they take into account a nonlinear nature of interrelation of development factors, the decision of which forms cyclic trajectories and also models that are directly based on the use of functions, reflecting the cyclic nature of economic development. To this end special attention is paid to dynamic models of economic growth.

Keywords

economic growth, modeling of economic growth, cyclical development

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Introduction

In modern economic literature the interest in the problems of the unevenness economic development and its cyclic recurrence has been increased. Economic development is formed under the influence of economic reasons, and because of the influence of external to the socio-economic system of factors. Economic development takes into account the institutional, legal and religious peculiarities of education and accumulation of human capital, labor market and capital. It includes the combination and interaction of economic growth with fluctuations, differing in size, amplitude and duration. The main component of economic development is economic growth. The

problem of economic growth has always been in the center of economists' attention. The economic growth is a result of the influence of long-term factors of the economic system development- savings level, labor force growth and technological shifts. In today's economy, saturated with economic crises, descending and ascending waves of different economic cycles and general instability, there appears a need to expand and deepen the theory of economic growth, its capacity in describing the descending power of feedbacks action in the economy. The definition of the uneven development of the cyclic economy means that the periods of growth are alternating with the periods of decline in production. The cyclicity is limited by these two extreme states. In economic literature fluctuations of economic activity are characterized as economic cycles and business cycles, which show a process of economic transition from one development stage to another. The sequence of changes like growth - recession development - stagnation has repetitive nature, but not periodic. The impulses, generating successive changes of the ups and downs naturally appear during the reproduction and are generated by the system itself. At the stage of nucleation of the cycle, the emerged fluctuation in structure needs initiates the appropriate changes in the distribution structure of productive forces. The category economic growth operates with the categories related to the productive forces of society and it is a narrower notion than economic development.

Research Methodology

Economic growth is reflected in the quantitative and qualitative improvement of the social product. Economic growth of social-economic system characterizes its activity and it is a derivative from the production potential of social-economic system. The production potential of social-economic system is a cumulative capacity of the system to carry out a productive, economic activity and the development of production, turn out products, provide with social needs etc.. I.e. the production potential of social-economic system is determined by its resources, producer's goods, labor potential, as well as accumulated wealth. The production potential can be considered as a potential volume of output that can be made with the optimal use of available resources. The resources that make up the production potential can be considered as factors of economic growth. In this case the main factors of economic growth are: natural resources, human resources, physical capital and production methods. At the same time operation factors of economic growth are not fixed theoretically output indicators, they depend on the achieved level of economic development in the country, the existing market structures and a number of other conditions. In the growth stage a dynamic correspondence between changes in the structure of needs and production resources, consumption and production is provided, while the growth rate of quantitative structural shift stabilizes at a peak.

Analysis of the current state of the economic growth theory and practice shows that there are two main directions of its modeling. The first is connected with the construction of production functions, linking economic growth with the dynamics of the factors of production. In using production functions the economy is considered as holistic unstructured measure, where at input resources are coming, and at the output there is a result of the economic functioning in the form of gross output. Here resources are treated as arguments, and gross output as a function.

The second direction involves the modeling of production and consumption based on multi-sector models. In this case, the economy is structured and consists of a finite number of sectors or clear industries producing one or more types of products. Here, the economic growth is modeled on the basis of the supply-demand balance factors in the economy.

In scientific literature there are many different models of economic growth based on production functions.

The studies of the developers of the first economic growth models were based on Leontief production function with two factors and fixed input-output coefficients costs.

$$Y = \min\{aK, bL\} \quad (1)$$

where a and b - the average capital and labor productivity.

This function assumes the capacity evaluation for growth in output in terms of the labor supply and capital resource availability separately.

Another simple production function is linear one

$$Y(t) = A(t)(a_K K(t) + b_L L(t)) \quad (2)$$

where $Y(t)$ - coefficient of multifactor productivity;

$K(t)$, $L(t)$ - costs of capital and labor;

a_K , b_L - weight numbers calculated by comparing the costs of labor and capital in the production of the final product as an average measure during the study period, when $a_K + b_L = 1$.

In later studies, economic growth appears as a result of the combined effect of three main factors: labor resources, capital and technological progress. As a rule, modified Cobb-Douglas production function was used in such researches.

In conditions of instability theories, which take into account the non-linear nature of the interaction between development factors, have more diagnostic power. Their solution forms the cyclic trajectories as well as models, directly based on the use of functions, reflecting the cyclical nature of economic development, that in fact is transition considering static distribution of income to the dynamics of economic growth.

The main ideas of Dynamic Economics, well-founded by Harrod and Domar are based on Keynesian income distribution system according to which households received income Y , make demands C for consumer goods and services and determine the level of savings S . With the assumption that investments are not only a source of income, but also means of increasing the economic capacity, Harrod took investments equal to capital gains and moved from considering the static distribution of income to the dynamics of economic development, based on the following considerations:

$$I = dK / dt \quad (3)$$

The connection between aggregate demand Y with investment demand I in the simplest model of the economy is given by:

$$Y = I / s_y \quad (4)$$

Where $I = S$, (5)

$1/s_y$ - Keynesian multiplier;

$$s_y = S / Y$$

The saving rate is less than unity as

$$Y = S + C \quad (6)$$

From this, due to (3, 4) the economic expansion rate (G) can be given by

$$G_Y = s_y / v \quad (7)$$

where

$v = dK / dY$ represents a marginal capital intensity of release

On the other hand due to (3)

$$G_K = (dK / dt) / K = s_y / k_y \quad (8)$$

where $k_y = K / Y$ - the average capital intensity

So, if we assume that there is the equality of marginal capital intensity $v = k_y$, then the optimal economic growth due to Harrod is given by

$$G_{wr} = G_k = (s_y / k_y) \quad (9)$$

where an investment amount is equal to the product of the average capital intensity of release on its gain: $I = k_y dY / dt$

To sum up, households consume goods and lay aside savings, which become investments and then provide a capital gain. In turn, when this capital gain moves along the optimal growth trajectory the national product increases due to the equation (9).

According to Harrod the economic growth, described by equality (9), i.e. where growth rate G_Y is the same as capital growth rate G_K , is optimal, because it is defined by propensity for save and technological limits, which are expressed by the average capital intensity k_y . With such increase all economic agents are satisfied with that fact they have produced exactly that amount of product that is necessary.

Further development of the economic dynamics was found in neoclassical economics in Solow's work. He supplemented the Harrod-Domar's hypothesis by including the production function, thereby inputting the description of the production process explicitly. It allowed to consider the possible steps of replacing labor and capital and to link natural growth rate with an optimal gain rate for Harrod. Solow's consideration of the replacing possibility between labor and capital has led to the appearance of a new class models in which it turned out to be possible to explore the growth path where the movement was stable.

According to Solow in the differential form the connection between output Y, capital K and labor L set with the neoclassical production function $Y=F(K,L)$, is represented as:

$$dY / dt = F_K dK / dt + F_L dL / dt \quad (10)$$

Where F_K и F_L are partial derivatives of F with respect to K, L resp.

The equation (10) can be rewritten in this way:

$$G_Y = \alpha_K G_K + \alpha_L G_L \quad (11)$$

where α_K, α_L - partial logarithmic derivatives F with respect to K и L resp. and $\alpha_K + \alpha_L = 1$

It is important to note that although Solow unlike Harrod considered only the situation of full employment, this restriction is not essential for this model, and L refers to a demand for labor, no more than its supply.

According to (11), the growth rate of release is equal to a convex combination of optimal Harrod gain rate of output and the growth rate of labor, with coefficients equal to the elasticity of output to capital and labor, resp. Supposing the equality of aggregate demand (4) and supply $F(L, K)$, substituting (8) into (11), the last equation can be given by:

$$GY = \alpha_K s_Y / k_Y + \alpha_L G_L \quad (12)$$

So, according to (12), if the growth rate of labor coincides with the natural growth rate, then the growth rate of release is equal to a convex combination of optimal Harrod growth rate and natural growth rate.

Motion along a trajectory, optimal to Harrod, is stable (at a fixed propensity to save s_Y), as the possibility of replacement labor for capital make economic growth in the long term growth limited by labor. At a constant rate of growth of G_L a trajectory optimal for Harrod took place and at some moment of time as a result of abrupt growth propensity to save s_Y turned out $G_Y < G_K$ and according to (11)

$$G_L < G_Y < G_K \quad (13)$$

At the same time, as it follows from (8) that

$$G_Y = G_K + (dG_K / dt) / G_K - G_s \quad (14)$$

where G_s - is the growth rate s_Y then subtracting the last from (11) we have

$$(dG_K / dt) / G_K = -\alpha_K (G_K - G_L) + G_s \quad (15)$$

or considering the propensity to save s_Y fixed,

$$(dG_K / dt) / G_K = -\alpha_L (G_K - G_L) \quad (16)$$

This implies that the capital growth rate G_K , and also G_Y , due to (13) tends to G_L . Similarly, we can show that if during some time the following inequality holds $G_Y > G_K$, then the growth rate of release G_Y also eventually tends to G_L .

Solow was the first to make a conclusion that in the neoclassical approach the economic growth in long-term period is limited by the labor growth rate. This conclusion destroyed the theory based on the equality (7) that the problem of growth is in increasing of the propensity to save.

It is necessary to note that for this sustainable trajectory the capital growth rate coincides with the labor growth rate, and Solow called this trajectory stable. At the same time stable trajectory in this model is optimal for Harrod ($G_Y = G_L$) and natural growth trajectory ($G_Y = G_L$). Thus, under neoclassical approach trajectory is stable only when it is at the same time optimal growth trajectory for Harrod and natural growth trajectory.

T. Haavelmo made a great contribution to the study of the economic dynamics growth under the neoclassical approach. In 1954 Haavelmo proposed a model of economic growth based on Cobb-Douglas production function, according to which he describes an

economy's production of output as a function of the stock of capital (K) and the level of employment (N). Haavelmo model is:

$$\frac{L^*}{L} = \alpha - \beta \frac{L}{Y}, \quad \alpha, \beta > 0 \quad (17)$$

where L и K - functions of time;
 α , β - constant known functions of time.

$$Y = c * L^a * K^{1-a} \quad (18)$$

где Y -production output;
 L - the level of employment;
 K - the stock of capital.

Expression (18) Y is a real output produced with a constant elasticity (a) with diminishing return of labor power.

Expression (17) can be represented as an autonomous growth proportional to the level (α) less the level of per capita income.

So, increase in growth takes place with increasing per capita income and it is limited by the parameter (α). Connecting the expressions (17) and (18) we get an expression (19) that reflects the dynamics of employed workers:

$$L^* = \alpha L - \frac{\beta}{(c * K^{1-a})} L^{2-a} \quad (19)$$

where α is the parameter of the differential equation.

The expression (18) has two stationary solutions: unstable $L^*_1 = 0$ and symptomatically stable $L^*_2 = \left(\frac{\alpha * c * K}{\beta}\right)^{\frac{1}{1-a}}$.

Having the constant stable solution a general solution can be the following:

$$L(t) = \left(\frac{(K(L(0))^{a-1} - \frac{\beta}{\alpha}) e^{\alpha(a-1)t} + \frac{\beta}{\alpha}}{K} \right)^{\frac{1}{a-1}}$$

If the initial condition is $L(0) > \left(\frac{\alpha * c * K}{\beta}\right)^{\frac{1}{1-a}}$, then L and K will be monotonically decreasing, if $L(0) < \left(\frac{\alpha * c * K}{\beta}\right)^{\frac{1}{1-a}}$, then L and K will be monotonically increasing i.e. they

will be closer to their unique stable values $\left(\frac{\alpha * c * K}{\beta}\right)^{\frac{1}{1-a}}$ and $K \left(\frac{\alpha * c * K}{\beta}\right)^{\frac{\alpha}{1-a}}$.

In 1980 г. Statzer developed a nonlinear model of economic growth on the basis of the previous model presented by Haavelmo.

In his work Statzer replaced the function trajectories L (t) with the orbit trajectories {L, t}, and differential operator with finite difference $N T + 1 - N \tau$ and got nonlinear first-order differential equation, describing the behavior of employees in time.

$$L_{t+1} = (1 + \alpha)L_t - \frac{\beta}{K} L_t^{2-a} \quad (20)$$

Carrying out an analysis on the basis of equation (19) will determine the optimal level of employment, at the same time there is a need for further conversions:

$$L_t = \left(\frac{K(1 + \alpha)}{\beta} \right)^{\frac{1}{1-a}} x_t \quad (21)$$

The equation (19) is written the following way:

$$x_{t+1} = (a + \alpha)x_t(1 - x_t^{1-a}) \quad (22)$$

where

$$x_t = L_t \left(\frac{K(1 + \alpha)}{\beta} \right)^{\frac{1}{1-a}}$$

The equation (21) is a nonlinear first-order differential equation and its form allows to carry out the further dynamic analysis. To find the equilibrium state and the intervals for which there is convergence to equilibrium, it is necessary to use the properties of local bifurcations.

$$f(x) = (1 + \alpha) * (1 - x^{1-a}) \quad (23)$$

The solution of equation (23) gives two equilibrium points (24):

$$f(x) = x, \text{ or } (1 + \alpha) * (1 - x^{1-a}) = x \quad (24)$$

$$c_0^* = 0, \quad c_1^* = \left(\frac{\alpha}{1 + \alpha} \right)^{\frac{1}{1-a}} \quad (25)$$

After conversions (25) with the use of (21) we have

$$L_1^* = 0, \quad L_2^* = \left(\frac{\alpha K}{\beta} \right)^{\frac{1}{1-a}} \quad (26)$$

The next step is to study the convergence of (21) at the equilibrium point L_2^* .

At the beginning of the XX-th century Western economists noted that the growth rate of labor productivity exceeds the growth rate of capital intensity. We take into account only two factors - labor and capital, from the position of the factors theory of production it is difficult to explain such economic growth. Therefore, it was concluded that there is another factor that influences the economic growth. In growth models based on the neoclassical production function the economic growth in the long term is limited by an extensive factor (the growth rate of the labor resources) and the increased propensity to save by increasing the pace of economic growth in the short term does not lead to increase of the economic growth rate in the long term.

After Solow had established this fact, economists began to pay more attention to intensive economic growth factors, the main of which is the scientific and technical progress.

Most part of the work of neoclassicism in the 50-60s of the 20th century was devoted to exogenous factors of scientific and technological progress and didn't consider the problem of forming parameters of scientific and technological progress. In the late 50's early 60's there appeared a discarding of the exogenous technological progress concept in favor of endogenous parameters. In the late 80's and early 90-ies there was a direction of modern Neoclassicism, which was devoted to modeling the impact of innovative activity on the technological changes taking into account the accumulation of human capital.

In general, the model of economic growth within the parameters of technological progress can be represented the following way:

$$Y_t = A_t^\sigma K_t^\alpha L_{Yt}^{1-\alpha} \quad (27)$$

where K_t - physical capital ;

L_{Yt} - the total amount of human capital involved in the production of output;

A_t - the total stock of ideas available in the economic system.

At the same time $0 < \alpha < 1$ and $\sigma > 0$. Notice that there are constant returns to scale in K and L_Y holding the stock of ideas A constant, and increasing returns to K , L_Y , and A together. This assumption reflects the now common notion that ideas are nonrivalrous or "infinitely expandable."

It is necessary to pay attention to the fact that there is a constant output K , and L_Y , and K и L_Y , and also

Physical capital is accumulated by forgoing consumption:

$$K_t = s_{Kt} Y_t - dK_t, \quad K_0 > 0 \quad (28)$$

The variable s_{Kt} denotes the fraction of output that is invested (s_{Kt} is the fraction consumed), and $d > 0$ is the exogenous, constant rate of depreciation.

Next, aggregate human capital employed producing output is given by

$$L_{Yt} = h_t L_{Yt} \quad (29)$$

where h_t is human capital per person and L_{Yt} is the total amount of raw labor employed producing output. An individual's human capital is produced by forgoing time in the labor force. Letting h represent the amount of time an individual spends accumulating human capital,

$$h_t = e^{\phi h_t}, \quad \phi > 0 \quad (30)$$

The final factor in the production of output is the stock of ideas, A . In the model, ideas represent the only link between economies; there is no trade in goods, and capital and labor are not mobile. Ideas created anywhere in the world are immediately available to be used in any economy. Therefore, the A used to produce output in equation (27) corresponds to the cumulative stock of ideas created anywhere in the world and is common to all economies.

New ideas are produced by researchers, using a production function like that in Jones (1995a):

$$A_t = \delta L_{At}^\lambda A_t^\phi, \quad A_0 > 0 \quad (31)$$

where L_A is effective world research effort, given by

$$L_{At} = \sum_{i=1}^M h_{it}^{\theta} L_{Ait} \quad (32)$$

In this equation, i indexes the economies of this world, L_{Ai} is the number of researchers in economy i , and θ . World research effort is the weighted sum of the number of researchers in each economy, where the weights adjust for human capital.

According to equation (29), the number of new ideas produced at any point in time depends on the number of researchers and the existing stock of ideas. We allow $0 < \lambda \leq 1$ to capture the possibility of duplication in research: if we double the number of researchers looking for ideas at a point in time, we may less than double the number of unique discoveries. We assume $\varphi < 1$, which still allows past discoveries to either increase ($\varphi > 0$) or decrease ($\varphi < 0$) current research productivity.

Conclusion. The model given above studies the dynamics of economic growth based on innovations. Growth in any particular country is driven in the long run by the implementation of ideas that are discovered throughout the world. In the long run, the stock of ideas is proportional to worldwide research effort, which in turn is proportional to the total population of innovating countries.

To sum up, the theory of economic growth includes the methodology of describing the economic cycle, which is represented in the works of neoclassical and Keynesian economic branches, where the multiplicative effects and akselerativ mutual influence functions of investments, incomes and consumption, generating economic growth are described. However, in the theory of economic growth these cyclic iterations are short term in nature, and models which describe them are designed just to show how the market zigzag dynamics generates an upward wave of comprehensive income. Thus it is implicitly assumed that growth is a function of the economic cycle. The impulse to the convergence of growth theory and cycles theory and the conjuncture was set by the theory of growth during the reaction of its representatives from the side of alternative directions of economic science.

On the whole, the development of the economic growth theory shows that in the most general form the economic cycle can be explained by the different effect of feedback and multipliers acting in the economic system. At the same time growth factor structure is widely open and it is not limited by the interaction of labor and capital, or new technologies. Moreover, the economic growth is generated at different levels of the economy, therefore, it is necessary to take into account the behavior of economic entities of different levels, with particular attention to the mesoeconomic structures.

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THE ABSOLUTE NEUROTECHNOLOGICAL SOLUTION TO THE PROBLEM OF RECIDIVISM AND SOCIAL REHABILITATION OF CONVICTS

Abstract

The urgency of the investigated problem is caused by the fundamental issue in branches of criminal law, especially in penal law. The problem is in the ineffectiveness of weak correction of convicted, insignificant private prevention and the outdated methods of decrease in the level of recidivism. The purpose of the article is to show that achievements of the modern neurology and neuroscience promote solving the problem by the humane and cheap way completely. It is also the search of interested social factors points, which should be taken into account during the implementation. The lead approach is, firstly, the presentation of neuroscience achievements in case of impact on the world outlook and behavior. Secondly, it 's the search of technologies that fit the requirements of the final solution of this problem, investigation the basic interests of the state, society and citizens during the implementation, then the study of the cooperation role in implementation, the designation of basic rules, which promote the optimal way for interaction. The implementation will promote the humane use of neurotechnology in correction of convicted, in radical increase the level of security and decrease the harm, which is caused by crime. It will lead to general weakening of crime, especially extremist and drug trafficking. In general, it will break the existence of professional and organized crime. One of the most appropriate requirements of effectiveness in correctional impact is domestic technology of selective erasure of memories. Especially, key subjects and social groups are interested in the implementation. Following the requirements of humanity, providing the state public control is necessary. The promotion both organizational-legal and financial research; the development and implementation of neurotechnology in the penal system - are also necessary. Its use is justified by existing Russian and international law; it does not contradict the current legal acts, devoted to the rights of prisoners. Observation of extreme caution during the establishment of social norm is necessary, using hi-tech impact on the psyche. The excessively overvalued requirements should not put law-abiding citizens and companies with dominance of such citizens into disadvantage because of high costs of observance these rules. Article materials can be useful for the government and companies in case of determination the development strategy, for scientists in the research of criminal law, especially the effectiveness of criminal repression; and the all, who are interested in neuroscience and ways of development of society and legal subjects.

Keywords

neurotechnology, neuroscience, K.V. Anokhin, recidivism, criminal-executive law, criminal law, penal law, the prison, the purposes of criminal punishment, correction of the convicted person, prevention of committing new crimes, new innovations markets, strategies of the development

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Introduction

1.1. Actuality of the Problem

One of the most important problems in the science of criminal-executive law and in the society, in general, is the inefficiency of existing penalties. The significant part of the Russian criminals (it's 85 %) (*The Bitter Statistics*, 2015), served their imprisonment, commit the crime again, i.e. after all of the procedures, devoted to the finding circumstances of the case, reaching the verdict and its executive. It shows the extremely low efficiency of existing methods of punishment, at least, in their current form. As the Secretary of Corrections in the state of Pennsylvania John Wetzel says, the rate of recidivism is 50% (*Fixing the System*, 2015).

The purposes of general and special prevention, correction of the convicted through punishment are recognized. The Part 2 of Art. 43 of the Criminal Code of RF contains the purposes of criminal punishment: correction of the convicted person and prevention of committing new crimes. How are these goals realized, if 85 % of the convicted to imprisonment commit crimes again? It shows the need of changing the ways of influence on prisoners, doesn't it?

1.2 Explore Importance of the Problem

It should be said that prisoners live in special conditions in the places of confinement. Strict supervision does not protect from the various facts of lawlessness. Prisoners get used to live not under the law, but under the "concepts", which directly prevent the process of properly socialization for those, who follow the life by this "concepts". Because of the wide popularity of this situation in society, nobody needs in released prisoners. Quite true point of view exists in society: the prison doesn't correct; often it conversely contributes to "social hallmarking", which pushes on the new crime again. There are different goals: to survive, to take revenge on society, to return in the prison, where everything is so simple. As the long-term practice shows, despite the numerous efforts the efficiency of different rehabilitation measures makes us to wish something better. This deadlock situation formed years ago. Still it is unclear, how to deal with it, how to break the vicious circle.

Let's just look around. We are surrounded by the results of information technology; various electronics has got into the all spheres of life. The great scientific progress is noted in the human brain and psychic researches.

The opportunities of neuropharmacology, which can contribute the socially acceptable human behavior, are awarded in the work of Francis Fukuyama "Our Posthuman Future": "Before the genetic engineering will be possible, knowledge of brain chemistry and opportunities to manipulate is important management tool with serious political consequences" (*Fukuyama*, 2002/2004).

As the candidate of biological sciences Evgenia Ivanovna Belova says: "the neuropharmacology value is determined by the role, which the nervous system plays in the all spheres of people's life" (*Belova*, 2006).

Konstantin Anokhin, who is the head of the Kurchatov Institute of Neurosciences Department, creates the way of partially erasure memories (*Balaban*, 2013).

That's why, memory changing leads to the personality changing, which means correction of the person, and the last is the purpose of criminal punishment.

Methodological Framework

2.1. Purposes of Research

Firstly, the purpose of research is the identification of neurotechnology opportunities in correction of convicted. Furthermore, the interest of certain elements of state and society in solution of this question by this way should be determinate.

Next, the legal opportunities for testing these methods on prisoners should be identified. In addition, the determination of probability of the implementation and its desirability is necessary; also the identification of some requirements in the implemented methodology is also important.

2.2. Methods of Research

The research is meaningful as the indicator of possibilities of interdisciplinary cooperation. Therefore, the list of discoveries in the sphere of neurotechnology is presented on the article. They are assigned by the author to the possible means for use them as the methods of impact on attitudes, motives, the most important goals, world's outlook due to technical change of life experience and its assessment.

The criterion is the novelty, because the research development in the earlier period has specific and mostly medical nature. But the increase of various publications about new discoveries in the sphere of research of brain and impact on the brain is spread today.

The next criterion is the statement in the author's publications about the presence in the discovery or invention the applications, which are required for the purpose of correction convicted. The author attributes to these applications the ability to change the subjective experience of person and also the attitude to the elements of this experience. This change should turn the criminal behavior of convicted from the deviant into the appropriate to requirements of behavior in society. This is the real correction of the person in the psychological aspect.

After that, the way of change is chosen by the author of the article. At the present, this way for correction is the most appropriate. Criteria of choice are:

1. The preference is in favor of earlier from the chosen at the previous stage. The selection by the novelty would be excessive. In addition, it would be impossible to apply another criterion, because the only the latest fits to novelty. The most important is that the early method means better research, higher level of development in this direction and the existence of great opportunities for detection of disadvantages, if they exist. However, the author of this article only carefully supposes the presence of defects in the selected method.

2. Criterion of guaranteed changes in the needed direction. This from the all of ways supposes the great effectiveness in person's changes.

Humanity is also considered by the author of the research as the important feature. The impact does not lead to the suffering.

Then the review of the social preconditions is necessary, because the technical possibility means, but does not guarantee the implementation of neurotechnological correction. This is done by the way of searching of the relevant social groups with coordinated interests. The interests are determined in accordance with basic purposes of their activities, mainly in relation to the penal system and criminal punishment.

Then the author notices how the use of this technology can influence on the society, guarantees of citizens' rights in dependence on our position to

implementation. The author tries to determine the procedure for this applying in the process of criminal prosecution.

The author explores the legal opportunity for conducting tests on convicted with the use of new methods for correction. It was made with the research of current legislature (Russian and international documents), which establishes restrictions on the conducting scientific and medical researches on prisoners.

2.3. Description of Research

The discovery of centers of interpretation situations as positive/negative (*The regions of the brain of distinction between good and evil*, 2016) by scientists of Germany and Israel, coupled with the impact of transcranial electro stimulation, absolutely painless, give the opportunity to form a certain attitude to the certain life circumstances.

Scientists from the University of California make the discovery of "word's cards" in the brain, which allows to put into correspondence the words and relevant parts in the brain (*How your brain files away words*, 2016). Moreover, there is an opportunity to set the individual nerve cells, which are responsible for a certain memory (Quiroga, Friedland & Koch, 2013). It opens the opportunity for changes in this memory. In addition, there is an opportunity to form synthetic memories (Aleena & Garner, 2012). Moreover, there is the evidence of successful experience in changes and erasure of memories in the Department of Neurosciences in the Kurchatov institution, which is headed by Professor K.V. Anokhin (Balaban, 2003).

Thus, it contributes the changing in social attitudes and correcting the person. This allows fighting not only with the extremists, but also with anybody, who is found guilty. The guilt is the selective negative psychological attitude to certain social relations. Not just current success, but this speed (these discoveries were made in the last three or four years) should be emphasized. Such promising successes make us to think, whether it is possible to put achievements in the field of neurosciences on the social benefit. Existing problems in the execution of punishments makes the applying of neuroscience logical.

There are a lot of groups, whose interests are directly connected with the implementation of these methods.

The first group surprisingly consists of convicted. First of all, after serving the punishment they cannot cope with problems of free life, complicated by social hallmarking. Procedures, in which through the use of methods that directly influence on the person's material substratum guarantee of results is given (and the result will be observed on the screen during the research of person's brain), allow to get rid of the social hallmarking, both formal and informal. The person becomes in this case the full member of society.

The second group consists of the state and, especially, the economic block of the government. The content of the criminal-executive system involves the huge amounts of money, the economic returns from the prisoners, who are not subjected to the above-described impact, is negligible. So, the government spent 266 billion rubles in 2016 for the Federal Penitentiary Service maintenance (Kiyucina, 2015). It's more than for health or social protection, but the income consists of only 30 billion. The Budget of the USA in 2015 proposes \$8.4 billion for Federal prisons and detention facilities. The need to bring to criminal responsibility the same people creates an additional (but by the volume: basic) work on the investigating bodies and the court.

By the way, it shouldn't be forgotten about the companies, connected with pharmaceutical business, and the producers of special equipment. Lobbying power of

these companies is able to influence both the public opinion and the position of government leaders.

Finally, the guarantee of security for ordinary citizens is also as important as the guarantee of person's freedom. It's the fact, which the hierarchy of needs by Maslow is able to explain.

Of course, neurotechnology implementation risks in changing the person (even only convicted) by government are extremely high. However, we must remember that these risks are more arguments to the action for government and companies, who are the players with the greatest opportunities in this situation. Therefore, no matter personal relationship to the neurotechnology implementation in the penal system, it should be understood that this implementation is an issue of time and stakeholders' effort.

It goes without saying; we can try to realize this implementation in such way, which will follow our interests. It can be done only by the way of control with establishing the humane and democratic legal borders. In this case the right and the law are able to direct the process to the needed way.

The legal problems, which appear during this process, connect with the need to relate the implementation of new ways for impact on the human and realization of real legal norms. It can be made by identification of existing rights and obligations, its changing and creating new ones.

These technologies are able to present extraordinary peace and prosperity for Russia and humanity, but they can determine unprecedented violation of human rights and freedoms.

Providing the best balance between the rights of the person and society during the implementation of these technologies in the sphere of criminal and penal law is the basic purpose.

It should be noticed that the court determines the measures of criminal law in relation to the person; the court will make the final decision. The judge makes the decision about corrective measures, which should be applied to the person. During the case investigation the court should plead guilty the person. It means to determine his psychological attitude to social relation, which was broken as a result of committing the crime. This relation builds concerning the wide circle of criminal-law security objects and differs from the negative in case of intention to careless in case of negligence. Subject to the establishment of the Motives and goals of persons, committed the crime, are also should be indicated.

On this hand, the methods of neurotechnical impact show its advantages. Such punishments as the imprisonment or rights and freedoms limitation show its inefficiency in relation to 85 % of convicted. Theoretically, after this experience the person must become clean and come to conclusion about the unacceptability of committing the crime again, at least for not being re-imprisoned again. Instead of this; using the way of neurological research, it becomes possible to influence on those brain mechanisms particularly and easily-checking, which lead to criminal behavior.

The way of changing the person by the memories erasure seems especially effective there. Moreover, it is quite obvious that this method relates with criminal penalties (complete memories erasure would be the better and more humane alternative instead of death penalty or life imprisonment); the possibility of correcting the person becomes most evident, too.

Deleting specific memories, which create a personal experience (it motivates to commit crimes), is the humane procedure. According to the K.V. Anokhin's research, it's also painless procedure. That's why; it has no comparison with the imprisonment, especially life imprisonment.

Results

Therefore, promotion and full implementation of this method are the guarantee of building the society that does not know professional criminality. The transformation of the confused and seeming "dead" person into the absolutely new and clean person is quite strong argument. Furthermore, it will save thousand lives. Lots of girls, women and children will be protected from the danger of rape. It is the way of incredible improvement of society from organized crime (today the danger of prosecution is not a problem for criminals). This becomes achievable, using bloodless and painless methods.

Is it possible to dream about something more? If it does not relate to the purpose of the criminal justice, in what is its purpose?

It is necessary to take the following measures for achievement the results:

Firstly, such research should attract the attention of lobby in penal system and justice.

It must become an issue of special importance, which is needed in objective financing for achievement of useful for correction results.

Secondly, it should provide factual and legal opportunities for the immediate implementation of technologies in the correction.

Discussion

Noteworthy is that this issue in the legal science has no proper overview. The problem of searching criminals (*Ross, 2003*) with the use of different methods with detection of lie (*Minkin and Nikolaenko, 2017*) attracts attention. However, the issue of using neurotechnology in the correction of criminals has not studied. Researches, which provide links in articles, devote to scientific theory, but not to its legal applications.

Conclusion

At this moment, there are certain places for testing these methods on prisoners.

So, Part 3 of Art.12 of the Criminal Executive Code prohibits any experiments, connected with conducting biomedical research and testing medical products, new methods of diagnostics, prevention and treatment of diseases. Restrictions on the medical experiments are also declared in the Nuremberg Code (*The Nuremberg Code, 1947*) and in the Helsinki Declaration (*Helsinki Declaration, 1964*).

Actually, the suggested methods are not medical, because they are not focused on the patient's treatment. In case of person's insanity this person has no punishment. The criminal is not a patient; he is in a good health, that's why he is convicted. The proclamation of the criminal as the sick person is the fact of the anthropological approach in the form, closed to lombrozianism.

So, the prohibition, presented above, has no matter to this issue. This method is not medical. It does not relate to Part 3 of Art.12 of the Criminal Executive Code and other restrictive points of view in the field of medicine. The Nuremberg Code does not have any restrictions by the feature of being in prison (*The Nuremberg Code, 1947*).

So, it is not an obstacle for the preparation of implementation of these methods in reality. Thus, the legal opportunity for implementation of this method has already created.

Prospects and efficiency of this stand out the all well-known analogues.

The complicated situation, which appears with need of security in society, requires efficient and tough decisions (if it will be necessary).

The support of using the neurotechnology in the correction of convicted is absolutely necessary for the purposes of criminal penalties, the interests of citizens, prisoners themselves, the state and society.

Recommendations

Facts, arguments and conclusions, which are presented in the article, have the value for lots of people. First of all, they are specialists in the sphere of law.

It should be noticed again that there are only few really new ideas in the field of convicted correction. That's unacceptable. The old fight between supporters of violent measures and supports of humanization still exists in the sphere of psychological approaches of influence on the prisoners in reality. This old fight only has become modernized. The supporters of violent measures are focus on the punitive nature of punishment. In their opinion, the punitive nature must make the potential criminal to refuse from commission of crime, because the punishment outweighs the benefits in the commission of crime. As for supporters of punishment humanization, the founder of theirs ideas can be considered Cesare Beccaria.

By the way, does not matter that a lot is made in the field of substantiation and adaption to the changing conditions, we cannot talk about the success.

It is necessary to apply absolutely innovative approaches, which are located outside the traditional measures of influence on the psychic of the person. Because of this, absolutely new approaches should be applied. This research work shows the way to the radical change and improvement of existing methods of influence.

Researching of a new and previously unexplored sphere of law - Legal Support of neurotechnology - allows adding the element of orderliness in this field.

In addition, the provision of human rights and freedoms becomes the vital necessity, because the advancing conversion of the issue of neurotechnology from the field of pure science fiction into the area of practical applying shows the deficiency of opportunities of bioethics, that's why the legal control is needed.

The norms shouldn't become the chain on the implementation of new methods and techniques. It is vital for the whole society, because the advantage can be in the hands of the most unscrupulous individuals and companies in the tough moral and legal restrictions on the use of any opportunities. These individuals are indifferent to these restrictions, but lawful individuals and companies are defeated. This seems unacceptable.

Further, these researches are valuable for the employees of the criminal-executive system as the change direction.

Here, it is necessary to clarify immediately that the negative attitude to the proposed reform and the wish to slow down are not only unethical (in terms of the interests of society, in general), but also meaningless. It will be carried out, because it is the best way for development. The most logical behavior is not to resist the inevitable future changes, but to integrate in them with the best possible outcome for you.

The implementation of these methods will more likely lead to reduction; however, the need in the administration and control for the correction of prisoners persists for ordinary guards. It will be just like with lots of large staff-capacious firms: reduction of the total number of employees leads to increasing the role and status of the highest managers. Especially, the use of such effective methods of influence on the psychic increases the importance of the criminal-executive system radically. Then the research shows employees of governmental economic staff the way of cost optimization for the maintaining of law enforcement bodies. This cost reproduces itself in terms of huge recidivism and ineffective social rehabilitation for convicts.

By the way, companies of pharmaceuticals and special equipment have the great interest in the economic sphere. Lots of crimes are committed each year. The total number of convicted on the 1st of December in 2016 reaches 633,826 thousand. The number is increasing, because the economic situation in the state is not so good. Even if the recidivism will disappear, the number of people, who are subjected to the influence at the maximum use of the program, won't be less than 100 thousand a year. Moreover, the spread of the methods of correctional impact on the administrative offences and educational influence at all is possible in the future.

Just think, you get a ticket, the accelerating strip, the start to the market in the billions of customers!

It is evident that not all world countries will have its own technologies for these methods. That's why, it opens lots of global markets.

The correction of prisoners is the excellent start for neurotechnical testing in terms of guaranteed sales market and relatively insignificant damage for society in case of errors during the first applying. It should be said that aforementioned Nuremberg Code and the Declaration of Helsinki restrict medical tests on prisoners, but they are not the obstacle for the correctional impact, which, by the way, can have medical applications under insignificant change (Declaration of Helsinki, 1964)..

Special attention should be paid by representatives of all professions, connected with the fight against extremism and terrorism. These groups of crimes directly connect with negative experiences. Especially, to re-educate the criminals is extremely difficult because of their psychic features. Practically, the achievement of the desired result is possible only by the way of direct impact on the brain, aside from criminal consciousness of extremist or terrorist.

Besides, the applying of neurotechnology gets new opportunities in the operative work, because technologies can be used theoretically in the recruiting and re-recruiting. It also deserves the attention of fighters against organized crime. Does it need to notice the intelligence and counter-intelligence?

Further, this issue has an interest for fight with drug-related crime. The demand generates the supply, it is the common truth. The problem of drug addicts, in particular, is in the formation of the psychological addiction. The person remembers the pleasant feeling while taking the drug. The need to re-test the chemical happiness after years pushes the person on the use of these substances. Low efficiency of anti-drug therapy - about 90 per cent of relapses - leads to the need of use this means of correction.

According to the method of Antokhin, the memory erasing is dotted. This fact provides additional stimulus to use this method on the drug criminals firstly, because the removal of memories about drug intake is the most obvious way of the consumer's correction. Obviously, neurotechnology correction should be primarily implemented in the fight against drug trafficking and extremism, which are spread in our country.

This issue should evoke the particular interest of all, who are interested in the problems of punishment humanization.

It should be noticed that these methods should be implemented only in the case, if they do not cause physical suffering. Perhaps, it is achievable. Even if other means of impact will be realized, the risk of causing the pain can be removed by the use of the substances, which eliminate the pain.

The use of such quick and painless ways of correction of the convicted minimizes the repressive nature of the penal system.

Problems of prison with its criminal environment and its violation of human rights by the hand of administration can be also minimized.

Anyway, the public and state control for the implementation of the quicker procedure can be much more reliable and easier carried out. Perhaps, this procedure will be provided in the biggest cities in order to economy and lack necessity for long and large maintenance of prisoners.

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DEVELOPMENT OF THE INTELLECTUAL VOICE ASSISTANT WITH EXTENSIBILITY SUPPORT

Abstract

Relevance of intellectual voice assistants consists that they allow not to make direct physical contact with technique; the device will accept, interprets and will execute a voice command. The purpose of article consists in representation of development process of the personal voice assistant capable to interact with an operating system and Internet services. As work benches of development are selected: programming environment of Delphi 10 Seattle, system of voice recognition Google Speech API, system of synthesis of a voice Ivona Voice Synthesis. As a result of this research the logic of operation of the computer intellectual voice assistant is offered. Materials of article can be useful to developers of intellectual systems.

Keywords

intellectual systems, voice control, the intellectual voice assistant,
interaction interfaces, synthesis of a voice, operation with API

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Introduction

The concept of an artificial intelligence, – however, as well as the intelligence – is rather fuzzy. In general the intelligence can be described as connection of knowledge and thinking (*Artificial intelligence*, 2016). The artificial intelligence, in turn, implies property of artificial system to perform functions of the person. Within this scientific direction tasks of the hardware and software simulations of a human thought are set.

To the middle of the 20th century premises for origin of an artificial intelligence appeared. It were statements concerning operation of a human brain, the provision of an algorithm theory and creation of the first computers. Possibilities of computers in the

speed of computation and depth of logic were much higher than human. It gave the chance to set new tasks.

Special case of an artificial intelligence are the intellectual systems directed to specific tasks solution. The structure of intellectual system includes three main units – the knowledge base, the mechanism of an output of decisions and the intelligent interface. Knowledge of specific area of tasks is kept in the knowledge base.

Now popularity was acquired by the intellectual systems called by the Intellectual Personal Assistant. It is a mobile program complex (agent) which can carry out tasks (services) for the users. The tasks decision is executed on the basis entered by the user of information, data on his location, and also information obtained from different Internet sources (weather, traffic, news, exchange rates and. etc.). The most popular examples of such agents at the moment are GoogleNow, MicrosoftCortana, Siri.

Relevance of these systems consists that they bring interaction with electronic technique to new level. Voice level of communication allows not to make direct physical contact with technique; the device will accept, interprets and will execute a command.

Futurologists and science fiction writers predicted appearance of similar systems, but only now technical development of humanity was gained by enough opportunities for execution of a dream.

The market of personal assistants is of huge interest to IT corporations today, they invest millions of dollars in development of own products, but most of them, unfortunately, are present only at mobile platforms and don't support Russian. Assistants interact with an operating system of own platforms especially by means of the provided API. It strongly restricts their opportunities.

In St. Petersburg State University of industrial technologies and design at Department of the information and control systems the working prototype of the Russian-speaking intellectual assistant with voice actuation for PC compatible computers is developed (*Drozdova, 2016*). As work benches of development are selected: programming environment of Delphi 10 Seattle, system of voice recognition GoogleSpeech API, system of synthesis of a voice IvonaVoiceSynthesis. As perspective of development of the project it is supposed to transfer development to the environment C#.

Methods of carrying out experiment

Now we will consider features of the main stages of operation over the project.

2.1 Common research organization. The sprint priorities

For effective and flexible software development, it is the best of all to organize process by means of short steps (sprints). At the end of each sprint there is an assessment of the achieved results, and the plan of further steps is adjusted. At the first stages of planning of sprint from a backlog the most priority tasks are taken. It allows to evaluate a possibility of achievement of result. The moving on sprint consists in the solution of a set of tasks of this sprint. The decision of tasks is evaluated in time. The decision of tasks from the following sprints shall be accompanied by an exception of already solved tasks (*Sahota, 2012*).

Within this research sprints of A1, A2, Backlog were developed. The short task list, delivered to the first sprint is shown in table 1.

TABLE 1. SPRINT A1

<i>Nen/n</i>	<i>Task type</i>	<i>Task priority</i>	<i>Task name</i>	<i>Schedulable time for the solution of a specific objective</i>
1	Task	Blocker	To connect Speech API	2h
2	Task	Blocker	To connect a voice synthesizer	8h
3	Task	Blocker	To set up the qualifier of requests	5h
4	Bug	Critical	The qualifier gives probability - « <i>inf</i> » for some requests	2h
5	Task	Critical	To train a qualifier basis	5h
6	Task	Major	To set up the user interface	10h
7	Bug	Critical	Remove 403/Forbidden in id HTTP	2h
8	Task	Critical	To connect sample API	2h
9	Task	Critical	To set up JSON parcer	1h
10	Task	Major	To study a possibility of connection of a multi-layer neural network	10h
11	Task	Blocker	To realize operation with audio via system devices	3h
12	Task	Minor	To prepare the API list of services	5h
13	Bug	Critical	To eliminate false operations of the analyzer	4h

The type of the task can be Bug and Task.

The priority of the task is determined by a scale: Blocker, Critical, Major, Minor, Trivial. Blocker - lock of further development; Critical - the critical task breaking operation of some part of system; Major - the important task necessary for further advance; Minor - the task which isn't influencing remaining processes; Trivial - the task which isn't influencing the general quality of a product, a hardly noticeable error.

In a figure 1 distribution on a priority of the tasks set in the first sprint is provided.

BLOCKER		CRITICAL		MAJOR		MINOR
To connect Speech API		To exclude inf-result in the qualifier		To study a possibility of connection of a neural network		To prepare the API list for switching on in the project
To connect IVONA Voice Synthesis		Disable classifier database		To set up UI		
To set up the requests qualifier		To eliminate an error 404/Forbidden in idHTTP				
To realize operation with audio-device		To connect API sample				

FIGURE 1. SPRINTS PRIORITIES

2.2. Appeal to audio recording devices

There is a set of methods of record of audio from the microphone in a programming environment of Delphi: TCaptureDeviceManager, Bass.dll, the Windows API and also with use of third-party components.

For record of audio the most optimum, from the point of view of support and a performance, is the Windows API because it is supported by the native operating system and also provides control of an audio stream at a low level. Such method isn't suitable for audio playback as, owing to features of operation of service of synthesis of the speech, the Windows API badly works with the non-standard audio formats. Therefore the successful decision will be use the NewAudioComponents. It provides big flexibility, support of operation with memory flows, and also simplicity of addressing.

In a figure 2 the program fragments for a part of the necessary functional operation with audio are shown.

```

mciSendString('OPEN NEW TYPE WAVEAUDIO ALIAS speech, nil, 0,0);
mciSendString('SET speech TIME FORMAT MS ' + // set time
'BITSPERSAMPLE 16 ' + // 16 Bit
'CHANNELS 1 ' + // MONO
'SAMPLESPERSEC 11025 ' + // 11025 Hz
'BYTESPERSEC 11025', // 11025 Bytes/s
nil, 0, 0);
mciSendString('RECORD speech, nil, 0, 0);
{...}
mciSendString('STOP speech, nil, 0, 0);
mciSendString(PChar('SAVE speech '+AppPath+'record.wav'), nil, 0, 0);
mciSendString('CLOSE speech, nil, 0, 0);

```

```

Code fragment. Reproduction
st:=TMemoryStream.create;
GetSayStream(text,'Male',st);
mp3in1.Stream:=st;
dxaudioout1.Run;
{...}
ssst.Free;

```

FIGURE 2. THE FRAGMENT OF THE PROGRAM REALIZING AUDIO PLAYBACK

2.3. Preparation of conditions for operation with the voice Speech API analyzer

GoogleSpeech API is the programming interface of applications providing the access to speech sensing technologies created by Google (*Pultz, 2014*) corporation.

Users of API get access only to voice recognition, sending, as well as in a case with YandexSpeechKit, POST-request through HTTP.

At the moment GoogleSpeech API is in a status of ALPHA-testing therefore it is impossible to give certain outputs on this software product.

By the experiments it was revealed that GoogleSpeech API perceives the speech from WAV files with much bigger percent of errors, than from files in a FLAC format. As the Windows API doesn't allow to send an audio stream directly to the FLAC file, there is a task of conversion of formats. For the decision of this task the flac.exe freeware program is used. It is capable to accept file name and parameters required for conversion of an input

For implementation of operation with a network both conventional components of Delphi-Indy 10, and third-party libraries, such as Synapse are used

Due to the need to set the protected connection by means of https, libeay32.dll and ssleay32.dll libraries were imported to the project. These libraries are the cryptography packet with the source code OpenSSL allowing to perform work with the SSL/TLS protocol.

Operation with speech services requires use hashing of the SHA256 and HMAC-SHA256 type. This type of hashing is intended for creation of "prints" of messages of arbitrary byte length and intended for information security.

OpenSSL provides a set of types of hashing and encoding, but doesn't support an algorithm SHA-2. Therefore that solution of a question of hashing was made in standard library DelphiSystem.Hash. It is necessary to consider that existence of this library is realized only in the newest versions of the environment EmbarcaderoDelphi.

The Synapse library is used for transmission of the voice file to GoogleSpeech API as possesses more flexible settings and differs in bigger stability, than Indy (*How to do something, 2010*).

2.4. Development of user interface

The main screen of the intellectual assistant is executed in AdobePhotoshop packet and is the black background with graphic elements

For creation of animation it was decided to use AdobeAfterEffects packet allowing to control rather thinly behavior of each object located in a frame

The row of avi-video files showing different statuses of intellectual system became result of operation in this software environment: a status of idle time, listening, execution of background operation, the notification of the user about an event, the notification about an error.

Such effects as Blur, Glow, Coloroverlay were applied to visual style. The main form of indication was drawn in AdobePhotoshop software package.

The output of the received and rendered videos is made by means of the TMediaPlayer component. This component operates with *mci* the messages similar to that were used in system of record of audio. As the screen the TPanel component is used. In it by editing parameters all frames were deleted.

Support of change of animation in the interface of the program is carried out by timely loading in the TMediaPlayer component of necessary video files and their reproduction.

2.5. Analysis of spoken commands

For the analysis of spoken commands at this development stage "the naive Bayes classification" is used (*Bazhenov, 2012*). Further use of several levels of Bayesian classification and connection of a neural network is planned.

In application this method is realized by means of operation with the *ini*-files which are used as the trained basis. The basic function of the analysis of a request is provided by method of Bayesian classification in fig. 3

```
function GuessBaes(s:string):string;
var words:Tstringlist ;
i,j,topindex:integer;
r,top,tmp:real;
variks:Tstringlist;
begin
variks:=TStringList.Create;
words:=TStringList.Create;
Baes_set_ini.ReadSections(variks);
result:=variks[0];
words.Delimiter:=' ';
words.DelimitedText:=AnsiLowerCase(s);
D;
top:=-9999999; topindex:=0; r:=0;
for i := 0 to Baes_kinds.Count-1 do begin
for j := 0 to words.Count-1 do begin
tmp:=ln((Wc(words[j],Baes_kinds[i]))/((V+Lc(Baes_kinds[i])+1)));
if tmp>-9999999 then r:=r+tmp else r:=r-7;
end;
tmp:=ln(Dc(Baes_kinds[i])/D);
if tmp>-9999999 then r:=r+tmp else r:=r-7;
if r>top then begin top:=r; topindex:=i; end;
r:=0;
end;
result:=variks[topindex];
words.Free;
end;
```

**FIGURE 3. BASIC FUNCTION OF THE REQUEST ANALYSIS
BY METHOD OF BAYEVSKY CLASSIFICATION**

2.6. Speech synthesis

After determination of subject and details of a request the intellectual system needs to comment on an event and to report about it to the user. Voice attending is the most natural and simple for such notification

For speech synthesis the Ivona system developed by Amazon corporation is selected. Within this research different voice synthesizers from different developers were tested: Yandex, Google, Acapella-Group, Vokalyzer, RHVoice, ESpeak, Festival. Ivona showed the best sounding of a voice as close as possible to natural.

The Ivona service provides free of charge up to 50000 requests for synthesis of a voice a month. It completely covers needs of the intellectual environment. So, for one days more than one and a half thousand requests are possible. It is equivalent seventy requests an hour. Interaction with service is implemented by means of open API to which rich technical documentation is submitted

In fig. 4 the fragment of the source code of the program realizing a request to the Ivona system is provided.

```

canonicalRequest:=PChar(method+eol+canonicalUri+eol+"+eol+canonicalHeaders+eol+signedheaders+eol+hashedRequestPayload);
hashedCanonicalRequest:=THashSHA2.GetHashString(canonicalRequest,SHA256);

stringToSign:=algorithm+eol+requestDate+eol+credentialScope+eol+hashedCanonicalRequest;

signature:=DigAsString(THashSHA2.GetHMACAsBytes(stringtosign,GetSignatureKey(SecretKey,dateStamp,regionName,serviceName),SHA256));

authorization:=algorithm+'
Credential='+AccessKey+'/'+'dateStamp+'/'+'regionName+'/'+'serviceName+'/'+'aws4_request,
SignedHeaders='+signedHeaders+', Signature='+signature;

idhttp1:=TIdHTTP.Create(nil);
application.ProcessMessages;
SSLProvider:=TIdSSLIOHandlerSocketOpenSSL.Create(idhttp1);
idhttp1.IOHandler:=SSLProvider;

idhttp1.Request.ContentType:=contenttype;
idhttp1.Request.ContentLength:=length(requestPayload);
idhttp1.Request.CustomHeaders.AddValue('X-Amz-date',requestDate);
idhttp1.Request.CustomHeaders.AddValue('Authorization',authorization);
idhttp1.Request.CustomHeaders.AddValue('x-amz-content-sha256',hashedRequestPayload);
IdHTTP1.Request.Host:=host;
try
RequestBody := TStringStream.Create(requestPayload, TEncoding.UTF8);
//resultStream := TMemoryStream.Create;
application.ProcessMessages;
IdHTTP1.Post('https://'+host+canonicalUri,RequestBody,Stream);
application.ProcessMessages;
RequestBody.Free;
//stream.CopyFrom(resultStream,resultStream.Size);
//resultStream.Free;
IdHTTP1.Request.CustomHeaders.Clear;
except
end;
end;

```

FIGURE 4. THE FRAGMENT OF THE SOURCE CODE OF THE PROGRAM, REALIZING A REQUEST TO THE IVONA SYSTEM

Apparently from the provided code, interaction happens as follows:

- requestPayload in the JSON format which is a set of parameters for synthesis is created;
- requestPayload is hashed by means of SHA256;
- The credentialScope list is created;
- The canonicalHeaders list storing in itself Headers transferred to the server is created;
- From the created earlier variable the integral request of *canonicalRequest* is generated
 - Based on a request *stringToSign* - latch string which will be signed with secret key by means of hashing of HMAC-SHA256 is generated;
 - In the variable «*authorization*» the final request for transmission to the server is created;
 - From the created earlier variable the integral *canonicalRequest* is generated
 - Based on a request *stringToSign* is generated. This string is signed by secret key by means of hashing of HMAC-SHA256

- In the variable «*authorization*» the final request for transmission to the server is created
- By means of the TIdHTTP protocol the request is transferred by the POST method to the server
- The result of a request execution registers in a *TMemoryStream* variable and is transmitted to the main program

2.7. Interaction with external API

As a rule, the majority of Internet services allows to interact with the API by means of sending REST request. At the same time data, necessary for the developer, return in the form of JSON or XML of an object (*Introduction to JSON, 2012*). Purpose of the developer is reading this object, and in particular its specific parameters necessary for implementation of a functionality in application.

In the offered intellectual system interaction with the *OpenWeatherMap* service is realized. Sending GET-request with necessary parameters (such as coordinates, requirement of metric system, unique identifier of the developer), we receive JSON-object of the type provided in fig. 5.

```
{
  "coord": {
    "lon": 30.32,
    "lat": 60.08
  },
  "weather": [
    {
      "id": 803,
      "main": "Clouds",
      "description": "broken clouds",
      "icon": "04n"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 3.53,
    "pressure": 1000,
    "humidity": 64,
    "temp_min": 2.22,
    "temp_max": 6.11
  },
  "wind": {
    "speed": 2.66,
    "deg": 281.5
  },
  "rain": {},
  "clouds": {
    "all": 56
  },
  "dt": 1465518061,
  "sys": {
    "type": 3,
    "id": 77040,
    "message": 0.0285,
    "country": "RU",
    "sunrise": 1465519000,
    "sunset": 1465586433
  },
  "id": 873882,
  "name": "Torfyanoye",
  "cod": 200
}
```

FIGURE 5. JSON-OBJECT

Thus, we can ask to intellectual system the questions about such parameters as: coordinates, unique identifier of a weather status, air temperature, pressure, air humidity, minimum and maximum temperatures, speed and direction of wind and others.

By means of the code provided in fig. 6 intellectual system interacts with weather service:

```
idhttp1.Get('http://api.openweathermap.org/data/2.5/weather?lat=60.07&lon=30.33&APPID=SECRET_ID_NOT_FOR_PUBLIC_LISTINGS&units=metric',stream);
stream.Position:=0;

memo1.Lines.LoadFromStream(stream);
stream.Position:=0;
FJSONObject:=TJSONObject.ParseJSONValue(stream.ReadString(stream.Size)) as
TJSONObject;
JSONArray:=FJSONObject.GetValue('main');
if Assigned(FJSONObject) then
ss:=TJSONObject(JsonArray).Get('temp').JsonValue.Value;
ss2:=TJSONObject(JsonArray).Get('pressure').JsonValue.Value;
ss3:=TJSONObject(JsonArray).Get('humidity').JsonValue.Value;
JSONArray:=FJSONObject.GetValue('weather');
if Assigned(FJSONObject) then
//ss4:=TJSONObject(JsonArray).Get('main').JsonValue.Value;

ss4:=caseweatherid(strtoint(TJSONObject(TJSONObject(JsonArray).Get(0)).Get('id').JsonValue.Value));
JSONArray:=FJSONObject.GetValue('wind');
if Assigned(FJSONObject) then
//ss4:=TJSONObject(JsonArray).Get('main').JsonValue.Value;
```

```

ss5:=TJSONObject(JsonArray).Get('speed').JsonValue.Value;
ss6:=casewinddir(strtfloat(TJSONObject(JsonArray).Get('deg').JsonValue.Value));
result:=inttostr((round(strtfloat(ss))))+' градусовпоцельсию, давление'+ss2+'
гектопаскалей, влажность '+ss3+
'процентов, ветер '+ss6+', '+inttostr((round(strtfloat(ss5))))+' метроввсекунду, '+ss4;
stream.Free;
idhttp1.Free;
end;

```

FIGURE 6. THE PROGRAM CODE REALIZING INTERACTION OF INTELLECTUAL SYSTEM WITH WEATHER SERVICE

Thus, can ask system about such parameters as: coordinates, unique identifier of a weather status, air temperature, pressure, air humidity, minimum and maximum temperatures, speed and direction of wind and others.

The analysis of a code, shows that the algorithm looks so:

- Creation of a TIdHTTP-object;
- Sending a GET-request by means of IdHTTP and receiving a JSON object in the form of a TStringStream-type variable;
- Data reading from a string flow in a TJSON-object ;
- Parsing of data from JSON;
- Generation of the response.

This example shows interaction with external services by means of API. The general methodology of connection of other API is similar.

Results

As a result of this research the logic of operation of the intellectual computer assistant is offered. It consists in the following:

- activation by Hotkey-method,
- appeal to *mci*,
- Hotkey waiting,
- closing of the *mci*-file,
- file conversion in *flac*
- *flac* transmission to the speech analysis server ,
- obtaining JSON response,
- extraction of data from JSON,
- data transfer to the qualifier,
- appeal of the qualifier to a basis,
- creation of Bayes probability model,
- required result extraction from model,
- execution of a user query,
- synthesis of a voice.

Thus, the developed intellectual assistant is capable to perceive the speech of the user, to make its analysis and to work according to the given patterns.

Discussion

To estimate novelty of development, we will carry out the review and the comparative analysis of popular intellectual assistants.

4.1. SIRI

SIRI (Speech Interpretation and Recognition Interface) – the personal assistant and question-answer system developed for iOS. This application uses processing of the natural speech to answer questions and to make recommendations. SIRI adapts to each user individually, studying his preferences for a long time.

The approximate algorithm of Siri-operation looks as follows (*How Apple's Siri really work, 2016*):

- The digitized voice immediately remains in memory of the device.
- The saved signal goes on a wireless network through provider to cloudy servers. There it is analyzed by a set of systems to understand request language.
- At the same time, the mobile phone evaluates a command locally. Most likely, its execution won't require operation of the server. So, the user can ask SIRI to include the selected song on user device. In this case, phone transfers a command of canceling of processing of the signal sent earlier to a cloud server.
- The server evaluates the speech of the user and the word of which the request consists, in particular, there is a comparing to statistical model.
- The server interprets the user's command in a set of internal commands and returns on the user device.
- With confidence in a recognition correctness, phone executes a command. Otherwise, he specifies information at the user

The main opportunities of SIRI concentrate on the dialogue interface, on recognition of a context and interaction from service. Voice recognition of SIRI is based on development of voice technologies made by the NuanceCommunications company.

4.2. Cortana

Cortana is the virtual voice assistant with elements of an artificial intelligence from Microsoft for WindowsPhone 8.1, MicrosoftBand, Windows 10, Android. Development for iOS, and XboxOne is also announced (*Cortana (voice assistant), 2016*).

The personal assistant to Cortana is called to foresee needs of the user. In case of desire, it can give access to your personal data, such as e-mail, the address directory, history of net searches, etc. She will use all these data for preguessing of your needs

Cortana will replace a standard search engine and will be called by clicking of the button. The necessary the request can be collected on the keypad or is set by the speech. It will find necessary information, relying on search results in the systems Bing, Foursquare and among personal files of the user.

This virtual assistant isn't deprived of sense of humour: it can support with you a conversation, sing songs and tell jokes. She will remind you of a scheduled meeting, birthday of the friend and other important events in advance. Cortana will report if your flight was cancelled, or on roads there are a lot of corks.

Its interface has very flexible settings of confidentiality which allow the user to define what kind information can be provided to the virtual assistant. According to developers, neither SIRI, nor GoogleNow can brag of such level of monitoring.

4.3. GoogleNow

GoogleNow is the universal assistant from Google integrated into Chrome and Android and intended for delivery to the user of different information. It is capable to interact with the user on the basis of voice commands (*GoogleNow: what is able and as to them to use, 2016*). GoogleNow is an analog of Siri and Cortana voice assistants.

Application issues information taking into account the current location of the user, his personal information from a calendar, history of search queries, history of relocation, history of the visited pages etc. The user can set up requests under the needs and delete unnecessary cards. According to developers, the similar interface is the most convenient for continuous updating of information

At the moment at GoogleNow there are 36 information cards: Pedometer, Birthday, Concert, Currency, News, Actions, etc.

It is possible to note that GoogleNow envelops a wide range of various services and provides a large number of information for all occasions.

4.4. Comparing of personal assistants

Based on the short reviews of intellectual systems given above, we will compare data in the form of the pivot table. In this Table 2 it is possible to evaluate visually the strong and weaknesses of intellectual assistants

TABLE 2. COMPARATIVE TABLE OF PERSONAL ASSISTANTS

	SIRI	CORTANA	GOOGLE NOW
VOICE ACTUATION	+	+	+
EXISTENCE OF THE VOICE OUTPUT	+	+	-
SUPPORT OF RUSSIAN	+	-	+
GRAPHIC INTERFACE	+	+	+
OPERATION WITH GEOLOCATION	+	+	+
SUPPORT OF EXTENSIONS	-	-	+
SUPPORT OF EXTENSIONS OPERATION ON MOBILE PLATFORMS	+	+	+
OPERATION ON STATIONARY PLATFORMS	-	+	-
OFFLINE OPERATION	-	-	-
WOMEN'S/MEN'S VOICE	w	w	-
INTELLECTUAL HINTS	+	+	+
INTERACTION WITH EXTERNAL SERVICES	+	+	+

The analysis of Table 3 and material in item 4.1 allows to be guided by intellectual assistants SIRI and CORTANA. They have the greatest number of pluses in the table. Table 3 shows and on what qualities of the created systems it is necessary to work. It is support of extensions which increases number of users of intellectual assistants. It is offline operation which allow to accelerate actions. For our country it is very important to develop support of Russian.

Conclusion

The choice among the known basic decisions allowed to offer structure of the hardware and software of intellectual assistant. It is intended to perceive the speech of

the user, to make the analysis of the speech and on the basis of the connected databases to work according to the given patterns. Besides, the intellectual assistant is capable to synthesize the speech and to sound the operations performed by him.

Novelty of the development provided in this article (in comparison with similar intellectual systems) consists in support of Russian, support of PC-compatible platforms, extensibility support, and also emphasis on interaction with Internet services and operating system. As a result, the image of some "butler" is created. This personal assistant differs from similar systems which place emphasis on operation as a reference system.

Plans of further development and support of application concern such the area of work as: connection of intelligent analyzers of higher level, connection of third-party API-services, monitoring of user activities, implementation of intellectual councils, interaction of different services, system management at lower level, implementation a plug-in modules, support of application on a spiral model of life cycle of a software

Recommendations

On annual International Consumer Electronics Show (CES) the tendency in representation of the products anyway connected to an artificial intelligence is noticeable. These are the programs controlling the smart house; autonomous cars; the virtual reality; interactions with smart electronics, personal assistants.

The provided research will be useful for developers of intellectual systems, namely mobile software agents with voice actuation. Also this development can be interesting to a wide range of experts who work in the field of robotic technology and intellectual systems.

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FOREIGN EXPERIENCE OF PUBLIC ADMINISTRATION IN THE CONTEXT OF THE ECONOMIC EQUILIBRIUM OF SYNTHETIC ECONOMIC CRISIS

Abstract

This article identifies catalysts of synthetic economic crisis. These catalysts are the subject of transnational corporations, international financial, trade organizations, regional integration groupings. Generalized mechanism for the flow of synthetic economic crisis and their types. This article also proves that the response of governments to the process flow of synthetic economic crisis with the help of the classical fiscal, monetary and administrative-legislative instruments are not effective.

Keywords

catalysts, synthetic economic crisis, actors, international,
economic relations, transnational corporations, international,
organization mechanism, government, management

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Introduction

Obviously, the institutional system of the global economy is currently at the stage of formation and its components are unstable. The effectiveness of any government in a country depends on the competence and productivity of international institutions. The impact of these two factors - powers and characteristics of public authorities at all levels on the development of the structure is obvious. It should be noted that the intensification of economic co-ordination processes at the international level brings about the problem of new economic challenges of economic instability at the international level. Economic instability, which is also called the international economic crisis, primarily is due to the actions of international actors of commercial and geo-economic activities, transnational corporations, international financial institutions and regional integration groupings. The above-mentioned entities as a result of interaction with national governments may

significantly affect the organizational, legal, resource and other governance mechanisms. But the experience of such an effect is almost not been studied from the standpoint of economic methodology. In such circumstances, the identification of the negative aspects of the impact of international actors of commercial and geo-economic activities on the formation and implementation of state policy in the field of economic stabilization in order to achieve economic balance shall count for the practical value.

Literature Review

The following classical theory authors also touched the problem of economic equilibrium and synthetic crisis: Fisher, F. M. (1989), who explains disequilibrium foundations of equilibrium economics, Freeman, A., & Carchedi, G. (1996) specify the approach to equilibrium of the capitalist system, Kaldor, N. (1972) who explains irrelevance of equilibrium economics, Jolink, A., & Van Daal, J. (2002) explain the restrictions of the equilibrium economics of Léon Walras.

The above issues was developed by representatives of economic theory, in particular McCombie, J. S., Thirlwall, A. P., & Thompson, P. (1994) which focuses in their work on the balance of foreign exchange transactions as the main source of market equilibrium in the economy. Also, in their research and articles authors suggest a significant impact of financial flows on long-term economic equilibrium. Also John Manner and Garrison, R. W. (1991), Boettke, P. J. (1997) also d. The other side of the problem described Backhouse, R. E. (2004). The other side of the problem described Backhouse, R. E. (2004). In this article the author disproves the classical understanding of economic equilibrium, in which the majority of economists insist. Backhouse, RE insists on the historical aspect of economic balance and greater importance in comparison with the economic theories. For the latest publications in this area should include these scientists work: Pearson, K. R., Parmenter, B. R., Powell, A. A., Wilcoxon, P. J., & Dixon, P. B. (2014) who notes and problems in applied general equilibrium economics.

However, despite the presence of a significant number of publications they emphasize certain patterns of development and functioning of the economic system as such. Unlike existing copyright, the purpose of this research is to identify and summarize the mechanism grounded in previous studies and to present a new concept of a synthetic economic crisis and its negative impacts on the governance of economic equilibrium.

Results

Over the last 50 years with the development of technology and communications at the international level, the transformation of the world economic financial development of new technologies have become an available geo-economic struggle. Synthetic economic crisis at the national level, this event, which are determined in a significant decline in production, breach of the prevailing industrial relations as a result of failed integration into the world economy of the institutional environment. To achieve the goal of copyright research we systematized and present experiences of economic crisis in some countries, by the nature of the flow, they are significantly different from the classical theories explaining business cycles in general and the crisis included, in our opinion belong to the synthetic economic crisis.

A classic example of the crisis is the steel synthetic events in Argentina, where the bodies of state power and their status was not sufficient to overcome the negative impact of this economic phenomenon. Also, in our opinion it should be noted that the economic crisis in Argentina, as a manifestation of the new socio-economic trends in the amensalism relations today is determined by economic science as a post-industrial economy. The fact

that the crisis that began in 1990 has weakened its influence only in 2003, and it should be stressed that today Argentina is in relative stagnation. Among the many causes of the Argentine crisis, often referred to as the reform of the nature of monetarist economy minister (Domingo Cavallo), which carried out the privatization of state property and put in dependence of the peso on the US dollar by binding (Lakoff, 2004; Breen, Rottman, 1998).

This policy led to the loss of nearly 280 billion Dollars for domestic manufacturers at a time when foreign investors are exempt from all taxes, it brought about a negative reflection not only on the development of industrial enterprises, but also on the competitiveness of their products (Conde, 2009; World Bank, 2016).

Under such conditions, even the central bank cannot influence the situation in the country (Yergin, 1991). Another factor contributing to the crisis in Argentina, Brazil began reforms at the expense of the devaluation of their currency, aimed at attraction of investors. This led to an outflow of capital (World Bank, 2016). At the same time, Argentina had to pay off foreign debts. But, for lack of available funds, new loans had to be taken to cover the budget deficit, etc. (Yergin, 1991). This monetarist reforms have led to an increase in public debt of 59800000000 Dollars in 1990 up to 99 bln. Dollars in 1996 and in 2001, which required a lot of money for her services (Conde, 2009) to \$ 132 billion... IMF and US policy on the Argentine put the country at the mercy of loan capital and the need for unpopular actions of the government (Conde, 2009; World Bank, 2016). In general, the macroeconomic indicators characterizing the entire depth of the crisis in Argentina are presented in Figure 1.

The World Bank estimate of the level of poverty in Argentina at the turn of the 21st century has grown steadily, 2000 - 29%, 2001 - 35%, 2002 - 54%, which significantly reduced the purchasing power of the population, and only in 2010, it dropped to a mark of 14.9% (International Monetary Fund, 2016). A significant drop in GDP increased the size of public debt share of the country from 57% to 153% and led to default (International Monetary Fund, 2016). Only the unemployment rate in Argentina had continued the downward trend from 18.3% in 2001 up to 8.6% in 2009. Although it was due to the migration of its citizens to neighboring countries and to North America (World Bank, 2016).

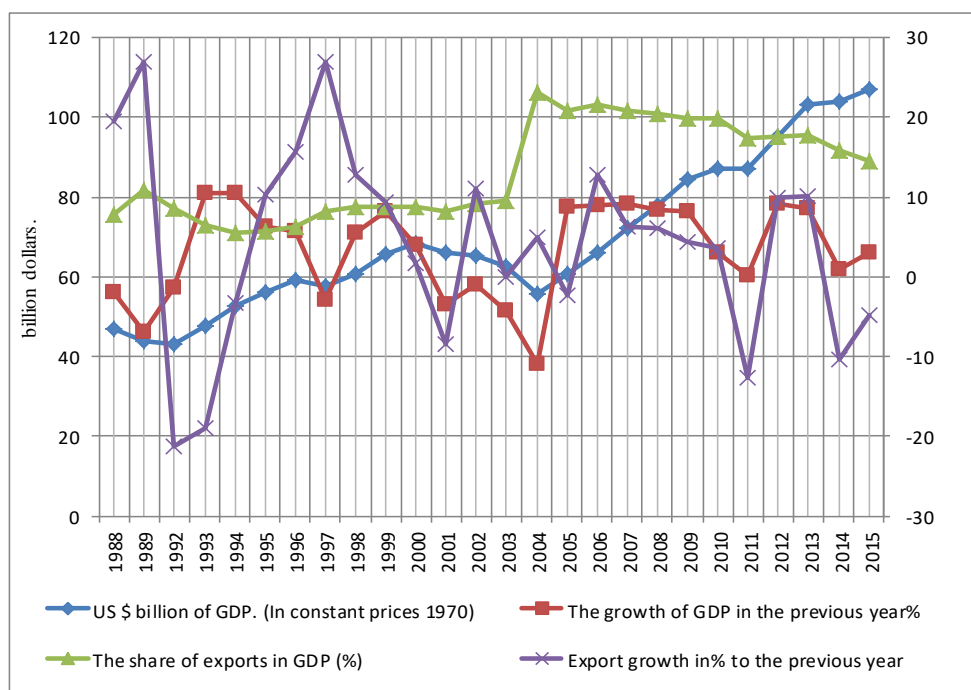


FIGURE 1. DYNAMICS OF SOME MACROECONOMIC INDICATORS IN ARGENTINA IN 1988-2015 OF THE YEAR (COMPILED BY THE AUTHORS ACCORDING TO WORLD BANK).

In general chronology of the economic crisis in Argentina, over moderate stagnation is shown in Figure 2. By analyzing the sequence of events synthetic economic crisis in Argentina, the following should be noted. The introduction of a differentiated approach to the contributions to reimburse the government for the population of Argentina in order to reduce the impact of the crisis on their citizens has resulted in losses for the banking sector in the range from 6 to 10 bln. Dollars (Conde, 2009). The main points of the government's anti-crisis program was added to the prices of state controls on basic consumer goods, increase ban utility tariffs and the abandonment of certain infrastructure projects.

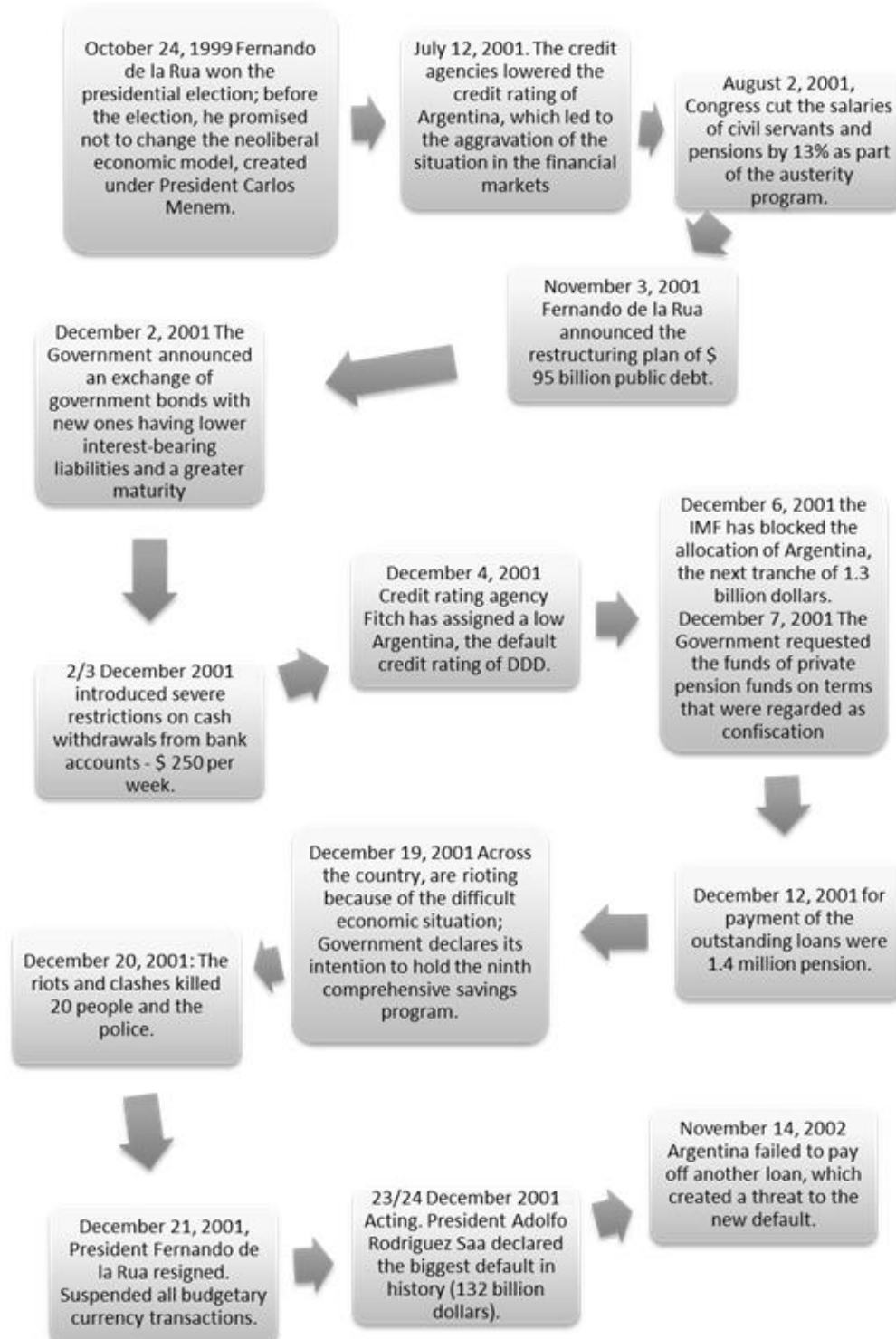


FIGURE 2. CHRONOLOGY SYNTHETIC ECONOMIC CRISIS IN ARGENTINA (COMPILED BY THE AUTHORS ACCORDING TO WORLD BANK).

During the collapse of the economy, big businessmen and foreign investors are withdrawing their capital to abroad. As a result, many small and medium-sized businesses have been closed due to lack of funds, the unemployment rate increased. The workers in these companies having lost their source of income, decided to start their own means of production again, as self-governing co-operatives. At present, workers' cooperatives have become a ceramic factory Zanon (known as FaSinPat, abbr. From "Fabrica sin patrones", "Factory without the owners"), four-star hotel Bowen, garment factory Brukman, Chilavert factory and many others.

In some cases, former owners called the police to get rid of the workers, but the workers are often able to protect the jobs occupied by the state, police and bosses (World Bank, 2016).

Pointedly the crisis started after the intervention of the International Monetary Fund and the expansion of transnational corporations that seems to be improving the situation at the beginning, however, as evidenced by the statistics, Argentina is in a position to exit from the crisis of the present. Thus, we believe the crisis in Argentina is synthetic in nature and its effects are felt today. For example, compared with Argentina unsuccessful attempt to counteract the crisis in 10 years, Germany has resumed its standard of living in 9 years after the Second World War, despite the fact that half the population of Germany were destroyed, and most of the cities bombed. But why Argentina haven't been able to overcome such a situation, in spite of a growing population, and businesses operatives (WIR, 2016; Goldman, 2014).

With the same scenario developed economic crisis in Nigeria. With a population of almost 176 million inhabitants and consists of more than 200 nationalities. So, Nigeria oil production is in the top ten oil producers, with major mining companies including Shell Western companies, Exxon Mobil, Chevron, Conoco Phillips, and others. But despite the fact that a country so rich in natural resources, the people of this country live below poverty, 70% of the population can not feed themselves properly. 20% barely make ends meet, and only about 10% are prosperous due to the fact that the controlled extraction of minerals, with the support of western corporations. In general, with an increase in GDP and its measurements in absolute units as shown in Figure 3 is growing poverty (Goldman, 2014).

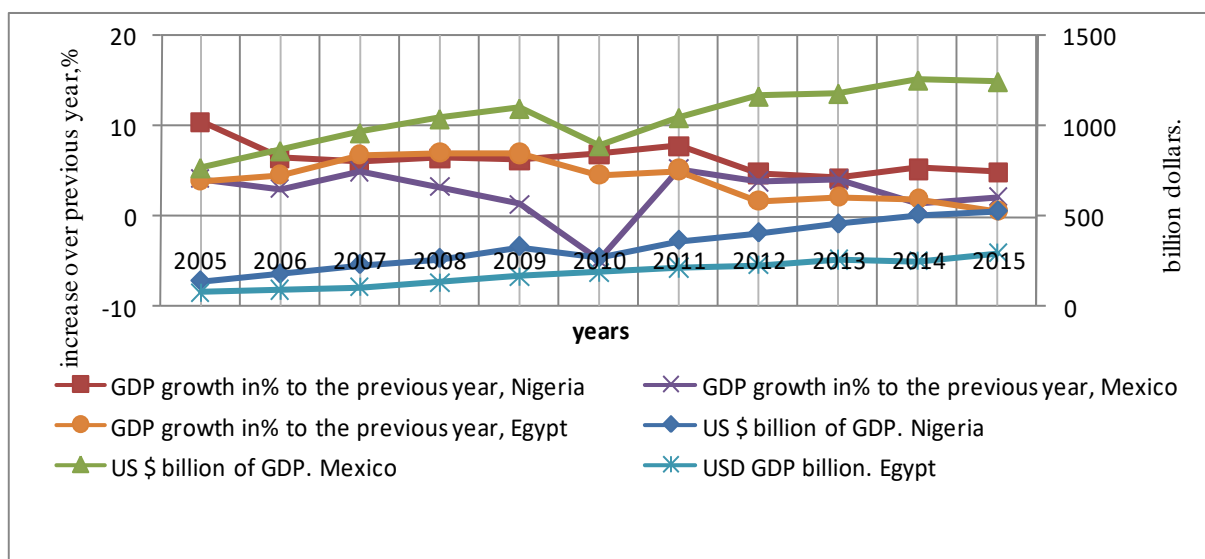


FIGURE 3. THE DYNAMICS OF THE GROSS DOMESTIC PRODUCT AND ITS GROWTH IN SOME COUNTRIES DURING THE ECONOMIC CRISIS IN 2005-2015, OF THE YEAR (COMPILED BY THE AUTHORS ACCORDING TO INTERNATIONAL MONETARY FUND).

Seeing the dynamics of gross domestic product and its growth, at first glance, the crisis does not have a strong enough impact on macroeconomic performance, but strangely enough this effect is achieved due to the expansion of transnational corporations on the domestic markets of these countries. For example, according to UNCTAD, in Latin America and the Caribbean, FDI inflows reached in 2014 292 Bln. Dollars. Excluding the offshore financial centers, inflows of FDI increased by 5% to 182 billion. Dollars. While in previous years, the dynamics of FDI is mainly determined by their influx to South America, then in 2014, FDI inflows to the subregion decreased by 6% to 133 bln. Dollars. After steady growth for three consecutive years. However, in the same year in almost all Latin American countries experienced a decline in consumer spending, reflecting the deterioration of the quality of life. It should also be noted that the general trend of cyclical economic development with the formation of the so-called information society is quite controversial (WIR, 2016).

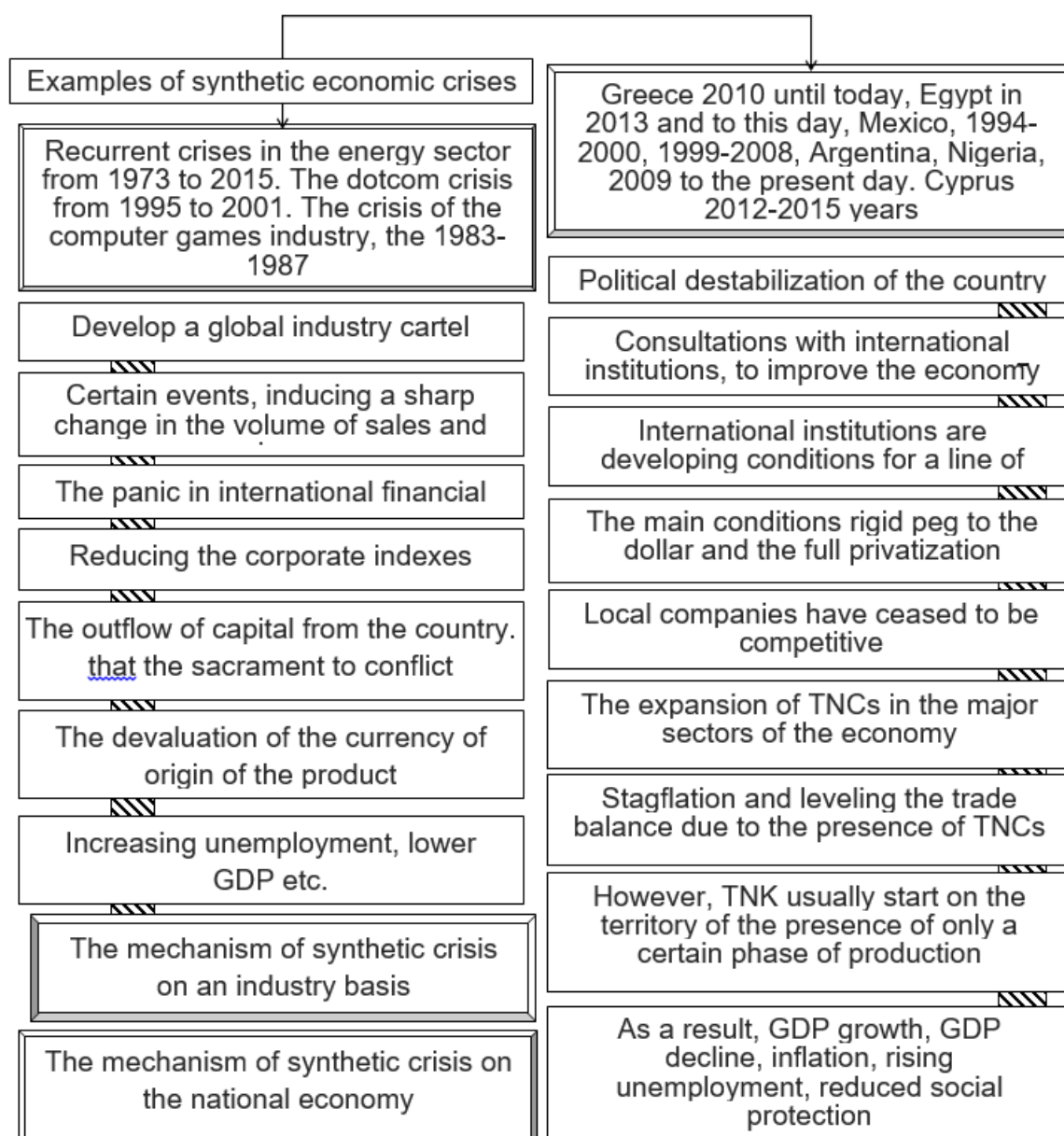


FIGURE 4. THE MECHANISM OF SYNTHETIC CRISIS AND ITS CONSEQUENCES AND CATALYSTS (COMPILED BY THE AUTHORS)

It should also be emphasized that the synthetic economic crisis in our opinion not accidentally falls on the so-called Third World countries, as they are less integrated into the institutional system of the global economy. Another proof is the positive dynamics of world GDP. On the contrary during the 1970-2012 biennium. World GDP grew by \$ 69334.1 billion, or 21.7 times to \$ 72689.7 billion.; changes occurred in 3085.9 bln. due to increase in the world's population at 3391.1 million pers., as well as to 66248.2 bln. due to increase in the indicator of GDP per capita in the world 9359 dollars (WIR, 2016). Thus, today there are two kinds of synthetic economic crisis. In the first place, the branch Synthetic crisis is a manifestation of intensification of transnationalization synthetic processes and national economic crisis leading to a negative impact of the international financial organizations on the state management of stabilization processes in the economy. In general, the mechanism of development of synthetic crisis and its consequences, and the catalysts are shown in Figure 4.

Conclusion

Following the identification and compilation of species flow mechanism grounded in previous studies of the author's concept of a synthetic economic crisis and its negative impact on the economic balance of public administration, it's considerable to make the following conclusions, which are characterized by novelty. First of all, in the author's research revealed that synthetic catalysts of economic crisis are subjects of international economic relations which are cartels of transnational corporations, which in the process of aggressive expansion of overseas markets can significantly affect the domestic macroeconomic processes, using tools such as the manipulation of the financial markets, the monopolization of certain industries, manipulating the level of total production, and others; international financial, Torus organization during shortsighted policy or lobbying interests of certain countries or alliances are capable of handling both the legal framework of certain countries and manually adjust the level of inflation, aggregate demand, and the like; regional integration groupings are by supranational regulatory mechanisms or economic processes cannot support a viable economy by type of Greek.

Secondly, as a result of the author's analysis, justified that the response of governments to the process flow of synthetic economic crisis with the help of the classical fiscal, monetary and administrative-legislative tools are not effective and leads to an even greater economic distress. In such circumstances, it requires the improvement of the existing institutional, legal, resource and other governance mechanisms of economic equilibrium with an emphasis on integration into the global institutional system of economic equilibrium of coordination, comprising three basic areas of intensification to the institutional system of interaction with transnational corporations, international financial institutions, international trade organizations and regional integration organizations. Therefore, the direction of further research is the very definition of the current state of economic policy and development strategy of the state system of interaction of subjects achieving economic equilibrium.

Recommendations

Results of the study can be used in the study of synthetic catalysts of economic crises, among which are the subjects of international economic relations as cartels transnational corporations, international financial, trade organizations, regional integration groupings, and when considering the mechanism of occurrence of synthetic economic crises using classical fiscal, monetary or administrative and legislative tools.

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THE PROCESS APPROACH TO QUALITY MANAGEMENT AT INDUSTRIAL ENTERPRISES

Abstract

Relevance of the researched problem is caused by need of application of new approaches to management of business processes including to quality management. The purpose of article consists in a research of a possibility of application of the process approach to quality management. The leading approaches to a research of this problem are situational and process. In article importance of the process approach to quality management is proved. Levels of management and processes are revealed and proved. The model of the process approach to quality management is provided. Materials of article can be useful students of a bachelor degree, studying in the Management and Quality management directions, graduate students, teachers, experts experts when carrying out scientific researches.

Keywords

quality, quality management, business processes, process approach to management

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Formulation of the Problem

For successful operation and development, industrial enterprises must identify and manage a variety of interrelated activities. At the same time, any activity that uses resources and is managed to convert inputs to outputs can be viewed as a process. Often the output of one process forms the input of the next directly. The application of the system of processes in the organization along with their identification and interaction, as well as their management of processes, can be considered a "process approach".

Process approach to management, allows to achieve constant improvement of the production process, as well as more efficient use of the existing personnel, material, technical, information and financial potential of the enterprise.

The need to implement the process approach is dictated by the international standards of the quality management system of the ISO 9001: 2000 family and universal quality management (TQM). Thus, the developers of this system of international quality standards emphasize that "this standard advocates the application of the principle of the process approach "in the development, implementation and improvement of the effectiveness of the quality management system in order to improve customer satisfaction by meeting their requirements" (*Pirozhkov, 2009*).

In addition, as practice shows, the implementation of ISO standards is a complex, time-consuming and time-consuming process. The success of this work largely depends on how correctly understood and implemented in practice the principles, methodological and organizational approaches of the standards. And, of course, it should be noted that

reengineering of business processes must take into account the specifics and distinctive features of organizations, as well as Russian business conditions.

At present, developments are being made in the field of methodology and technology of quality management in industry, and the object of application of the results obtained are advanced industrial enterprises.

The most important resource of any economic entity is a person. Human potential, namely its intellectual level, represents the main component of the social and economic development of any state.

The quality of the enterprise's activity determines their competitiveness. For the actual recognition of the products of the enterprise abroad it is necessary that the products of the enterprise comply with the international standards ISO 9000: 2000, i.e. Methodological basis for the implementation of an effective quality management system should be the requirements of ISO 9000: 2000.

The basis for the application of these standards is the process approach to quality management of industrial enterprises.

The inadequacy of scientifically based methodological and practical developments in the field of process quality management in industry, the small number of studies conducted on the subject matter in question, determined the relevance and practical importance of this article.

Methods of Research

In order to study the process-oriented approach to quality management, the system, situational, process, scenario approaches are used; General scientific methods of inductive logic, deduction, dialectics, economic-statistical and sociological methods, analysis and synthesis, modeling, bibliographic analysis of literature and materials on the Internet.

Discussion. The process approach is based on the category «process». For example, A.G. Krie under the process considers any operational or administrative system that converts resources into desired results (*The edge of AG, 2014*).

The international quality standards of the ISO 9001: 2008 series define the process as an activity that uses resources and is managed to convert inputs to outputs (*GOST R ISO 9001-2008, 2008*). In this case, the output of one process often forms the input of the next, and the processes themselves are numerous and interrelated.

The essence of the process approach is summarized in a brief form by A.G. Porginev, Z. Rumyantseva, and N.A. Salomatin: "The operational approach to management is a management based on the organization's representation in the form of a productive process that, in its The queue is divided into a chain of consecutive operations" (*Management of the organization, 1999*).

The essence of the process approach is defined by the ISO 9001: 2000 International Standards as an application within the organization of a process system (together with the identification and interaction of these processes, as well as their management). In this process, according to AM Novikov, should be regarded as a set of technological operations that carry out regular, recurring, cyclical activities for the production of the same product (*Novikov, 2007*).

The category «business process» deserves special attention. So, in the understanding of F. Nordsik, the business process is a special process that serves the implementation of the main goals of the organization (business goals) and describes the central scope of its activities (*Nordsieck, 1961*).

The concept proposed by M. Hammer, the author of the concept of business process reengineering, sounds like this: a business process is an organized set of interrelated actions that together give a valuable result to the customer (*Hammer, 1990*).

In the scientific literature, the following definitions of the business process are also presented:

- A business process is one, several or many nested processes (internal activity steps) that end with the creation of a product, a service that the consumer needs (*Oigman, Popov, 2009*);

- the business process is a continuous series of tasks, the solution of which is carried out with the goal of creating an output (result) (*Khrapylina, 2010*);

- The business process is a model of the transformation of entities of the "input-output" type, understood as work on the implementation of prescribed functions (*Kondratiev, 2007*).

Process approach to quality management originates in the works of W. Schuhart, who in 1931. Published a report on the use of control cards and the book «Economic management of industrial products quality», and in 1939. - the book «Statistical method from the point of view of quality control». In these works the author generalized approaches to control the quality of production processes and to ensure, on this basis, the quality of the products manufactured. It is believed that W. Schuhart also proposed a process approach not only to quality control, but also to the organization of production links.

The quality problem is absolutely relevant for all types of products and services. Quality assurance has always been and remains one of the most challenging tasks to be faced in the production of products and the provision of services. An effective means of successfully accomplishing this task is the implementation of the provisions of the international standards ISO series 9000. ISO standards concentrate the world experience in ensuring the quality of products.

In the literature, questions related to the application of the process approach to quality management in industrial enterprises are reflected in the works of foreign authors: K.Geyn, F.Guiyar, T.Devvenport, J.Kelly, M.Robson, T. Sarson, F. Ullah, H. Van Hamvagen, R. Hammer, D. Harrington, J. Champi, A. Scheer, J. Sheldrake, C. Essling, and Russian scientists and practitioners: N.M. Abdikeyeva, A.M. Adzhinsky, T.P.Danko, V.A.Ivlev, S.V.Ildmenov, G.N.Kalyanov, D.A.Kiselev, V.G.Medynsky, E.G.Oikhman, E.V.Popova, T.V. Popova, Yu.F. Telnova, and A.V. Tyutyunnik (*Melnikov, 2009*).

In domestic science, the study of business processes is caused by the need to form a new system of economic relations associated with the transition to the market, which is reflected in the works of Yu.P. Adler, O.V. Bucha, I.O. Volkova, A.I. Gromova, T.P. Danko, S.N. Ivanova, T.V.Ivanova, S.D.Ilenkova, M.S.Kamennova, A.K.Koptelova, O.V.Kuzmina, E.L.Loginova, A.G.Massel, K.S. Melnikova, B.Z. Milner, E.G. Oikhman, V.V. Repina, S.Yu. Svetlitsky, E.V. Titova, A.A. Kharchenko, S.I. Tsymbal and others (*Uskov, 2012*).

Proceedings as world classics of quality management, such as: E.Deming, J.Juran, K.Isikawa, F.Crosby, G.Taguti, A.Feigenbaum, W.Shuhart, and Russian scientists: V.N. Azarova, B. V.Bojcova, V.A. Vasilieva, E.A.Gorbashko, O.Y. Gordashnikova, SDIlenkova, A.V. Kvitko, V.A. Lapidus, V.Mishin, A.N. .Rekshinsky, T.A Salimova, VA Shvandar, Y.V. Shlenov, ANShmelevoy, etc., devoted to various aspects of quality management (*Pirozhkov, 2009*).

The noted scientists and specialists made a significant contribution to the development of various theoretical and applied aspects of decision support for enterprise management based on the process approach.

Thus, agreeing with the opinion of Yu.P. Adler, SE Shchepetova, processes are logically ordered stages (steps, operations) that transform inputs into outputs. In a sense,

this understanding of processes is close to the notion of algorithms. Process approach is convenient, first of all, because it opens wide opportunities for visualization, and hence for employee involvement (Adler, Schepetova, 2002).

In the context of process management, an industrial enterprise is represented in the form of a production system containing business processes in which, during the management cycle (planning, organization, management and control), the organization's resources are transformed into a certain output result at the output, set by the set goals (Figure 1). For these enterprises, they can be defined as:

- 1) ensuring the quality of the goods provided by the standards;
- 2) achievement of key performance indicators of an industrial enterprise.

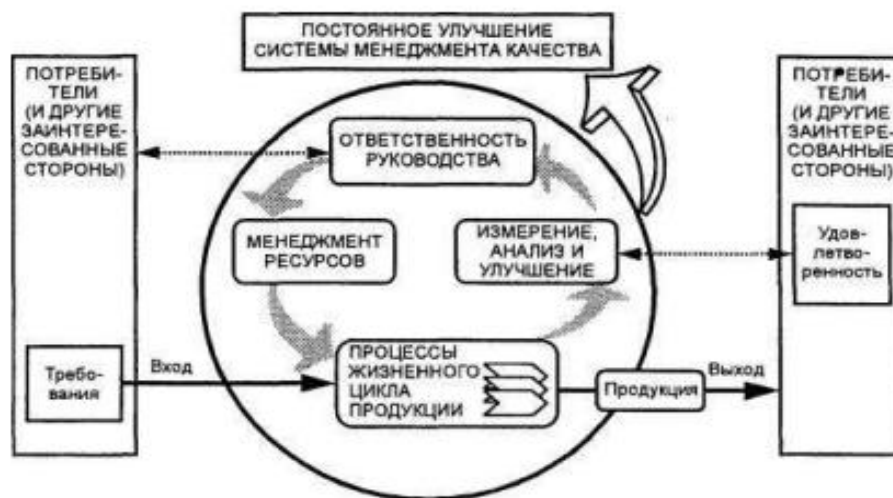


FIGURE 1. SYSTEM OF PROCESS QUALITY MANAGEMENT IN INDUSTRIAL ENTERPRISES

Figure 1 shows a process-based quality management system described in the ISO 9000 family of standards.

The process description contains the following structural elements: process goal; Responsible for the process; Participants in the process; On the process, the input; resources; Process users, output; Process algorithm; Control actions (process documentation); Monitoring, process measurement; Evaluation of the effectiveness of the process; Corrective and preventive actions; Directions of improvement; Interaction with other processes; The procedure for making changes in the process (Smagina, 2006).

Policies and quality objectives are set to serve as a benchmark for the enterprise. They determine the desired results and help the organization use the resources to achieve these results. The quality policy provides the basis for the development and analysis of quality objectives. Quality objectives need to be harmonized with quality policy and commitment to continuous improvement, and the results must be measurable. Achieving quality objectives can have a positive impact on product quality, performance and financial performance, and hence on the satisfaction and confidence of stakeholders.

Results. The process approach assumes consideration of processes from the point of view of added value of production, constant improvement of processes on the basis of objective measurements. The main modern trend in the development of business processes in an industrial enterprise is the transition from a functional to a process model (figure 2).

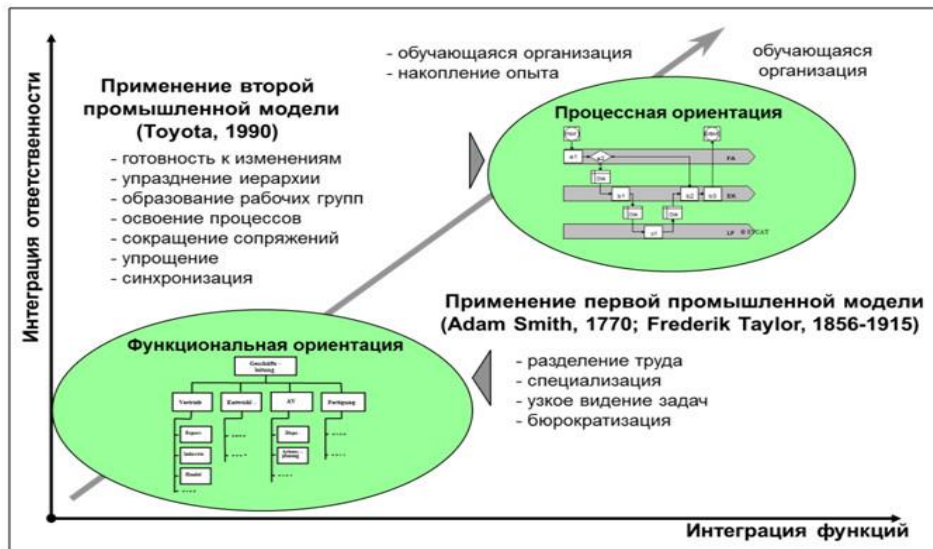


FIGURE 2. TRANSITION FROM A FUNCTIONAL TO A PROCESS MODEL OF BUSINESS PROCESSES

In the methodological plan, it is of fundamental importance for MS ISO 9000-2000 to apply a "process approach" in the development, implementation and improvement of the effectiveness of the quality management system in order to increase customer satisfaction by meeting their requirements. All activities performed by the organization are considered as a set of interrelated processes. The organization must manage these processes. The application of a system of processes along with their identification and interaction, as well as process management, can be considered a "process approach".

Currently, industrial enterprises are considered not as a set of departments and services, but as a set of business processes (figure 3).



FIGURE 3. BUSINESS PROCESSES OF THE ENTERPRISE

Without entering into a discussion, a business process is understood as the aggregate of various types of enterprise activities, which together create a result (product, service) that has value for the consumer, customer or customer. As a client, there can be another business process.

A business process is a chain of work (operations, functions), the result of which is a product or service. The chain usually includes operations that are performed by structural elements located at different levels of the organizational structure of the enterprise.

The process approach requires the separation and classification of the business processes of the enterprise. As a rule, the basis for the classification of business processes are four basic categories:

- basic business processes;
- providing business processes;
- business development processes;
- business management processes.

Thus, the main processes include such areas of activity as R & D, production and marketing of products. The main indicators characterizing the effectiveness of these processes are: the number of new developments per period (year), the number of new products tested, the level of production defects in production, the volume of deliveries compared to the previous period.

Supporting processes include: financial management, risk management, quality management and personnel management. Their assessment is made by calculating the effectiveness of measures aimed at improving the quality of products (estimated as the ratio of the received effect / costs), which include the cost of product quality, the cost of eliminating potential risks associated with the release of new products, the costs of staff development.

In the process of the life of the business system, through the accomplishment of business processes, a certain set of goals is achieved. In the general case, the set of goals has a hierarchical form ("goal tree") and each goal has its own weight and criterion (quantitative or qualitative) attainability.

The management process is an interconnected set of cyclically repetitive actions indirectly realized on the management object through a set of dynamically changing in time and in time management functions that ensure a certain structuredness, internal orderliness and coherence of interaction between the elements of the management system, in order to solve organizational problems and problems.

The process model of the enterprise consists of a variety of business processes, of which structural units and officials of the organizational structure of the enterprise are participants.

On the basis of the process approach, industrial enterprises determine the processes of designing, manufacturing and supplying products or services. With the help of process management, customer satisfaction is achieved.

Any enterprise has an organizational structure, and depending on what problems are being solved at one or another level, it is possible to identify the appropriate levels of management: strategic, tactical and operational. At each of these levels, internal processes take place, the management of which is carried out vertically (*Vaschenko, 2014*).

I.I. Mazur and V.D. Shapiro note that «examples of production processes are planning, processes related to the consumer, the design and development process, the procurement process, the provision of products or services. Examples of the measurement block processes, analyzes and improvements are the demonstration processes of product conformity, system compliance and continuous improvement. Since processes, especially in large organizations, involve many components, the interaction between processes, as a rule, is complex, as a result of which a network of interrelated processes is formed. The input and output parameters of these processes can be connected with both external and internal consumers» (*Mazur, 2005*).

Management of business processes of the organization assumes their constant improvement and optimization, therefore the most important tools of process management are approaches and methods for improving business processes. The concept of BPM (business process management) involves the continuous improvement of business processes, therefore, the key tools of process management are approaches and methods for their improvement. In modern process management, two conceptual approaches to improving business processes are singled out:

- a gradual (incremental) approach to improving processes (for Deming) within the existing organizational management structure, requiring little or no capital investment;
- a cardinal approach (according to Hammer and Champi), leading to significant changes in the process and fundamental changes in the organizational structure of management.

Both approaches are based on the common foundation of the process theory and methodology of process management (description of the process boundaries, description of the process itself, establishment of control points in the processes, measurement of the process indicators, analysis of information received and proposals for improvement). They are also united in that they are aimed at revealing duplication of functions, bottlenecks, cost centers, the quality of individual operations, lack of information, the possibility of automation and quality management.

Particular attention should be paid to the process of quality management of the products produced (figure 4).

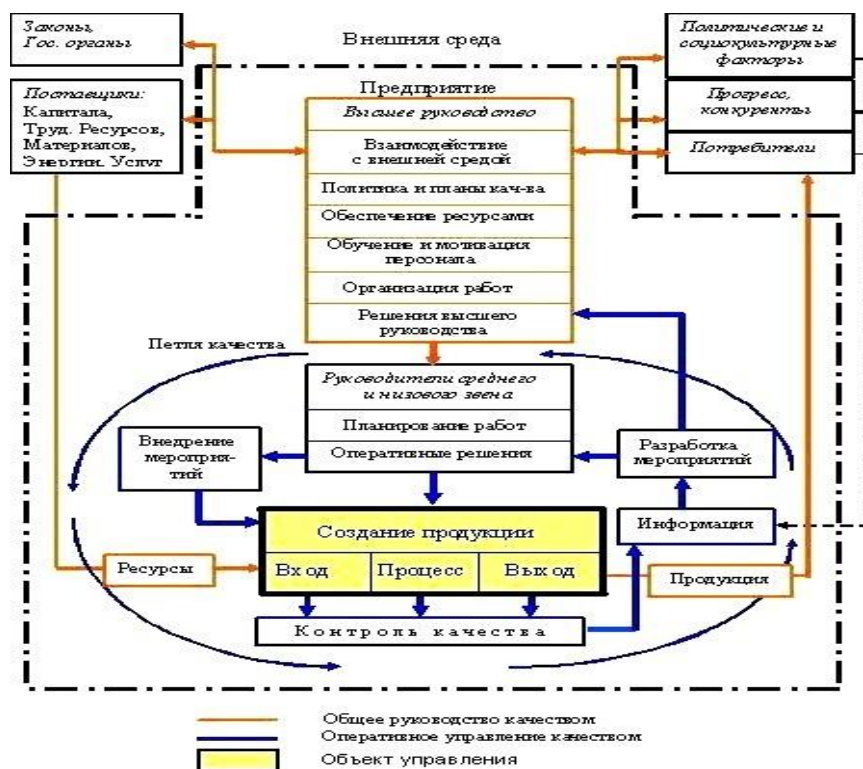


FIGURE 4. QUALITY MANAGEMENT PROCESS IN THE ENTERPRISE

The process of product quality management is the actions performed while creating, operating or consuming products in order to establish, maintain and maintain the required level of its quality. The main obstacle to realizing the conditions of production reliability is the problems caused by the equipment failure and failure in the operation of the

technical process, affect the defective products, reduce or discontinue production at individual work units, and reduce its quality.

E. Deming, based on the ideas of W. Shuhart, developed a cyclical process of decision making in quality management - PDCA (plan-do-check -act). Planning includes the definition of goals, processes necessary to achieve the goals, resource planning. Implementation implies the implementation of planned activities, documentation of activities and results. Verification - the collection and analysis of information, monitoring the results obtained during the process, the definition and analysis of deviations, the identification of causes of deviations. Correction - the implementation of measures to eliminate the causes of deviations from the planned results.

Currently, the quality management process is quite extensive and includes a number of subprocesses, the main ones of which are:

- monitoring results throughout the process;
- process management;
- management of the registration of quality data;
- planning of activities in the field of quality;
- quality control of products;
- qualification check;
- staff training.

The target setting of the quality management system in accordance with the latest version of ISO 9000 standards is the provision of quality, which is necessary for the consumer, but with minimal costs (*Grigoryan, 2016*). Leading experts in the field of quality management from more than 60 countries of the world formulated quality principles, which were then used as the basis for ISO 9000: 2000 standards. These principles are similar to the principles of TQM. Therefore, these standards are a view of the quality system from the point of view of the philosophy of TQM (*Mazur, 2005*).

The ISO 9000: 2000 standards contain requirements that facilitate the disclosure of quality objectives by the levels, functions and processes of the organization, as well as requirements for the measurability of goals and process results. For example, there are requirements for determining the expectations of consumers and their satisfaction; There were requirements concerning resource management, etc. The standards included the concept of continuous improvement, which provides a great dynamics in increasing the efficiency of the system (*Salimova, 2008*).

The new edition of ISO 9000: 2000 standards is characterized by the basic principles of quality management: beneficial relations with suppliers, accurate information, management approach exclusively systemic, improvement of the quality management system, customer orientation, staff motivation, observability and controllability of processes, process vision.

There is another standard ISO10006, the title of it is «Quality Management. Quality management in project management», the principles of quality management described in the standards of the series ISO 10006: 1997 are: the activities are customer-oriented, the management creates a favorable quality environment, constantly improves the quality management system, the project is a set of interrelated processes, the quality of services is maintained at a high level And products, a systematic approach to quality management.

Conclusion. With the development of the economy, the tightening of competition, the increasing demands of customers for the quality of products, the most urgent for industrial enterprises is the task of effectively implementing the quality management process. To achieve the expected result in the field of quality economics, involving profit and ensuring profitability of production, a perfect system of accounting and management of the costs of the enterprise, and in particular, the cost of quality, will be required.

The world practice of the last decade convincingly confirms that the certification of quality management systems (QMS), their products or services according to international standards of ISO 9000 series has become a universally recognized key to the highest quality of management for enterprises.

In the ISO 9000 series, QMS is presented as a management system for the management and management of an organization, which includes a set of interrelated elements for the development of policies and objectives, and the achievement of these objectives in relation to quality.

The advantage of the process approach to quality management is the continuity of management that it provides at the interface of individual processes within their system, as well as their combination and interaction. When applied within a quality management system, this approach emphasizes the importance of:

- understanding the requirements and compliance with them;
- the need to consider processes in terms of adding value;
- achieving results in process performance and efficiency;
- continuous improvement of processes based on objective measurement (*Askarov, 2014*).

Thus, the effective functioning of the quality management system (QMS) in industrial enterprises is based on the process approach, which allows you to quickly manage both the main and auxiliary processes in the enterprise.

Recommendations. The materials of the article can be useful to undergraduate students who study in the areas of «Management» and «Quality Management», graduate students, teachers, practitioners.

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MOTIVATION AND INCENTIVES TO WORK IN HUMAN RESOURCE MANAGEMENT

Abstract

This article presents such concepts as "motivation" and "stimulation" for labor activity in personnel management. It outlines basic terms and concepts, explains the purpose, formation and head role in motivation and stimulation.

Keywords

motivation, stimulation, labor activity, worker, head, economic efficiency, motivation goals and stimulation incentives, motivation and stimulation link

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Introduction

1.1 Relevance of a problem

The problem of personnel motivation is particularly relevant nowadays; proper motivation has an impact on the entire enterprise operation, especially during the innovative technologies implementation. "Motivation" and "stimulation" are two greatly similar concepts; stimulation plays a considerable role in the enterprise operation, it is directed to motivation of personnel for the high quality work. The enterprise income goes for taxes payment and production expansion, but work stimulation influences on the national economy development. Improvement and practical application of the latest motivational systems in the organizations attract more new highly skilled employees who can be at the head of both small-scale and large-scale enterprises; therefore they are accented on personal motivation with the help of quantitative and high-quality personnel work.

Personal interests, such as collective and public have a completely different focus. They solve various problems with the help of the stimulus, which considers various interests. For instance, the reward for work has a different impact on the worker interests, which occurs with a certain result necessary for the head, considering the interest of both public and collective. According to Maslow's hierarchy of needs we can identify the principal regularity, the only one for all people that works as a trigger to

systematically move from fundamental physiological needs to self-actualization. Maslow identifies 5 basic levels of human needs and motivations:

- 1) Basic physiological needs;
- 2) Safety needs;
- 3) Belongingness and love needs;
- 4) Esteem needs;
- 5) Self-actualization.

Considering the above-stated theory, leading position is the satisfaction of material needs.

1.2 The value of motivation

The value of the motivation is not disputed by any science or practice, because of the fine work the effective motivation system depends not only on improving the social and creative activity of a particular employee, but the final results of the work of organizations and businesses.

Many scientists since ancient times and in our day as engaged and involved in the knowledge in the field of motivation (*Maslow, Gertsberg, Sidorenko, et al.*).

All models of motivation in some degree different, and differ both in content and in form. It exists as quite a natural phenomenon, because, in general, does not exist any one of the motivational model that was used to successfully exclude the specifics of all the organizations.

All innovations and the importance of the work in practice lead to the fact that the problem of motivation and incentives for staff in our time is ineffective, not depending on the number of theories and concepts. In practice, the development of theoretical models occurs with great difficulty, as the manager is required to correct the effective implementation of the system of motivation in accordance with the specifics of the enterprise and evaluation of operating personnel

Methodological Framework

2.1 Performance goals

Considering the above-stated theory, leading position is the satisfaction of material needs. Basically, all heads and managers converge in a common opinion that salary may consist of several parts and should not be strictly fixed. For instance, payroll may consist of the following steps: major payment rate + work experience payment + skills and extra-qualification payment. It makes the basic salary; afterwards it is possible to add various rewards as simulative bonuses. This kind of system allows you to attract more qualified employees who are able to perform the best results. This is more significant if we remember the Pareto principle, which says that 80% of result is achieved by 20% of cost. This principle applies to personnel performance evaluation. You must always remember that quality is over quantity.

The main purpose of the system of motivation and stimulation of labor in relation to the organization's personnel may be the following sub-goals:

1) the involvement of employees in the organization. labor incentive system must be competitive in order to effectively attract those categories of professionals that are needed for successful work;

2) preservation of the organization. If employees can not get from the organization of the level of payment and social guarantees offered by other companies, this leads to

an outflow of personnel. And first of all the organization leaving the most qualified workers;

3) encouraging performance. Now used a system of incentives to maintain high interest of workers in achieving the indicators to meet the requirements of the organization;

4) a fair assessment of the labor contribution of workers. The level of payments and benefits provided to the employee must adequately reflect the contribution that it makes to the work of his department and the organization as a whole;

5) effective business development. Organization costs motivation and simulation system should not be excessive, which could adversely affect the success in the implementation of the goals. At the same time lowering wages and reducing the cost of social benefits offered to employees, can lead to a weakening of human resources and the organization as a whole;

6) the optimal ratio of cost of material incentives and social protection measures. This ratio is determined mainly by two factors: those that offer their employees the main competitors, and financial capabilities of the organization. (*Tolmachev, Lisovskaya and Ivanova 2016*).

2.2 Incentives

Nowadays, in addition to the material factor in economy, we also have the importance of moral stimulus and social benefits. Employee also pays a significant attention to the enterprise benefits package. The legislation system says that any enterprise must have the benefits. An enterprise may introduce certain benefits, such as providing personnel with medical care, additional payments for the pension fund, insurance, children leisure activities and company trainings. Many companies have compensation packages such as transport pass, gasoline or car repairs reimbursement and communication services payment. Nowadays Russia is on the level of development and formation of market relations, it causes the management restructuring, manager's initiative increase and responsibility for the company final results in general.

2.3 Remuneration

It is possible to identify a certain list of basic needs, which allows motivating personnel for high quality work with the help of motivational factors. Any head must adhere to the following list of requirements:

1) To link reward directly with the activity that leads to productivity increase and enterprise work efficiency in general;

2) To provide a public and tangible recognition to people whose efforts and outcomes are above the average for this employees category;

3) To implement the principle that every employee must get some money for the labor productivity increase in an enterprise in general;

4) To involve employees in participation with head in the goals and indicators development, which can help to reliably assess the employees performance;

5) To focus on the difficulties middle managers face during the duties and jobs improvements;

6) To avoid the emergence and situations development, which makes employees' interests to conflict with the objectives for improving company prosperity;

7) Not to increase quality standards up to that time, when the company is able to pay all the associated costs;

8) Not to create a significant gap between heads declarations and actual system;

9) Not to present the case, that the productivity increase programs are actually aimed at improving job satisfaction and its importance;

10) Not to approve the establishment of special privileges for heads which expand the gap between heads and working personnel.

2.4 Improvement in work

If the head adheres these rules, it will not only improve motivational factors, but also will significantly reduce the interests conflict which is possible in any motivational management model. Therefore, any management structure has different company and its employee's interests, but not all of them are opposite and different. It is always possible to find a path to agreement. Nowadays, improving motivation and stimulation strategies are in high demand, but they are hard to develop. The following principles are:

1) Absence of employees possessing evaluation methods, which allow to periodically obtain the information in the field of personnel motivation and stimulation;

2) Shortage of employees possessing experience of such strategies development;

3) Extremely small number of open valuation methods, which allow to obtain necessary information in the field of personnel motivation and stimulation. (*Kolomyts and Ivanova 2016*).

2.5 Departments of motivation

One of the best suggestions for improving stimulation systems is the establishment of personnel motivation departments. These are not the innovation; these departments actively operate in the Russian enterprises. But the number of such enterprises is not great. That is why there is the need to accelerate these departments popularization. Functions of personnel motivation departments should consist of the following regulations:

1) Stable motivation study of various enterprise departments;

2) Enterprise systems effectiveness evaluation and the methods of work stimulation;

3) New methods definition and implementation for labor activity stimulation;

4) Justification of new salary systems to different groups of employees;

5) Study the experience of domestic and foreign enterprises on the assessment of motivation and application of different stimulation methods.

2.6 Method

Social-psychological motivations must take a special place in the enterprise mechanisms. Here are presented some recommendations for heads, which will contribute to the favorable collective microclimate, concerted relations between head and employees, as well as conditions for effective and productive organization activities:

1) Personnel recruitment should be in compliance with clear requirements and criteria;

2) The control system should be agreed with the performance process regulations of and its evaluation;

3) You are not allowed to create only a team image and support it, you should be a real team;

4) Any company should have responsibilities distribution between departments, management structure should not be vague;

5) A head should not postpone his/her ideas and must implement them;

6) Any company should have a sanctions system for discipline breaches.

(*Ivanova and Surnina 2015*).

Results

3.1 Recommendations

These recommendations are proposed primarily to improve the effectiveness of motivation and stimulation events. Following recommendations above, it should be noted that a head who wants to have effective and stable relations with employees, must not forget about the stimulation availability for their productive activities improvement. It is usually assumed that the employee will feel satisfied with his/her salary, in case of incorrect attitude to his/her jobs, employee can be fired. Everybody has his own idea how to improve it's productivity. You should organize the work in order to provide your employee with desire to implement all the plans.

3.2 Views of scientists

Process of motivation is difficult and ambiguous. In the world there is a huge number of various theories of motivation trying to offer an explanation for this phenomenon. In modern researches are allocated:

- 1) theories of content of motivation (the theory of hierarchy of needs of A. Maslou, the theory of FRG of K. Alderfer, the theory of the acquired D. Makklelland's needs, the theory of two factors of F. Gertsberg, etc.);
- 2) procedural theories of motivation (theories of expectation of K. Levin, preference and V. Vrum's expectation, the theory of a reinforcement of B. F. Skinner, the theory of justice of Porter – Loulera (authors of the theory – L. Porter and E. Louler);
- 3) model of the choice of risk (D. Atkinson);
- 4) theory "X" and "Y" (D. McGregor).

The first theories give special value to the analysis of factors which are the cornerstone of motivation. Ch. Barnard was one of the first researchers of motivation. He considered a set of different types of satisfaction of the person in the organization, allocated concrete motives: material, personal non-material for difference of prestige and the power, spiritual. But he didn't create the theory of motivation. On by this A. Maslou and K. Alderfer put forward theories of hierarchy of requirements. Across Maslou, requirements which were at the lower level demand initial satisfaction, and the movement of requirements goes from below up. Alderfer, unlike Maslou, considered that the movement of requirements goes from below up and from top to down. He called the movement up levels process of satisfaction of requirements, and the movement down – frustration – process of defeat in aspiration to satisfy requirement.

At Makklelland requirements aren't located hierarchically and don't exclude each other. He considers requirements - as received under the influence of vital circumstances, experience and training, and influence of these requirements on behavior of the person in many respects depends on their interference.

F. Gertsberg allocates two main groups of requirements depending on with what process they correlate. In his opinion, satisfaction and dissatisfaction are not two poles of one process, and two absolutely different processes. Factors which cause dissatisfaction at their elimination not necessarily result in satisfaction and vice versa, from the fact that any factor influences on satisfaction growth, doesn't follow in any way that when weakening its influence dissatisfaction will grow. On process "satisfaction – lack of satisfaction" the internal, motivating factors, and influence process "lack of dissatisfaction – dissatisfaction" – external factors of health. One of the most ingenious conclusions which was drawn by Gertsberg from the analysis of factors of health was a conclusion that the salary isn't the motivating factor. Life showed illegality of a number of statements of

authors of substantial theories of motivation. Requirements are differently shown depending on many situational factors (content of work, situation in the organization, a sex, age, etc.): rigid following of one requirement for another isn't obligatory, the satisfaction of the top requirements not necessarily leads to weakening of their interaction on motivation, etc. The merit of these authors is that they defined requirements as a factor of motivation of the personality, made attempt to classify requirements, showed their interrelation. Classification of requirements on primary and secondary is supported also by most of modern researchers though there is no uniform, accepted by all classification still.

Procedural theories of motivation recognize that people estimate different types of behavior through the received results. A source of the theory of expectation are K. Levin's researches and his schools.

The main developers of the concept of expectation are on bigger degree V. Vrum and D. Atkinson.

V. Vrum's models included three variables: expectation of the fact that efforts will yield desirable results, expectation of the fact that results will cause remuneration, and the expected remuneration value. D. Atkinson (model of the choice of risk) entered one more variable – achievement of success (failure). In its formula the tendency of success (failure) is result. In general researchers of the theory of expectation were interested only the work of variables in a concrete situation, and to them all the same that it is more: salary or promotion.

The synthetic model of motivation which includes elements of earlier considered theories of motivation was developed by Lyman Porter and Edward Louler. According to their theory the motivation is function of requirements, expectation and justice of remuneration. Effectiveness of work depends on assessment of value of remuneration, the made efforts, assessment of probability of communication "effort – remuneration"; from characteristics and potential opportunities of the worker and a self-assessment the last of the role. They distinguish external and internal remunerations, and also the remuneration perceived as fair.

Porter's model – Loulera shows that the motivation is not a simple element in a chain of relationships of cause and effect; it is integrated within uniform interconnected system such concepts as efforts, abilities, results, the remuneration perceived as justice, satisfaction as result of external and internal remuneration taking into account their justice. People according to the theory of justice always subject to value judgment the remuneration and compare it to the fact that other workers received for similar work. One of the most important conclusions of this theory consists that productive work always leads to satisfaction of the worker. (*Ivanova and Petrucenko 2015*).

Discussions

4.1 The Russian experience motivation

The motivational and stimulating events which are held in Russia cardinaly differ from those which are carried out abroad. Motivations inherent in system in Russia distinguish usually following features:

1) in production economic activity of the organizations of Russia long time mainly only motivational model of "carrot and stick" which is at the moment very urgent was widely put into practice.

2) models of motivation of our country were and remain standardized and firm, any deviation from these standards is considered violation of the existing standard acts and local normative documents which are based and make the function on the basis of acts.

models of motivation of our country were and remain standardized and firm, any deviation from these standards is considered violation of the existing standard acts and local normative documents which are based and make the function on the basis of acts.

3) the labor contribution, was estimated biasedly, formally that resulted in indifference and not interest as in individual, and collective results of work, reduced social and creative activity.

4) the motivational models operating in Russia absolutely excluded opportunities in the field of development of unspecialized career and development of combination of positions. Only in recent years need of development of unspecialized career and combination of positions began to admit.

5) social stimulation of work happened in general without results of a personal labor as used the social benefits of collective work as the workers who reached high rates in work and the workers who aren't showing particular interest in work.

6) any of motivational models of the enterprises of the capitalist countries didn't consider and doesn't consider at present blocks of moral incentives as at them in general there is a reflection of material incentives, social and material, natural and social career.

7) stimulation is considered has to be considered, as a rule, through a prism of a socialist competition. The competition if to reject ideological dogmas, not only didn't become obsolete, but still surely is one of driving motives of increase in social and creative activity of workers in acceleration of rates of scientific and technical progress. As opposed to Russia, competition per se is widely applied and used at the enterprises of Germany, the USA, Japan and other countries.

The mechanism of realization of all blocks of model of motivation depends, first of all, on desire or unwillingness of definitely taken enterprise of Russia. And the main tendencies of use of motivational models in the organization of the developed countries inform us that any of motivational models not in forces up to the end to eliminate contradictions in work incentives of hired workers. Such situation doesn't allow to gain specifically full development of the personality and her self-realization.

4.2 Russian awards

In Russia, quite wide circulation earned the following rewards, such as:

- 1) awards, system of participation in profits, possession and management of various types of securities of the company.
- 2) the room of various records about achievements of the worker in his personal file.
- 3) gratitude.
- 4) gift certificates (certificates which allow the worker to buy goods for a certain sum, to visit theaters, cinema, rest in sanatorium).
- 5) additional training at the expense of the employer for more highly paid work.
- 6) rank "the best worker of month".
- 7) the direction on a seminar, a conference outside the city placements of the company on the subject interesting the worker.
- 8) granting big powers.
- 9) flexible hours of working hours.

4.3 Problem of Russia

But seeing what is shown by practice, in Russia today in a number of the companies payment of any bonuses and awards to staff of the serving divisions isn't provided at all. Only the fixed salary is, as a rule, paid economists, accountants, financial experts, IT

specialists, and also HR managers. Managing directors of the companies usually consider that activity of employees of data of divisions doesn't influence financial result at all, doesn't bring money in the company and therefore their awarding is unjustified. (*Ivanova, Zagorulko and Picarev 2016*)

Conclusion

The motivation of personnel is one of the major elements in human resource management. Having studied motivation of working personnel and stimulation of their work, a conclusion followed that ensuring such level of motivation can promote increase and improvement of results of work of personnel at the enterprise, and also efficiency of all production.

Theoretical basics of motivation of personnel were covered, management of stimulation and motivation of work of personnel is studied, and also a number of recommendations about improvement of system of motivation of personnel is provided. Theoretical basics of motivation of personnel were covered, management of stimulation and motivation of work of personnel is studied, and also a number of recommendations about improvement of system of motivation of personnel is provided.

Having considered the Russian experience of motivation and work stimulation, it is necessary to draw a conclusion that it is necessary to try to obtain the necessary and desirable result from the worker in two ways: or to pick up the person with the set level of internal motivation, or to use external.

Considerably an important role is played by development of recommendations about improvement of motivation of personnel. Following recommendations, the head or the HR manager can quit and with ease to increase motivation of working personnel at the enterprise, so quality and efficiency of their work. Conforming to the basic rules, the managing director will be able to provide a good microclimate in collective, mutual understanding of the head and employees that will increase efficiency and efficiency of activity of the organization that will promote further development of success and prosperity of the organization.

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TIME-MANAGEMENT AS A FACTOR OF THE MODERN TEACHER'S STRESS RESISTANCE

Abstract

The relevance of the study is also determined by the fact that the professional activity of teachers is one of the very intense included in the group of occupations with a large presence of stress factors. The purpose of the article is to show the relationship between the ability of time-management and stress resistance of teachers. The leading method to the study this problem is ascertaining experiment. The composition of the study group consisted of 30 female teachers of secondary school in the city of Tula. Experience of teachers' work varies from 1 to 30 years. The general hypothesis of the study was in the statement that the lack of teachers' skills to manage their work and personal time leads to a decrease of stress resistance; resistance to stress depends on the experience of teachers (the longer teachers have worked at the school, the less they subject to stress and plan their day better); the purposeful work on mastering by the basics of time management will promote a formation of teachers' stress resistance. Article materials can be applied in the practice of modern school teachers and help to optimize their working time, increase the effectiveness of pedagogical activity.

Keywords

pedagogical activity, modern teacher, stress factors,
stress resistance, time-management

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Introduction

Mutual interference of professional person's activity and features of his personality is ambiguous. According to the professional development model proposed by L.M. Mitina and based on the position of S.L. Rubinstein, a person actively influences on the profession, but the professional activity does not always have a constructive impact on the status and identity of the subject. N. Aminov concluded that professional stress resistance depends on the individual psychological and psycho-physiological characteristics, but to determine the strategy directed at increasing stress resistance, we need to take into account the stress factors faced by the subject as a professional. The problem of stress has become a subject of study of such scientists as L.M. Abolin, A.P. Akimova, A.A. Baranov, V.A. Bodrov, B.H. Vardanyan, A.V. Makhnach, L.A. Kitaev-Smyk, A. Reykovsky et al., nevertheless a single definition of this phenomenon does not exist. Different authors identify stress resistance with emotional stability, neuro-psychological resistance, psychological resistance, emotional and strong-willed resistance, psychological resistance to stress and so forth.

The phenomenon of stress (quality, characteristic, property) is considered mostly as a characteristic that affects the efficiency of operations. Among the factors of stress - physiological characteristics, relevant to the job, personality type (*Bodrov, 2000*). We will define stress as a combination of stressors and stress reaction, without these two components the stress does not exist. Most teachers work in a constant external and internal control, strictly look after themselves, so as not to make mistakes. Such activity requires from the teacher intensive communication that should be reinforced by positive emotions (*Bodrov, 2006; Kitaev-Smyk, 2009*).

The problem of stress factors of pedagogical activities is covered in works A.A. Baranov, S.V. Subbotin, B.I. Hassan et al. (*Bagriy, 2009; Baholskaya, 2013*). The scientists noted that teacher's profession is one of the very intense (in psychological terms) and included in the group of occupations with a large presence of stress factors that makes higher demands on the study of stress resistance.

Researches of E.Yu. Lizunova, A.K. Markova demonstrate that the teacher's work is intertwined with the professional stress of information content, and it requires high qualification to be constantly acquiring new knowledge, processing and interpretation of the received information, the responsibility for the results. Teachers are often meet with stressful effects generated by a variety of conflict situations during the working day. Teachers work closely linked to the need for continuous interpersonal communication that influences the effectiveness of their activity (*Kaygorodov, 2011*).

Pedagogical activity as a whole it is necessary to equate with the category of "hard work both on the criteria of mental activity, working conditions and sanitary conditions and according to the criterion of working with people" (*Bagadaeva, 2014*). It is undeniable that teacher's profession is associated with an abundance of all sorts of stresses resulting in the course of activities. Interaction with colleagues, children and their parents require constant mobilization of intellectual, physical and emotional strength. However, not all the teachers manages can save calm and emotional balance in their activities. Usually a teacher does not always understand the causes of irritability, poor sleep and excessive fatigue, that can lead to "burnout syndrome" (*Boyko, 1999*). It was established that development of burnout syndrome is typical only for teachers who are in transition from primary to secondary professionalization that corresponds to professional experience of 5 to 9 years.

Especially it is great influence of emotional stress on the activities of young teachers. The constant action of intense professional work factors causes the deterioration of their operating results, decreased performance, the appearance of uncharacteristic errors, reduced mental processes (memory, thinking, attention). After staying in stressful situations many teachers feel weakness, depression, desire to lie down to sleep. In some cases, the emotional tension of a teacher reaches a critical point, the result is the loss of self-control and self-control. The activity of the teacher is exposed to a variety of stressors that can have a negative effect on the mental state of teachers, which may lead to stress. Therefore teachers need to use stressors confrontation techniques, which include the ability to manage the time.

Thus, the essence of the problem is the contradiction between that the teacher's profession requires sustained good mood and emotional stability in the process of working with children, colleagues and parents but a teacher does not know how to manage their work and personal time, and it often leads to stressful situations. Living under constant school stress with a high of information complicates the professional work of teachers who have to work with a constant voltage and lack of time (*Andreeva, 2009*).

Lack of time is a serious stress factor of a modern teacher, so it is necessary to manage the time. Analyzing the activity of the teacher and stressful situations, we can identify a number of parameters which lead to stress as well as demonstrate the

correlation with lack of time. They are goal setting, phased achievement of the goal and planning the time.

Materials and Methods

The aim of our work was the theoretical basis and the experimental study of the relationship of stress resistance of the modern teacher with the ability to manage the time and description of the technology to develop the stress resistance in the process of professional teacher's activity.

We hypothesized that the lack of teachers' skills to manage their work and personal time leads to a decrease of stress resistance; resistance to stress depends on the experience of teachers (the longer teachers have worked at the school, the less they subject to stress and plan their day better); the purposeful work on mastering by the basics of time management will promote a formation of teachers' stress resistance.

The study involved 30 female teachers of secondary school in the city of Tula. Experience of teachers' work varies from 1 to 30 years. The qualitative composition of the experimental sample is presented in Table 1.

**TABLE 1. DISTRIBUTION OF TEACHERS INTO GROUPS
ACCORDING TO THE EXPERIENCE OF WORK**

1-st Group		2-nd Group	
Experience of work	Number of testees	Experience of work	Number of testees
1	2	16	1
2	1	17	0
3	3	18	1
4	0	19	1
5	1	20	1
6	1	21	1
7	0	22	1
8	1	23	1
9	1	24	1
10	0	25	0
11	1	26	1
12	0	27	2
13	1	28	0
14	2	29	1
15	1	30	2

Based on the objectives of the study and the results of theoretical analysis of the pedagogical and psychological literature we used the well-known diagnostic methods:

1. Method "The level of subjective control" by Julian Rotter (adaptation by E.F. Bazhin, S.A. Golyntkin, A.M. Etkind). This method assesses the extent to which a person is willing to take responsibility for what is happening to him and around him, thus it enables one fast and effectively evaluate teachers' level of subjective control over a variety of life situations.

2. Test of the viability of S. Muddy (translation and adaptation by the D.A. Leontiev, E.I. Rasskazov. This method shows the degree of necessary components for good health and optimum standards of efficiency and activity in stressful conditions.

3. Method of determining the stress resistance and social adaptation of Holmes-Rage. This method is designed to identify all the events that occurred with the teacher during the last year to prevent the stress response in the future.

4. Method "The study emotional burnout" (V.V. Boyko). This method will identify professional burnout syndrome to give timely advices and assistance.

5. Method "Human representations of research on the properties of time" (O.N. Kuznetsov, A.N. Alekhin, T.V. Samokhina, N.I. Moiseyeva). This method will determine the representations of the teachers about the expense of their own time and to identify the problems in time management.

When selecting methods we tried to take into account the positive assessment of the use and reliability of the method according to a number of foreign and Russian researchers; availability of techniques for participants; the possibility of qualitative and quantitative analysis of the results (*Vodopiyanova, 2009; Lizunova, 2008*).

Results

As a result of the method "The level of subjective control" it can be seen the differences in manifestations of characteristics between the two groups of testees and within the same group. First of all, it is obviously traced the excess of indicators on scales "internality general" (67%), "internality achievements" (77%) and "internality of interpersonal relationships" (70%) in a group of employees with a great experience (16-30 years) over indicators of the same scales in the group of employees with a smaller experience (1-15 years). On the basis of the average of the two groups we can draw the conclusions that the excess of rates on scales "internality general", "internality achievements" and "internality of interpersonal relationships" in a group of teachers with a great experience indicates a higher degree of development of such personal qualities and properties as the responsibility for creating interpersonal relations, a high level of subjective control over the significant situations, focus on success and the realization of this goal.

According to the results of Test of the viability of S. Muddy it is seemed that significant differences in indicators of viability are not observed between the two study groups. However, in the selected scales of control and general indicator of vitality there are some differences. We see that the average indicators of control (75%) and overall vitality (67%) in a group of teachers with experience of 16-30 years somewhat higher than the data of indicators in a group of teachers with experience of 1-15 years. This difference points to the greater degree of formation of such features as control and viability in a group of the teachers with a great experience. Accordingly the level of stress resistance in general in this group of teachers will be higher.

The results of the method "The study emotional burnout" suggest that teachers are divided by the number of the typed points in separate phases and the total number of points. Testees can be grouped according to the criterion of formation of phases:

- Group 1 - emotional burnout appears on the level of one phase (i.e., the final number of points in one of the phases is equal or greater than 61);
- Group 2 - syndrome of emotional burnout is being formed at least in one of the phases (i.e., the final number of points in one of the phases is in the range from 37 to 60 points).

Analyzing the results it must be concluded that for teachers is more typical phase at which burnout syndrome is in the development stage. Positively that among the teachers

stand out those who did not have noted signs of burnout. The largest number of teachers (68%) is in the second phase of burnout - in the phase of "resistance"; in the phase of "exhaustion" 32% of the testees are not affected by the syndrome of emotional burnout. This fact may indicate that during a certain correctional work more and more teachers can cope with the negative manifestations of emotional burnout.

According to the results of method "Human representations of research on the properties of time" it is seemed that teachers with a great experience of work better imagine how to spend their time, try to plan it and give the report to all the actions of the working day. Teachers with less experience have not yet formed the concept of time and are poorly oriented in planning because they like to do several things at once but it does not always lead to success. Based on this we may propose the teachers with a great of experience based on their experience know the concept of time and try to spend it wisely.

In order to establish the relationship between the ability to manage the time and stress resistance of the modern teacher we used the Pearson correlation coefficient. As a result of our analysis we have determined that $R = 0,8$.

This indicator evidences the presence of direct relationship between the skills to manage the time and stress resistance of the modern teacher. Thus, stress resistance increases if the teachers use their time correctly and know how to manage it, work on mastering the basics of time management in professional work they will form stress resistance sooner.

Discussions

The ability to manage the time - is the path to professional and personal success of teachers. Besides the teacher is an example for his schoolchildren and their parents - a successful and organized teacher everywhere succeeds. The ability to use the time rationally and carefully is not given to a man from the birth. Therefore, mastering this art we come gradually to the standard of living that is acceptable to us.

Individual time management is closely aligned with the personal self-development and carried out by the person who wishes to improve his efficiency. For this each of us use his own methods and approaches, drawing on information from books, internet sites, advice of friends and colleagues, as well as their ideas for improving the efficiency of the use of personal time (*Bolotova, 2006*). Personal time is a key of human resource, often it has a much higher value than money and can't be accumulated or restored. That is why the ability to make best use of the time and manage it represents significant value for anyone. And it is important to learn how to apply this skill in all areas of life.

General recommendations were made to all participants of the study.

1. Start your day with unpleasant cases, they can't be put off as your thoughts will still come back to them and emotional stress will increase. After completing the unpleasant things you will be free from the burden of need and focus on more pleasant ones.

2. If you face the need to solve some complicated problem and it is unclear exactly how and where to start this case, you need to divide the process into steps and execute them separately. This will not only begin to realize the task but also contribute to a better understanding of it.

3. Learn to say "no." This does not mean that you need to avoid new capabilities, on the contrary, but also to take on too much, even in one area is wrong. Sooner or later people "burn out." Time management does not need to have time to do more but to do the right thing that you need.

4. Always look for opportunities to make routine work easier. For example, if you work with e-mail and have constantly to check your inbox simply configure notification of new messages on your smartphone or computer by means of special services.

5. If you have to make practically identical 2-3 things during the day, carry them in a row. Brain "accustomed" to such problems, and next time it copes with them faster than if there was a break between them.

6. In time management you should pay attention not only to the time as a physical unit. In accordance with their biological rhythms determine the hours of greatest and least activity and engaged in business or let a rest. You may have to sacrifice a traditional cup of coffee from coming to work but you will spend much more productive day.

Conclusion

Man actively influences on the profession but the professional activity does not always have a constructive impact on the condition and personality of the man. Professional stress resistance depends on the individual psychological and psychophysiological characteristics but to develop a precise strategy aimed at increasing resistance to stress, you need to take into account the stress factors faced by the man as a professional (*Kulikova, 2014*).

Activities of the teacher is exposed to a variety of stressors that can have a negative effect on the mental state of teachers and may lead to stress. Therefore, teachers need to use stressors confrontation techniques which include the ability to manage their time.

In the course of our experimental work the main approaches of foreign and domestic psychologists to the problem of stress resistance and the main factors of development resistance to stress of the modern teacher have been described; we studied the specific nature of the relationship of resistance to stress with the ability to manage the time of the modern teacher.

As a result the following data were obtained.

1. Teachers with a great experience of work are completely able to control their formal and informal relationships with other people. Teachers with less work experience are less capable of self-regulation, that is causing of their low resistance to stress.

2. In most of the group of teachers with a great experience it is typical the Internal type of subjective control that indicates a higher level resistance to stress in this group of teachers.

3. For teachers with burnout syndrome independent-dominant or rectilinear-aggressive type of interpersonal relationships is predominant, and for teachers with unformed burnout syndrome cooperating or conventional and responsible-magnanimous type of interpersonal relations is predominant.

4. The teacher is exposed of psycho-emotional, physiological and social stress, the teacher gets lost in setting goals and time absorbs the teacher.

Based on the data obtained in the course of an experimental work the program on the formation of teacher's resistance to stress with time management techniques was developed. We believe that the mastery of time management technology will help the teacher increase resistance to stress and interest in further self-education.

Structurally the program includes two units. The first one is educational and practical unit which consists of 5 sessions during which members of the group consider and discuss a variety of questions and perform practical tasks. At this stage lectures are held that will expand knowledge about such concepts as "time management", "goal-setting", "stress resistance". Furthering knowledge will lead to a better understanding of the problem among teachers, that would be a good theoretical basis for the second unit.

The second unit includes a training consisting of 10 complex selected classes for each group (Kulikova, 2014).

Developed in the course of the study recommendations and the program of formation of teacher's stress resistance with time-management techniques can be applied in the practice of modern school teachers and help to optimize their working time, increase the effectiveness of pedagogical activity.

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EFFICIENCY OF REENGINEERING. ASSESSMENT TOOLS

Abstract

Russian organizations should master methods of business processes reengineering as an innovative administrative approach. At the same time there is a question to change indicators under the influence of reengineering. The need of thorough development of a complex scientific problem for transformations assessment as a result of reengineering implementation (instrument of effective use of organization resources) is caused by the developed economic situation. The most modern and successful administrative business strategy allowing to reach real competitive advantages and effective results is reengineering.

Keywords

reengineering, efficiency, assessment, assessment tools.

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Introduction

Russian organizations should master methods of business processes reengineering as an innovative administrative approach. At the same time there is a question to change indicators under the influence of reengineering.

The need of thorough development of a complex scientific problem for transformations assessment as a result of reengineering implementation (instrument of effective use of organization resources) is caused by the developed economic situation. The most modern and successful administrative business strategy allowing to reach real competitive advantages and effective results is reengineering.

A process approach within reengineering were a subject of repeated researches of the Russian and foreign scientists. The basic researches of N.A. Dubinina are devoted to questions of reengineering of economic entities business processes and their assessment. The essence of its author's technique consists in use of modeling method of structural analysis and technology of model design, object-oriented modeling, method of process-by-process analysis of business processes cost, functional-cost analysis, analysis of the key indicators (*Dubinina, 2016*).

V. Titova, O. Lyamzin conducted the research on assessment of business processes efficiency on the basis of the diversified integrated structures on the basis of innovations development (*Losev, 2009*).

The technique of assessment of business processes organizational efficiency, which basis is key indicators of enterprise efficiency, was presented by Yu.V. Taraskina. The author refers to D. Antipov, E. Balashova, V. Glukhov opinions (*Antipov, 2010; Balynin, 2015; Glukhov, 2012*). D. Antipov developed the technique of indicators for assessment of organization activity efficiency on the basis of integration of approaches of General quality management, economical production, system of the balanced indicators and the theory of restrictions of systems (*Antipov, 2010*). L.K. Ogoleva, V.M. Radikovsky created the technique and defined criteria of assessment of business processes efficiency. The authors offered to use system of the innovative analysis for organizational and technological reengineering (*Ogoleva, 2004*).

Foreign developments in this direction are presented by M. Hammer, J. Champy, G. Harrington and J. Hilston, who consider reengineering is revolutionary changes in activity of organization. The scientists offered techniques and instruments of improvement for business processes, which allow to increase organization competitiveness (*Losev, 2009; Ogoleva, 2004; Pavlyuk, 2015*).

M. Hammer and J. Champy define reengineering as "fundamental reconsideration and radical redesign of business processes of the companies for achievement radical improvements in the main actual indicators of their activity: cost, quality, services and rates". We should emphasize that it is not about small improvement of business processes of the companies - for 10-100% - but about cardinal increase of their efficiency, in tens or even in hundreds of times. Thus reengineering is considered as a survival way for the modern companies in the conditions of rigid competitiveness in the world market.

It is possible to allocate three types of the companies, which need reengineering:

1. The companies, which are on the verge of crash, because goods prices are much higher and (or) their quality (service) is much lower, than competitors'. If these companies do not take the plunge, they will inevitably be ruined.

2. The companies, which do not have difficulties at the moment, but expecting inevitability of emergence of the stubborn problems connected, for example, with the advent of new competitors, change of clients requirements, change of economic environment, etc.

3. The companies, which do not have problems now, not predicting them in the near future. These are the leading companies pursuing aggressive marketing policy, which are not satisfied with good current state and want to achieve the best results by means of reengineering.

Thus, problems of reengineering are similar to problems of innovation: development of innovations for ensuring competitiveness of production and eventually survival of the enterprise.

The available scientific researches in the field of business processes assessment (*Kaplan, 2005; Kutelev, 2003*) give the chance to use practices of scientists in this area, however there is a need to study assessment of reengineering efficiency concerning a complex of financial and non-financial indices.

Balashova, 2014; Balynin, 2015; Eliferov, 2006;

Methods of Experiment

The theoretical basis of the research is works foreign and Russian scientists in the field of innovative administrative approach - business processes reengineering (*Ogoleva, 2004; Pavlyuk, 2015; Radikovsky, 2004*).

The methodology of the research is based on a system approach. Instruments of the research are both general scientific methods, and methods of scientific analysis. Methodological and methodical questions of reengineering are presented in works of domestic scientists: L. Kozelrod, D. Kozenkova, E. Balashova, D. Antipov, K. Chuprov, I. Kurenkova, E. Luneva, Yu. Sukhanova and S. Tsapko, V. Glukhov, Yu. Taraskina, N. Dubinina (*Kozenkov, 2011; Kozerod, 2009; Kozerod, 2008; Kutelev, 2003*).

Application of the specified methods and sources defined the research direction and gave opportunity to confirm the received results of the analysis, theoretical inputs and the developed practical recommendations.

Results

Business processes reengineering essentially differs from the fashionable trends replacing each other for the last 30-40 years in management, such as management on the purposes, diversification, benchmarking, total quality management, assuming continuous "incremental", step-by-step improvement, etc.

Reengineering of business processes does not assume implementation of continuous and minor changes leading to small "incremental" (on units and even tens percent) and improvement of functioning indicators of a company. As a result of successfully carried out reengineering – fast implementation of profound and comprehensive basic changes of a control system – a company reaches the essential, "breakthrough" growth of efficiency (in tens and hundreds of times). The flexible and operational adaptation to the expected changes of consumers inquiries, revolutionary changes of business processes structure are the rod purpose of reengineering. The accompanying changes are changes in strategic, technological, organizational bases of production and management.

Reengineering is introduction of the latest information technologies for achievement of absolutely new business zeros. Orientation to constantly evolving services, which meet needs of consumers, is necessary. Therefore, development of IT strategy as a number of purposeful and coordinated actions allowing to use information and technological resources for creation and maintenance of steady competitive superiority of the company is necessary.

It is important to note that the method will be effective, only if it is in close connection with organizational development of the enterprise.

As any instrument of management, reengineering possesses both obvious advantages, and the certain shortcomings imposing restrictions on its use (*Eliferov, 2006; Losev, 2009*).

If to consider the concept of reengineering (tab. 1), it is possible to mark out the following important lines:

- change of business processes is a mean of increasing economic efficiency of enterprise activity;
- changes can capture both manpower market, and services market;
- reengineering is concentrated on primary activity (*Kutelev, 2003*).

TABLE 1. CHARACTERISTIC OF THE CONCEPT "REENGINEERING"

<i>Characteristic</i>	<i>Reengineering</i>
Purposes	<ul style="list-style-type: none"> - optimization of productions - tax optimization - optimization of expenses on personnel - other
Scheme of parties' interaction	Association of several positions
Coverage	Market of manpower and market of services
Innovative potential	<ul style="list-style-type: none"> - association of several positions in one - refusal of mass production of uniform products in favor to adaptation to requirements of the different markets and situations

The objective assessment of changes in business processes assumes complex consideration of questions that gives the chance for correct estimation of quantitative and qualitative effect. The presented and possible indicators can carry both financial and non-financial character. It is difficult to estimate non-financial indicators owing to their uncertainty, and "notable" indicators are required for the management. The hypothesis is that it is possible to offer the system of indicators allowing not only to estimate quantitative and qualitative results, but also to compare them for the studied periods to assess efficiency of reengineering processes.

Discussion. Efficiency of economic entities activity under the influence of cardinal changes is an actual subject for scientific researches, since this process has a cyclic form. Reengineering "maintains" efficiency and creates conditions for its development.

The results of reengineering of organization business processes usually are following:

- the number of company personnel is reduced at a stable level of production;
- the cost of finished goods (works, services) decreases, keeping former volumes and quality of finished goods;
- the number of management levels of is reduced;
- the cost of business reputation increases;
- the branch rating assessment of business raises;
- profitability of economic entity grows.

Realization of business reengineering assumes some stages:

- development of an image (vision) of future organization, i.e. how to develop business to achieve strategic objectives;
- analysis of the existing business assumes a research of the organization and drawing up schemes of its functioning at the moment;
- development of new business: the new and/or changed processes and the information system supporting them, selection of prototypes and testing of new processes;
- introduction of new business.

In this regard, it should be noted that the listed stages are carried out not consistently, but in parallel and some of them repeat.

By experts' estimates, in a case of the correct reengineering, expenses decrease, duration of a cycle is reduced by 60-90% and the level of mistakes by 40-70%.

Methods of business processes improvement have a number of general characteristics, which were defined during the analysis of literature and publications devoted to a problem of improvement of organization processes. These features reflect a number of requirements, which consider teams, improving processes.

Business Process Analysis is a systematic data acquisition for identification, definitions, estimates and representations of process as a base for its organization and improvement.

As a rule, the reason for the analysis is competitive position of the company in the market. Comparison of the prices, expenses and products/services can clear necessary requirements and push to improvement.

Indicators of the actual situation can be the following:

- long time of production delivery and the arising problems with terms of orders implementation;
- opaque course of process and its insufficient depth;
- excessively wide range of products and details;
- frequent change of expenses places, when passing the order;
- considerable intra firm transport and warehouse expenses, freezing of materials and areas;
- high costs of re-equipment at change of a product or technology;
- small time for processing in the general time of passing an order;
- high expenses and high loading of capacities; emergence of "bottlenecks", etc.

The called indicators refer mainly to key processes. However, it does not mean that all research has to be concentrated only on them. The bigger result brings the analysis of all types of business processes - key, administrative, supporting.

The analysis is, first, productivity assessment, which turns out by means of indicators. Continuous process of improvement, as well as effective management, requires creation of system of indicators, which consists of two and more factors. There are three types of indicators: structural, relative and measured or indexes.

The main indicators to assess efficiency of business processes are the following:

- the quantity of the made production with the set quality paid for a certain interval of time;
- number of consumers;
- number of standard operations, which need to be executed to make a product for a certain interval of time;
- production costs;
- duration of standard operations;
- capital investments in production.

The purpose of business processes analysis is determination of key parameters, their changes, definition of reserves to increase efficiency of business processes and identification of perspective changes under the influence of reengineering.

The subject of the analysis is a set of financial, material, labor and other resources in business processes used for their implementation, cause-effect relationships and methods of their research.

The task of the analysis is assessment of a set of financial, material, labor and other resources in business processes.

The objects of the analysis are business processes by types of economic activity.

The users (subjects) are, mainly, owners, managers and personnel. In some cases, they are external users (for example, investors, suppliers, clients, etc.)

The information sources are data of financial, management accounting and financial and administrative statements, standard-reference information.

The principles are objectivity and relevance; scientific validity; systemacity and complexity; importance and optimality; attributability; principle of allocation of the leading link; timeliness; quantitative definiteness, alternativeness, reliability, clarity and comparability.

The methods are the following: statistical. accounting, economic-mathematical.

The tools are receptions and methods of the analysis. Components and categories of analytical procedures are comparison, forecast, calculations, polls, inspections, supervision.

The output information is forms of financial and economic calculations, analytical tables, schemes, charts, schedules, models.

The objects of the analysis and accounting of business processes are administrative technologies, functional processes in the organizations. Unfortunately, the analysis of business processes of even successful organizations shows that implementation of financial management is often insufficiently effective, as from the point of view of organizational and functional structure of these services, as the organization of the main business processes, such as financial planning and control, management of working capital, management of investments. Statement of regular financial planning and control is a necessary condition and has paramount value for effective implementation of business processes in the organization. In turn the analysis of business processes includes different types of the analysis on such signs, as:

- roles in management and organizational forms of carrying out;
- contents and completeness of research;
- frequency of carrying out research;
- nature of analysis object.

There are external and internal analysis of business processes of agricultural organization on a role of management and organizational forms.

The external analysis of business processes assumes the analysis of business processes, which proceeds outside the organization, but, nevertheless, information on them influences or can influence efficiency of organization activity. For example, the transportation of agricultural production to the buyer, which is carried out by the third-party organization on condition of payment of transportation costs by agricultural organization, can be considered as the business process directly related to activity of this organization. Choice of transport company by agricultural organization is guided by the cost of transportation of finished goods, which should be paid to the transport organization. Thus, agricultural organization has to analyze the cost of this service in potential contractors to choose the most optimum option. In a row the organization can compare information on the business process, which is carried out in it (for example, transportation of finished goods carried out by own transport) with information on business process cost in case of its carrying out in environment (for example, contract with transport company). Thus, the analysis of business processes is important at justification of decision on efficiency of transfer of concrete business process on outsourcing. Features of the external analysis are the following:

- plurality of analysis subjects;
- difficulties in collection of information;
- need to use techniques and receptions of strategic analysis.

The internal analysis of business processes is carried out by internal services (departments) of the organization. Information base of such analysis is much broader and, as it was already noted, demands structuring in a section of business processes. The purpose of internal analysis of business processes consists of determination of key parameters of business process, identification of reserves to increase efficiency of business process and analysis of opportunities of its change in the future.

Features of the internal analysis of business processes are the following (in comparison with external analysis):

- narrow circle of analysis subjects;
- orientation of analysis results to internal users, use of information sources allowing to structure it in a section of business processes, application of independent methods of analytical research along with standard techniques of analysis;
- lack of regulation of analysis;
- carrying out deeper analytical work and adoption of the correct administrative decisions;
- carrying out the analysis as required in connection with requirements of management.

According to the contents and completeness of research, it is possible to allocate the full and thematic analysis of business processes. The full analysis of business processes is carried out to study all business processes proceeding in the organization in a complex. The thematic analysis of business processes is limited to studying separate business processes. A subject of the thematic analysis of business processes can be:

- assessment of efficiency of acquisition of production means;
- purchases of production materials, fuel and other materials;
- acquisitions of technologies, etc.

On the period of carrying out, it is possible to allocate the preliminary, current and consecutive analysis of business processes. The preliminary analysis of business processes assumes studying of conditions of business processes implementation in organization. Flowing (or quick) analysis of business processes is carried out to have an operational impact on them and, as a rule, it is limited by the short period of time. The perspective analysis of business processes consists in proving possibilities to redesign business processes and a chain of value in general and estimation of possible results of financial and economic activity in the future from a position of their compliance to the purposes of development of the organization on the basis of studying the developed tendencies in both external, and internal environment of organization.

The model of business process forms a basis for the analysis of that, how optimum it lead to a goal. The process duration, its cost, and other characteristics defining efficiency of performance can act as the analyzed indicators. Data of the analysis allow to change process, constantly increasing its quality. Results of the analysis of business processes allow to reveal reserves to increase efficiency of organization activity by optimization of business processes. In particular, such shortcomings in implementation of business processes as duplication of functions, "narrow" places, excessive cost of any operations, poor quality of operations execution, existence of excessive operations, inconsistency of actions of participants, etc. can be revealed.

The choice of forms and methods of the analysis of business processes and system of indicators is defined by specific tasks and needs of internal users. In the course of the analysis of business processes are estimated the following factors:

- change of absolute measures determined by business process;
- dynamics of relative indicators of efficiency of business process implementation.

Estimating business processes, it is necessary to consider the following indicators:

- assessment of possibility to represent parameter in a numerical look;
- choice of measure units of parameter;
- choice of measurements type (direct or indirect measurements);

- gage choice (instrument of direct measurements or method of indirect measurements).

To assess consequences of reengineering, it is offered to use system of indicators presented in table 2.

TABLE 2. ASSESSMENT OF REENGINEERING CONSEQUENCES EFFICIENCY

Comparison sign	Traditional business processes	Business processes under the influence of reengineering	Indicators for calculation
Non-financial indicators			
Extent of achievement of the objectives	Expansion of a share of sales market	Percent of expansion of sales market	It is necessary to set limits to norms of an indicator for assessment. For example, sufficient level is 10%. We estimate this indicator from 0 to 1 points, so the share is estimated 0,5, and after transformations of business processes it makes 0,7 points according to the experts. $0,7/0,5*100=40\%$
The assessment criteria of connected with the enterprise management	Quality, efficiency and productivity of information on special inquiries. Reliability and safety of information. Increase in scales of information collecting and processing at reasonable expenses.	Economy percent from scales of information collecting and processing	It is necessary to set limits to norms of an indicator for assessment. For example, sufficient level is 15%. We estimate this indicator from 0 to 1 points, so the share is estimated 0,5, and after transformations of business processes it makes 0,8 points according to the experts. $0,8/0,5*100=60\%$
Changes in quality of labor	Power of workers and their responsibility. Satisfaction degree of the performed work	Percent of satisfaction with the performed work	It is necessary to set limits to norms of an indicator for assessment. For example, sufficient level is 15%. We estimate this indicator from 0 to 1 points, so the share is estimated 0,6, and after transformations of business processes it makes 0,7 points according to the experts. $0,7/0,6*100=16,6\%$
External and internal social and economic conditions	Ability to use resources effectively. Loyalty of clients. Level of integration of organization structural divisions.	Efficiency of resources use	It is necessary to set limits to norms of an indicator for assessment. For example, sufficient level is 14%. We estimate this indicator from 0 to 1 points, so the share is estimated 0,6, and after transformations of business processes it makes 0,8 points according to the experts. $0,8/0,6*100=13,3\%$

Indicators of efficiency are offered to be estimated in two directions: non-financial and financial performance.

Non-financial indicators are the extent of objectives achievement, criteria of assessment connected with enterprise management, expansion of sales market, satisfaction with the performed work, term of formation of the administrative reporting, etc.

Financial indicators are number of personnel salary, general expenses, etc.

Non-financial indicators are estimated by experts in points. The received assessment is determined by levels: from 0 to 0,3 - low level, from 0,4 to 0,7 - average level, from 0,8 to 0,10 - high level.

We can conclude about efficiency of resources use, changes in quality standards or satisfaction with the performed work under the influence of business processes.

The technology of management based on improvement of business processes by means of reengineering brings "noticeable" economic effect even in practice of small organizations.

Certainly, reengineering improves both non-financial and financial indicators, however, reengineering disadvantage is the high risks connected with transformations.

Conclusion

Recently external and internal conditions of organization activity promptly change, one of the reasons for changes is transformation as a result of reengineering, latest information technologies and revolutionary change of business processes of the companies.

High dynamism of business aspiration to quantitative and quality changes causes need of high-quality changes, as the interested heads do, trying to increase the competitiveness. Continuous transformations in different fields of activity: purchases, sale, information technologies, research and design development became the ordinary phenomenon, and heads of the organizations are compelled to reconsider the strategy and tactics.

Generalizing results of the research, it should be noted that to assess business processes efficiency it is necessary to use set of indicators characterizing all fields of activity of economic entity. However, the principle "expenses should not exceed the income" concerning expenses and income from implementation of results of reengineering has to be present.

The special attention should be paid to sets of financial and non-financial indicators of business processes efficiency. Their complex efficiency, certainly, will provide growth of efficiency of organization activity.

The results of the research allow to draw some important conclusions. Long functioning of organization without transformations of business processes is difficult. Any organization, irrespective of scales of activity, branch specifics, needs transformation of business processes by means of reengineering. Therefore, development of a technique for assessment reengineering effect is actual in modern conditions.

Recommendations

The offered system of non-financial indicators (extent of objective achievement, assessment criteria connected by the management of the enterprise, expansion of sales market, satisfaction with the performed work, term of formation of the administrative reporting, etc.) and financial indicators (number of personnel, salary, general expenses) allow to estimate reengineering effect and provide it in an option convenient for

information users. There are possible financial and non-financial indicators for assessment and the developed system of indicators assessment accounting sufficient level.

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KAZAKH LITERARY RELATIONS AT THE EDGE OF THE XX AND XXI CENTURIES

Abstract

The article discusses Kazakh literary relations at the turn of the XX - XXI centuries. The author reveals literary relations between Kazakhstan and Turkey, France, Germany. It highlights such factors as personal contacts of the writers. Attention is paid to the foreign literary reception, which occupies an important place in the study of literary relations. In conclusion, the author comes to conclusion that since Kazakhstan gained independence, the relations between Kazakh literature and foreign literature have become more active, and organic accession of Kazakh literature into the context of the world artistic culture has been observed.

Keywords

literary relations, critic, reader, translation, foreign languages,
international conference, foreword

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Introduction

The development of the Republic of Kazakhstan in new historical conditions, when our Republic is perceived as an independent State, requires scientific comprehension of the literary relations of the country. Kazakh literature entered the international arena in the second half of the XX century, but at that time it was perceived as an integral part of Soviet literature, and now in the period of independence, Kazakh literature is developing in a different way - it positions itself as an independent national literature in the world artistic process.

This article focuses on Kazakh literary relations with foreign countries at the turn of the XX - XXI centuries. The relevance of the research topic is due to the importance of scientific understanding of Kazakhstan's literary relations aimed to prove the growing authority of Kazakh culture in the world arena. The study of international literary relations helps to determine the importance of literature for the development of national identity, and also promotes the formation of patriotic feelings of pride for the rich spiritual heritage of Kazakhstan society.

Methodological Framework

The comparative literary criticism serves as a theoretical basis for the study of literary relations. In this research, the analysis of literary relations is carried out based on the works of D. Dyurishin (*Dyurishin, 1979*), R. Bart (*Bart, 2004*), U. Eco (*Eco, 2002; Eco,*

2006) and is logically connected with the issues of receptive aesthetics, 1999), hermeneutics (*Lyapushkina, 2002*) and artistic translation (*Topper, 2000*).

Comparative study of the literary process incorporates the main approaches inherent in literary science: historical-genetic, historical-functional, systemic, psychological. Used research methods are as follows: objective-analytical, textual study, eureka-hermeneutic, historical-typological, comparative-comparative. The basic methodological directions in this work include the basic principles of dialectical, ontological, structural-formalistic, as well as discursive-receptive poetics.

Results

At the turn of the XX - XXI centuries, Kazakh literary relations with foreign literatures have actively developed. In this process, the creative writings of a number of well known Kazakh writers and poets play a significant role. In particular, Abay Kunanbayev, Makhambet Utemissov, Zhambyl Zhabaev, Mukhtar Auezov, Abdizhamil Nurpeisov, Olzhas Suleimenov, Mukhtar Shakhanov, Abish Kekilbayev and others, whose writings have been recognized abroad.

A wide range of contemporary international resonance of Kazakh literature includes a number of European and Eastern countries. Turkey leads among countries of the foreign East, followed by India, Pakistan, Iran, China, Mongolia. Among the European countries, France, Germany, Hungary, Bulgaria and Poland are most interested in national literature.

UNESCO (United Nations Educational, Scientific and Cultural Organization) played an important role in strengthening international relations of Kazakh literature at current stage. In the 1990-2000-ies this organization initiated celebration of the anniversaries of the classics of Kazakh literature at the world level: 150th anniversary of Abai Kunanbayev (1995), 100th anniversary of Mukhtar Auezov (1997), 100th anniversary of Sabit Mukanov (2000), 100th anniversary of Gabit Musrepov (2002) and 200th anniversary of Makhambet Utemissov (2003). All these jubilee dates are included in the UNESCO Calendar of Memorable Dates. Celebration of anniversary dates is a new form of literary relations. Due to solemn events held in Kazakhstan and throughout the world, contemporary foreign writers got acquainted with creative writings of the best representatives of Kazakh literature, and also established personal contacts with contemporary Kazakh writers and literary scholars.

In terms of comparative literary studies, literary jubilees serve as contact-genetic literary relations. Moreover, contact-genetic relations are mainly based on typological connections. These two types of literary connections are manifested in literary jubilees. Contact literary relations are divided into external and internal contacts. The external contacts include such traditional forms of literary connections as meetings, conversations, responses, reports at conferences, and holding jubilee events at the international level can be attributed to external contacts. The manifestation of typological convergence is observed in the speeches of foreign participants at solemn jubilee meetings and conferences.

The active literary ties between Kazakhstan and Turkey are explained, first of all, by the centuries-old historical and cultural commonality, as well as by the fact that Turkey and Kazakhstan have much in common at the present stage. For example, the similarity of the chosen way of State development, which implies aspiration for civilization and progress. Both States are open to perceive foreign cultures and at the same time retain their national culture. Turkey was the first country in the world which has recognized Kazakhstan's independence. Cultural and literary contacts play an important role in mutual relations between two related nations. Interest in culture and literature of Kazakh people who have common spiritual and ethnic roots, is constantly growing in Turkey.

Turkish literary figures not only visit Kazakhstan to participate in international conferences, but also hold literary days and evenings devoted to Kazakh writers and poets in Turkey. So, in 2006, the days of Kazakh poet M. Zhumabayev were successfully held in Turkish city of Elazig with participation of the representatives of the Writers' Union of Kazakhstan Sh. Yeleukenov and E. Raushanov. In addition, the works of Kazakh authors have been translated into Turkish language. In 1995, the "Abai's Selected Works" were published in Turkish. In 1996 in Ankara a poetic collection by Zh. Zhabaev "Selected Works of Zhambyl" was published in Turkish. In 1997, the five-volume by M.O. Auezov was published in the Turkish language. It included his novel-epic "Abai's Way", stories, novels, scientific articles and journalism. In 1998, R. Berdibay's book "From Baikal to the Balkans" was translated and published in Turkey. In 1999, the poem "Delusion of Civilization" by M. Shakhanov was translated into Turkish.

Kazakh-Turkish cooperation is also reflected in research works. Joint monograph of the M.O. Auezov Institute of Literature and Art "Essays on World Literature at the Turn of the XX - XXI centuries" (2006) was prepared with participation of Turkish scholar-literary critic from the University of Ankara Mehmet Torenek. He wrote a section on modern Turkish literature. In 2006, a monographic study of Turkish scientist Ali Abbas Chinar "Study of Kazakh Culture and Literature" was published in Mugla. In 2010, a book by Kazakh scientist and literary critic N. Kelimbetov entitled "General Literary Monuments of Turkic Peoples" in the Turkish language was presented in Turkey. In the same year, a scientific publication of Kazakh epic "Kyz Zhibek" was prepared in Turkey.

Kazakh-French literary relations at the turn of the XXth - XXI centuries are characterized by constant and dynamic character. Since Kazakhstan gained the independence, history, culture and literature of Kazakhstan raised interest of French writers, poets, translators and scholars. Many of them visited our country. So that one book or a series of poems can raise interest to visit Kazakhstan. For example, one of the reasons for traveling through Kazakhstan for the French writer Bernard Shambaz were poems by O. Suleimenov. French editor Jean Lambert decided to visit Kazakhstan after getting acquainted with the writings of A. Nurpeissov. A personal acquaintance of J. Lambert with Kazakh author of the trilogy "Blood and Sweat" was held in 1997 in Paris at international conference dedicated to the 100th anniversary of M.O. Auezov.

Creative writings of O. Suleimenov, whose poetic collections were actively published in the French language during the Soviet period, still draws the attention of writers in France. In 2002 in France the book "Letters of Youth. Ten poets speak about hope". Poets from France, Italy, Germany, Portugal, the United States, Israel, Lebanon, Bangladesh, Cuba and Kazakhstan responded to a key question about the role of poetry in the modern world. All texts were submitted in the original language and in French. The article by O. Suleimenov "The Age of the Insight" was written in the form of a letter to a young poet, in which Kazakh poet wrote about the purpose of poetry: "If the nation is kind, it is thanks to the poets. In this fact I see the duty of poetry - to make people kind" (*Suleimenov, 2002*). Undoubtedly, this heartfelt article with wise reflections and instructions impressed many French readers of the young and older generation. So, the literary critic Albert Fischler, having devoted an article to the creative writings of Olzhas Suleimenov, quotes from the book "Letters of Youth ...". We should focus more on the creative activity of this French scientist.

A. Fischler - Laureate of the Academic Palm Branch award in the field of French literature. From the beginning of the 1990s he repeatedly visited Kazakhstan, delivered lectures at the Universities, took part at the international conferences dedicated to the anniversaries of A. Kunanbayev, M. Auezov, M. Utemisov in 2003. A. Fischler is the author of the preface to the book "Abai Kunanbayev. Words of edification, poems "Iskander" and "Masgood", published in French in 1995. He prepared an introductory article to the book

"Mukhtar Auezov. Dashing Time" published in 1997 in France. Every time, when they return from a regular trip to Kazakhstan, Albert and his wife Madeleine organize meetings, hold seminars, lectures, and show their videos about Kazakhstan. In their hospitable house near Paris in Fontainebleau, they collected an extensive library of Kazakhstan, a video library and Kazakh music library. In France, A. Fischler participates in all events related to the culture and literature of Kazakhstan. In 1997 A. Fischler was awarded the Peace and Spiritual Consent Prize of the President of the Republic of Kazakhstan for his committed work in popularization of history, literature and culture of Kazakhstan. In 2005, A. Fischler arrived to Astana to participate in international conference dedicated to the 160th anniversary of the birth of Abai Kunanbayev. In 2006, he prepared an introduction to S. Dosanov's book "White Aruana", published in Paris in French. A. Fischler takes an active part in the preparation of the collections, included into the series "International Relations of Kazakh Literature" and published by the M.O. Auezov Institute of Literature and Art. Honorary Professor of the University of Paris A. Fischler can rightly be called an old friend of Kazakhstan.

Professor Remi Dor from Paris National Institute of Oriental Languages and Civilizations plays an important role in the development of Kazakh-French literary relations. In 1997 he took part in the international colloquium "Mukhtar Auezov: Great singer of national greatness" in Paris. In 1998, in Kazakhstan R. Dor participated at the international conference "Mukhtar Auezov and World Literature". In the 2000s, as a Director of the Institute for Central Asian Studies, the French scientist repeatedly visited Kazakhstan for participation at various events. In 2002 and 2006 the M.O. Auezov Institute of Literature and Art organized meetings with R. Dor. He is the author of a number of publications on literature of the peoples of Central Asia. R. Dor wrote a number of articles related to Kazakh literature, in which he showed an excellent knowledge of the history of Kazakh literature and the creativity of its most prominent representatives.

Kazakh-German literary relations have a long history. The first books in German language in which the Kazakhs were mentioned appeared in the VIII century. At the same time, German travelers-orientalists begin to visit Kazakh lands. A new stage in the development of Kazakh-German literary relations began with the formation of the German Democratic Republic in 1949. Since the 50-ies of the XX century begins publication of Kazakh literature in German language. Among the publishers that published the works of Kazakh authors, we can mention publishing house "Kultur und Fortschritt" which was the largest in the GDR. In 1964 this publishing house has merged with the publishing house "Volk und Welt", which continued publication of Kazakh literature. For many years, the famous German literary critic, poet, translator, essayist Leonard Kossuth worked in this publishing house.

Kazakh-German literary relations which have been established during the Soviet period, continue to develop during the period of independence. The activity of L. Kossuth serves as an excellent example. He has repeatedly visited Kazakhstan, and is personally acquainted with many Kazakhstani writers and poets and is one of the best specialists in the field of Kazakh literature in Germany. In 2003, he was awarded the Prize of the representative office of international PEN-club in Kazakhstan for active propaganda and popularization of Kazakh literature in Germany. During his stay in Almaty, he presented his autobiographical book on history of publishing house Volk und Welt to the scientists of the M.O. Auezov Institute of Literature and Art. One of the articles in the book was written by the author under the influence of a significant event in the cultural life of Kazakhstan - on February 18, 2000, one of the streets of Berlin was renamed as "Abai Strasse". L. Kossuth writes: "Abai, whose name is given to the street in Berlin, is sometimes called "Kazakh Goethe". This metaphor is reasonable because this poet, composer and educator and universality of his creativity is very important for the national literature" (Kossuth,

2002). In 2006, in Berlin, Hamburg, Munich, the presentation of the novel "The Last Duty" by A. Nurpeisov was a success. The book was published in Frankfurt am Main in the series "Kazakh Library" in German language, translated by Annelor Nitschke. L. Kossuth was involved as a brilliant interpreter.

The publication of "Kazakhstan Library" in Germany, which began in 2006 with the assistance of the Embassy of Kazakhstan and thanks to the efforts of particular German literary and cultural figures is of exceptional importance for the development of modern Kazakh-German literary relations. Thus, publication of reviews and articles on literature of Kazakhstan by L. Kossuth in German journals contributed much to the emergence of "Kazakhstan Library" in Germany. In particular, in 2002 in German magazine "Ossietzky" was published his article about the novel "The Last Duty" by A. Nurpeisov, and in 2003 in the same magazine a review of the novel "The House of the Wanderer" by Kazakhstani writer G. Belger was published. The novel "The Last Duty" by A. Nurpeisov is the first work which opens "Kazakhstan Library" series in Germany. The next book published in Germany within the framework of "Kazakhstan Library" project was A. Kekilbaev's novel "Minaret, or the End of a Legend". At presentation of this book in Berlin, L. Koshut told about the work of Kazakh writer, with whom he has a long-term and close cooperation. The poetic collection "Abai. Twenty poems" (2007), which includes Abai's poems translated by L. Kossuth and his article "My path to Abay and issues of translation of his poems" continues the series "Kazakhstan Library" published in Germany. German translator writes how he perceives Kazakh poet, who impresses and admires him. At present, works of T. Akhtanov, G. Belger, M. Auezov, O. Suleimenov, M. Makatayev have been published in "Kazakhstan Library" series.

Literary evening "Pushkin and Abai meet in Berlin" which was held in 2006 is an important fact in the development of Kazakh-German literary relations. Professor Roland Opitz from Leipzig devoted his speech to creativity of A.S. Pushkin, and professor Mark Kirchner from Gissen spoke about Abai Kunanbaev, and also read his own translation of the poem "Autumn" of the Kazakh poet into German.

At present stage, personal contacts between literary figures and foreign colleagues and readers which resulted from professional trips abroad are significant factors in the development of international relations of Kazakh literature. The manifestation of these factors is observed in the writings of Kazakh poet M. Shakhanov. His books have been presented in many cities of the world. For example, in 1993 a poetic evening of M. Shakhanov took place in Japanese city Kobe. In 1999, the book "The Delusion of Civilization" was published in Turkey and Pakistan and poetic events of Kazakh poet were conducted. In the same year in Germany and Switzerland there was a presentation of the book "Delusion of Civilization" in German language. In 1999, in Paris, where the headquarters of UNESCO is located, the epic poem "Delusion of Civilization" was presented. Poetic evening of M. Shakhanov was successfully held in Sweden, Scotland, France and other countries. Based on this example, we can state that presentation of the works of Kazakh poet abroad facilitated popularization of his creativity in foreign countries.

In recent years, being engaged mainly in active social activities, Kazakh poet O. Suleimenov does not forget about participation in international literary events. In 2006, he took part in traditional "Sofia Meetings" in Bulgaria. This trip took place on the initiative of the Writers' Union of Bulgaria. O. Suleimenov is well known in Bulgaria not only as a talented poet, but also as a scholar-researcher of Turkic heritage. O. Suleimenov was invited to the Kliment Ohridski University in Sofia to the meeting with orientologists and Bulgarian Turkic studies specialists. This meeting was held in the atmosphere of friendly communication of specialists, united with a single idea - a comprehensive study of culture

of Turkic peoples and its contribution to the world culture. In 2007, his most famous book "Az and Ya" was published in Bulgaria.

Foreign literary reception plays an important role in the study of literary relations. "Foreign writers and critics evaluate foreign literature in view of their cultures and literary traditions; They compare them with national works, phenomena and literary factors. Ultimately, these responses clearly demonstrate expansion of the circle of readers of foreign works and development of international literary relations" (*Madanova, 2003*). In 2016, the M.O. Auezov Institute of Literature and Art in the series "International Relations of Kazakh Literature" published a collection "Creative writings of Abai Kunanbayev in foreign reception". Unlike previous books in this series, which included only foreign countries, this book includes CIS countries. The collection consists of 102 receptive sources from 27 countries translated into Russian. It covers the period from 1941 to 2016. The author of this article is one of the compilers of the book and interpreter from French and German languages.

It should be explained that Abai Kunanbayev, a great Kazakh poet, educator, philosopher and public figure of the second half of the 19th century, is popular in modern Kazakhstan. Kazakh nation honors Abay, and is proud of him and respect him. The memory of Abay is supported at the State level. His works are studied in educational institutions. A separate direction in national literary criticism - Abai Studies is developing. Philosophical essays, poems, verses of Abai are periodically published not only in Kazakh, but also in foreign languages. Abay's works are published in 14 languages in foreign countries: English, Arabic, Bulgarian, Hungarian, Chinese, Korean, Mongolian, German, Farsi, Polish, Turkish, Urdu, French, Czech. The collection "Creative writings of Abai Kunanbayev in foreign reception" includes the forewords from 13 Abai's books published in foreign countries. The authors of the forewords are professional readers - French literary critic Albert Fischler, Czech writer Frantisek Soukup, German literary critic and translator Leo Kossuth, Bulgarian poet and translator Ivan Ivanov, Polish orientalist Henrik Jankowski, Iranian literary critic Ali Asghar Shirdust, translator Halid Ikbal Yassir from Pakistan, Mongolian writer and playwright Khabishin Islam and others. The collected material allows to draw a conclusion that Abai Kunanbayev's creativity is recognized by foreign researchers, and they highly appreciate his works, compare with outstanding personalities of their countries - national poet of Pakistan Muhammad Iqbal, prominent Urdu writer Sir Said Ahmad Khan, French philosopher Seren Kierkegaard, Chinese philosopher Confucius, Hungarian writers and poets Mihai Vereshmarti, Janos Aran, Shandor Petofi and Endre Adi. In their opinion, Abai is a classic not only of Kazakh literature, but of the whole world literature.

Discussion

In this paper the research on Kazakh literary relations at the edge of the XX-XXI centuries is carried out in line with previous scientific researches on this subject which were conducted in Kazakhstan.

In the Soviet period, the works of Doctor of Philology, corresponding member of the Academy of Sciences of the Republic of Kazakhstan Sh. Satpayeva played an important role in the research on international relations of Kazakh literature. In 1972 she published a monograph "Kazakh-European literary relations in the XIX and the first half of the XX century", in which she presented the process of development of literary relationships of Kazakh people with European countries during the particular period of time. In the opinion of S.K. Satpayeva, "every national literature in the process of development, communication with other literatures, perceiving and correlating its experience with own national traditions, becomes more mature and enriched. Literary relations - the

penetration of one literature into another one - became an important moment in the literary development of each of the nations and, at the same time, the fact of the world literary process" (*Satpayeva, 1972*). In 1974 her scientific work "Literary Contacts" was published, in 1982 the monograph "Kazakh Literature and the East" was published. Followers and students of Sh.K. Satpayeva also carried out research related to foreign relations of Kazakh literature. Under her supervision the following thesis have been defended: in 1984, E.S. Tazhibayev's thesis "Kazakh-German literary relations during the Soviet period (1920-70s)", in 1990 M.Kh. Madanova's thesis - "Kazakh literary relations of the XIX century (on the basis of Kazakh-French literary relations)", in 1991, A.K. Tusupova's thesis - "Kazakh-English literary ties of the XIX century".

During the period of independence of Kazakhstan, in national literary criticism the attention is also paid to the study of international relations of Kazakh literature. The author's monographs: "From the history of Kazakh-Russian literary connections" (1998) by Batyrbekova, "Kazakh poetry and the East" (1999) by Kumisbaeva, "Kazakh-Anglo-American Literary Relations" (2003) by Tusupova are devoted to Kazakh literary relations. In 2006, M.B. Salkynbayev defended the thesis "Kazakh-Arab Literary Links of the XXth Century".

Joint monograph "International Relations of Kazakh Literature in the Period of Independence" (2008), prepared by literary scholars of the M.O. Auezov Institute of Literature and Art, Committee of Science, Ministry of Education and Science of the Republic of Kazakhstan is one of the examples of scientific highlighting of the process of development and strengthening of relations of Kazakhstan with foreign countries the field of literature. The authors of the monograph comprehensively studied the international relations of Kazakh literature in the period of independence. The sections of S. Ananieva present literary relations between Kazakhstan and Russia, Ukraine, Belarus. Section of Sh. Eleukenov discusses the perception of creativity of M.O. Auezov in the CIS countries, the author of this article prepared a section "Creativity of A. Nurpeisov in foreign literary reception". A. Tusupova wrote about translations of the works of contemporary Kazakh poets B. Kanapyanov, B. Kenzheyev and A. Kodar into English. The section of A. Mentebayeva is devoted to the formation and development of comparative literary studies in Kazakhstan. The section of the author of this paper highlights cooperation between Kazakhstan and UNESCO and is also included into the monograph.

In this article, the author continues to explore the international links of Kazakh literature of the particular period such as literary ties between Kazakhstan and Turkey, France, Germany. Also such factors as personal contacts of the writers have been highlighted. Attention is paid to foreign literary reception, which occupies an important place in the study of literary relations.

Conclusion

Since Kazakhstan gained independence, contacts of Kazakh literature with foreign literature became more active, an organic entry of Kazakh literature into the context of the world art culture is observed. Kazakh literary relations at the turn of the XX and XXI centuries are stimulating national literary development and provide international character to the literary process and contribute to the formation of the State cultural image of the Republic of Kazakhstan. Literary relations between Kazakhstan and Turkey, France, Germany are characterized by diversity and testify the growing authority of Kazakh culture on the world arena.

Recommendations

The materials of this article can be of interest for researchers in comparative studies, teachers, PhD and Master students, undergraduate students of Philological faculties of Higher educational institutions.

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COMPUTER SIMULATION OF LEARNING AND FORGETTING OF THE LOGICALLY RELATED INFORMATION

Abstract

The assimilation and forgetting processes of the logically related information, which can be represented in the form of a large number of information blocks (ideas) consisting of the learning material elements (LME), are studied by computer simulation methods. Three models are proposed. Model 1 takes into account that: 1) LME can be of two types: used and not used in the student's subsequent activities; 2) as the number of references to each LME increases, the forgetting speed decreases. It was studied the dependence of the student's knowledge on the time and the dependence of the forgetting speed on the lesson duration and the number of LME-s in the block. Model 2 allows to prove the known fact, that at increase of the transfer speed of the information by the teacher the speed of its assimilation by the schoolboy at first grows, reaches a maximum and then decreases. Model 3 takes into account the division of the pupil's knowledge into three categories; with its help the graphs of the dependence of the knowledge quantities for each category on the time at the known distribution of educational material was obtained.

Keywords

didactics, training, computer modeling, pupil, teacher, level of knowledge

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Introduction

One of the development directions of the modern training theory consists in application of the information and cybernetic approach to the analysis of a didactic systems, and using of mathematical and imitating (or computer) models (Hunt, 2007; Razumovskij & Mayer, 2004; Titov & Rjabinova, 2011). This is due to the fact that many of the values that characterize the state of the "teacher-pupil" system (the level of the teacher's requirements, the quantity of student's knowledge) can be measured. For definition of amount of information in the textbook the semantic method consisting in calculation of semantic units, notions and links between them can be used. For a unit of measure of knowledge quantity (or amount of information acquired by the pupil) a notion, elementary judgment or a mathematical formula can be chosen. Each learning material element (LME) is characterized by a complexity which is proportional to the quantity of efforts or time demanded for its assimilation.

The essence of the simulation method is consists in creation of computer model of the "teacher-pupil" system and carrying out a series of numerical experiments for the purpose of understanding of the system behavior or an assessment of various management strategies for its operation (Mayer, 2014, 2015, 2016). It helps to investigate process of training in the cases when carrying out a pedagogical experiment is impossible or

impractical. In order to save a community of conclusions dimensionless modeling is used; so the quantity of the transferred information (or the amount of pupil's knowledge) and time is measured in the conventional units CUI or CUT.

Methodological Framework

Methodological basis of the research are ideas and works by N. Winer, K. Shannon, F. Rosenblatt, V. M. Glushkov, D. A. Pospelov (cybernetics, the theory of information), R. Atkinson, L. P. Leontyev (Leont'ev & Gohman, 1984), F. S. Roberts (Roberts, 1986), L. B. Itel'son (mathematical modelling of training), B. Skinner, N. Krauder, S. I. Arkhangelsky, V. P. Bespalko, E. I. Mashbits, V. E. Firstov, V. S. Avanesov, I. V. Robert (cybernetic approach in pedagogy, the programmed training and the automated training systems). Logicity and formalization, reproducibility and concreteness distinguishes the computer modeling method from "the method of qualitative reasonings or considerations". But there is the problem of correct choice of the model parameters. R. Shannon noted that almost any parameters of the simulation model often determines only on the basis of the experts assumptions, analyzing a small amount of data (Shannon, 1975).

Results and Discussion

3.1. Learning and forgetting logically related material (model 1)

Let us assume that information given by the teacher consists of separate blocks (ideas) which are divided into the learning material elements (LME-s): notions, concepts, formulas, foreign words, etc. Training is similar to viewing of the film during which on the screen information blocks (the text, drawings, formulas) are consistently replaced. At that all LME-s, the included in blocks, are divided into two categories: 1) meeting and used by pupil in the subsequent life and training; 2) not meeting further.

The studied material can be specified by the following characteristics: 1) the number of blocks (chains of LME-s); 2) the average length of the blocks l_{cp} and the scatter Δl ; 3) the share D of LME-s used by pupil in future activities; 4) the average coefficient of assimilation a for each LME. Knowledge of given (i, j) -LME is determined by the number p_{ij} from the interval $[0; 1]$, which shows the probability of a correct answer to the corresponding elementary question. Let $l_{cp} = 10$ and $\Delta l = 2$, then the length of the chain is given randomly $l_i = 8 + \text{Round}(4x_s)$; here and in the sequel x_s is a random variable uniformly distributed in the interval $[0, 1]$. When studying the j -th LME from the i -th block during the time Δt , the probability of the student's correct answer to the corresponding elementary question grows according to the law: $p_{ij}^{k+1} = p_{ij}^k + a(1 - p_{ij}^k)\Delta t$, ($a = 0.1$); the counter of addresses to the given (i, j) -LME s_{ij} increases by 1. As the number of reference s_{ij} to this LME increases, the forgetting coefficient decreases according to the law: $g_{ij} = 3 \cdot 10^{-4} + 0,05 \cdot \exp(-0,001 \cdot s_{ij})$. If the pupil does not work with (i, j) -LME, then, due to forgetting, knowledge of this LME during the time Δt decreases so: $p_{ij}^{k+1} = p_{ij}^k(1 - g_{ij}\Delta t)$. In order to take into account the using of some LME in the pupil's everyday life, a matrix d_{ij} , is created, whose elements with a given probability D are equal to 1, and with probability $(1 - D)$ - zero. During the elementary interval Δt with some probability $q = 0,025$ the student refers to each LME with $d_{ij} = 1$, using it in his activity; at this s_{ij} increases by 1, and p_{ij}^k increases by $a(1 - p_{ij}^k)\Delta t$. The sums of probabilities p_{ij}^k for all LME-s with $d_{ij} = 1$ and $d_{ij} = 0$ are denoted by Z_1 and Z_2 accordingly.

Program 1 (Free Pascal)

```

{$N+} uses crt, graph; const dt=0.01; a=0.1; Y=650; str=50; st=15; Mt=0.8;
var t,tr,g,SR,SP,SQ: single; i,j,k,tt,o,DV,MV,kk: integer; p: array[1..str,
1..st] of single; dd: array[1..str,1..st] of integer; s:array[1..str,1..st]
of longint; l,R: array[1..str] of integer;
Procedure Test; Label m; begin SR:=0; For k:=1 to 100 do begin For i:=1 to
str do begin j:=1; tr:=l[i]*dt*1.3; R[i]:=0; Repeat tr:=tr-dt; If random(
100)/100<p[i,j] then inc(j); If j>=l[i] then begin R[i]:=1; goto m; end; If
(tr<0) then R[i]:=0; until tr<0; m: end; For i:=1 to str do SR:=SR+R[i];end;
circle(10+round(t*Mt),Y-round(SR/10),2); SP:=0; For i:=1 to str do For j:=1
to l[i] do begin If dd[i,j]=1 then SP:=SP+p[i,j];end; circle(10+round(t*Mt),
Y-round(SP),1); SQ:=0; For i:=1 to str do For j:=1 to l[i] do begin If dd[i,
j]=0 then SQ:=SQ+p[i,j]; end; circle(10+round(t*Mt),Y-round(SQ+SP),1); end;
Procedure Zabivanie; begin For i:=1 to str do For j:=1 to l[i] do begin If
(dd[i,j]=1)and(random(100)<2.5) then begin p[i,j]:=p[i,j]+a*(1-p[i,j])*dt;
inc(s[i,j]); end; end; For i:=1 to str do For j:=1 to l[i] do begin g:=4E-4
+0.05*exp(-1E-3*s[i,j]); p[i,j]:=p[i,j]*(1-g*dt); end; end;
Procedure Zabivan; begin For i:=1 to str do For j:=1 to l[i] do begin g:=
4E-4+0.05*exp(-1E-3*s[i,j]); p[i,j]:=p[i,j]*(1-g*dt); end; end;
Procedure Obuchen;begin For i:=1 to 50 do For j:=1 to l[i] do begin inc(s[i,
j]);p[i,j]:=p[i,j]+a*(1-p[i,j])*dt; end; Zabivan; end;
BEGIN DV:=Detect; InitGraph(DV,MV,''); Randomize; For i:=1 to str do l[i]:=8
+round(random(100)/25); For i:=1 to str do For j:=1 to l[i] do begin If
random(100)/100<0.333 then dd[i,j]:=1 else dd[i,j]:=0; end; line(0,Y,1600,Y);
Repeat t:=t+dt; If (t<30)or((t>220)and(t<245)) then Obuchen else Zabivanie;
inc(o); If o>100 then begin o:=0; Test; end; circle(10+round(t*15),Y,1);
until (KeyPressed)or(t>2000); CloseGraph; END.

```

The pupil's state at each moment of time is determined by the matrix of probabilities p_{ij} , where $j = 1, 2, \dots, l_i$; the value p_{ij} shows the probability of knowing the j -th LME from the i -th chain. To assess the pupil's knowledge and draw the $Zn(t)$ graph, the program simulates a multiple "testing" of the pupil at each time step (i.e. at times $t_k = k\Delta t$). The knowledge of the student of the i -th block is defined as follows: the computer simulates the response of the pupil, in which he sequentially expounds the 1-st LME, the 2-nd LME, ..., l_i -th LME of the i -th chain for a given time $t_r = 1,3 \cdot l_i \cdot \Delta t$. The correct answer to the question corresponding to the j -th LME from the i -th block is modeling as a random process occurring with probability p_{ij} : if $x_s < p_{ij}$, then the pupil answered correctly, and otherwise - no. If the answer is incorrect, the pupil again tries to show knowledge of this LME; if the answer is correct, he moves on to the next LME. If all l_i LME-s of the i -th chain are reproduced or executed correctly during the time t_r , then it is considered, that the pupil knows the i -th information block. The pupil's knowledge $Zn(t)$ is equal to the number of information blocks (ideas) that he can reproduce. With this "testing" the pupil's knowledge does not increase, the probabilities p_{ij} remain unchanged.

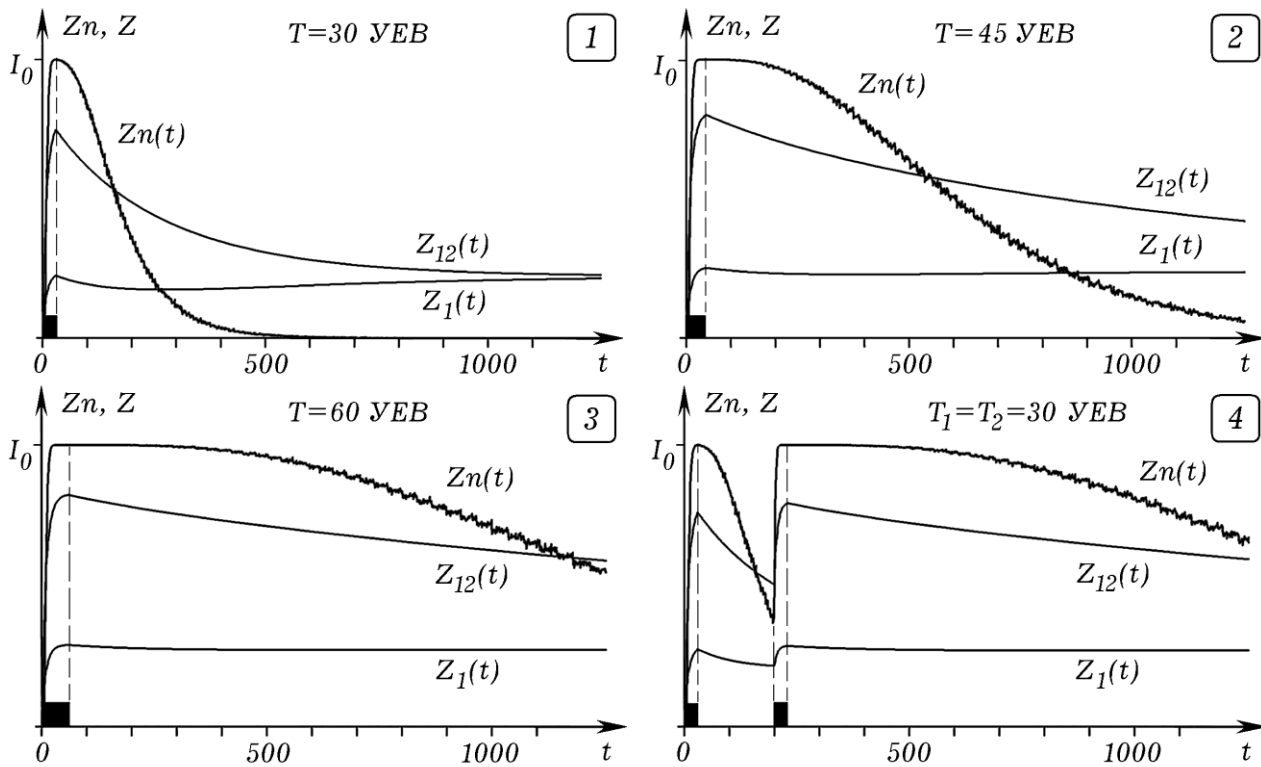


FIGURE 1. MODELING THE ASSIMILATION AND FORGETTING OF THE LOGICALLY RELATED INFORMATION.

Fig. 1.1-1.4 shows the results of the assimilation and forgetting simulation of the logically related information at $D = 0.33$ and different lesson durations T : 1) $T = 30$ CUT (conventional unit of time); 2) $T = 45$ CUT; 3) $T = 60$ CUT; 4) during two lessons on 30 CUT. Analyzing the graphs $Zn(t)$, we can distinguish three phases of forgetting: 1) the amount of pupil's knowledge first remains practically constant, exceeding $0,9I_0$ ($I_0 = N$), that is, he can reproduce almost all studied ideas, solve all problems, etc.; 2) the quantity of knowledge decreases almost proportionally of time; 3) pupil remember no more $0,1I_0$, that is he can not reproduce the studied ideas, but at the same time well remembers separate LME-s, which he met or used in the life and activity. As can be seen from the graphs on fig.1, at $t \rightarrow \infty$ the number of unused knowledge in life $Z_2 = Z_{12} - Z_1$ aspires to zero then faster, than less time of training T . The amount of the used knowledge Z_1 after ending of training decreases much more slowly or remains constant.

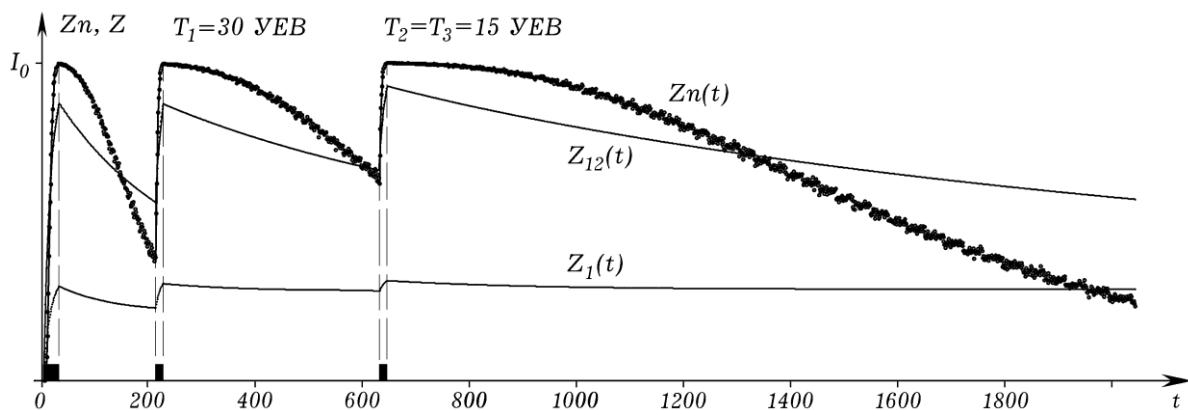


FIGURE 2. MODELING OF TRAINING ON THREE LESSONS

At study of the same material during two lessons sessions (fig. 1.4) after the first lesson ($30 < t < 200$), the knowledge quantity Z_n decreases rapidly due to forgetting of the unused LME (i.e. Z_2 reduction). LME-s, used by the pupil daily, are forgotten slowly; Z_1 decreases slightly. During the second lesson all LME-s are remembered even more strongly (the number of addresses s_{ij} increases, the speed of forgetting decreases). At $t > 230$ forgetting occurs, Z_2 decreases more slowly than after the first lesson. The first phase of forgetting ($Z(t) > 0,9I_0$) lasts longer (≈ 550 CUT). In fig. 2 shows the results of modeling in the case of three lessons.

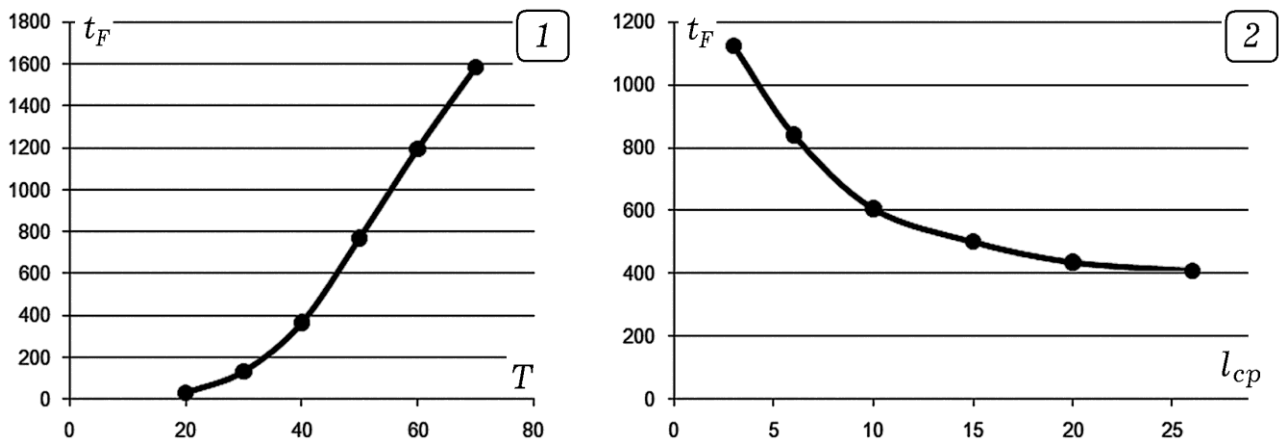


FIGURE 3. DEPENDENCE OF THE TIME OF THE HALF INFORMATION FORGETTING t_F ON T AND l_{cp} .

Practical importance has the dependence of the forgetting time t_F of the half studied information on the duration of lesson T and on the average length l_{cp} of the chain of LME-s. With increasing T (at constant $l_{cp} = 10$) the number of addresses to each LME increases, the strength of assimilation and forgetting time t_F grows (fig. 3.1). As the average length l_{cp} of the block decreases, the learning material is remembered more firmly, and the forgetting time t_3 of the half studied information is growing. Increasing the length of the LME chain at fixed $T = 45$ CUT reduces the probability of the pupil repeating of the corresponding block for the given time t_r , lowers the time t_F of forgetting of the half studied information (fig. 3.2).

3.2. Dependence of assimilation on the speed of the information reporting (model 2)

Still we'll assume, that the educational material consists of N separate information blocks (ideas, reasonings, conclusions of the formulas etc.). The pupil understands the new block of the given information if he/she understands each LME entering in this block. If the pupil has not acquired any LME in the block, then he does not acquire the block in general (or can not solve a problem, prove a theorem, translate a sentence). Let in the block m LME-s, then assimilation time of one block by the pupil can not exceed $t_1 = m/u$ where u - the speed of reporting of information by the teacher (number of LME-s for one CUT). When the pupil understands all LME-s, he understands this block. Probability of understanding of one LME from the first time is equal $p = 0,7 - 0,9$. If the pupil has not understood LME from the first time, then he addresses to it again and again as long as

does not understand, or until the end of time t_1 devoted to the learning of this block. Let all LME-s have information volume $I_1 = 1$. Time of the single appeal of the pupil to every LME $t_{op} = 1/v_M$, where v_M - the speed of his mental activity in CUT^{-1} . The more cogitative actions for 1 CUT the pupil makes, the quicker he/she will consider and understand this LME.

The program 2, which allows to study the dependence of the quantity of acquired knowledge on the arrival rate of the teacher's information consists of the time cycle with step 0,01. Before "assimilation" of the block variables EUM and $flag$ are nullifies, the counter of blocks N_{bl} increases on 1, and also calculates time $t_1 = \frac{m}{u}$, which is corresponding on assimilation of one block. The quantity of LME-s in the block m changes randomly: with probability 0,3 $m = 4$; with probability 0,3 $m = 6$; with probability 0,4 $m = 5$. On average $m = 5$. When pupil's operating time with one LME kdt exceeds value $t_{op} = \frac{1}{v_M}$, the program simulates a random process of understanding of LME with probability p . If random value x of an interval $[0; 1]$ is less then p , then it means what the pupil has "understood" the given LME and the variable EUM increases on 1. If in this case $EUM = m$, that is the pupil has "understood" all block from m LME-s, then Pon_{bl} increases on 1, the flag is raised ($flag = 1$). If the pupil does not manage to understand all m LME in time t_1 , then we will assume that he has not "understood" this information block. After this the pupil "learns" the second block, the third block and etc. This is repeated until N_{bl} exceed 2000.

Program 2 (Free Pascal)

```
uses crt; const dt=0.01; vm=1.5; u=0.7; p=0.7; var Pon_bl,EUM,N_bl,k,flag,
M: integer; t,t1,top,x,z: real;
BEGIN Randomize; Repeat t:=t+dt; If t1>0 then t1:=t1-dt; If t1<=0 then
begin M:=5; z:=random(100); If z<30 then M:=4; If z>60 then M:=6; t1:=M/u;
inc(N_bl); EUM:=0; flag:=0; {writeln(' Report blocks',N_bl);} end; inc(k);
top:=1/vm; If k*dt>top then begin k:=0; x:=random(100)/100; If (EUM<M)and
(x<p) then inc(EUM); If (EUM=M)and(flag=0) then begin inc(Pon_bl);{writeln
('PONYL ', Pon_bl);} flag:=1; end; end; until (KeyPressed)or(N_bl>=2000);
writeln ('report.blocks ',N_bl,'underst. blocks ', Pon_bl, 'VREMYA ',t);
ReadKey; END.
```

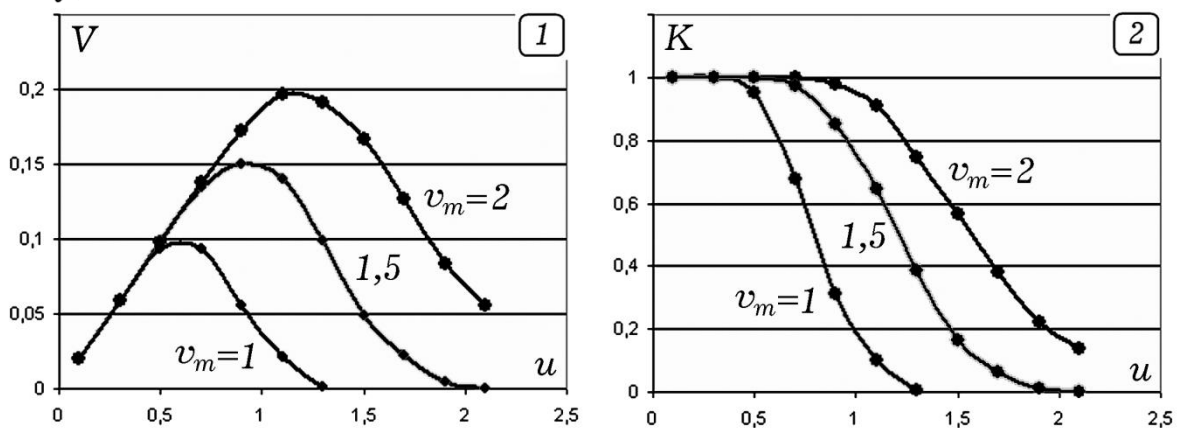


FIGURE 4. DEPENDENCE OF ASSIMILATION ON THE SPEED OF THE INFORMATION REPORTING

The program displays the number of the reported blocks N_{bl} , number of the understood blocks Pon_{bl} and the spent time Δt that allows to determine the transfer speed $u' = \frac{N_{bl}}{\Delta t} = 0,2u$ and speed of the knowledge assimilation $V = \frac{Pon_{bl}}{\Delta t}$ (in the

block/CUT). In fig. 4.1 the graphs of dependence of the assimilation speed V on the speed u of the information reporting by the teacher (in LME/CUT) at various values of the pupil's speed of thinking v_M are presented. If the speed u of the information reporting by the teacher is small then the assimilation speed is equal $V = \frac{dI_p}{dt} = u' = 0,2u$. The pupil with this speed of mental operations manages to understand almost all blocks which are reported by the teacher. Further increase in the speed of information transfer u leads to the fact that the pupil does not have time to accept it completely: the assimilation rate V reaches a maximum and then decreases. The more speed v_M of the pupil's mental operations, the greater maximum possible speed of assimilation V and corresponding to it rate u of the teacher's information transfer. In the book (Leont'ev & Gohman, 1984, pp. 108-157) various mathematical models $I_p = \varphi(I)$ connecting volume I_p of the material acquired by pupil and the information I stated at lecture are considered. Presented in fig. 4.1 curves are similar to the graphic of the function $I_p = \varphi(I)$. This is because $I = u'T = 0,2uT$, $I_p = VT$, where T - the lecture duration. The coefficient of material understanding is equal to the relation of number of the understood blocks to the total information reported by the teacher: $K = \frac{I_p}{I}$ or $K = \frac{Pon_{bl}}{N_{bl}}$. At small speeds of information transfer u the pupil understands practically everything that is reported by the teacher, therefore $K = 1$. In process of increase u the understanding coefficient K gradually decreases to 0 (fig. 4.2). At increase in the speed of mental operations v_M the speed of reporting of information u by the teacher, which is corresponding to $K = 0,5$, grows.

Using the spreadsheets Excel, it was succeeded to pick up the function corresponding to the turned-out graphs on fig. 4.1 rather precisely. For $v_M = 1,5$:

$$V(u') = \frac{dI_p}{dt} = \frac{u'}{1 + \exp(a(u' - b))}, \quad u' = u/5, \quad a = 27 \text{ CUT}, \quad b = 0,24 \text{ 1/CUT}.$$

Here u' and V shows the quantity of the transferred and acquired blocks for one CUT. If $u < 0,7$, then $1 + \exp(a(0,2u - b)) \approx 1$, the rate of increase of the pupil's knowledge (in block/CUT) is equal to the speed of the teacher's knowledge transfer $u' = 0,2u$. If $u > 1$, then V decreases, aspiring to 0. In the training process the pupil's speed of thinking v_M increases, ability to acquire new material grows. The following values of parameters corresponds to speeds $v_M = 1, 1,5$ and 2 : $a = 39, b = 0,16$; $a = 27, b = 0,24$ and $a = 18, b = 0,32$. If v_M grows, then a decreases, and b increases. The resulting graphics can be interpreted differently. For example, pupil solves a problems, each of which requires m complex operations. The probability of correct execution of each operation equals p . If the pupil does not fulfill the given operation from the first attempt, he/she makes another attempt, and so on, each time spending $t_{op} = 1/v_M$ CUT. For each task a fixed time $t_1 = m/u$ is given. The graphs in fig. 4.2 show the dependence of the problem solving probability on the speed of their arrival $u' = 0,2u$ (inversely proportional t_1), with different speeds of thinking v_M .

3.3. Use of dependence $V(u')$ at construction of the multicomponent model of the pupil

Suppose that studied theme includes N elements of learning material (LME-s), which are connected with each other and the teacher requires mastering of the entire study information, i.e. the teacher's level requirements L equal to the quantity of the knowledge $I(t)$ reported by him. We assume that the complexity S_i of the i -th LME is proportional to the time and pupil's efforts required for the assimilation of the LME. If for

simplest LME $S = 1$, then for more complex LME S is more than 1 (for example, 1.8 or 3.2). Level of requirements imposed by the teacher is equal $L = S_1 + S_2 + \dots + S_N$. If all N LME-s have complexity 1, then $L = N$. Speed of information transfer is equal $u = dI/dt = dL/dt$ (CUT^{-1}). Suppose that: 1. The state of the pupil at each time point is determined by the quantity of weak (poor) knowledge Z_1 , the quantity of abilities Z_2 and the quantity of skills Z_3 (solid or strong knowledge). Weak knowledge is forgotten quicker than strong knowledge. 2. In the process of training ($k = 1$) the quantity of the pupil's weak knowledge Z_1 increases, and part of the weak knowledge turn into the stronger knowledge (at first in abilities Z_2 , and then in skills Z_3). 3. In the absence of training ($k = 0$) occurs forgetting: strong knowledge (skills) gradually turns into less strong, and the amount of weak knowledge decreases under the exponential law (Mayer, 2014, 2015).

Program 3 (Free Pascal)

```
{\$N+}Uses crt, graph; Const dt=0.005; Mt=0.5; Mz=20;a=0.004;e=2.72;g1=7E-4;
g2=g1/e; g3=g2/e; a1=0.01; a2=a1/e; Var DV,MV,k,p :integer; Z1,Z2,Z3,Z,u,t,
L: single;
BEGIN DV:=Detect; InitGraph(DV,MV,''); Repeat t:=t+dt; u:=0; p:=0; k:=0; If
sin(0.02*t)>0.96 then begin u:=0.2; k:=1; end; If sin(0.02*t-2)>0.96 then
begin k:=1; p:=1; circle(round(Mt*t),500-round(Mz*L),1); end else begin p:=0;
end; Z:=Z1+Z2+Z3; L:=Z+1; Z1:=Z1+(k*u/(1+exp(30*(u-0.235))))+p*a*(L-Z)-k*a1*Z1-
(1-k)*g1*Z1*dt; Z2:=Z2+(k*a1*Z1-k*a2*Z2-(1-k)*g2*Z2)*dt; Z3:=Z3+(k*a2*Z2-(1-
k)*g3*Z3)*dt;circle(round(Mt*t),500-round(Mz*(Z1+Z2+Z3)),1); circle(round(Mt
*t),500-round(Mz*(Z2+Z3)),1); circle(round(Mt*t),500-round(Mz*Z3),1); circle(
round(Mt*t),500-round(Mz*u*120),1); until Keypressed; CloseGraph; END.
```

Using dependence $V(u')$, we will simulate the training process. Let during the day the teacher conduct two lessons for 2 hours everyone. At the first lesson the teacher gives new information with the speed $u' = 0,2$ block/CUT. After a small break the second lesson at which the pupil repeats the studied material follows. Level of the teacher's requirements L at repetition on 1 LME exceeds the level of the pupil's knowledge Z . Next day everything repeats. Process of training can be described by means of such mathematical model:

$$\frac{dZ_1}{dt} = \frac{k \cdot u'}{1 + \exp(30(u' - 0,24))} + p\alpha(L - Z) - k\alpha_1 Z_1 - (1 - k)\gamma_1 Z_1,$$

$$\frac{dZ_2}{dt} = k\alpha_1 Z_1 - k\alpha_2 Z_2 - (1 - k)\gamma_2 Z_2, \quad \frac{dZ_3}{dt} = k\alpha_2 Z_2 - (1 - k)\gamma_3 Z_3,$$

where $Z = Z_1 + Z_2 + Z_3$. During the transfer of new material $k = 1$, $p = 0$, $u' = 0,2$; there is an increase in amount of weak knowledge Z_1 , a part of weak knowledge become strong, the values Z_2 and Z_3 grows. During repetition $k = 1$, $p = 1$, $u' = 0$; therefore Z_1 slightly increases with a speed which is proportional difference $L - Z$, where $L(t)$ - the level of the teacher's requirements. The knowledge becomes stronger, the values Z_2 and Z_3 grows. In the absence of training $k = 0$, $p = 0$, there is a forgetting, the knowledge of the first, second and third categories decreases with the speeds $\gamma_1 Z_1$, $\gamma_2 Z_2$ and $\gamma_3 Z_3$. The program 3 is used; results of modeling are presented in fig. 5. It is visible how during training (first lessons) because of the new information obtaining the total knowledge $Z(t)$ of the pupil grows; during repetition (second lessons) the strong knowledge of the second and third categories $Z_{23} = Z_2 + Z_3$ increases.

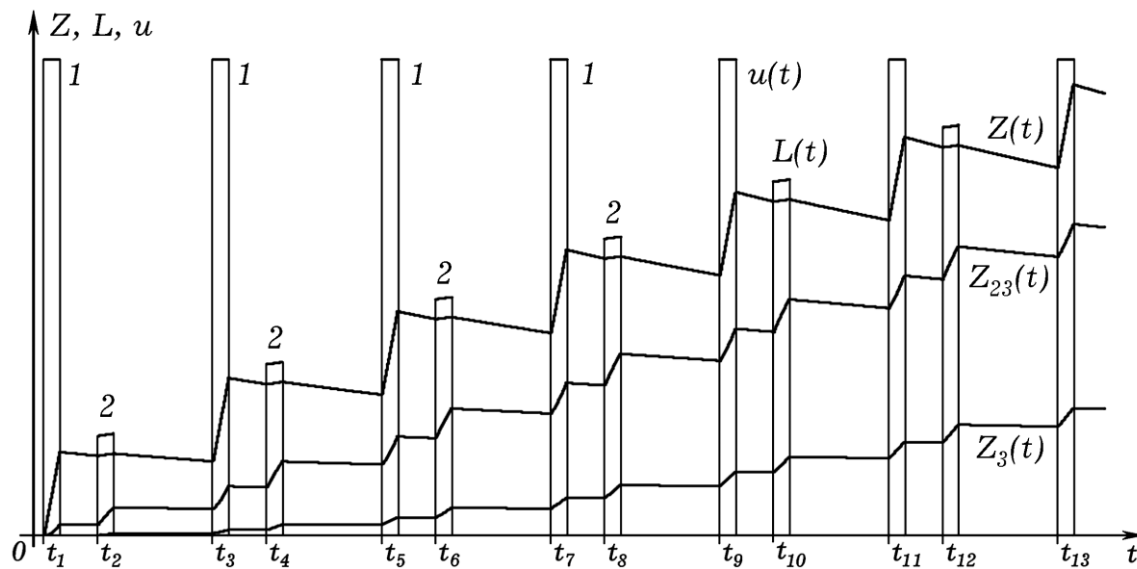


FIGURE 5. INCREASING THE QUANTITY OF KNOWLEDGE OVER TIME.

Conclusion

In the article the imitating model of learning and forgetting of the logically linked information, representable as set of information blocks (ideas, reasonings) consisting of separate LME-s is considered. All LME-s are divided into two categories: 1) used by the pupil in the further live and activity; 2) not used in future. After ending of training the second category LME-s are quickly forgotten and the pupil any more can not reproduce all studied ideas, though he remembers LME-s of the first category. The model allows to prove dependence curve of the logically linked information forgetting on duration of lesson T and average quantity l_{cp} of LME-s in each information block. The problem of dependence of the knowledge assimilation on the speed of information transfer also is investigated. It is revealed, that with growth of speed of the information receipt the assimilation speed at first grows, reaches maximum and then is reduced. It has allowed to construct three-component model of training and to receive the dependence graphs of the various categories knowledge quantity on time. The considered above simulations of training confirms the qualitative reasonings, do them more objective, reasonable and can be used when carrying out a pedagogical experiment demands big expenses or leads to negative results.

Some interest is the problem of creating of a training program that simulates the educational process at school. Such program can be used for training of students of pedagogical institutions. It has to allow change of the pupil's parameters, the duration of lessons, the distributions of a training material and strategy of the teacher's behavior. In the course of work with this program the student playing a role of the teacher which changes the speed of the educational information transferring, quickly reacts to questions of pupils, carries out a examinations, gives a marks, trying to achieve the largest level of knowledge for the set time. After the end of "training" the graphs showing change of "quantity of knowledge of all pupils" and marks for "the performed examinations" are displayed. Besides, the training program can analyse work of "teacher" and give him a mark. Example of such program is the simSchool system (Gibson & Jakl, 2013).

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THE RIGHT TO HUMAN DIGNITY: PECULIARITIES OF CONTENT AND PROTECTION

Abstract

The problem of protection of the right to human dignity is actual at the present time, but definitions of the category of human dignity are different, contradictory and abstract. The purpose of the paper is to analyze and characterize the right to human dignity, its structure and place in the system of human rights. The leading research method is system-structural. The author studies doctrinal definitions of the category of human dignity, legal statements on human dignity in national legislation of different countries and international normative legal acts, and concludes that the considered category characterizes personal legal status. The right to human dignity is the basic personal right that has complex structure and includes other constitutional rights. The materials of the paper can be useful to scientists studying the constitutional law, to students studying law and masters of law.

Keywords

the right to human dignity, structure of a subjective legal right, grundnorm, personal legal status, constitutional rights, non-material value, discrimination

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Introduction

Human dignity is a specific category which can have different meant. S. Riley and G. Bos write, “The mercurial concept of human dignity features in ethical, legal, and political discourse as a foundational commitment to human value or human status.” In the author’s point of view “it is this potential to bridge different fields of regulation—human rights, bioethics, humanitarian law, equality law and others - that we might take to be the most important function of human dignity in international law.” (*Riley and Bos*)

Ethical definition of human dignity includes two aspects. On the one hand, it means the value of human beings in contrast to nonhuman animals. (*Riley and Bos*) On the other hand, it requires respecting everybody. That is to say, “we are to respect each other not for our relative standing, our initial dignity, but given that and insofar as non-interference or support for beings that happen to have this standing is required by cosmic or divine principle.” (*Riley and Bos*)

Also the category of human dignity is interdependent with personal characteristics. “This principle specifies what we should value IN the individual. As such, it specifies a type of dignity that comes closer to the inner significance view, which in turn may be, but does not necessarily require, an expression in terms of schemas that advance ideas of human elevation.” (*Riley and Bos*)

Philosophical conception of human dignity has a long history. This category has been considered since ancient time. For example, “Confucian tradition should be understood in terms of dignity’s achievement through virtuous conduct, rather than in terms that make it independent of one’s character and conduct. (Luo, 2014; Riley and Bos) This would touch on the issue of universality, unconditionality, alienability and overridingness. In Confucian tradition, dignity (qua ‘worth’) can be seen as a universal human potential that we may fail to cultivate: it is therefore universal but not unconditional; it can also be self-alienated and overridden.” (Riley and Bos)

According to Plato and Aristotle conception “human dignity is thus predicated on the actual use human beings make of their rational capacities”, i. e. dignity is “a potential, lay within the nature of the human being as such, its actualization was seen as owed to contingent subjective achievements.” (Dierksmeier, 2015)

Another conception of human dignity was formulated in Middle Ages by Thomas Aquinas. Dignity “encompassed every person, regardless of their worldly achievements” because “every man and every woman is created in the image of God.” (Dierksmeier, 2015)

Later, the dignity of the human being was defined neither through comparisons with animal life, nor with God. Modern positions on dignity were based on the categories of self-definition, self-image and freedom. (Dierksmeier, 2015)

One of other definitions of the category of dignity was given in “Leviathan” by T. Hobbes. He writes, “Human worth (...) is special power or ability for something that he or she is worth, this special ability is usually called suitability or adaptability.” (Hobbes, 1651:111; Vaišvila, 2009)

A. Vaišvila notes, “Philosophical literature summarizing the research on the topic in question basically advocates the ... conception of passive dignity: it defines human dignity as personal awareness of own social value, as the right to request respect from society based on human worth accepted by the society.” (Filosofskaya entsiklopediya, 1962:58; Vaišvila, 2009)

The category of human dignity has also a political meant. First of all, human dignity is an internationally-recognized category. As S. Riley and Bos note, “There is credibility to an interstitial reading of human dignity that links international law, politics and morality in supporting a more individual-focused, less state-focused account of international relations. This, in turn, strengthens a link between human dignity and (moral and institutional) cosmopolitanism given that the value of individuals transcends state boundaries.” (Riley and Bos)

No law contains definition of the category of human dignity. Different and contradictory definitions are formulated in legal theory. This fact entails unclearness of content of the right to human dignity and mechanism of its realization.

The purpose of the research is the analysis and characteristic of the right to human dignity in legal doctrine and practice.

The following tasks were set to achieve the purpose:

- to investigate national and international normative legal regulation of the right to human dignity;
- to view the legal conceptions on the considered right;
- to analyze structure of the right to human dignity;
- to define place and role of the considered right in the system of human and citizen rights.

The object of the research is law-making and law-enforcement practice aimed to recognize and protect the right to human dignity. The subject of the research is national and international normative legal acts, and legal theory. The major concepts used in this paper are “structure of a subjective legal right” and “personal constitutional legal status”.

The structure of a subjective legal right was defined by E.A. Glushkova. In the author's point of view, structural elements of a subjective right are *possibility for the subject to implement a right at his will by his own actions; presence of the corresponding obligation to a right; presence of the possibility to obtain protection by claims to competent bodies regarding violations of rights on the part of the person having this right.* (Glushkova, 2015:87) Personal constitutional legal status means constitutional legal rights, freedoms and duties, citizenship, legal personality, legal guaranties of realization of rights, freedoms and duties, and principles of personal legal status. (Nevinskiy, 2000:20)

Methodological Framework

The methodological basis of the paper is the general methods such as historical, logical, analysis and synthesis, classification, and a number of private-scientific methods such as formal legal, comparative and method of typology. Historical method allows seeing development of the idea of human dignity in different periods. Logical method is used in order to consider realization the right to human dignity in social relations. Analysis and synthesis are used for identification of features of the right to human dignity as a basic human right, as a subjective right which is realized in different fields of social relations, and as a principle of state politics. Comparative method is used for consideration of normative legal recognition of the right to human dignity in national law of different states. Methods of typology and classification allow defining the main ways of legal recognition of the right to human dignity and mechanism of its protection, and formal legal method is used for analysis of concrete legal norms. The main approach to the research is a system-structural method that allows analyzing the structure of the right to human dignity and its place in the system of human rights.

Literature Review

The following sources of national law were studied: the Constitution of the Russian Federation (1993), the Constitution of the United States of America (1787), the Basic Law of Israel: Human Dignity and Liberty (1992), Arab Charter on Human Rights (2004), Cairo Declaration on Human Rights in Islam (1990), American Convention on Human Rights (1969), the Constitution of South Africa (1996), the Constitution of the Republic of Namibia (1990), the Constitution of Kenya (2010), the unanimous Declaration of the thirteen united States of America (1776), the Criminal Code Act of Australia (1995), the Criminal Code of Canada (1985), the Criminal Law of the People's Republic of China (1979), the United States Code, Australian Crimes Act (1914), Canadian Charter of Rights and Freedoms (1982), Australian Age Discrimination Act (2004), Disability Discrimination Act (1992), Racial Discrimination Act (1975), Sex Discrimination Act (1984), *the Criminal Code of the Russian Federation (1996), the Civil Code of the Russian Federation (Part One 1994: Part Four 2006), the Criminal-Procedural Code of the Russian Federation (2001), the Criminal Code of the Republic of Armenia (2003), the Civil Procedural Code of the Russian Federation (2002), the Civil Code of Japan (1896), the Code Of Administrative Offences of the Russian Federation (2001), the Labor Code of the Russian Federation (2001), the Civil Code of the Socialist Republic of Vietnam (1995), the Civil Code of the Philippines (1949), the Civil Code of Czech (2012), and other normative legal acts.*

International legal documents that were used for the research are Universal Declaration of Human Rights, European Social Charter, the Charter of Fundamental Rights of the European Union, International Covenant on Civil and Political Rights, the Helsinki Final Act, and other documents.

Theoretical basis of the paper are the works of Russian, American, Lithuanian, Australian, British, Netherlandish, and German scientists studying human dignity and corresponding right in its different aspects. In particular, S. Riley, G. Bos, and C. Dupré analyze meant of the category of dignity in legal context. A. Vaišvila overwrites human dignity and the right to dignity in terms of legal personalism. C. McCrudden studies human dignity and juridical interpretation of human rights. C. Dierksmeier considers different conceptions on human dignity and historical evolution of such conceptions. T. Soutphommasane analyses problems of freedom, dignity and discrimination in multicultural society. J. Ober overwrites peculiarities of realization of the right to human dignity in democratic states. S. Bronitt considers comparative perspectives of the category of human dignity in the modern world. D. Kretzmer and E. Klein analyze THE CONCEPT OF HUMAN DIGNITY IN HUMAN RIGHTS DISCOURSE. S.A. Drobyshevskiy and T.V. Protopopova study human dignity as a general principle and a human right.

Results

4.1. The right to human dignity in national legislation

There are different ways of recognizing the right to dignity in national legal systems of the world. For example, the Constitution of the Russian Federation (1993) contains the considered right as one of the basic human rights. According to Article 21(1) "Human dignity shall be protected by the State. Nothing may serve as a basis for its derogation."

The similar provisions are included in Israeli basic legislation. One of the Basic Laws is named "Human Dignity and Liberty" (1992). The purpose of the Basic Law is "to protect human dignity and liberty, in order to establish in a Basic Law the values of the State of Israel as a Jewish and democratic state." The named Law is preserves and protects life, body, dignity, property, personal liberty, right to privacy and intimacy, and right to leave Israel and right of entry into Israel from abroad.

Article 28 of the Constitution of Kenya (2010) states, "Every person has inherent dignity and the right to have that dignity respected and protected." According to Article 57 "The State shall take measures to ensure the rights of older persons - (a) to fully participate in the affairs of society; (b) to pursue their personal development; (c) to live in dignity and respect and be free from abuse; and (d) to receive reasonable care and assistance from their family and the State."

Article 10 of Chapter 2 of the Constitution of South Africa (1996) states, "Everyone has inherent dignity and the right to have their dignity respected and protected." According to Article 8(1) of the Constitution of the Republic of Namibia states, "The dignity of all persons shall be inviolable."

Moreover, the human dignity may be entrenched in constitution as the supreme value and as general principle. This is another way of recognizing the right. In particular, Article 10(2) of the Constitution of Kenya (2010) states, "The national values and principles of governance include ... human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalized." Also according to Article 19(2) "The purpose of recognizing and protecting human rights and fundamental freedoms is to preserve the dignity of individuals and communities and to promote social justice and the realisation of the potential of all human beings." Article 20(4) states, "In interpreting the Bill of Rights, a court, tribunal or other authority shall promote - the values that underlie an open and democratic society based on human dignity, equality, equity and freedom."

Article 2 of the Constitution of the Russian Federation (1993) states, "Man, his rights and freedoms are the supreme value." This provision characterizes status of any person.

The similar provision is contained in the Constitution of South Africa (1996). According to Article 7(1) of Chapter 2 “This Bill of Rights ... enshrines the rights of all people in our country and affirms the democratic values of human dignity, equality and freedom.”

Preamble of the Constitution of the Republic of Namibia (1990) states, “...recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is indispensable for freedom, justice and peace,” and also “...we the people of Namibia ... desire to promote amongst all of us the dignity of the individual and the unity and integrity of the Namibian nation among and in association with the nations of the world.”

Also the respect for human dignity may be recognized in legislation as a principle of different branches of law. For example, according to Article 16 of the Civil Code of France (2013) “Legislation ensures the primacy of the person, prohibits any infringement of the latter's dignity and safeguards the respect of the human being from the outset of life. Article 2 of the Civil Code of Japan (1896) states, “This Code must be construed in accordance with honoring the dignity of individuals and the essential equality of both sexes.” According to § 3 (2) of the Civil Code of Czech (2012) Private law is based mainly on the principle that everyone has the right to protect their life and health, as well as freedom, honor, dignity and privacy. Article 2 of the Labor Code of the Russian Federation (2001) states, “Proceeding from the generally accepted principles and norms of international law and pursuant to the Constitution of the Russian Federation, the main principles of the legal regulation of labor relations and other relations directly associated with them shall be ... ensuring the right to employees to protect their dignity in the period of their work.” According to Article 1.6(3) of the Code of Administrative Offences of the Russian Federation (2001) “When taking administrative coercive measures, decisions or actions (failure to act) abasing human dignity shall not be allowed.”

Thus, consideration of protection the right to human dignity as the general principle reflects the wide sense of this right. The right to human dignity in such sense is main right in the system of human rights and freedoms.

Furthermore, the right to human dignity may be considered as a subjective personal right in different fields of social relations, i. e. in a narrow sense. In particular, in Russia the category of human dignity is entrenched in the Civil Code, Criminal Code, Criminal-Procedural Code, Civil Procedural Code, and Labor Code.

Article 150 (1) of the Civil Code of the Russian Federation (Part One, 1994) states, “The life and health, the personal dignity and personal immunity, the honor and good name, the business reputation ... and the other personal non-property rights and non-material values, possessed by the citizen since his birth or by force of the law, shall be inalienable and nontransferable in any other way.” According to Article 152 the citizen shall have the right to claim through the court that the information, discrediting his honor, dignity or business reputation be refuted, unless the person who has spread such information proves its correspondence to reality; by the demand of the interested persons, the citizen's honor and dignity shall also be liable to protection after his death.

The Criminal-Procedural Code of the Russian Federation (2001) protects human dignity of the participants in the criminal court proceedings. During the course of criminal court proceedings shall be prohibited the performance of actions and the adoption of decisions, degrading the honor of the participant in the criminal court proceedings, and treatment humiliating his human dignity or creating a threat to his life or health. No one of the participants in criminal court proceedings shall be subjected to violence or torture or to other kinds of cruel or humiliating treatment, degrading his human dignity (Art. 9). In obtaining the samples for a comparative study, the methods presenting a threat to the life and health of a person or humiliating his honor and dignity, shall not be applied (Art.

202 (2)). Conducting the judicial proceedings in camera shall be admissible on the ground of a court ruling or resolution, if ... an examination of the criminal cases on the offences of the sexual immunity and sexual freedom of the personality and on other crimes may lead to an indulgence of the information on the intimate aspects of life of the participants in the criminal court proceedings or of information humiliating their honor and dignity (Art. 241 (2)).

The Civil Code of the Socialist Republic of Vietnam (1995) states that an individual's honor, dignity and reputation shall be respected and shall be protected by law. No one may infringe on the honor, dignity and reputation of another person (Art. 33). Where a party participates in a civil transaction in order to avoid damage to life, health, honor, reputation, dignity, [it] shall have the right to request a court to declare such civil transaction to be invalid. (Art. 142 (1)).

The right to human dignity is entrenched in legislation as a subjective right in Australia where the Constitution does not contain the right to human dignity. But, as S. Bronitt notes, "the absence of a prescriptive positive right to human dignity in Australian (or indeed English) constitutional law does not mean that human dignity, as a legal value, is unprotected: there are countless examples where the importance of human dignity finds expression both in legislation but also in the judgments of our courts." (*Bronitt, 2008:2*) For example, an Act relating to Offences against the Commonwealth (1914) (Cth) in section 23Q states that a person in police custody must be treated with humanity and with respect for human dignity, and must not be subjected to cruel, inhuman or degrading treatment. (*Bronitt, 2008:11*) Also the Criminal Code Act of Australia (1995) defines "outrages upon personal dignity" as war-crimes (art. 268.58, art. 286.74).

Attention is given in Australia to protection of person against discrimination. Age Discrimination Act (2004), Disability Discrimination Act (1992), Racial Discrimination Act (1975), and Sex Discrimination Act (1984) are enforced in Australia. Such laws protect the right to human dignity too, because, if people are equal to each other, all of them have equal dignity.

The similar approach is realized in the USA. Analysis of the Constitution and the United States' Code shows that these documents tell nothing about the term of dignity. But the idea of equality is expressed in preamble to the unanimous Declaration of the thirteen United States of America (1776): "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights that among these are life, liberty and the pursuit of happiness."

Also Title 18 (Part I) of the noted Code contains the wide list of crimes against civil rights includes such activity as "conspiracy against rights" that means injuring, oppressing, threatening, or intimidating any person in the free exercise or enjoyment of any right or privilege secured to him by the Constitution or laws of the United States, or because of his having so exercised the same; or prevention or hindering one's free exercise or enjoyment of any right or privilege so secured (§ 241); "deprivation of rights under color of law" that means deprivation of any rights, privileges, or immunities secured or protected by the Constitution or laws of the United States (§ 242); "discrimination against person wearing uniform of armed forces" (§ 244); "deprivation of relief benefits" that means deprivation or attempting to deprive any person of any employment, position, work, compensation, or other benefit provided for or made possible in whole or in part by any Act of Congress appropriating funds for work relief or relief purposes, on account of political affiliation, race, color, sex, religion, or national origin (§ 246); "damage to religious property; obstruction of persons in the free exercise of religious beliefs" that means, in particular, intentional defacing, damaging, or destroying any religious real property because of the race, color, or ethnic characteristics of any individual associated with that religious property, or attempting to do so (§ 247); "hate crime acts" that means

offenses involving actual or perceived race, color, religion, or national origin (§ 249). It seems to be evident that mentioned crimes break human dignity.

4.2. The structure of the right to human dignity and its place in the system of human rights

The structure of the right to human dignity is similar to structure of any subjective legal right. The first element includes possibility for the subject to implement a right at his will by his own actions. It includes right to self-identification i.e. indication personal gender, age, nation, religion, use of native language etc. Also this element includes right to self-actualization and self-expression.

The second element is presence of the corresponding obligation to the right. Such obligation can be understood in a narrow sense and a wide sense. In such sense it belongs to other persons and includes nonhumiliation the dignity. A person can require nondiscriminatory conduct from other people. Besides, this element includes possibility to pursue respect of others.

Corresponding obligation of a state includes making and protection living conditions that are necessary for dignified existence. Such conditions are guarantying equitable cost of labor for satisfaction of basic needs such as nutrition, clothes, housing, and also protection of family, maternity and childhood, guarantying safety, protection of enabling environment, respect of political rights and freedoms, making conditions for self-development.

It should be noted that the corresponding state obligations are important as well as the similar obligations of people. Such conclusion can be made as a result of analysis of legal practice in different countries. For example, the greatest form of offence against human dignity is making such conditions of human life that make one to commit suicide. Criminal codes of the most of states contain articles about punishment for incitement to suicide. Article 110 of the Criminal Code of the Russian Federation (1996) states, "Incitement of a person to commit or attempt to commit suicide by means of threats, cruel treatment of a person, or systematic denigration of the human dignity of the victim shall be punishable by restraint of liberty for a term of up to three years, or by compulsory labor for a term of up to five years, or by deprivation of liberty for the same term."

The similar statement is contained in the Criminal Code of the Republic of Armenia (2003): "Causing somebody to commit suicide or make an attempt at a suicide by indirect willfulness or by negligence, by means of threat, cruel treatment or regular humiliation of one's dignity is punished with imprisonment for the term of up to 3 years. The same act committed in relation to a person in financial or other dependence of the perpetrator, is punished with imprisonment for the term of up to 5 years."

The articles above provide for penalty for humiliation of one's dignity by other people, i. e. for breaking the corresponding obligation of somebody to respect human dignity of another human. At the same time, the World Health Organization forms the statistics of suicides, and notes, "75% of global suicides occur in low- and middle-income countries" (the official site of WHO, 2017), i. e. the standard of life can conduce to rising a number of suicides. Also the statistics shows that number of suicides grows in the periods of economical or political factors. J. Kitanaka writes, "There is an undeniable impact caused by the high suicide rate on social, political, and economic affairs in the country." (Targum, and Kitanaka, 2012)

The third element is presence of the possibility to obtain protection by claims to competent bodies regarding violations of rights on the part of the person having this right. The following fact should be taken into account. The right to human dignity can be determined by court as a constitutional principle or as a subjective right, and as an

independent right, or as a daughter-right (Barak, 2015). If a court recognizes human dignity as a right, the right is enforced, and if dignity is recognized as a principle, it is necessary to identify breaking a specific right. If the right is recognized as an independent, it can be protected separately from other rights. If it is recognized as a daughter-right of any another right such as the right to life or freedom (Barak, 2015), only an independent right is protectable.

Under Russian legislation the right to human dignity is independent, and it may be protected through three ways: under constitutional law when unconstitutional law is abrogated, under civil law when compensation for breaking the right is paid to person, or under administrative or criminal law when subjects who break the right are punished. For example, item 4 of the first part of Article 24 of the Criminal-Procedural Code of the Russian Federation states, that a criminal case cannot be instituted, and or instituted criminal case shall be subject to termination on the ground of death of the suspect or of the accused, with the exception of cases when the proceedings on the criminal case are necessary for the rehabilitation of the deceased. According to the first part of Article 254 the court shall terminate the criminal case in a court session if during the judicial proceedings are established the circumstances, pointed out in Items 3-6 of the first part, second part of Article 24. These provisions were ruled unconstitutional by the Constitutional Court of the Russian Federation inasmuch as the considered provisions allow terminating a criminal case on the ground of death of the suspect or of the accused without consent of his (her) immediate relatives because a fact of termination of a criminal case upon non-rehabilitating ground can humiliate human dignity of the suspect or of the accused. (Postanovlenie Konstitutsionnogo Suda RF, 2011)

The Code of Administrative Offences of the Russian Federation (2001) provides for responsibility for slander and insult. Slander is the dissemination of wittingly false data besmirching the honor and dignity of another person or assaulting the reputation thereof (Art. 5.60 (1)). Insult, that is, abasement of honor and dignity of another person demonstrated in an indecent manner (Art. 5.61 (1)).

Article 1100 of Part Two of the Civil Code of the Russian Federation (1996) states, "The moral damage shall be compensated regardless of the guilt of the inflictor of damage in cases where ... damage has been inflicted by the spread of information denigrating the honor, dignity and business standing; in other cases provided for by the law."

According to Article 310 (3) of the Civil Code of the Socialist Republic of Vietnam (1995) "A person causing mental suffering to a person by infringing upon the life, health, honor, dignity [and] reputation of another person must provide monetary compensation to the injured person in addition to terminating the violating acts, making a public apology [and] effecting a public retraction." Also Article 609 states, "Anybody who intentionally or unintentionally infringes upon the life, health, honor, dignity, reputation, property, [or] other legal rights and interests of an individual, infringes upon the honor, reputation, [or] property of a juridical person or other subjects and thereby causes damage [and/or] injury, must compensate."

Article 26 of the Civil Code of the Philippines (1949) states, "Every person shall respect the dignity, personality, privacy and peace of mind of his neighbors and other persons. The following and similar acts, though they may not constitute a criminal offense, shall produce a cause of action for damages, prevention and other relief: prying into the privacy of another's residence; meddling with or disturbing the private life or family relations of another; intriguing to cause another to be alienated from his friends; vexing or humiliating another on account of his religious beliefs, lowly station in life, place of birth, physical defect, or other personal condition."

At the same time, if the right to human dignity is considered in the wide sense, i. e. as the main right in the system of human rights, it includes different other rights. For

example, mentioned Article 26 of the Civil Code of the Philippines (1949) contains a list of acts that influence on human dignity negatively.

Also criminal codes of different states contain a chapter on crimes against human dignity. According to part XIX of the Penal Code of the United Kingdom of Great Britain (1983) libel is the crime against human dignity. The Criminal Code of Canada (1985) contains the part on “Offences against the person and reputation” that includes “defamatory libel” (sections 297-317) and “hate propaganda” (sections 318-320). Chapter 17 of the Criminal Code of the Russian Federation (1996) “Crimes against the freedom, honor, and dignity of the person” provides for penalty for abduction (Art. 126), illegal deprivation of liberty (Art. 127), human beings’ trafficking (Art. 127.1), using slave labor (art. 127.2), illegal placement in a mental hospital (art. 128), and libel (Art. 128.1). The Criminal Law of the People's Republic of China (1979) contains the chapter on “Crimes of Infringing Upon the Rights of the Person and the Democratic Rights of Citizens” (Chapter IV) that includes such crimes as humiliation a woman by violence, coercion or other means, forcing, molesting or humiliation (Art. 237), openly insulting others using force or other methods or those fabricating stories to slander others (Art. 246), provoking ethnic hatred or discrimination (Art. 249), publishing materials that discriminate or insult minority nationalities (Art. 250). Also humiliation is aggravating circumstance when deprivation of person’s freedom is committed (Art. 238). The Criminal Code of the Republic of Armenia (2003) contains chapter 17 “Crimes against human freedom, honor and dignity” that determines such crimes as kidnapping (Art. 131), trafficking (Art. 132), illegal deprivation of freedom (Art. 133), illegal placing or keeping in a psychiatry hospital (Art. 134), libel (Art. 135), insult (Art. 136), and threat to murder, to inflict heavy damage to one’s health or to destroy property (Art. 137).

It is evident that the lists of crimes against dignity have different content, and it would be incorrect to say that such difference is imperfection of legislation. Different crimes against life, health, freedom, property, privacy etc. break the right to human dignity because any of them influences person’s being negatively.

Moreover, some normative legal documents declare that the right to human dignity includes different other rights. For example, Article 24(1) of the Constitution of Kenya (2010) states, “A right or fundamental freedom in the Bill of Rights shall not be limited except by law, and then only to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors, including (a) the nature of the right or fundamental freedom; (b) the importance of the purpose of the limitation; (c) the nature and extent of the limitation; (d) the need to ensure that the enjoyment of rights and fundamental freedoms by any individual does not prejudice the rights and fundamental freedoms of others; and (e) the relation between the limitation and its purpose and whether there are less restrictive means to achieve the purpose.”

Thus, human dignity is the central category of the system of personal rights in any state irrespective of the way of its recognition in national legislation under the following reason. The right to dignity is universally recognized right entrenched in international legal documents. In particular, the category of human dignity and the corresponding right are interpreted in the wide sense in the Universal Declaration of Human Rights (1948). In particular, Preamble of the Declaration states, “Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world, ... Whereas the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person...” The right to human dignity is considered as the general principle in these sentences. Furthermore, according to Article 22 “Everyone, as a member of society, has the right to social security and is entitled to realization,

through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.” This provision means that the right to human dignity includes all other rights. The international principle of recognition of dignity as the supreme value is implemented through national constitutional law.

In contrast, at ancient time in many countries of the world some social groups had not any rights. For example, in Ancient Rome such social group was named “slaves”. They had status of things and could be sold and bought. (*Kostina, 2011*)

Thus, human dignity is the supreme value, and it characterizes personal legal status. The corresponding right includes all other rights and, in particular, the subjective personal right to dignity as non-material value in separate fields of social relations. The right to dignity as non-material value in concrete social relations is protected under legislation of corresponding branches. At the same time, protection of any human or civil right is aimed to protect the right to human dignity as basic right and to protect human dignity as the supreme value.

Discussions

The category of human dignity is analyzed by authors in the past and at the present time. Different aspects of the right to human dignity are considered in theory and in practice.

5.1. The problems of legal interpretation of the category of human dignity

Legal interpretation of human dignity is scientific and practical problem for three causes. First, a lot of normative legal acts mention this category without its definition. In such situation definition of the category is formulated in practice or in doctrine. For example, A. Vaišvila writes, “Lithuanian laws in force do not define the concept of dignity. This function has been left for the competence of legal doctrine and legal practice. The Senate of Judges of the Supreme Court of Lithuania defined honor and dignity in their Ruling No. 1 of 15 May 1998 as “person’s self-evaluation that is determined by society’s evaluation.” (*Vaišvila, 2009*)

Besides, C. McCrudden notes, “There are significant differences relating to the extent to which dignity should be regarded as related to national liberation and self-determination (*Arab Charter on Human Rights (2004), Art. 2(3)*), as an appropriate limit on freedom of speech (*Cairo Declaration on Human Rights in Islam (1990), Art. 22*), as grounding a basis for protecting honor and reputation (*American Convention on Human Rights (1969), Art. 11(1)*), as grounding individual duties to the community as well as rights (*Protocol of Buenos Aires (1967), Art. 43(a)*), as requiring the provision of socio-economic rights in general (or particular socio-economic rights such as workplace rights, or the right to property) (*European Social Charter (1996), Art. 26*), as related to the role of dignity in the context of rights of women (*Cairo Declaration on Human Rights in Islam (1990), Art 6(a)*), and as relevant to freedom of religion.” (*Cairo Declaration on Human Rights in Islam (1990), Art. 1(a)*). (*McCrudden, 2008*)

The second cause making legal interpretation of human dignity difficult is the interdependence between the law and the morality in its content. C. McCrudden writes, “Some jurisdictions use dignity as the basis for (or another way of expressing) a comprehensive moral viewpoint, ‘a whole moral world view’, which seems distinctly different from region to region (*Shultziner, 2003; McCrudden, 2008*) In this sense, to speak of human dignity is a shorthand way of summing up how a complex, multi-faceted set of

relationships involving Man is, or should be, governed: relationships between man and man, man and God, man and animals, man and the natural environment, man and the universe. (McCrudden, 2008)

Mariusz Jablonski, as A. Vaišvila notes, “basically repeats a definition proposed by the Supreme Court of Poland: “(...) dignity is that field of personality that is specified by human being’s understanding of own worth and waiting for respect from other human beings (...).” (Jablonski, 2001; McCrudden, 2008)

The third problem of legal definition of the right to dignity was noted by A. Vaišvila. As the author notes, “dignity has often been inseparable from the right to dignity, the right itself is not differentiated in the terms of suability and subjective right; dignity and its origin has been rarely linked to the cultural human activity. It strengthens the indetermination of the concepts of dignity and of the right to dignity and makes their application in practice more difficult.” (Vaišvila, 2009)

As C. Dupré notes, “EU’s charter of fundamental rights (2000) contains dignity’s clearest textual definition in title 1, including the right to life (Art. 2), the right to physical and mental integrity (Art. 3), the prohibition of torture and inhuman or degrading treatment or punishment (Art. 4), and the prohibition of slavery, forced labor and human trafficking (Art. 5).” (Dupré, 2011) According to the Preamble of the International Covenant on Civil and Political Rights (1966) rights “derive from the inherent dignity of the human person” and whose animating principle is “recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family [as] the foundation of freedom, justice and peace in the world.” (Riley and Bos)

Russian law theorists S.A. Drobyshevskiy and T.V. Protopopova formulated one of the modern definitions of human dignity. In the authors’ point of view, “Human dignity as complex and many-sided phenomenon is a person’s self-esteem, one’s moral and fair self-concept, aspiration for pursuing respect from other people, and necessity to respect them.” (Drobyshevskiy and Protopopova, 2016:105)

5.2. The structure of the right to human dignity

A. Vaišvila overwrites two levels of human dignity: “Relating dignity to the cultural activity of a person, a possibility to distinguish two levels of human worth appears: 1) worth that originates from each person’s recognition as a subject of law in general and that, as it has been mentioned, is the same to everyone because is acquired from the society without personal effort (performance of duties), and 2) individual social worth of a person that can be created by the person only through fulfillment of obligations in respect of one’s neighbor which, following the logics of swap, commits other persons to reversible services”. In the author’s point of view “For the process of acquiring dignity it is important if, by fulfilling duties, the person acquires the proprietary right to the good that he or she has created by fulfilling duties and that would be by the right protected from other persons’ infringement to gratuitously use or embezzle it”. So, “The unity of rights and duties is a legal formula of human dignity.” (Vaišvila, 2009)

As C. McCrudden notes, “Andrew Clapham has usefully suggested concern for human dignity has at least four aspects: (1) the prohibition of all types of inhuman treatment, humiliation, or degradation by one person over another; (2) the assurance of the possibility for individual choice and the conditions for ‘each individual’s self-fulfilment’, autonomy, or self-realization; (3) the recognition that the protection of group identity and culture may be essential for the protection of personal dignity; (4) the creation of the necessary conditions for each individual to have their essential needs satisfied.” (Clapham, 2006:545-546; McCrudden, 2008)

C. McCrudden also analyze the structure of the right to human dignity. In the author's opinion, human dignity has "a basic minimum content", and its content includes three elements. "The first is that every human being possesses an intrinsic worth, merely by being human. The second is that this intrinsic worth should be recognized and respected by others, and some forms of treatment by others are inconsistent with, or required by, respect for this intrinsic worth. The third element is "the relationship between the state and the individual. This is the claim that recognizing the intrinsic worth of the individual requires that the state should be seen to exist for the sake of the individual human being, and not vice versa (the limited-state claim)." (McCrudden, 2008)

5.3. *Protection of the right to human dignity*

C. McCrudden writes, "The concept of 'human dignity' plays an important role in the development of human rights adjudication, not in providing an agreed content to human rights but in contributing to particular methods of human rights interpretation and adjudication." (McCrudden, 2008) At the same time, the author considers the problem of enforcement of the right to dignity in different jurisdictions. For example, "In some jurisdictions, human dignity is recognized as a right enforceable by an individual in the same way as any other right. In others, human dignity is a principle which stands behind other individual rights but does not give rise to enforcement by an individual. In Germany, there is a continuing academic debate as to what particular status human dignity has in this respect, (Kretzmer, and Klein, 2002:145,147) although in that context the significance of the debate may be less than it appears, since 'in all cases before the Constitutional Court in which questions of human dignity arose the alleged violation of human dignity went along with alleged violations of other individual rights so that access to the Court never depended on the qualification of human dignity as an individual right.'" (Proceedings of the UniDem Seminar, Montpellier, 1998)

C. McCrudden writes, "This multi-faceted approach to the role of dignity is well captured in *Dawood V. Minister of Home Affairs*, a South African Constitutional Court decision. ... Dignity is not only a value fundamental to our Constitution, it is a justiciable and enforceable right that must be respected and protected. In many cases, however, where the value of human dignity is offended, the primary constitutional breach occasioned may be of a more specific right such as the right to bodily integrity, the right to equality or the right not to be subjected to slavery, servitude or forced labor." (McCrudden, 2008)

Protection of human dignity can be understood as protection against discrimination. J. Ober notes, "Nonhumiliation of human dignity is having respect as moral equal." (Ober, 2012:828) Dr. T. Soutphommasane, Race Discrimination Commissioner of Executive Council of Australian Jewry, writes, "The rationale of laws against racial vilification is basically the same: the law in a liberal democratic society must make an assurance that members will enjoy a right to equal dignity". Thus, if dignity must be equal, any discrimination is against dignity. Also he notes that human dignity can be understood as status and as treat. On the one hand, "as a social and legal status, it has to be established, upheld, maintained, and vindicated by society and the law, and this ... is something in which we are all required to play a part". On the other hand, "dignity is not only about status. It is also about treatment: to treat someone with dignity is to treat that person with the proper respect." (Soutphommasane, 2013)

5.4. *The place of the right to human dignity in the system of human rights*

The human dignity as a legal category can have different meant and wide content. It entails discussions about the role of the right to human dignity with reference other human rights and about its place in the system of legislation. This problem was considered by S. Riley and G. Bos.

On the one hand, "Human dignity could be conceived as a REGULATIVE IDEA, providing the trajectory of politics but not necessarily central to its practice. Slightly differently, human dignity could be treated as providing a conception of good politics and implying practical side-constraint within political systems. More directly, human dignity might be identified with the good, which would give human dignity a more clearly normative and perhaps perfectionist role." (*Boylan 2004; Riley and Bos*)

On the other hand, "the idea of human dignity seems an ideal candidate for a kind of Grundnorm or secondary rule in law: a norm giving validity to legal systems as a whole or a principle governing the application of all norms within a system. However, this is difficult to defend as anything other than a loose generalization. In principled terms, legal systems treat justice as their foundational norm and this means that consistency, rather than moral defensibility, guides adjudication. And, in practice, it is not at all clear how human dignity can or should function as a 'higher' norm. There is, in other words, something of a mismatch between the putative function of the concept and its actual potential." (*Riley and Bos*)

In A. Barak's point of view, the right to human dignity is a daughter-right of some other constitutional rights. For example, "in Canada human dignity could have been derived as a daughter-right of the right to life, liberty and security of the person," (*Canadian Charter of Rights and Freedoms (1982), Art. 7; Barak, 2015*) and "in the United States human dignity could have been derived as a daughter-right of the independent right to liberty." (*the 14th Amendment of the US Constitution; Griswold v. Connecticut, 1965; Barak, 2015:141*)

The opinion about importance of civilistic interpretation of this right is also correct. T.V. Protopopova truly notes that entrenching the right to human dignity in civil legislation is very important. (*Protopopova, 2001*)

As A. Vaišvila notes, "The right to dignity is nowadays accepted as "the highest human right", "the source of rights." (*Segado, 2001:179; Vaišvila, 2009*) Thus, the right to human dignity is "foundation legitimating and creating the system of human rights." (*Vaišvila, 2009*) Moreover, "The Helsinki Final Act 1975 says that human rights "derive from the inherent dignity of the human person", and "recognition of dignity (...), equal sovereign rights shall be foundation for freedom and justice." (*Human Rights. Collection of regional international documents, 1993: 232; Vaišvila, 2009*)

In contrast, "In slaveholding and feudal societies only the noble were taken as dignified; the right to dignity was not recognized for slaves and villains "born free and equal in dignity and rights" and "created by the same God"- the latter people were only granted a status of "talking labor instruments." (*Vaišvila, 2009*)

C. McCrudden writes that the analysis of legal texts shows "significant differences in the ways in which human dignity has been incorporated into positive law." In particular, "in many of the instruments, dignity is to be found in the preamble, whereas in others it is used to explicate particular rights. In some it is referred to as foundational in some sense; in others not. In some, human dignity is a right in itself (and in some systems, a particularly privileged right), whilst, in other jurisdictions, it is not a right but a general principle." (*McCrudden, 2008*)

The carried out analysis of literature showed that the level of study of the subject is incomplete. Nowadays there is no the generalizing research devoted to the characteristic of the structure of the right of human dignity, and its place as complex legal category.

Conclusion

The right to human dignity was considered as one of the basic principles of national and international system of human rights, and also it was analyzed as a subjective right in different fields of social relations.

The right to human dignity is specific right. On the one hand, human dignity belongs to a person. On the other hand, it characterizes universally recognized legal personal status. Corresponding principle is implemented through national legislation.

Recommendations

The materials of the paper can be useful to the scientists investigating the constitutional law, students studying law and masters of the right.

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FORMATION OF EMPATHIC CULTURE OF YOUTH AS ONE OF THE EFFECTIVE MEANS OF DEVELOPING TOLERANCE TOWARDS AGE-MATES BELONGING TO OTHER ETHNIC GROUPS

Abstract

The article describes the essence and significance of the formation of empathic culture among young people as a means of developing tolerance towards different ethnic groups, characterizing the methods of dialogue communication and situational tasks in the formation of empathic culture and the development of tolerance. The article also shows the differences between the concepts of "tolerance" and "tolerance", detailed types of listening in the implementation of dialogue.

Keywords

tolerance, empathic culture, dialogue communication, situational tasks,
reflexive listening, active listening, empathy

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Introduction

Today we are witnesses the mutual influence and interpenetration of various national cultures, economies, states. The growing mobility of the world's population turns many countries into multicultural communities. Russia is one of those countries where people of different cultures, religions, nationalities live together and interact with each other, especially young people, when students from different countries come to study in Russia. That is why today the formation of empathic culture can be a priority. In recent years the flow of students from Eastern countries to our country has increased. Russia has more than ever become a multinational country, with a multitude of diverse cultures and problems in intercultural relations.

Being a complex and multi-component phenomenon, empathic culture does not arise spontaneously and independently in the process of professional training, but it is an integral part of the basic culture of the individual, which requires a purposeful formation.

In this regard, it can be assumed that the effective development of students' tolerance towards each other is realized through the formation of an empathic culture that can occur at an unconscious level, by identifying the manifestations of the main components of this culture.

To solve this problem, the phenomenon of the empathic culture has been studied, theoretical and methodological foundations for studying the process of shaping the empathic culture of have been determined, a pedagogical system for shaping the empathic culture in the educational process of the university has been developed, and pedagogical

conditions have been revealed in which the system of shaping the empathic culture is the most effective.

Methodological Framework

In modern science, separate parts of the problem under consideration are researched. Thus, various aspects of pedagogical education are reflected in the research of K.A. Abulkhanova-Slavskoy, E.A. Gnatyshina, M.V. Clara, N.V. Kuzmina, V.A. Slastenina, N.M. Yakovleva, etc., the questions of the future teacher's preparation, his pedagogical culture are set forth in the works of E.V. Bondarevskaya, B.S. Gershunsky, I.F. Isaeva, I.V. Kiriakova, Yu.A. Konarzhevsky, etc. In recent years, a number of studies have been devoted to individual types of professional pedagogical culture: spiritual (BZ Vulfov, MM Mukambaev, etc.), methodological (EV Berezhnova, VV Kraevsky and Etc.), humanitarian (VA Slastenin, EN Shiyanov, etc.), communicative (VS Grekhnev, AV Mudrik, etc.), technological (VP Bespalko, M. M. Levin, NE Shchurkov, etc.); There are studies in the field of personality empathy problems (FA Akhmetshina, AA Bodalev, AG Markina, TV Romanova, etc.).

As the theoretical and methodological foundations significant in the study of the formation of empathic culture, were systemic, culturological and personality-activity approaches.

It should be noted that each of the selected approaches performs a certain methodological function, and they are interrelated with each other in the context of research on the formation of empathic culture.

The systematic approach as a general scientific methodological research strategy forms the basis of the research in the clear formulation of the problem, the identification of methods and means for solving, creates the opportunity to reveal not only the essence and characteristics of the entire system, but also its constituent subsystems, blocks, elements. All together leads the researcher to a well-founded solution to the identified scientific problem (*Bodalev, Kashtanova, 1975*).

Based on the methodology of the system approach, it is possible to determine the system characteristics of the formation of empathic culture:

- First, the formation of empathic culture is a subsystem of vocational training in the university, which, in turn, is characterized by a practice-oriented interaction of all subjects of the educational process, creates conditions for a high level of activity and independence of trainees, the organization of pedagogical influences, taking into account the logic of the subject content of activities ;
- Secondly, the formation of empathic culture as a pedagogical system has the properties of controllability, flexibility, integrity, integrativity;
- Thirdly, it has system characteristics and a similar educational process structure.

As we have already noted, the system approach sets the general design features of the system being developed, to apply the culturological approach to characterize the internal filling, taking into account the characteristics of the empathic culture.

The culturological approach, according to a number of researchers, is embodied at a specific scientific level in the content of the principle of cultural appropriateness. The principle of cultural appropriateness makes it possible to study education as an internal core of culture, an integrating element of all branches of spiritual production, of all forms of social consciousness (*Yakovlev, 2000*).

Cultural approach as a methodological research strategy is a set of theoretical and methodological provisions aimed at considering the emerging phenomenon as a kind of culture, the definition of the principles of professional training from the standpoint of culture. The ideas of this approach directed the research into the channel of personality

education as a person of culture, comprehension and appropriation of cultural values, tolerance, recognition of individuality and identity of a person; Culturological approach has emerged as a methodological prerequisite for the recognition of each individual's own individuality, uniqueness, identity, identity of professional values, professional culture.

Summarizing the ideas of personal and activity approaches, it should be noted that their integrative unity, forming a personality-activity approach, creates unity of personality and activity, taking into account the individual characteristics of future teachers as subjects of activity, including them in constructive, heuristic, reflexive activities, and stimulation for self-development.

Thus, the personality-activity approach in the study appears as:

- Practical-oriented tactics, allowing to design ways of formation of empathic culture;
- the requirement of organization of purposeful activity in the process of subject-subject interaction, cooperation, openness of dialogue in the joint solution of tasks;
- the condition of actualization of personal interest, value orientations, the meaning of self-development of empathic culture, reflection, the formation of self-assessment skills, self-analysis;
- Increase the role of actualization of personal meaning, the formation of personal qualities that form an empathic culture (*Salamatina, 2012*).

Results

Summing up the methodological substantiation of the study, we can conclude that the set of approaches makes it possible to fulfill the research tasks. The system approach provides a study of the systemic properties of the empathic culture and the system of its formation. Culturological approach, complementing the research strategy, allows us to reveal not only the essence of empathic culture, but also to observe the logic of its formation in the context of personal development. To enrich the content of education with traditional and new knowledge and skills. The personality-activity approach makes it possible to design the practice of forming an empathic culture, forms, methods, methods and means, taking into account personal interest and individual characteristics.

Discussions

It should be noted that until the beginning of the 1980s the term "empathic culture" was hardly used in scientific literature. This is explained by the fact that the specifics of the formation of the phenomenon of empathic culture did not become the subject of special research, and it was studied indirectly, in terms of solving general and special problems of preparing students.

Only a few researchers (*Akhmetshina, 2002; Bodalev, Kashtanova, 1975; Moiseeva, 2006; Nain, Shondina, 2011* etc.) emphasize empathy culture as a phenomenon.

Different views of scientists on the content of the concept of "empathic culture" are presented below (Table 1).

TABLE 1. THE VIEWS OF SCIENTISTS ON THE CONTENT OF THE CONCEPT OF "EMPATHIC CULTURE"

The essence of the concept	The scientist, the source
A social phenomenon that represents the level of the individual form of being in the form of the unity of three processes: the exchange of information, the knowledge of each other's people, the formation and development of interpersonal relations.	Bodalev, A.A. (1975). Theoretical and methodological aspects of studying empathy, <i>Group psychotherapy in neuroses and psychoses</i> . P.11-19. (Bodalev, 1975)
The phenomenon, the mechanism of functioning of which is conditioned by the peculiarities of interaction between the subject and the object of educational and cognitive activity and its internal structure is determined by the unity of the three components: verbal, perceptual, interactive.	Markina, M.G. (2005). The specificity of research methods: The role of the female image in advertising, <i>Advertising</i> , 6. (Markina, 2005).
Integrative quality of personality, in which the emotional, cognitive and activity (behavioral) components of interpersonal relations are focused and synthesized.	Akhmetshina, F.A. (2002). Education of the empathic culture in the university. <i>Bulletin of TISBI</i> , 1. (119-132). (Akhmetshina, 2002).
Personal system of empathic qualities, socially and individually significant, which appear in the interaction.	Nasenkova, I.M. (1997). <i>The education of the empathic culture of high school students in the process of organizing business games</i> . (Nasenkova, 1997).
Integrative personal quality, expressed in the harmonization of understanding by people of each other on the basis of acceptance of empathy, sympathy, assistance in the quality of personal, social and cultural value, which determines individual behavior in interpersonal relations with others.	Moiseeva, A.N. (2006). <i>Formation of the empathic culture of adolescents in the institution of additional education</i> (thesis. ... cand. Ped. Sciences). Magnitogorsk, Russia. (Moiseeva, 2006).
Integrative quality of personality, in which the emotional, cognitive and activity components of interpersonal relations are focused and synthesized.	Nain, A. Ya., Shondina, I.A. (2011). Development of the student's empathic culture in conditions of humane education, <i>Siberian Pedagogical Journal</i> , 1. (112-121). (Nain, Shondina 2011).

Summarizing the positions of researchers, the empathic culture is understood as the integrative quality of a person, manifested in the ability to implement adequate ways of behavior in accordance with the emotional state of the subjects of interaction, the acceptance of empathy as a person's value, in striving to improve the empathic attitude in their activities and interaction on the basis of sympathy, participation, promotion and tolerance. As can be seen from the definition, tolerance is the quality of empathic culture. Here it should be indicated that it is tolerance in interethnic relations. First of all, "tolerance" and "tolerance" can not be considered synonymous. "Endure" in the Russian language is "to overcome some unpleasant sensations." "I do not like it, but I endure it. Forcing myself not to pay attention to trouble" - this is how you can convey the feelings of a person who is tolerant. Tolerance is another. It's not overcoming one's own dislike and irritation (although, of course, the first steps towards true tolerance are exactly that). Adopting other people's traditions, someone else's way of life for granted, a clear realization that all people are different and have every right to be so (Florenskaya, 2001).

A tolerant person is a person with a positive outlook on the world, a moral, socially active, aware of the diversity and interdependence of the world around him, a person who is concerned about the fate of the world and who understands what this world will be, depends on each of us.

Tolerance is included in the empathic culture, which, in turn, includes the following components: cognitive, emotional-activity, personality-value.

- the cognitive component includes a set of knowledge about the empathic interaction of subjects of the educational process, on the basis of empathy, participation, facilitation and tolerance;

- The emotional-activity component is manifested in the ability to respond emotionally to the experiences of the interlocutor, to implement adequate ways of behavior in accordance with the emotional state of the subjects of interaction;

- the personality-value component reflects the direction of the personality, manifested in the adoption of empathy as a person's value, in an effort to improve the empathic relationship in interaction with others (*Karasik, 2000*).

The most effective methods of forming an empathic culture are dialogue communication and the method of situational tasks.

Interacting with other people, a person can simultaneously act as both a subject and an object of communication. As a subject, he learns his partner, determines his attitude to him (this may be interest, indifference or dislike), influences him to solve a specific problem. In turn, he himself is the object of knowledge for the one with whom he communicates. The partner addresses his feelings to him and tries to influence him. It should be emphasized that the presence of a person simultaneously in two "hypostases" - an object and a subject - is characteristic of any kind of direct communication between people (*Salamatina, 2012*).

Dialogue is not just a conversation between two people: such a conversation can be, in fact, only a monologue of each of them.

The dialogue determines the persons or states "I" and "Other". Completeness of understanding in the dialogue can be ensured only by knowing the language of the "Other" in all its specifics. In order to understand who this "Other" is, a person must understand who the "I" is.

In the dialogue, we are more often interested in whether the other has understood us, than whether we understood it. This deforms the process of communication. The best way to avoid this is nonreflective listening. Its essence lies in noninterference in the language of the interlocutor (conditionally passive hearing).

Depending on the situation, during non-reflexive listening, support, approval, and understanding with the help of minimal answers can be provided, which help prolong the conversation (replicas of the type "yes", "understand", "it's interesting"). Such neutral words contribute to the support of the conversation, relieve tension.

Another method is reflexive listening. It consists in establishing feedback with the interlocutor in order to control the accuracy of the perception of information. Sometimes this method is called "active listening", because it involves more active use of verbal communication to confirm understanding of information. The method of reflexive listening helps to clarify our understanding of what was heard for criticism and clarification (*Salamatina, 2012*).

With regard to situational tasks, it is possible in this situation to distinguish the following: motivational-situational, gnostic-heuristic, reflexive-pictographic, empathic-discursive situational tasks. The totality of these situational tasks has characteristic features of any situational task in everyday life. It is important to note that these situational tasks are systematized according to the cognitive, emotional-activity personality-value components of empathic culture.

Motivational-situational problem is an object of mental activity, containing a situation of a stimulating nature, including the condition, functional dependencies and requirements for decision making (*Bodalev, Kashtanova, 1975*).

Gnostic-heuristic situational problems are aimed at finding an adequate solution, and the search does not have criteria for limitation. In these problems, the situation with the immediate question is: "What should be done in this situation?". Subjects apply the knowledge they gained about empathy and tolerance, and operate them in choice situations (*Karasik, 2000*).

Specificity of reflexive pictographic problems is that they appear ready for interaction participants, which helps them to understand the role of empathic culture in everyday activities, to penetrate the situation, to see and understand their level of empathic culture, to enrich and consolidate knowledge, to analyze their own actions (*Florenskaya, 2001*).

Empathic-discursive situational problems are considered as an object of mental activity, containing a discursive situation with elements of the empathic content of the problem in the task and including the condition, functional dependencies and requirements for decision making. In the empathic-discursive situational tasks, the direct process of interaction of the participants in communication is laid.

All situational tasks are also, first of all, the interaction of subjects and therefore one can say that these tasks include the method of dialogue communication (*Salamatina, 2012*).

Conclusion

The presented characteristic of empathic culture and its methods of formation proves that tolerance is an integral part of it. In order to purposefully develop tolerance among the young generation, it is necessary to determine the methodological bases for solving the problem of the formation of this culture of subjects of interaction with the goal of harmonious development of different ethnic groups on the principles of the equivalence of different cultures, tolerant attitude to different manifestations of human identity.

The urgency of the presented problem is caused by intensively increasing requirements to the level of general cultural and special training of university graduates and the emergence of the need to develop innovative forms of mastering the necessary personal and professional qualities of the participants in the society.

The formation of an empathic culture of the personality is a purposeful process aimed at acquiring: knowledge about the empathic interaction of the subjects of the educational process, the ability to respond emotionally to the experiences of the interlocutor, adequate ways of behavior in accordance with the emotional state of the subjects of interaction, empathy as a person's value (*Salamatina, 2012*).

While tolerance is part of the empathic culture and is its quality, therefore, it can be concluded that in order to cultivate a tolerant personality, it is necessary to form the empathic culture of young people of different ethnic groups.

In modern conditions, when humanization and democratization are declared as the basic principles of the modern education system, the phenomenon of education is seen as a means of safe and comfortable existence of the individual in the modern world, as a way of self-development of the individual. In this regard, the need to train specialists with a high level of empathy, empathic culture, is especially acute, and this is especially important for young people belonging to different ethnic groups. The study of the current state of the problem of the formation of empathic culture, the analysis of psychological and pedagogical literature, and the conducted research have shown that the need for the

formation of the studied culture is determined by the need of modern society in the personality and the interaction partner possessing an empathic culture; Necessity of creation of theoretical bases of formation of empathic culture of the person in the course of their vocational training; The need to develop a practical apparatus for the effective formation of empathic culture, as well as tolerance, which is one of the important qualities of this culture.

RECOMMENDATIONS. This article and the study on the formation of the empathic culture of youth as one of the effective means for developing tolerance towards age-mates belonging to other ethnic groups will be useful first of all to higher education workers who teach young people, because teachers are the main actors in the interaction that control and correct communication between students.

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TYPOLOGY OF THE UKRAINIAN PRESS OF THE POST-SOVIET PERIOD AS A METHOD AND AS A SCIENTIFIC PARADIGM

Abstract

The relevance of the studied problem is caused by the changes in a technological basis of mass information, which generated changes of a typological picture of periodicals. In Ukraine this global process is influenced by the system changes in the economic, legal and social sphere of life. The traditional typological matrix disappeared. Its which vertical structure copied "democratic centralism" - the main organizational principle of ruling party; its horizontal structure fixed a thematic range of all periodicals. In 25 years of independence, the Ukrainian press had ample opportunities for free development, however, stamps and stereotypes of the Soviet ideological system, having changed, continued to exist, slowing down all democratic transformations. The purpose of the paper is to study these processes in the context of a modern typological paradigm of the press, which underwent considerable transformation in recent years. The deeper studying of communication between the characteristics of mass media caused by their belonging to a certain format (type) and features of professional activity of the journalists is acute. The analysis of change of social-political and typological paradigms that allow to adapt print media for new market conditions, guarantee their creative and financial success, avoid the conflict of a creative paradigm to a marketing paradigm, balance in journalistic collective a thematic variety as result of pluralism of opinions adhering to the chosen editorial policy can become the leading method of the research. It is necessary to define typological characteristics and priorities of the newspaper as the reliable base for development of its information and advertising concepts to satisfy inquiries of reader's audience. The materials can be useful to students studying journalism, editors and managers of the reformed editions, trainers of special courses in journalistic skill and lecturers of institutes for professional development of print media workers.

Keywords

typological coherence, type-forming signs, micro-regional press, edition format,
genre structure, indicator of reader's demand, typological differentiation

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Introduction

1.1 Relevance of the problem

For many years, development of the major social institute - mass communication - has been braking by absence of the settled concept of the press in Ukraine, because of an internal antagonism of absolutely different models - Soviet, authoritative, liberal, socially responsible, revolutionary, democratic, etc. Besides professional roles of journalists are

not found out yet (who they are now - propagandists, organizers, tutors, interlocutors, distributors of information, analytics?). And the press remains within the system of mass information, but not the system of mass communication. For this reason, efforts of theorists have to be concentrated on creation of the concept of rather independent press (from the power and oligarchs), which would consider world experience and tendencies, modern political situation, prospects of development of the country and traditions. Now there is the time to depart from former stereotypes and to create absolutely new type of mass media, aimed at the main task - to make a qualitative information product.

1.2 Explore importance of the problem

Development of the new type of mass media transforms a modern paradigm of the theory of journalism, provokes development of the corresponding theory (definition of new concepts and specification of the existing concepts, which help to comprehend a gap, transformation and formation of the new type of mass media). The era of new social and information paradigms of society demands the analysis of the directions of further evolution of the periodic print media, communicative processes in general, creation of an adequate classification of newspapers capable to display all variety of today's Ukrainian periodical press, including at the regional level. Definitely, it would help to answer the question about operation of mechanisms of cast between different typological groups of printing mass media and as about distribution of reader's audience between them.

1.3 Research Hypothesis

The analysis of theoretical works and practical activities concerning the problem showed that the theoretical bases of mass media functioning demand reconsideration, typological and functional coherence, specification of key terms, considering specifics of the social transformations connected with reforming of the municipal press and specifics of the Ukrainian media market. Against a variety of the works devoted to the regional press in Ukraine there is a lack of the scientific researches concerning typological features of the reformed mass media in the course of so-called privatization that allowed to formulate a hypothesis of creation of the new typological concept. In fact, newspaper format, where such important typological signs as the purpose and task of the edition, its audience would find the functional embodiment; format as an instrument of expression of the purpose.

Materials and Methods

2.1. Theoretical and empirical methods

To achieve the object we used both general scientific, and special methods of research: descriptive, typological, method of traditional analysis, discourse and content analysis. The descriptive method promoted studying of the scientific category "paradigm" as a model and methodology of scientific knowledge that allowed to present features of development and change of paradigm dominants in the branch of social-humanitarian sciences. The traditional (unformalized) analysis allowed to establish regularities in studying the existing journalistic paradigms. The typological method allocated resistant signs and features of the studied objects. By means of the content analysis, the system of periodicals of Zaporozhye is reconstructed.

2.2 Methodological Framework

Fundamental works on sociology of journalism of V. Buryak, V. Ivanov, V. Lizanchuk, V. Oleshko, L. Fedotova, I. Fomichyova, A. Chekmysheva, A. Moskalenko formed a methodological basis for studying of the subject. The scientific discourse of journal paradigms studied by I. Artamonova, V. Rizun, I. Mihailing, V. Tulupov helped to understand an essence of prerequisites for creation a hypothesis of a new type of print media. Different approaches and techniques of theoretical typologization of separate types of the journalese periodical press was rather representatively proved in monographic researches of E. Prokhorov, L. Resnyanskoy, T. Hitrova, M. Shkodin. Modern concepts of V. Antonova (the complete typological-genre concept of development of peripheral printing editions), M. Geruli (the concept of typological signs of the modern newspaper, proceeding from the main sign - contents of the edition), A. Kazhakina (the concept of polymorphism of typological signs: determinism, dynamism, multi-subjectivity, structurally functional unity, adaptability), V. Tulupov (the concept of interrelation of design and advertising in typological system of newspapers) allowed to define the directions of development of the Ukrainian print media on the near-term outlook.

2.3 Base of research

The media landscape of the Zaporozhye region, where recently there were serious scientific researches on development of the so-called provincial press - from the beginning of the last century up to now, became the base of the research. They differ in depth and system character, as they cover the big historical period of the region's life and allow to analyze the processes of transformation of printing editions, many of which continue functioning nowadays.

Results and Discussion

According to the author, the works I. Hermann "The Zaporozhye press of the 20-40th years of the XX century: genre and stylistic features" and T. Hitrova "Typological features of the periodic press of the Zaporozhye region (1904-1920)" deserve special attention. Both researches are devoted to the historical past of the Zaporozhye press; they are extremely interesting from the point of view of scientific typological approaches. According to T. Hitrova, the history of the Ukrainian journalism represents a set of regional models of the periodic press that are subsystems in relation to the periodical press of the state in general and therefore can be considered as its complete components with the complex accounting specific regional characteristics (*Hitrova, 2007*). T. Hitrova allocates major factors, which allow to identify the Zaporozhye press as one of numerous regional structures of history of the Ukrainian periodical press, to reveal specifics and conditions of its functioning during the concrete historical period, to define typological character.

I. Hermann skillfully reconstructs typological model of two classes of the Zaporozhye periodical press of the 20-40th years of the last century - mass class and social class, specifies classification of editions on territorial, demographic and national-language signs (*German, 2003*).

Now print media of Zaporozhye kept some traditions of the predecessors, in particular, what are connected with national and language features, commitment to limited subject (industrial and agrarian sectors), the special genre palette connected with mixing of various cultures, etc. The oldest newspapers of the region - "Industrial Zaporozhye" and "Zaporzhnya pravda" - traditionally have not changed reader's audience

almost for a century, continuing to divide the audience into the city and the village. The "Zaporozhnya Sich" newspaper seldom addresses to the events and problems, which are going beyond city boundaries as traditionally carries out the order of the Zaporozhye local council.

The typological originality of Zaporozhye print media can be tracked on the example of the so-called monofunctional press (city of Tokmak, Energodar, Dneprorudny). The Energodarsky newspaper "Energy" is interested in Zaporozhye NPP news, the "Tokmaky messenger" generally covers events of JSC Yuzhdizelmash, the regional "Rational newspaper" gives preference to life of labor staff of the Zaporozhye iron ore combine. The Berdyansk newspaper "Pivdenna Zorya" seldom resorts to rural subject and gives only sensational news from agrarian areas, generally of a criminal character. The similar position is taken by edition of "Melitopol sheets": sensational nature is on the first place here, crime - on the second. At the same time both newspapers position themselves as political editions.

The modern scientific discourse notes that with the advent of new types of editions there was a noticeable transformation of tasks, which are performed by the regional press. As S. Guryev marks out, the most important sign of modern editions of Ukraine is process of changing the concept of formation and transformation of typological structure of mass media. The key definition of the researcher is the following: "The problem of typology of the press allows to track processes of differentiation of national mass media, facilitating their positioning and adaptation to difficult state transformations" (*Guryeva, 2006*). The typological concept of mass media is that formula, that installation, which regulates work of both journalistic collective, and the management of the edition, and relationship with audience. Severe conditions of the competition, huge number of participants in the market of the periodical press compel editors and publishers to position their publications, to approach their functioning as the elements of the big social system. The typological analysis of a newspaper is an indispensable condition of creation of effective model for releasing a competitive product. Confirmation of this judgment is the thesis, which became an axiom: to resolve an issue of capacity and popularity of the edition, it is necessary "to calculate" (to count) its type. The author of this thesis researcher A. Akopov considers that the typological characteristic of any mass media is defined by means of the analysis of three typological signs - type-forming, secondary (dependent) and formal (subordinating) (*Akopov, 1985*).

The main type-forming signs are the readers audience, purpose, task and, certainly, founder. The newspaper typology in the context of this concept depends on external (social) and internal (journalistic activity) factors. Influence of the listed factors cannot be constant. Sometimes, the audience, mass character, region of distribution or founder can appear more significant. Sometimes, for example, publishing characteristics - frequency, circulation, contents of the edition, its orientation - become more significant. Systematizing the problem historiography, M. Nedopytansky notes that the typology was traditionally grounded on functional signs of activity of mass media and on age features of their audience in the Ukrainian journalism. The scientist analyzes the main types of the periodical press through a prism of modern journalistic practice. Considering the acquired methodology and the new phenomena in journalism, he made attempt to develop own modern model of the domestic periodical press (*Nedopytansky, 2006*). In its concept a dominant of typology is the chain of signs, thanks to which it is possible to allocate the general and various, i.e. to build a certain system. The scientist suggests to divide the modern periodical press on the basis of two signs - main and minor.

Main signs are thematic scale and level of audience coverage, property sign (municipal, commercial), genre sign (analytics, news, entertainments). Minor signs are professional and branch signs (business press, multi-production newspapers), ideological

(bodies of political parties) and so-called glossy editions. M. Nedopytansky carries the national editions covering the national processes, regional mass media focusing attention on problems of local character budgetary mass media (municipal) and commercial newspapers, where information is a good to separate types of the modern periodical press.

Characteristics of different types of editions, attempts to allocate their main signs can be found in other works on history and theory of journalism. Unfortunately, final definition of edition type and exact transfer of its type-forming elements do not exist in modern journalistic science. For example, V. Tulupov understands set of characteristics, which differs the edition from others as a type of the printing periodical. This type includes characteristics of newspaper's contents, subject of its publications, its design and appearance (*Tulupov, 2007*). On its version, the major factors defining edition type are the purpose and the concept, then goes reader's audience. Other factors like format, volume, etc. can also define a typological look.

The researcher S. Korkonosenko offers his own classification according to: the region of distribution (transnational, national, regional, local newspapers); the property right (state and private), the characteristic of audience (age, sexual, occupation, confessional characteristics), publishing characteristics (frequency, circulation, format, volume), legitimacy (depending on existence of permission to publishing) and text filling (qualitative and mass) (*Korkonosenko, 1995*). I. Mihailing offers the following main typological signs: the region of service (central, regional, regional, city, regional, departmental), thematic or branch specialization (all-information, sports, business, legal, about health, advertising, automobile, tourist, tele-newspapers, computer, entertaining, erotic, sensational, party bodies), frequency (monthly, weekly, quarter) and audience (youth, children's) (*Mikhaylin, 2004*).

V. Antonova focuses attention on current conversion trends in the sphere of a journalese type-forming. She introduces the concept "indicator of reader's demand" and defines value of content as main structural unit of journalistic creativity, supplements former scientific opinions on the principles of typological differentiation of regional mass media. In her opinion, typological accessory of any mass media is defined by such factors as founder (publisher), target orientation, mass audience (*Antonova, 2006*).

The Polish scientist of M. Gerulya develops and specifies typological discourse, broadcasting it in the new social-political and economic paradigms: opens the reasons, because of which the local periodic press underwent deep and spontaneous transformation. Paying the attention to the press of small regions, he convincingly proves that transformation of tasks, which carry out local newspapers, causes revision of a typological variety of new types of editions. According to its version, the main tasks of the local press are the following: granting audience to information, performance of function of a public tribune, consolidation of local communities, formation of public opinion within the territory, supervision over local authorities, support of local culture, formation at the participation population to "the small homeland", political, cultural and historical educational mission, promotional and informational function, achievement of economic success in the market (*Gerulya, 2001*).

M. Gerulya developed additional classification, which is based on the press distribution on the basis of formal signs. It is about such criteria as frequency, circulation, format, volume. The criterion of distribution area has universal character that allows to use it at allocation the group of local editions of the general system of the periodical press. Another classified criterion of typology is the predicted reader's audience. Therefore, the researcher suggests to use two-level classification. At its first level, distribution is grounded on existence or lack of the factors limiting reader's audience. In this case, the local press shares on two subgroups: the universal periodical press for all local public and the newspaper for certain social groups. According to M. Gerulya, actual

criterion is institutional and legal status, which makes possible to classify the local press taking into account its communication with organizational structure of society. The institutional status of the edition is always more valuable, it defines participation of this or that public institute in local communication by the newspaper. This criterion can serve as an important indicator of state and development of communications between local mass media and government institutions, functioning of the local periodical press depending on activity of the power. Applying the criterion of purpose, the scientist suggests to divide all periodical press on commercial and public.

We consider to pay attention to the point of view of the researcher M. Gorokhov, operating with the term "format". He understands a publication format as "rather resistant and permanently repeating in each separate case set of the formal and substantial features urged to satisfy information, esthetic, utilitarian-pragmatical, recreational and other requirements of concrete target audience, on which these mass media is focused" (*Gorokhov, 2006*).

On the one hand, the format of edition is a peculiar superstructure over typological accessory of the edition. On the other, it acts as the tool of a further specification of the mass media type. In other words, type and format stay in the same ratio as a sort and a species in zoology. If the typology of mass media is influenced by a number of objective factors (including environment of information market), the format is realized only in the form of the subjective, pragmatically verified reaction of a certain group of professionals of mass communication to reader's requirements. It is a connecting link between means, available concrete mass media and purposes, which it seeks to reach. Thus such major typological signs as purpose and task of the newspaper, its audience find the functional mission in a format. If to be more exact, format of the newspaper is the instrument of realization of its purposes. Edition and its genre structure find the concrete application in format. And if both of these categories bear some social-historical, common cultural heredity and are caused by all previous development of mass media institute, then format is purely situational size, not burdened by "gene memory". This some kind of mirror displaying an operational condition of a certain segment of modern mass audience in a time mode.

Thus, the format is a pragmatic aspect of typology and genre structure of a publication. In this context, it really reveals the result of work on modeling and positioning, defines distribution of information product, specific only to this way, professional norms, thematic orientation and genre balance, certain and specific set of structural, composite, design decisions and receptions (*Gorokhov, 2006*).

Discussions

Despite serious discussions concerning classification of mass media, all of us observe unity of scientists' opinions on the most basic and the important classifying signs. It makes us believe that the accurate typological concept, by means of which any printing mass media, would be developed. As an analogy, it is possible to consider a difference between political and advertising editions, when the Ukrainian legislation established boundary criterion of an advertising space (40 percent). This criterion was rather doubtful for quite a long time on media spaces of Ukraine, and meanwhile, it was important at registration of the edition and further activity. For example, during election campaigns, when advertising editions are forbidden to be engaged in political propaganda.

Many editions, which do not have the typological concepts, functions today in Ukraine. There are such editions in Zaporozhye. It is connected with the fact that not always professionals are engaged in newspaper business, often mass media is established only as the instrument of impact on public opinion and is financed for short time. Then

editions are closed, as their purposes and tasks are settled. Similar practice (especially in the regions) still remains unaddressed to the state, which has to be interested in a qualitative information product.

The reformed municipal newspapers of the first wave of privatization have already declared the basic decision, however, many editions still do not understand importance of system-scientific approach to development of typological characteristics of the publication, as necessary condition for successful functioning, believing that everything can be changed "under way". Similar practice is manifestation of levity and non-professionalism that will inevitably lead edition collective to failures. Then the newspaper should either self-destruct or unite with more durable edition that, in fact, is not a merge, but absorption of one creative organism by another. Only the weighed system approach relying on comprehensive scientific knowledge would be able to specify the right way to labor collective during an era of the difficult market relations.

Conclusion

Thus, creation of modern typology of mass media not only on nationwide, but also at the regional level is rather actual task. Correctly developed typological characteristics are a reliable basis for development of the concept, information and advertising policy of edition, the right reference point for satisfaction of concrete requirements of audience. According to the author, ways of typological and functional coherence of functioning of the periodic press pass through judgment and differentiation of the concepts "typology" and "edition type", "classification" and "format", in correction of many concepts of the Ukrainian journalism, which got it "by inheritance" from the Soviet era. Today it is very important to support "typological balance" between "the newspaper of socially responsible creativity" and "newspaper goods", to seek for creation of a multi-vector information saturation taking into account modern conceptual changes.

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RELEVANCE AND PERSPECTIVE DIRECTIONS FOR DEVELOPMENT INFRASTRUCTURE OF PLANT GROWING BRANCH IN THE CONDITIONS OF THE SOUTH OF RUSSIA

Abstract

The relevance of the studied problem is caused by the ripened need for development of plant growing subsectors infrastructure in for modern conditions. The purpose of the research is the assessment of economic efficiency of investments into the perspective directions of development of plant growing at the agricultural organizations of the Russian South. The authors prove the expediency and economic efficiency of the organization of the isolated specialized production on cultivation vegetables of open and close soil. The materials of the research can be used by specialists of agricultural organizations and governmental bodies for making business plans of innovative development of agricultural producers and by potential investors in the branch.

Keywords

plant growing, infrastructure of branch, investment, economic efficiency, development, agriculture, Krasnodar Krai

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Introduction

1.1 Relevance of the research

Grocery embargo introduced in 2015 in the Russian Federation created new conditions for domestic producers - substitution of import agricultural production, and, therefore, increase in growth rates of agro-industrial complex on an intensive basis. At this conjuncture the actual is the question of quantitative and qualitative potential to increase production of agriculture and development of a fundamental element of production forces - effective production infrastructure of branches of agrarian-industrial complex.

Active studying of contents, organizational bases and principles for creation infrastructure of agricultural branches in domestic science began in 1940-ies upon transition to the collective principles of managing. The term "infrastructure" was understood as a system of the serving farms, institutions and productions promoting a rational expenditure of the resources providing optimum development and territorial organization of production forces, high standard of living and preservation of environment. The treatment of the studied category had not change substantially. Specifications where made to define infrastructure of agricultural production: it is the complex of productions engaged in preparation of agricultural raw materials, transportation, storage, advance and sale of agricultural production and goods of its processing, training agricultural staff, etc. (Slepneva L. R., 2012; Sokolova A. P., 2015; Trubilin A.I., 2016).

The infrastructure is a component of agro-industrial complex of Russia, acts as its subsystem and an element of system of production organization. The purpose of the organization and development of agricultural infrastructure is creation of necessary conditions for economic growth, security, continuity and balance of the main production. The infrastructure of branch acts as a necessary condition for labor productivity growth and increase of production efficiency.

Effective development of agricultural branches is possible in condition of the advancing rates of development of production infrastructure in relation to the main production. Thus the directions, rates and the end results of development of agrarian sector are defined by efficiency of development including infrastructure of agricultural subsectors. The modern infrastructure of Russian agriculture differs in backwardness, lack of integration communications between spheres and agricultural enterprises and low investment appeal. The relevance of the conducted research is defined by importance to develop agro-industrial complex infrastructure.

1.2 Characteristic of the research object

Nowadays residents of the developed countries allocate a big share of the budget for fresh vegetables and green, than 10-15 years ago. The observed tendency is caused by both growth of the general welfare of the population, and universal dissemination of culture of a healthy lifestyle. Russia is open to world common cultural values and promotion of a healthy lifestyle, but vegetables takes a smaller share than in other countries, their consumption has seasonal nature that is explained by features of the Russian climate. Not all vegetables from the traditional menu of Russians are subject to fresh and long storage. Even in the Southern region of the Russian Federation, optimum for vegetable growing, vegetables from open soil can be received within 4-5 months during the year; in less favorable regions - 2-3 months. As a result, average annual consumption of vegetables per capita of the country is twice lower than the level recommended by Institute of Food of the Russian Academy of Sciences.

Vegetable growing is one of priority branches for development agriculture in the Krasnodar Krai. In 2015, the region took the leading position on production of vegetables in the Southern Federal District, and the third place among the regions of the Russian Federation. Thus, in the region, favorable for cultivation of vegetables, internal consumption of vegetables exceeds their production for 22%. Missing volumes of production including taken out of the region are replaced by internal and external import. From October to April there is the lack of local fruits and vegetables and the expressed seasonality of its deliveries to the market.

Over the last ten years of fruit and vegetable production in kind grew by 3 times in the region import. According to the Southern customs office of the Federal Customs Service of Russia, the main foreign trade partners of the Krasnodar Krai delivering fruit

and vegetable products were Turkey (tomatoes, cucumbers, citrus), Israel (carrots, garden radish, turnip, beet), Egypt, Belgium, Serbia (apples, pears) and Ecuador (bananas). The considerable share is occupied by the products having local analogs - apples (13%), tomatoes (10%), potatoes (9%), onions (5%), carrots (4%) and cucumbers (2%) (*Bershitsky Yu. I., 2015; Sukhareva O. A., 2014*).

According to the Uniform information portal of monitoring of the prices in the Krasnodar Krai, the potential of growth of volumes of fruit and vegetable products cultivation (also transit) is estimated by regional agricultural producers only due to import replacement at 850 thousand tons or 1,5-1,7 times from the existing outputs. The analysis of growth rates of vegetables production in the region allows to conclude that the developed level is not enough for import substitution.

For years of market reforms in Russia, the created network of specialized vegetable-growing farms and branch infrastructure (seed-growing farms, processing complexes, specialized storages, etc.) was destroyed. The character of organizing a production system has also changed: production passed from large-scale hi-tech specialized production into country and farmer and personal subsidiary farms. In structure of vegetables production in the Krasnodar Krai, the share personal subsidiary farms makes more than 60%: 20% are the share of agricultural organizations, the rest - country (farmer) farms. The developed structure of vegetable production constrains development of the branch and does not promote widespread and effective introduction of innovative technologies in production.

Now subsectors of plant growing impose increased requirements to an infrastructure level of development in connection with accumulation of production rates, and consequently the need of maintenance of steady nature of production.

Researchers of economic processes in subsector note that the reasons slowing down development of vegetable production on open and close soil in the agricultural organizations are outdated technologies of cultivation, wear of the existing equipment of hothouse complexes, high investments into creation of new capacities, insufficiency of money and backwardness of infrastructure of vegetable production and sale (*Belova I. V., 2015.; Kondratyeva O. V., 2015; Sokolova A. P., 2016.*).

Domestic practice of cultivation vegetables on open and close soil was developed by the principle of a full cycle of production. The situation is characteristic for both the large agricultural organizations, and farmer and small (personal) subsidiary farms. In foreign practice the infrastructure of vegetable production is developed in a bigger measure. There are complexes on cultivation seedling, vegetables and specialized seed-growing farms. Such division allows to organize a system of production rationally, to provide producers with qualitative landing material in due time, to level production risks.

The most risk stage in the course of vegetable cultivation is cultivation of seeding material. Not complying the technology of cultivation, insufficient care, irrational light and thermal mode, low qualification of workers, the probability of loss of production is high. At the same time, an opportunity to receive one more crop is demand considerable investments. Besides for seedling cultivation, the areas of a hothouse complex, workers and financial resources are engaged from the main production, and results often do not justify an investment. The practice shows that seedling exit in specialized farms on seedling cultivation makes 90-95%, while the indicator for the enterprises engaged in cultivation of vegetables does not exceed 70%.

Nevertheless, the agricultural organizations specializing on cultivation of vegetable seedling were not widely adopted in the Krasnodar Krai.

Cultivation of vegetable seedling is highly profitable business, first of all at the expense of intensive system of production, opportunity to realize production during the long period, being guided by various segments of the market. However, it demands

considerable capital investments in creation of production and effective system of its organization.

We consider, the organization of production of vegetable seedling on open and close soil is the perspective direction for the plant growing branch in the agriculture of the South of Russia.

Methodological Framework

The business plan of a hothouse complex on cultivation of vegetable seedling on open and close soil in the conditions of model economy of plant growing branch in the Krasnodar Krai was developed for an economic justification of efficiency of the offered direction. The structure of the investment project and criteria for investments efficiency assessment correspond the technique offered by the United Nations on industrial development (UNIDO).

At a pre-investment stage, the offer in the market of vegetable seedling was studied in the region. The results showed that there are no specialized farms on seedling cultivation in the Krasnodar Krai. Large hothouse complexes and specialized vegetable-growing enterprises independently provide the main production with seedling and sell surplus to other farms. Production of these sellers is distinguished by the narrow grocery and high-quality range of seedling (as a rule, identical to the range of the vegetables made at the enterprise). The production is realized on the terms of 100% advance payment that is not favourable for small producers and agricultural organizations, which finance investments in working capital is made by the short-term credits. The objective of seedling cultivation at these enterprises is supply of own production, therefore in case of death of a bigger part of seedling, the seedling from the turn intended for realization can be attracted. There is a great number of country (farmer) farms and individual entrepreneurs in the market of vegetable seedling. They grow up seedling for both own needs, and sale.

Such organizations as "The garden North-Caucasian center of zone research institute of gardening and wine growing" (Krasnodar), "Realize hothouse combine Belorechensky" (the Belorechensky district), JSC "Ovoshchi of the Krasnodar krai", PAO "Hothouse Agrocombine", JSC "Hothouse Combine 'Progress'" make vegetable seedling in the Central district Krasnodar Krai. From the presented producers "The garden North-Caucasian center of zone research institute of gardening and wine growing" is engaged in production of vegetable seedling. Other producers grow up vegetables and realize surplus of seedling. "The garden center" is the experimental North-Caucasian base of zone research institute of gardening and wine growing, therefore their production differs in high quality and modern technologies.

Thus a lack of "The garden North-Caucasian center of zone research institute of gardening and wine growing" is the narrow product range. At the moment, the organization realizes seedling of tomato (five sorts) and eggplant (two sorts). The main activity of the Garden center is realization of saplings of long-term plantings, grapes and berries.

Production of seedling is not primary activity for "Hothouse Agrocombine" and "Hothouse combine 'Progress'". The enterprises realize the surplus of seedling, which is grown up for own needs that explains the narrow grocery and quality range (as a rule, identical to the range of the vegetables presented at the enterprise), traditional technologies, average marketing activity.

Production of country (farmer) farms, as a rule, has changeable character. It is difficult to establish the long-term relations with the predicted deliveries with them. Farmers use outdated technologies, violate recommendations and norms, as a result, seedlings have poor quality. Their advantages are the wide product range and low prices, as farmers seek to realize production in the shortest possible time.

The range and sales plan of the organized hothouse complex production were developed taking into account the preferences of the main groups of consumers. The analysis of the vegetable growing subsector in the Krasnodar Krai and the market of fresh vegetables showed that the seedling of cucumber, tomato, cabbage, eggplant, pepper, salad and marrow are in the greatest demand among agricultural producers. In the structure of products, the main share is under seedling of early vegetables and vegetables on open soil (more than 60%), the rest is under seedling of vegetables on close soil (more than 30%). In the general product range, the seedling of tomatoes (40%) and cucumbers (34%) prevails. Other cultures occupy 26% of the planned complex space.

While selecting high-quality structure of seedling, important condition is the rational organization of high-quality structure, lack of regrading, as it is favourable to establish trade relations with agricultural producers on a long-term outloo. The buyer has to be confident in quality of seedling. While selecting sorts, it is necessary to adhere to recommendations about its cultivation in specific climatic conditions of the region and the direction of production - vegetables of open or close soil.

Studying the market of vegetables and system of agricultural producers of the region allowed to assume that optimum size of a hothouse complex is 10000 sq. m. It is offered to apply one of the most progressive technologies - intensive energy saving environmentally friendly technology of cultivation of seedlings, vegetable seedlings, herbs and green cultures by the method of a many-tier narrow-lack hydroponics. The equipment of the greenhouse includes engineering systems of ventilation, power supply, lighting, preparation and giving mineral food and water, control and management.

Requirements of NTP 10-95 "Norms of technological design of greenhouses and hothouse combines for cultivation vegetables and seedling", production schedules of cultivation of seedlings and recommendations of the research organizations, the practical experience of the similar domestic and foreign enterprises were the basis for technological decisions for organization the production.

Results

Proceeding from the accepted cultivation, terms of seedling landing, area of crops and norm of seedling exit from one square meter of the greenhouse, the annual output and product sales were planned. According to calculations, 10 000 sq. m greenhouse would give more than 2,5 million saplings.

Accounting of production costs was made proceeding from standard and planned indicators of need for material resources and planned outputs. In a year joint costs of production will make more than 48 million rubles, thus the sum of costs changes within a year depending on the production program. So average prime cost of seedling of the first (spring and summer) turn makes 15 rub for a sapling, the second (winter) turn - 21 rub.

It is planned to realize seedling to the agricultural organizations, country (farmer) farms and personal (subsidiary) farms specializing on production of vegetables on close and open ground. The marketing strategy of entry into the market is undifferentiated marketing, in conditions of which the firm neglects distinctions of segments and addresses to all market with the same offer and conditions of purchase. The price of goods consists of prime cost of a production unit and norm of a value added, but does not exceed the average market prices of vegetable seedling during the corresponding season.

The expected annual proceeds from sales of seedling according to calculations will make more than 70,0 million rubles. More than 60% of it is seedling of early vegetables and vegetables of open soil, the rest - seedling of vegetables of open soil. The calculation shows that full capacity of the enterprise would give 29 million rubles net profit annually.

The assessment of investments efficiency, according to UNIDO technique, assumes application of the methodical approach recommended in "Methodical recommendations about assessment of investment projects efficiency" (approved by the Ministry of Economics of the Russian Federation, the Ministry of Finance of the Russian Federation, the State committee of the Russian Federation on construction, architectural and housing policy on 21.06.1999 N BK477).

The investment project is carried out step by step that allows to trace a situation at each stage of its realization for making the correct decision. The organization of the project provides the analysis of existing equipment efficiency, development of design and budget documentation and its coordination with allowing structures, acquisition and delivery of the processing and special equipment, installation and adjustment of the acquired equipment, organization of deliveries of raw materials, training of experts, commissioning and exit of the enterprise to design capacity.

The total cost of the project is 75,3 million rubles. It includes purchase and installation of the equipment of greenhouse, boiler room, engineering systems. It is planned to raise own enterprise assets for financing.

The calculation was carried out for the period equal to the average term of operation of a hothouse complex - 10 years. A rate of discount is the indicator of an average cost of equity of producers of subsector, which was 19%.

The following results were received:

Period of payback (PB)	- 2 years 3 months
Discounted period of payback (DPB)	- 3 years
Net provided value (NPV)	- 83,7 million rubles
Profitability index (PI)	- 3,8
Internal standard of profitability on the project (IRR), %	- 48,8%

The calculations show that the offered project pays off for 2 years and 3 months at the expense of the planned income. For 1 rub enclosed in the project the investor would gain 3,8 rub of net income. The net discounted income for all term of implementation of the project would make more than 80 million rubles, thus the discounted payback period of the project would be 3 years. The internal standard of profitability on the project is 48,8% that allows to characterize the project as steady against change of a discount rate.

However, it is necessary to make the analysis of sensitivity of indicators of its efficiency to changes for the final conclusion about feasibility of the project entrance parameters, put at calculation. One of the most widespread methods of calculation of critical points of the project is definition of a point of profitability percentage of design capacity. It is planned to realize production of several names, the point of profitability pays off on cost indexes. At such approach the point of profitability reflects the size of proceeds from sales of production, at which profitability level is reached. According to the calculations, position of profitability is reached by the enterprise at the revenue level of 19,6 million rub that makes 27% of the planned income level. Thus within a year this indicator changes that is caused by various production program and costs of economy.

The analysis of sensitivity of efficiency indicators of the project to changes of environmental conditions is carried out in the following parameters:

- prices of realization of vegetable seedling;
- volume of realization of vegetable seedling;
- cost of materials and accessories;
- amount of investments into constant assets.

The key indicator of efficiency is the net discounted income from the project for the entire period of its realization.

The calculation showed that the project is most sensitive to changes of two parameters: prices and volumes of realization of vegetable seedling. At decrease of the average price and volume of product sales by 30%, the net discounted income from the project becomes negative, and, therefore, investments into its realization are inexpedient.

The calculation showed that the net discounted income from the project would be negative at an increase in resource prices for 75% that is rather high rate and speaks about low sensitivity of the project to this parameter.

The project is even less sensitive to the amount of investments into constant assets. So, at increase in the sum of investments more than twice NPV has positive value, however, the project becomes financially unrealizable. Negative value of an indicator of the rest of money on accounts of the enterprise testifies it.

High sensitivity of the project to parameters of the prices of realization and sales volume is characteristic for projects in branch of agriculture and demands competent and effective marketing strategy of sales.

Discussion

Problems and prospects of vegetable growing development in the agricultural organizations of the Russian South of found broad reflection in the modern scientific researches. Studying scientific works allows to conclude that prospects of subsector development lie in technological modernization for production of vegetables of open soil and organization of the system of their processing (Nechayev V. I., 2011; Dementiev S. Yu., 2016). For vegetable growing of closed soil the main directions of innovative development are introduction of resource-saving technologies of cultivation, modernization of a hothouse complex, development the system for storage and sale of vegetables (Belova, 2015; Kondratyeva O. V., 2015; Sokolova A. P., 2016). However, organization of specialized complexes for cultivation of seedling of open and close soil and development of subsector to supply producers with qualitative landing material was not widely adopted in scientific practice.

Conclusion and Recommendations

The conducted researches prove the relevance and priority of studying the questions of plant growing infrastructure development in the agricultural organizations of the South of Russia. The offered directions for development of vegetable growing subsector are perspective, and investments into their realization pay off in short terms and are favorable to the investor.

The results of the research can be interesting to scientists and researchers studying aspects of development of vegetable growing subsector and specialists of agricultural organizations as justification of investment and innovative projects.

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INDIGENOUS ARCTIC PEOPLES OF YAKUTIA AND THE TRANSFORMATION PROCESSES AT THE END OF XX CENTURY

Abstract

The relevance of the problem is caused by the need to study a wide range of problems about activity of native ethnos of the Arctic - keepers of the unique traditional cultures, who are under the threat of disappearance. The purpose of the paper is to reconstruct social-cultural situation of the indigenous people of the Russian Arctic living in Yakutia basing on materials of the international research projects. The author found out that the researches conducted at the end of the XX century allowed to define two multidirectional factors influencing the activity of native ethnos - aspiration to strengthen the role of elements of traditional way of life and simultaneous growth of influence of various modernization and assimilatory processes. The paper can be useful for preparation the generalizing works on stories of indigenous people of the Arctic, social-economic and ethnic-cultural situation in Yakutia at the end of the XX century; special courses for the students trained in the Arctic Regional Studies direction.

Keywords

Arctic, Yakutia, indigenous peoples, international scientific cooperation,
expeditions, history of science

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Introduction

Recently, the increasing attention of politicians, businessmen, public figures and scientists is attracted by the Arctic. First, it is connected with existence of enormous volumes of natural resources in the region, which development seems one of the most important problems of further development of the world economy and its considerable transport and logistic potential. However, the main richness of the Arctic are not stocks of hydrocarbonic raw materials and seaports, but it is the indigenous people occupying the Arctic - carriers of the unique knowledge and traditional culture. The largest subject of the Russian Federation - the Republic of Sakha (Yakutia) - is "a house" for a number of indigenous people of the Arctic: Dolgans, Chukchi, Evenks, Evens, Yukaghirs and Yakuts, and also original Russian old-timers of lower reaches of Indigirka and Kolyma. During the period considered in the paper, representatives of these people faced enormous calls, which were connected with consequences of market reforms and deep economic crisis in Russia, and with pressure of globalization processes.

Methodological Base

The methodological basis of the research are the principles of historicism, scientific objectivity and systemacity. Special methods of knowledge were used to solve the objectives: historical-typological, historical-comparative and retrospective analysis.

Results and Discussion

The rich ethnic palette of Yakutia riveted attention of scientists long ago. However, only after falling of the Iron Curtain and democratic reforms on the boundary of the 80th - the 90th of the XX century made it possible for cooperation of the Russian and foreign researchers in studying activity of indigenous people and the analysis of consequences of various transformational processes, which happened the past century.

The international conference "Languages, Culture and Future of the People of the Arctic" carried out in 1993 in Yakutsk became one of the first signs of such cooperation. The leading place was taken by the questions connected with development of native ethnos and coordination of the researches of scientists from Russia and other countries. The participant of conference G. Osherenko (Institute of the Arctic Researches, the USA) addressed to the management of Institute of History, Language and Literature of the Siberian Office (SO) of the Russian Academy of Sciences (since 1995 - Institute of Humanitarian Researches of Academy of Sciences of the Republic of Sakha (Yakutia) (IHR AS RS (Ya)) with the offer to cooperate within the international program for studying the Northern Sea Route (NSR) - INSROP (International Northern Sea Route Programme).

Studying various parties of possible use of NSR and, first, determination of commercial expediency of its operation was a main objective of this program. A.G. Granberg and V. I. Peresyphkin noted that attraction of business community to development of the Northern Sea Route would allow Russia to keep and develop infrastructure of the Arctic navigation, to provide employment to the population of the Arctic areas and, at last, to receive a payment for a wire of foreign vessels in severe financial conditions. Besides, the program was urged to estimate potential impact of the increased intensity of navigation on ecology of the Arctic, its indigenous people and to develop recommendations about minimization and mitigation of possible negative consequences (*Granberg, Peresyphkin, 2006*).

The experts from many countries (Great Britain, Germany, Canada, Norway, the United States, Finland, Sweden, Japan, etc.) and regions of Russia were involved in the researches.

Yakutia scientists prepared the scientific report "Influence of the Northern Sea Route on social and cultural development of indigenous people of the Arctic zone of the Republic of Sakha (Yakutia)". It became one of the results of the program. S. I. Boyakova (project manager), V. N. Ivanov, T.S. Ivanova, V. B. Ignatyeva, S. P. Kistenev, D. A. Shirina (IHR AS RS (Ya)), L.I. Vinokurova (Institute of Problems of Small Peoples of the North (IPSPN) of the Siberian Branch of the Russian Academy of Science) and B. V. Ivanov (Institute of regional economy of AS RS (Ya)) participated in the program. The G. Osherenko mentioned earlier directed the thematic block. The researches were financed by the American side.

Participants of the project studied archival materials, the federal and republican legislation, documents of the governmental bodies of Yakutia, statistical yielded, the results of the researches conducted earlier and periodicals. They considered the most extensive circle of the questions connected with influence of development of the Northern Sea Route on indigenous people of five coastal areas (Allaikhovsky, Anabarsky, Bulunsky, Nizhnekolymsky and Ust-Yansky).

The participants of the project called the positive moments of the NSR directed, connected with economic factors: development of navigation and transport system, improvement of supply of northern areas and growth of industrial production. At the same time, experts defined the main problems of indigenous people caused by demographic changes (excess of concentration of the population, admissible for ecological capacity of the Arctic ecosystems, negative impact of new settlers on traditional foundations of indigenous people); deterioration of social conditions (bad condition of infrastructure objects); ecological damage (reduction of the areas of cervine pastures, environmental pollution); the intensive industrial development, which caused a serious loss to traditional economic base; the pursued state policy (restriction for native ethnoses to participate in work of industrial facilities, "cultural revolution", collectivization, the state monopoly for fur purchase, etc.) and shaking of the system of cultural values (emergence of the generation, which is not knowing the native language and traditions of the people). The scientists expressed confidence that "expansion of the international use of the NSR would aggravate the existing social problems of the region". At the same time, the researchers offered possible ways of leveling such costs: improvement of the existing legislation, carrying out environmental monitoring, organization of a network of the protected territories and water areas, creation of special fund (from the income from operation of the Northern Sea Route) to support social programs for development of indigenous people and tourist programs (*Boyakova, Vinokurova, Shirina, 1996*).

In 1993, 1998 and 1999, N. B. Vakhtin (The European University, St. Petersburg), E.V. Golovko (Institute of Linguistic Researches of the Russian Academy of Sciences, St. Petersburg) and P. Schweitzer (University of Alaska, Fairbanks, the USA) studied the problem of ethnic consciousness of the Russian old residents of Yakutia, the happening ethnic processes and social-economic situation in places of their compact accommodation - villages the Russian Ust'ye and Pokhodsk. The researches included collecting field material and carrying out interviewing among local population (42 persons were interviewed), the analysis of documents from the republican and regional archives in Yakutsk, Cherskiy (Nizhnekolymsky area) and Chokurdah (Allaikhovsky area).

The scientists noted that after "several years of confusion and misunderstanding" there was rather successful integration of the main economic entities of the Russian Ust'ye (the tribal community with the same name) and Pokhodsk (state farm "Pokhodsky") in market conditions, led to "relative economic prosperity". At the same time, the researchers established the ethnic self-names used by the Russian old residents ("mestnorusskiye", "russkoustyst'intsi", "kolymchane", "pokhodchane", etc.) and terms applied in relation to the Russians, who moved from "continent" ("Russian visitors", "the real Russians"). The supervision made by researchers is represented curious: on the one hand "own" clothes and food were represented by the Russian old residents more civilized in comparison with other native communities of the northeast of Yakutia; on the other hand, they were opposed to clothes and food of "Russians visitors" as traditional is opposed to new. This fact, according to scientists, most brightly showed "kernel" of a picture of the world of the Russian old residents and their ethnic consciousness, as "keepers of civilized tradition" from "surrounding wildness" and its defenders "from a profanirvaniye "new trends"" (*Vakhtin, Golovko, Schweitzer, 2004*).

The considerable attention to a question of ethnic consciousness was paid during the Russian-German expedition "Anabarsky dolgans: history and present" in 1995.

The Germans O. Turza and Ya. Turza (Institute of Ethnology of Freiburg university) and the Russian A.I. Savvinov (IPSPN) participated in the expedition. The scientists collected field materials on language and ethnography of northern Yakut reindeer breeders, Dolgans, studied the problems of ethnic consciousness of these people. It was found out that most of respondents identify themselves only as Dolgans and the language

- as Dolgan (as it is known, these problems in the scientific world still have different opinions) (*Helimsky, 2001*). The researchers paid separate attention to the analysis of the condition of traditional branches of managing (mainly, reindeer breeding), influences of social-economic changes of the first half of the 1990th and defined the main tendency in life of local population - aspiration to refusal of a nomadic way of life in favor of the settled one (*Turza, Turga, 1996/1997*).

In 1996, IPSPN of the Siberian Branch of the Russian Academy of Science and the National Center of Scientific Researches of France on cooperation signed agreement within the "Environment and Cultural Heritage of Small Peoples of the North of Yakutia" project (The Current Archive of the IHRISN).

The analysis of demographic, social and cultural transformations of native ethnos in the conditions of environmental changes and threats accompanying them was the purpose of the project (The Current Archive of the IHRISN). The National Center of Scientific Researches of France and Institute of Polar Researches after Robert Scott financed the researches (Great Britain, researches of 2000).

The first expedition on the project to the Nizhnekolymsky area was in 1997. The staff of the National Center of Scientific Researches of France was represented by B. Chichlo (head) and J. Robert-Lamblin; C. Malet from University of Bordeaux V.A. Robbek (IPSPN of the Siberian Branch of the Russian Academy of Science) and O. Grigorieva (The Yakut State University after M. K. Ammosov, translator) took part in the expedition. The researches were conducted in settlements Cherskiy, Kolyma and Andryushkino (The Current Archive of the IHRISN).

The French experts explained a choice of this area by the fact that it is "ideal model for studying indigenous people of Far North Siberia", on the example of which it is possible to track "dynamics of settling of the Arctic territories of Siberia, evolution of autochthonic ethnos and the modern interethnic relations". Yukaghirs, Evens, Chukchi, descendants of the first Russian path-finders, Yakuts, representatives of other nationalities (Ukrainians, Belarusians) live in the village of Andryushkino side by side. Here communal and patrimonial farms work.

In activity of 1997 expedition, it is possible to allocate four directions: the researches of demographic situation for definition of the changes happened after disorder of the Soviet Union (scientists revealed big outflow of the people, who arrived to these places in the 60th - the 80th of the XX century from the western regions of the USSR). The special attention was paid to family problems: the researches on the special questionnaire for the first time applied by J. Robert-Lamblin among the Greenland Eskimos were conducted (expeditions of the 1960th - the 1990th). It was made for subsequent analysis of the received materials - to compare evolution of a family and transformation of its main values (matrimony and children) in different ethnic and cultural conditions of the Arctic.

Studying the health state of local population and ecological wellbeing of environment was the second vector of the expedition. The scientists collected tests of drinking water for the analysis of its quality; air, soil, plants and meat of animals - for measurement of radiation.

The third direction included the research of a power supply system, flavoring habits and flavoring reactions of various groups of population (on the basis of the technique applied earlier in Greenland). It is interesting that features of taste perception were studied by the French scientists as the result of adaptive processes of a person to environment (metabolic needs of the individual and biochemical structure of the food resources, which are available in the nearby district). To reveal the difference between genetically inherited flavoring reactions and the acquired habits, influence on food of local population of such sociocultural factors as religious ban, family and ethnic traditions, culinary fashion was considered. As a result of the carried-out researches, the scientists

revealed radical distinction of flavoring habits of people younger than 30 years and more senior generation, which the experts explained with influence of the alien population, formation of system of boarding schools and promotion of the western culinary fashion thanks to development of mass media (*Malet, Chichlo, Robert-Lamblin, 2003; Robert-Lamblin, Hladik, Pasquet, 1999*).

The fourth activity of the expedition is the research of the interethnic relations. The scientists carried out questioning of local population concerning ethnic self-identification, tolerance to representatives of other ethnos; studied traditional ceremonies of indigenous ethnic groups of the North. At the same time, for clarification of ethnic preferences at the spouse's choice experts investigated interethnic marriages (The Current Archive of the IHRISN). By the results of the researches, some authors came to a conclusion that despite rather long accommodation of the studied people in one territory, there are serious distinctions in a way of life of these ethnos (clothes, food, ritual practice), aspiration to originality (desire to find the spouse from the people) and the main thing remained that decisive impact on activity of native ethnos is made not by environment, but culture (*Chichlo, 1999; Robert-Lamblin, 2007*).

The next stage of the project (1997-1999) was devoted to the analysis of the data obtained during the expedition and examination of the taken samples in special laboratories. It should be noted that the French experts did not reveal the raised maintenance of radiation in samples, however quality of drinking water was the lowest (The Current Archive of the IHRISN).

In 2000, there was the second expedition on the "Environment and Cultural Heritage of Small Peoples of the North of Yakutia" project to Sredniy and Nizhnekolymsky areas. Together with IPSPN of the Siberian Branch of the Russian Academy of Science and the National Center of Scientific Researches of France, the Institute of Polar Researches after Robert Scott (scientist - K. Male) took part in the expedition. The participants of the expedition were the scientific director B. P. Chichlo, J.. Robert-Lamblin, K. Male, V.A. Robbek and O. Grigorieva (The Current Archive of the IHRISN). The researches were conducted in Srednekolymsk, Beryozovka, Andryushkino and Kolyma settlements.

The program of the researches was added to expand geography of the researches, implement comparative researches not only on the temporary principle (identification of changes for the period between expeditions 1997 and 2000), but also on territorial. Now it included studying of ethnic-ecological practice of reindeer breeders societies. For the rest the subject and technique of the researches repeated the previous expedition.

Studying ethnic-ecological practice of reindeer breeders, scientists concentrated the attention on problems of broadcasting knowledge from generation to generation and adaptation of reindeer-breeding farms to changes of environment. Life of reindeer breeders was studied: housekeeping methods, events; the list of the made species of fish and animals was made (The Current Archive of the IHRISN).

Together with employees of IPSPN, specialists of Institute of Ethnology after Max Planck (Germany) tried to investigate the other problem in lifes of reindeer breeders, namely consequences of market reforms of the last decade of the XX century. Contact between these organizations was established in 2000. The parties expressed intention to develop cooperation on a scientific exchange, carrying out expeditions, because "the world community is interested in the solution of survival problems of indigenous ethnic groups of the Arctic and the North", (The Current Archive of the IHRISN).

In 2000, there was the Russian-German expedition to the Anabarsky area, in which A. Ventsel (Institute after Max Planck), D. I. Syrovatsky and L.N. Romanova (IPSPN) took part (The Current Archive of the IHRISN) took place.

During the expedition, the scientists carried out questioning of local population on problems of ethnic identity, collected field materials about conditions of reindeer

breeding, material security of reindeer-breeding crews, their structure, methods of housekeeping and social problems. The experts paid the main attention to the analysis of economic relations of fishers, hunters and reindeer breeders and their transformation upon transition from a planned economy to market economy in the 1990th. For this purpose, the researchers studied archival materials in the settlement of Yuryung-Haya (protocols of board meetings and general meeting of state farm) and carried out interviewing of locals. The scientists revealed active penetration of the market relations into the hunting and fishing farms better adapted for the new economic conditions than reindeer-breeding. Besides, the experts noted the traditionally big role of tribal relations in economy of local population, which value weakened as a result of creation of collective farms and state farms a little, but increased in Post-Soviet time. They came to a conclusion that related communications "became a basis for distribution and access to survival resources, when official structures were inefficient" (*Ventsel, 2006*).

The considerable part of the "Land Use and Self-government of Indigenous People in the Republic of Sakha (Yakutia)" project was devoted to efficiency assessment of activity of governmental bodies and the acts adopted by them.

The tripartite contract on cooperation within this project was signed in 1997 between IPSPN of the Siberian Branch of the Russian Academy of Science, YaSU and University of Northern British Columbia (Canada) for analyzing a current state of management and land use in tribal communities of indigenous ethnic groups in Yakutia.

V.A. Robbek (IPSPN), O. A. Lazebnik (YaSU), G. Fondahl and G. Poelzer (University of Northern British Columbia - UNBC) were the main performers of the "Land Use and Self-government of Indigenous People in the Republic of Sakha (Yakutia)" project. A.N. Avakumova, M. Yu. Prisyazhniy (YaSU), T.E. of Andreeva (IPSPN), G. Martin and D. Hynes (UNBC) took part in field researches besides the called experts. The researches were financed by the Canadian party (The Current Archive of the IHRISN).

Its participants explained the attention to the problems considered within the project to that since 1991, in the Soviet Union, and then in the Russian Federation, the legislation regulating the rights of the small people for the earth and resources "underwent essential changes" both on federal, and on regional levels. Legal acts, which legally expanded possibilities of native ethnos to exercise control on territories of the primordial accommodation were adopted. And the level of efficiency of these legislative norms significantly varies on all territory of the country (The Current Archive of the LECS). In this regard, the experts paid the attention to Yakutia, which was "in vanguard of adoption of laws" by the rights of native ethnos in the last decade of the XX century (The Current Archive of the IHRISN).

Assessing the federal and republican legislation, policy of the authorities for traditional environmental management, self-government of native ethnos, the researchers paid considerable attention to studying history of alienation of lands, plantings of territorial-management systems of management during the Soviet period and to their influence on a modern situation. G. Fondahl noted that if tribal communities were formed on the basis of traditional territorial moving, rural and regional administrations are connected with administrative division of the Soviet era (*Fondahl, 1998*).

Besides, the experts devoted part of the researches to studying history of economic activity and moving of indigenous ethnic groups of Yakutia at the time of the USSR, the defining influence on which, according to the participants of the project, rendered planting of collective farms and restrictions connected with this phenomenon in movement of their workers (The Current Archive of the IHRISN).

The basis of the project researches was field researches in tribal communities of three native ethnos: Yukaghirs, Evens and Evenks. Scientists carried out expeditions to the village of Nelemnoye (Verkhnekolymsky area, 1997) - the place of compact

accommodation of Yukaghirs; the village of Beryozovka (Srednekolymsky area, 1998) - one of settlements, where language, culture, traditional tenor of Evens life remained; the village of Hatystyr (Aldan area, 1998) and Tyanya settlement (Olyokma area, 1999) - the settlements of Evenks. In total during expeditions the experts talked with 173 persons, each was asked 75 questions in a biographical form. The technique of the poll was developed by the Canadian researchers and added by the Russian scientists. The answers were grouped according to territorial sign, sex, age and nationality (indigenous ethnic groups were grouped; Yakuts; Russians and other not radical ethnos) (The Current Archive of the LECS).

The main goal of the field researches is the analysis of real efficiency of those changes happened in legal base of the land relations and local government of the Russian Federation and the Republic of Sakha (Yakutia) in the first half of the 90th of the XX century for indigenous ethnic groups. In this regard, the scientists tried to define the concrete success achieved by native ethnos in the sphere of increasing control over traditional territories of accommodation and to reveal difficulties, which the Avtokhtona had to face in attempt of realization of the preferences provided by the laws. At the same time, the researchers sought to learn opinion of local population on key problems of activity of communities (importance of preservation of traditional types of managing and activity of nomadic tribal communities for protection of a way of life of indigenous people, overall performance of local administration) (The Current Archive of the LECS).

The scientists found out what types of traditional activity in venues of the researches natives consider the most important. If in Beryozovka, Hatystyr and Tyanya it were reindeer breeding and hunting, in Nelemnom - fishery. Locals noted the importance of preservation of a traditional way of life of indigenous people and need of growth of influence of the Sanhedrim on decisions of the head of local administration. They also called a community to be a preferable form of self-government. Thus most of respondents recognized the new laws and resolutions adopted for protection of the rights of native ethnos to be not effective and not reflecting a real situation.

The considerable part of questions concerned a problem of land ownership. The primary part of respondents supported that the earth has to be in collective possession and expressed negative attitude to private form of ownership. At the same time, inhabitants almost unanimously recognized that in territories of traditional accommodation of indigenous ethnic groups the right of priority land use has to belong to native ethnos (The Current Archive of the LECS).

At the same time, the scientists carried out mapping of areas of traditional environmental management of indigenous people in the studied settlements. For comparison of the territories, which are legislatively defined under traditional environmental management and places of the actual maintaining by native ethnos of traditional economy, locals were offered to place badges with the image of object of activity on the map of the adjacent area (for example, a badge of fish - fishery) (The Current Archive of the IHRISN). As a result, it turned out that the lands allocated by the legislation under traditional environmental management often did not coincide with those lands, on which indigenous people throughout centuries conducted the activity - the industrial enterprises have already worked on many of these territories.

On the basis of the data received during the "Land Use and Self-government of Indigenous People in the Republic of Sakha (Yakutia)" project, its participants developed recommendations about improvement of relations between communities, republican and federal authorities, which provided accurate determination of communities powers, differentiation of jurisdiction areas with local administration, the accounting of a role of the patrimonial relations, creation of the Sanhedrims and increase of legal literacy of the

population (The Current Archive of the IHRISN). Besides, the scientists made a series of electronic cards of tribal communities of Yakutia (NA RS(Y)).

Conclusion

Despite a variety of the directions of the researches within the research initiatives considered above, it is represented that all of them had in the basis one uniting moment - aspiration of scientists to find out modern position of indigenous people in the conditions of the sociocultural transformations, which were happening and are happening in the world. Actually, the experts established that native ethnos of Yakutia are influenced by two multidirectional factors as a result of impact of industrial development, disorder of the Soviet Union, an economic crisis of the 1990th and in general global civilization processes. On the one hand, these people are considerably influenced by the traditional device of life: researchers noted strengthening of tribal communications, aspiration to increase value of community and preservation of cultural originality. On the other hand, there are active penetration of the market relations and transition from nomadic way of life to settled one, thus violation of the mechanism of social-cultural continuity between generations of indigenous people is obvious.

Recommendations

The received results can be used for preparation the generalizing works on stories of indigenous people of the Arctic, social-economic and ethnic-cultural situation in Yakutia at the end of the XX century; special courses for the students trained in the Arctic Regional Studies direction.

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ENTERPRISE MANAGEMENT IN CONDITIONS OF CRISIS

Abstract

The article deals with the stages to identify the crisis in business economics. Also it gives the algorithm of financial recovery of an enterprise.

Keywords

anti-crisis management, enterprise, structural analysis,
plan out of the crisis, scientific approaches

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Introduction

1.1 Urgency of the problem

A variety of actions to create and select strategy of anti-crisis management is related to unified operations to ensure the stable development. Also it is related to approve short-time insights to guarantee the survival of the company to preserve existing capacities.

1.2 Features crisis

The crisis has many faces, it is characterized by 2 different external features, and this fact leads to the need to introduce in its interpretation of refinement, with the help of theoretical and system views. Firstly, in the manufacture of a crisis occurs unexpectedly and not always instantly. It can develop slowly and imperceptibly. Secondly, the crisis state of the economic sphere does not appear contrary to the provisions of the system development and operation, as the economists believe, but just because of the effect of these conditions on the operating system from the inside. That external (inflation, disruption of supply and competition) and internal (hardware failure, not friendly staff and technological production left) factors disrupt normal functioning of the company and knocked her to the calculated trajectory. After all, depending on the set trajectory of his company's objectives should include both foreseeable and verifiable zigzags and risk unintended deviations of varying duration. Undoubtedly, to achieve the company is obliged to have its resources judiciously task, and deviation from this regime leads to a crisis in the organization.

1.3 Characteristics of the crisis

The depth and comprehensiveness of the study is carried out of the crisis when considering the financial, logistics, energy, social, employment, and informational, organizational, administrative, environmental, economic, legal and other aspects of the company in their relationship with each other. An important criterion for the study of the stability of the company acquires the environmental aspect of its operations. In this case, you can support the GG Vukovic that "during the transition period of the Russian market of the interaction and interdependence of economy and ecology, the formation of the aggregate of economic relations, aimed at environmental imperative, determines the content and the potential of the economic system." Consequently, if in the labor process, the company impact on the environment and uses natural resources in the strategic plans of the organization must take into account the economic and environmental spheres of production activities. (Kobtseva, 2016)

Materials and Methods

2.1 Objectives and Research

Each company starts to fight the crisis with the help of the basic elements: price reduction, cost reduction and a decrease in the intensity of promotion. Efficiency of use of the above elements can be increased. However, before you implement them amendments need to know how to change the marketing strategy in the new conditions. NV Kosyh believes that service companies marketing relevance, during the recession increased. As for the results of the collective meetings was amended in marketing strategies that will lead to a transformation not only of promotion and marketing, but also the product itself. Services should be changed more quickly than material goods, and it costs less. If the development of strategies occurs on the basis of the definition of segments and positioning, it is often possible to significantly increase the effectiveness of marketing. The effectiveness of the company's activities is determined by using the correct strategic marketing planning in the long term.

2.2 Management in crisis

The critical state of many firms in the market conditions of course, as not all are able to withstand the competition. The main problem of the crisis of market failure is wrong mistakes managers at all levels and their desire to enrich themselves, and officials at the expense of labor collectives. Management of the organizations as well, presents an economic crisis as limited, not knowing at the same time its development opportunities, in some cases, provides limited information that does not promote the use of its localization methods. Thus, it is necessary to evaluate and low level of management in organizations. In a crisis, every company strives for a flexible response to meet human needs, high quality products and services to improve the stability of the actively changing market conditions. To do this, companies must purposefully make changes in the strategic plans. These changes do not take place in an instant, suddenly, and require enormous preliminary work of leaders in different fields on the basis of sound events. At this point, companies need managers, executives, managers, organizers and managers of high-level performers. (Tolmachev, 2016)

2.3 Action plan

As a rule, defining a strategy as a plan of action is limited with immediate measures to ensure a specified level of mainly financial indicators.

The main cause of the crisis can be considered the financial and market instability, when companies are in complete uncertainty and often have as their main purpose is elementary to survive in the market.

But it is also to be understood that a crisis - it is an opportunity to win a strategic advantage due to a hard business.

The main emphasis would like to make on the fact that not all companies comply with market conditions. They are not designed to adapt to rapidly changing market framework conditions, i.e. not cope with the main management functions in the financial management system, such as production, finance, procurement, research and information provision. Overcoming the crisis and effective development of the company within the market instability can be achieved through innovative changes in the company. It may be noted that in addition to financial indicators on the efficiency of the organization affects corporate spirit of the production workers. (Ivanova, 2016.)

2.4 Rules for companies in times of crisis

In the context of the crisis in the country's population is reduced solvency, forecast demand is not just, sometimes, for goods and services is not the first necessity is almost impossible. This helps determine the next steps, which will help improve their business to further sustainable development in the market sphere. There are rules to be followed by each company during the crisis: the adoption of protective measures, artificial slowing development strategy of investing in key areas of business, optimization of operations and positioning change.

2.5 Mergers and acquisitions

The main instruments of the value in a crisis situation - acquisitions and mergers. These actions help to reduce the value of assets and integrate measures to overcome the crisis. Through mergers and acquisitions firm is able to provide itself with the flow of orders and avoid the decline in demand. Therefore, a stable cash flow contributes to

broaden the scope of action. Therefore, in volatile market conditions, the organization will be able to find the means to finance rapid growth.

It is worth noting that in mergers and acquisitions must be evaluated strategic expediency of each step. Successful mergers and acquisitions in a crisis - it is not mediocre action on vertical integration, the acquisition of companies with strong competitive advantages, or have access to the growing markets.

Results

3.1 Analysis of methodological approaches

The analysis of systematic approaches to develop, select and organize the implementation of management strategies allows us to conclude that a modern manager can use quite a lot of significantly different from each other viewpoints and approaches.

In the current environment every enterprise gains its qualities in the condition of large-scale financial-economic crisis. The main motives of anti-crisis management at the level of the economic entity are continuous monitoring of the financial and economic conditions of production; creation of a new marketing strategy; cutting fixed and variable costs; improving of productivity; stimulation of workforce.

3.2 Internal and external factors

Since the analysis should consider both external and internal conditions which affect on the company's activities, in modern conditions it is possible to mention about management capabilities in crisis, but not anti-crisis activities in general.

It should be noted that the crisis has two sides, which have different influence on the management. One side will be destructive, so it is obvious. The other side is creative, so to say it is time of renewal, when admitted mistakes are obvious to correct it will exclude failure.

When it crisis, it is not appropriate to wait, thinking that everything will be fine. This is slackness, which leads to the collapse of the company, even if the crisis does not directly affect on the company. In such situations it is desirable to focus on the situation and study it, find right solutions that bring out which will give the way out. It highlights that the financial crisis is the best time to capture or expand market resources.

3.3 Management specifics

Crisis management is responsible for the specificity of which is supported by its own resources. Currently, managers of the company should simply make changes in the production structure and its constituent elements, without which he would not have a thriving business. This is done by acting on the internal and external environment. This is necessary to achieve the objectives of innovation, aimed at the development of enterprises. Taking into account the scientific approaches, it may be noted that both the external control conditions associated with economic theory, as well as internal factors related to the theory of economic analysis. Attention may be focused on the fact that the structural analysis of industrial control companies makes an analysis in two areas of the economy and methodology (Bugaeva, 2016)

The total analysis includes the following main stages: finding of qualitative and quantitative methods to solve problems; assessment of improved structures of the ranked criteria; identification of structures that cause the improvement of the functional characteristics of company managing.

It is worth noting that it is impossible to predict what opportunities will be with entrepreneurs respond to changes in the economy, or to what extent they will increase or reduce the amount of investment. At a time when demand is made for goods or services of different industries and the expansion of its release, the leaders in those industries that are not yet experienced increasing demand for products, inclined to expect that it will occur.

3.4 Economic fluctuations

Economic fluctuations can be explained as: the introduction of technical innovations in the labor process, the involvement of new resources and the development of new territories. Many scholars have attributed the crisis to the lack of the "right proportions" between sectors and regions, with the unregulated activities of managers. The most significant aspect of the entrepreneurial process management is the most justified taking into account the logistics factor in solving problems, taking into account the socio-economic conditions and crises. (Zagorulko, 2016)

3.5 There are actions which are necessary in the crisis

There are actions which are necessary in the crisis they are

1. to prepare all important information about the state of the company and detailed analysis of its activities.
2. to monitor the economic and financial conditions of the company.
3. to make analysis of the causes of emerging problems.
4. to develop the best strategy which includes such spheres as: administrative, financial and marketing.
5. to develop a programme of cuts in fixed and variable costs.
6. to take measures to improve productivity.
7. to develop a programme to increase the motivation of staff
8. to find the amount of providers' funds, if such an option is possible.

It is well known that managing in crisis conditions is not only the process consisting of details. It is a systematic process of goal-oriented actions. It should be taken into consideration that the factor management must remain an integral part of business management to succeed and overcome the crisis.

3.6 Aggregate demand and aggregate supply in times of crisis

The economic crisis makes changes in aggregate demand and aggregate supply. This manifests itself in violation of the proportionality of social production and the momentum to achieve equilibrium. The combination of these views shows the importance and the complexity of the economic phenomenon. In connection with the improvement of market relations in the production activities of our country has to be carried out in the framework of increasing uncertainty and volatility of the situation of the economic sphere. Thus, there is indecision and uncertainty in the acquisition of the expected results, and therefore, the fear of occurrence of failures, unexpected loss and the onset of the crisis. The acuteness of the crisis can be avoided, given its characteristics, that is the time to explore it offensive. Therefore, any anti-crisis management should be considered. In today's world, the firm is an open system and is influenced by the external environment, which is not always positive. Therefore, it prevents the company to fully implement their goals. Initiative of companies in a market economy can be roughly mark the degree of similarity or dissimilarity between the outer and the inner sphere of production, which have been in business. If costs or loss in the domestic sphere are practically absent or

exist within the desired deviation, it means that the outer sphere is stable and has no negative factors. The activities of the company in these circumstances is determined by the stability of the social and working environment, innovative use of the level of technological capacity, minimum costs of the appearance of final goods and services. If amplified the impact of negative factors of the environment, the company goes out of the ordinary conditions of its functioning, so there are signals to generate substantial additional production costs. (Shmakova, 2016)

The process for the company is the average situation of economic stability. Its framework characterized by stable growth of additional costs, profit margin, which was acquired by the company from selling its final products. With increased exposure to adverse environmental factors appear instability in production and social spheres, reduced level of use of the capacity of the firm, formed cracks in the quality management system reveals the impossibility of ensuring the stability of the parameters of the enterprise through a system of strategic planning and made a sharp jump in additional costs. And, as a result, all of these processes lead to a lack of desired profit. The atmosphere at the company is a crisis which is characterized by the appearance of large losses and failure to meet its obligations to customers and creditors. Therefore, if the company gets into a situation, then it is necessary to develop a mechanism for optimization of parameters such that would correspond to the external conditions of its operation. The main unit of such regulation should be strategic planning. In the process of crisis management at the enterprise is detected potential threats and take measures to timely counter negative trends, which includes the following processes: diagnostics for early detection of potential threats, planning for localization of threats and countermeasures implementing measures to firm recovery, the control over the implementation of changes. Thus, the crisis should be described as a lack of effective management of the company at a certain level of its activities. It is manifested in the deterioration in the economic stability of the company.

3.7 A company plan to overcome the crisis

A company plan to overcome the crisis can be represented in several stages. The first stage is the primary one, as it determines quantitative output from the crisis to ensure recovery. To avoid bankruptcy integral financial claims of creditors must be determined and should be satisfied.

The second stage includes the list of events to overcome the crisis and lead to financial improvement of the enterprise. The list of actions should be based on the principle of "event - cost reduction."

The third stage includes finding the list of uncertainty factors.

The fourth stage is the calculation of various values of the company incomes for all combinations of values and changes in costs.

The fifth stage is finding the minimum profit of the enterprise for each item of anti-crisis measures.

The sixth stage is developing of anti-crisis management programme by identifying actions from the list, i.e. finding the measures which satisfy the presented formal conditions to overcome the crisis. This stage is the most important.

Discussions

There are companies that survive in a crisis situation exist indefinitely just because they are developing dynamically changed, modernized and transformed. Research conducted analysis showed that one of the main criteria of a crisis in production is due to the lack of knowledge of the market's competitive environment. It is necessary to apply

the design techniques in organizations, which will help gradually change the system of their functioning and development. Considering the crisis in the company, you should pay attention that the repeatability is a universal form of economic dynamics. Since the dynamics of change reflects the evolutionary and revolutionary forms of economic progress, fluctuations in business activity, the alternation of predominantly extensive and intensive growth. Cyclical economic crisis at company level did not always coincide with the general economic cycle phase. Experience shows that companies Crises often reveal their own rhythms of development of the financial performance of individual businesses. One of the forms of manifestation of the crisis may be: decline in profits and profitability, especially of the primary business.

Conclusion

Therefore, these steps to overcome the crisis situation determine the best strategy for company management in the crisis. It can help to understand the effectiveness of this plan. Effectiveness criterion may be represented as the level of the company overcoming the crisis and achieving its financial recovery. (Pisarev, 2016)

In conclusion it should be noted that the existence of special skills and knowledge in the field of crisis management is not sufficient to make final decisions. We must take into account all factors and possible steps of the output from the anti-crisis state. It should help create such a process of crisis management, the purpose of which will be to move into a new stage meaningful and technologically updated business process that meets the requirements of supply and demand on the market of products, works and services.

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RUSSIAN MILLENNIALS IN MODERN CONSUMER SOCIETY: RECENT TRENDS, PERSPECTIVES AND FUTURE PROSPECTS

Abstract

For academic community, investigating social behavior of modern youth is an actual trend. The aim of this article is to present results of the research of the young generation's behavior using statistical methods and to formulate useful conclusions from them. The dynamic pattern of value orientations of Millennials generation in postmodern society was investigated. The generational identifiable key trends were measured on a national representative sample (n=1,500) of South Russian youth. The analysis of value system was used to predict behavior transformed by three the most important actions as future career, social status and model of youth financial behavior. The author presents the results of the study of survey project "Me and the world in 2030" held by positive economy forum, which is showing modern point of view of the world of Millennials in the South of Russia. The implications of the research can also be used to discuss same issues in sociology, politics and business.

Keywords

value's system, consumer society, social behavior, identity, youth, Millennials

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Introduction

In modern conditions in the Russian society, it has changed the cultural focus of at the postmodern period have a special actuality in connection with the leading role is the global information community. Nowadays individuals will have to be up to the modern society and matters of a new social reality. The study is relevant due to the dynamic change of the vector of the cultural values of today's youth generation in the post-modern period. Formed in a new socio-cultural environment patterns environment interaction and student-oriented meanings in the future will have an impact both on the mental and moral state of society and the system of industrial relations.

Recently, the world community has begun to ponder its future more and more. It can be seen not only by looking at long-term development strategies of some countries as well as government plans for region improvement.

Socio-economic environment with its distinct inner culture allows young community to implement dynamic generation of new patterns for interaction with outer world and

search of self-oriented meanings. Generation, which was born in the end of the XX century, is interested in comprehension of the world view. They also formed their minds with the help of specific factors that altered the way of viewing the surrounding world majorly and rebuilt the consumer values system of youth.

The rate of studies of such phenomenon as "youth" grows as the research becomes more complicated and seeks identification in society. According to Kon defined community of young citizens as socio-demographic group identified by distinctive features of social status and a complexity of age-related characteristics due to some socio-psychological attributes. At the same time, the role of the youth in history is the formation of future moral values as Mannheim.

Doing the survey of value orientation dynamics of youth in modern world it is quite important to pay attention to the works of some western researches (W. Straus and N. Howe, L. Lancaster and D. Stillman, D. Tapscott) and works which study problems of individual and collective identity in modern society and culture (Zakovorotnaya, 2010).

Before continuing with describing concepts of values' influence at social development of modern young generation, it is important to give definition to a term for describing the generation studied.

The study of such social phenomena as young people grew as the separation and the complexity of the social group in socio-cultural space. The interpretations of this definition have shown that in domestic science, the following definition of the community's young citizens: "the socio-demographic group, allocated on the basis of features of the social situation and the aggregate age characteristics caused by various socio-psychological properties" (Kon, 2003). At the end of the twentieth century, the youth was defined as "...a generation of people passing the stage of socialization, assimilate, and in adulthood already mastered, educational, cultural and other social functions; depending on the specific historical conditions of the age criteria of the youth range from 16 to 30 years" (Lisowsky, 1990). Some scholars write the following way: "...social age group of young people, on the one hand, they carry the results of various factors influence, in general, represent a formed personality, but on the other hand, their values are flexible, susceptible to various influences. Life experience of this group is not rich, understanding of moral and ethical values are often not completely defined" (Surtaev, 1999). At the same time, the role of young people in the historical process consists in the crystallization of the values of the future (Mannheim, 1992).

Current researchers cannot agree upon a single time of period, within which the generation can be determined. Some sources state that the starting point should be 1978, at the same time others set it in 1982.

By using the method of definitions' analysis and text examples of use of objects studied there were pinpointed names and chronological periods of generations:

according to W. Straus and N. Howe, Millennials were born in or after 1982;

according to L. Lancaster and D. Stillman, Millennials are the generation born between 1981 and in the early 1999;

according to K. Martin and B. Talgan, Millennials are the generation born between 1978 and in the early 2000's;

according D. Oblinger and J. Oblinger, Millennials are the generation born between 1981 and in the early 1995.

As we can see, authors opinions differ on this subject, however the generation theory was created by american economists William Straus and Neil Howe in 1991, thus becoming a base for further research was approved by scientific society therefore, their classification and demographic curve will be used.

According to modern generation theory created by W. Strauss and N. Howe chronological period during which generation is formed has a length of approximately 20

years, at the same time values promoted and used by a generation are fully formed at age 12-14 years as a result of influence of different social events (political, cultural, economic, social, etc.).

A distinguishing feature of mental world picture of Millennials - generation, those born after 1980, and the first generation to come of age in the new millennium that when the members of this generation were going through period of ideology and value-base formation. They were influenced mostly by such events as the collapse of the USSR, Perestroika, financial crises, Chernobyl disaster, terrorist acts (such as September 11 attacks) and military conflicts (including north Caucasus and Near East), worldwide commercial globalization and digital technology development (the rapid development of the Internet, popularization of communicational gadgets). All abovementioned contributes to formation of values promoted by a generation: freedom, fun, civil duty and morality, responsibility, naivety and the ability to obey, instant gratification. It should be noted that many of the values that have emerged under the influence of certain events that may occur in each individual representative of Millennial generation to a greater or lesser extent, depending on the individual psychological characteristics of personality.

Materials and Methods

For identify the status, trends and prospects of the professional identity of the Russian youth we conducted an analytical study of materials using the results of the 1500 people survey as a part of the project "Me and the world in 2030". It was held in the framework of the first Forum of Positive Economics in Russia, held June 16, 2015 in the city of Rostov-on-Don, (positiveforum.ru). We analyzed data using modern data-processing methods to offer and justify specific measures to see the expectations of survey participants. One of the key principles of positive economy is the representation of the interests of future generations. Modern analysis methods allow to analyze the survey results in more detail, taking into account the strategic objectives addressed by government, education and business.

There are qualitative and quantitative analysis of the types of media. Qualitative species include:

- Functional analysis aimed at identifying sustainable invariant object relations;
- Structural analysis associated with detection of the internal components and method objects combinations thereof;
- System analysis, which is a holistic study of the object.

The quantitative (statistical) analysis of information includes a set of statistical methods for processing, comparison, classification, modeling and evaluation of data obtained as a result of sociological research.

Crosstabs allow to analyze the impact of any sign of other visual and rapid analysis of mutual influence of the two signs. There are two main classes of statistical conclusions that are made in the analysis of contingency tables: to test hypotheses about the attributes of independence and to test the hypothesis about the relationship between the features.

In the process of analyzing the results of the survey questionnaire "Me and the world in 2030" we addressed the following methods:

- cluster (taxonomic) analysis - the classification of signs and objects in the absence of preliminary data or expert group on information;
- log-Linear Analysis - search and evaluation of the relationship in the table, a succinct description of the tabular data;
- correlation analysis - to establish the relationship between the signs. Note that there is no consensus about what specific method will adequately assess the current

situation a priority when assessing connection strength acts as a Pearson's correlation coefficient r (point - share factorial variation), so used, and the other - Fisher statistics directly related to the fundamental for statistical significance levels;

- factor analysis - statistical analysis features, the establishment of the internal features of the relationship;

For the processing of the initial statistical information have been used software packages MS Excel.

Results

3.1. Selection characteristics

The study involved 1,500 young people aged 17 to 23 years: 90% of which students of the South Russian universities, representatives of Russian Millennials.

3.2. The results of the research

The main question worrying many researchers: practitioners and theoreticians is which sector of economic activity current generation of students will choose. This question is especially relevant not only because of current situation on the world market but also in Russian Federation's market, thus below is given a prognosis for South of Russia's perspectives (Southern Federal District). In this paper, only part of the results of the study is presented because it is versatile and voluminous.

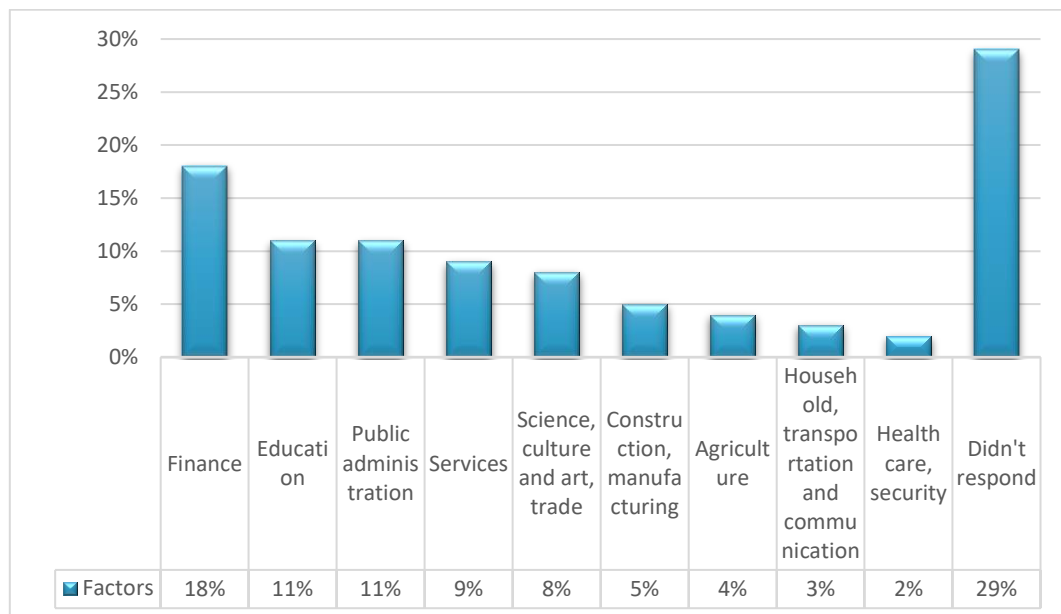


FIGURE 1. THE MOST ATTRACTIVE ACTIVITIES FOR RUSSIAN MILLENNIAL GENERATION

Source: Questionnaire results at forum "Позитивная экономика: Юг России", Rostov-on-Don, 2015.

The result shows that a most attractive for Russian Millennials is the financial sector. We can see young generation's priority change as such spheres as transportation, communication, health care and security attracts only 3% and 2% of respondents respectively (Table 1). The motivation behind the choosing an area of occupation is not always based on profession itself, but determined by rather outer then inner factors, that in turn automatically form inner motivation for mastering future area of expertise and has no underlying ideal motives like duty, vocation or hobby .

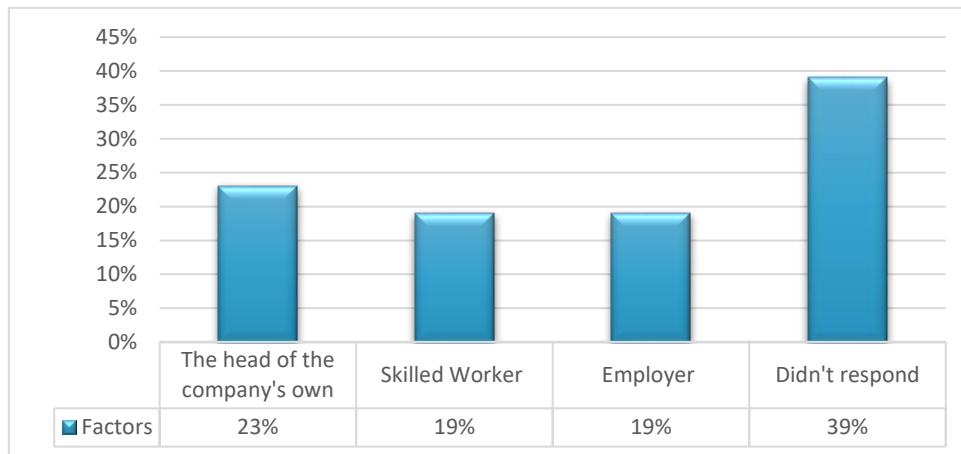


FIGURE 2. THE MOST ATTRACTIVE SOCIAL STATUS RUSSIAN MILLENNIAL GENERATION

Source: The results of the questionnaire Forum "Positive Economy: South of Russia", Rostov-on-Don, 2015.

Regardless the fact that the industry sees development of their professional activities by representatives of Millennial generation, the majority of them see themselves as managers of their own businesses - 23%, but 19% of them see themselves in the future as a qualified professionals and employers (Table 2). Certainly, the most attractive social status is a sole proprietorship, which allows realizing their ambitions in accordance with the Millennials' generational values.

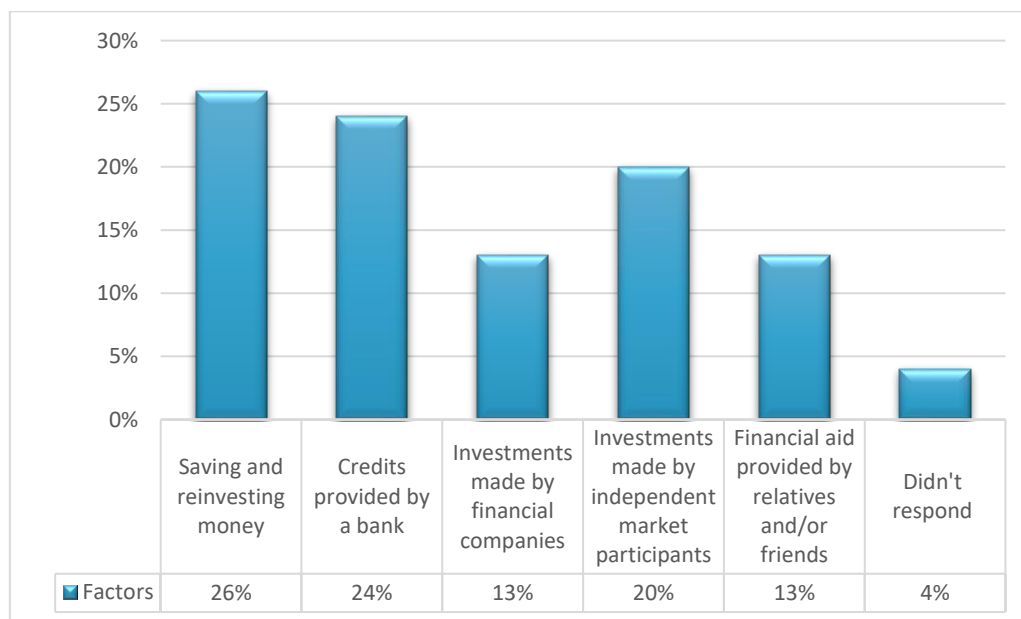


FIGURE 3. THE MOST PROBABLE SOURCES OF FINANCIAL AID FOR RUSSIAN MILLENNIAL GENERATION

Source: Questionnaire results at forum "Позитивная экономика: Юг России", Rostov-on-Don, 2015.

Predictive tendency of economic behavior can demonstrate the mental picture of the world through eyes of Millennial generation, it is expressed in readiness of modern youth to manage their savings on their own in the future. 46% of respondents are planning to invest their savings on their own (Table 3). Millennials trust in financial institutes and hope in relatives' and/or friends' financial aid. Tendencies studied allow scientists to

conclude that under the influence of globalization there is a destruction of principles that young people tend to have that has its focus on mental beginning.

Discussion

In 2002, American scholars L. Lancaster and D. Stillman published results of related researches pinpointing the idea that the generation is characterized by high level of immersion and demand for info-communication technology presence in their lives [6, p. 18]. The domination of electronic means of communication at the beginning of XXI century contributed to making an information society, a notable part of which is members of Millennials. A Canadian researcher D. Tapscott made quite interesting conclusions: "thanks to networking this generation is more open when it comes to interethnic relationships, politically active, more resistant to an advertisement, has consumption knowledge and on average has even higher IQ". The author points out at a brand new phenomenon that majorly determines as social image of Millennials: the onset of social media-platforms, development of "remote work" by the means of modern telecom technologies, finally, introduction of these technologies into the education process (Tapscott, 2011). Thus, socialization process at a certain point in time and under specific conditions forms a mindset and behavioral models of modern youth.

The subject of the research is the generation, members of which were born in between 1980 and 2000, that is why it is possible to track a social and cultural influence on identity formation. The globalization process is contradictory when it comes to its influence on modern youth's lives; it sets high standards in self-realization of an individual, his or her professional and creative needs. Identity can be defined as a process of person's mental formation by making a choice and forming life model in social interaction for the sake of historical self-realization (Zakovorotnaya, 2010). A person itself carries out normalization of multitude of things surrounding an individual by using data about current situation, acquired knowledge, rational deeds as he or she goes through everyday routine. An individual is capable of controlling his or her behavior, chase own goals in unstoppable current of social time.

From a point of identification of modern generation, it is interesting how social subjectivity of Millennials in economy, professional and consumer spheres develops.

Analysis of the survey youth of Southern Russia in the framework of "Me and the world in 2030" showed that young people today have a proactive stance. Despite the fact that the current generation attaches great importance to the realization of individual options it can be considered a consequence of the development of the economy, as well as the widespread use of innovations and production technologies. As a result of the survey we found out that the younger generation in the future plans to work in-house, open on home soil, at the same time grow at least two receivers. Currently, the South of Russia has all the necessary conditions to support young people, especially since most of them are planning to acquire the necessary knowledge in regional educational institutions. Considering economic behavior in 2030, we can observe the readiness of young people to manage their own personal savings and at the same time, the willingness to establish long-term relations with financial institutions. With regard to citizenship, according to young people, social problems which they did not have the character will be able to resolve only the state, underscoring the trust of the citizens to the main carrier of political power in society.

It seems likely that these global trends, projected in 2030, as the growth of individual opportunities, distribution of spheres of influence, demographic trends and aggravation of the acute social problems can have a big impact on the change of the key stages of quality human self and society as a whole.

Sometime, as the citizens believe, the decision will ultimately depend on how the process of development will be going, the impact of megatrends and what transformations take place in the world in the future.

Conclusion

The results showed that the dominant majority of the survey answered to the question about the future place of residence - the South of Russia (54%). In this regard, the following problems occur: housing, the availability of the necessary infrastructure, social support of the population. More than half of survey participants (53%) decide to choose their region instead of Moscow and foreign educational institutions for their education. 18% of the respondents see their future work in the financial sector. But it is necessary to pay attention to the agricultural sector in the Southern Federal District. There is a positive trend in the financial sector: - the emergence of new investment projects; - the development of lending trends; - reception of new means of providing futures and forward contracts. These measures will lead to an influx of capital in the financial markets. 47% of those surveyed believe that in 2030 social problems should be resolved by the state. This requires the development of business, leading to an increase in taxes, voluntary health and pension insurance at the expense of the organization, preferential tax treatment for charitable activities.

Young people have done transformed relationship between themselves and usually, for past generations, things. For example housing, marriage, brands and retail, wellness and communication. The most part of Millennials prefer live with parents and do not to hurry a marriage with somebody. Independent life, own housing, constant job is not value for them now. Millennials have been reluctant to buy items such as cars, apartments and luxury goods. They are turning to a new set of services that provide access to products without the burdens of ownership, as Uber (taxi), flat for rent, food delivery, Internet shop for clothes and etc. However, they buy some things, which create them an image, mostly electronics. Laptops and gadgets, smartphones and personal pocket computer, PCP are an integral part of the modern young man.

While creating cultural-anthropological Millennial generation portrait modern liberal arts researches were used as an additional source of data.

Thus, we can make a conclusion that the majority of representatives of youth of South of Russia are planning to become CEOs of their own enterprises and want to go into financial sphere in the future and have their future main business goal - to increase income of a business. Today we can see that the modern generation's main priority is to increase the number of opportunities therefore, a desire to develop themselves and improve their own habitation, spread influence that triggers the change of demographic tendencies. However, in few years they may alter the interaction pattern that would lead to a formation of another world.

Recommendations

The results of the research can be used in the teaching of subjects "Statistics", "Econometrics", "Social work" in the educational process.

This work can be a contribution to the study of sociology and the methodological techniques of the sociological studies. Author considered and selected the most interesting variables of dynamics social-orientations youth. This article will be useful for sociologists, psychologists, parents, teachers and pedagogues who work with modern students.

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