FORECASTING THE MECHANISM OF THE LABOR MARKET MANAGEMENT

Abstract. The components of the mechanism of state management of the labor market of Ukraine are considered and a complex mechanism of its state regulation is formed. The modern management technologies and modern activity of the management apparatus in the labor market are analyzed. The importance of development of strategy and methodology in the process of personnel management is shown. The criteria for balancing labor market needs at national and regional levels are considered. The problems of regional management of the labor market, which lead to the creation of “staff hunger”, are revealed. The implementation of the management programs of the management institutes on improving the conditions of labor market management is analyzed. Several variants of the scenario forecast of labor market development are formulated in connection with the crisis of instability of the socio-economic situation in the regional labor markets. The block approach of workforce forecasting is presented. Model tendencies at the regional level are highlighted when considering the labor market supply and
demand ratio. The concepts of “unemployed”, “economically active population” and “self-employed population” are analyzed. The distribution of economically active population into groups is given. Approaches to counteracting potential, partial and real unemployment are shown. The change of place of labor market problems in the system of priorities of the state economic policy is considered and the options of restructuring of the management structure are offered. Options for raising the public status of problems of concern have been analyzed. Signs of formation of economic agent in accordance with the situation of the labor market are substantiated. The basic elements of the organizational and managerial mechanism of the labor market and the economic and organizational methods of market management are given. The necessity of improving the system of monitoring and forecasting of the labor market is substantiated. Proposed ways out of the crisis in the labor sphere in Ukraine.

Keywords: forecasting, state control mechanisms, labor market, personnel management, strategy, economic agent, labor-market problem.
Аннотация. Рассмотрены составляющие механизма государственно-го управления рынком труда Украины и сформирован комплексный меха-низм его государственного регулирования. Проанализированы современные управленческие технологии и современная деятельность аппарата управле-ния на рынке труда. Показана важность развития стратегии и методологии в процессе кадрового управления. Рассмотрены критерии уравновешива-ния потребностей рынка труда на национальном и региональном уровнях. Раскрыты проблемы регионального управления рынком труда, приводящие к созданию “кадрового голода”. Проанализировано выполнение программ действий управленческих институтов по улучшению условий управления рынком труда. Сформулировано несколько вариантов сценарного прогноза развития рынка труда в связи с кризисной нестабильностью социально-эко-номической ситуации на региональных рынках труда. Приведены блочный подход прогноза рабочей силы. Выделенные образцовые тенденции на ре-гиональном уровне при рассмотрении соотношения спроса и предложения на рынке труда. Проанализировано понятие “безработные”, “экономически активное население” и “самозанятое население”. Приведено распределение экономически активного населения на группы. Показано подходы к противо-действию потенциальному, частичному и реальной безработице. Рассмотрено изменение места проблем рынка труда в системе приоритетов государственной экономической политики и предложены варианты перестройки структуры управления. Проанализированы варианты повышения общественного статуса трудорынковых проблем. Обосновано признаки формирования экономического агента в соответствии с рынком труда. Приведены основ-ные элементы организационно-управленческого механизма рынком труда и экономико-организационные методы управления рынком. Обоснована не-обходимость совершенствования системы мониторинга и прогнозирования рынка труда. Предложены варианты выхода из кризиса в трудовой сфере в Украине.

Ключевые слова: прогнозирования, государственные механизмы управ-ления, рынок труда, кадровое управление, стратегия, экономический агент, трудорынковая проблема.

Statement of the problem. Comprehensive reform policy of society and economy in Ukraine, success of admin-
fferent levels and spheres of administrative and economic activity. The labor market plays an important role in evolution of the national economic system. It is the market which enables economically active population to be involved in achievement of country’s sustainable development goals. Insufficient level of remuneration in Ukraine, insufficiently developed mechanisms of market value formation of domestic labor force and considerable differences in remuneration in different regions of Ukraine lead to uneven distribution of economically active population in the country and migration of labor force to other countries of the world [1]. Ukraine’s movement to the EU implies an increase in efficiency of the national labor market, introduction of innovations both in the labor market and in the educational sphere [2]. The given goals achievement will be possible only by correctly forming state mechanisms of forecasting labor market management.

Analysis of the recent researches and publications. General methodological principles of functioning and development of the labor market, objective necessity of the state intervention in the regulation of the labor sphere are grounded in works of such national scientists as: V. Onikiienko, Z. P. Baranyk, S. I. Bandur, B. M. Danylyshyn, E. M. Libanova, L. S. Lisohor, V. Petiukh, N. O. Parfentseva, S. I. Pirozhkov, V. H. Sariohlo, A. V. Khmeliuk, M. H. Chumachenko and others. However, there is a need to research national and regional labor markets to identify key trends and directly predict mechanisms for such markets managing.

Formulation purposes of problem. The article’s aim is to identify trends in main indicators development of the national and regional labor markets functioning in Ukraine and to justify formation of comprehensive predictive mechanism for labor market managing in Ukraine.

The main material. “Oedipus effect” states that it is to prevent negative phenomenon from happening by influencing corresponding causes. Forecasting during parallel conception of labor market management [3] is basis for organizing work to ensure employment balance of working-age population and existing jobs, as it allows with certainty to estimate:

1) current situation with demand and supply ratio of economic agents;
2) possible size of unemployed population, which can apply for employment assistance in not only state bodies, but also in a number of vacant and newly created vacancies;
3) distribution of labor force that appeared on the labor market (possible volumes of dismissed workers retraining and unemployed population, potential number of unemployed).

Transition to efficient management technologies requires managers of different levels and layers of new theoretical knowledge and practical skills with ability to collaborate in flexible “teams”, to integrate financial and statistical information, and to take into account public response. Current activity of the management apparatus in the emerging labor market is not open enough and therefore ineffective. It is necessary to introduce and disseminate mental special qualities of managers and areas of
competence of heads of state institutions to do this (Table 1).

It is formed a new type of managers with specific progressive socio-productive characteristics (rare and scarce in the region) caused by new industries and intensified market competition. Independence of hired manager-professional from the capital that hired him is increased. Autonomous status of manager protects economic decision-making process from illiterate and irresponsible interventions by shareholders of enterprises, trade unions, and political figures.

In economically developed countries while speaking about labor management it is referred to “human resources” and consider them systematically: invested capital, material resources, technologies. Efficient management today is possible due to highly advanced information technologies. Time factor rationalized management of the labor market process. Only highly organized and motivated labor can produce ripe fruits.

Classical management based on characteristically staffing structures can only partially meet needs of employer and requests for human resource management in environment with hourly, multilateral, multifactorial changes.

Employer should develop a strategy and methodology based on information flow management (implementation of software product in specific conditions) in the process of personnel management. Balance the of the labor market needs (as well as the markets for goods, services, finance, and so on) and resources should be the aim of planning analysis. Appropriate programs will allow to synchronize execution of planned work and actual activities, and to balance capacity of each resource and especially staff at the operational level of management.

Modern employer recognizes importance of each employee for enterprise and develops a personnel management strategy, together with professional recruitment, gives an important role to labor relations, organization of accounting, promotion of work, methods and standards of remuneration, formal and informal communications. Such system should flexibly promote structuring without compromising integrity, be robust, capable to recover from organizational and technological disrupt-

**Mental spheres of management competence**

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<th>Conflict management</th>
<th>Creative thinking</th>
<th>User orientation</th>
<th>Financial Management</th>
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<td>Awareness about external situation</td>
<td>Decisiveness</td>
<td>Flexibility</td>
<td>Human resources management</td>
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<td>Different workforce management</td>
<td>Interpersonal communication skills</td>
<td>Technical and technological competence</td>
<td>Managerial control and integration</td>
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<td>Impact and negotiation</td>
<td>Planning and evaluation</td>
<td>Oral and written communication</td>
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<td>Self-government</td>
<td>Leadership</td>
<td>General vision</td>
<td>Problems solution</td>
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tions, and provide efficient protection against unauthorized access to data.

Part of personnel unit that is not mentioned in practically any advertising brochure of commercial or industrial enterprise remains in the shadow with its internal concerns (including work on coordination and personnel monitoring) [10]. But practice confirms that experienced personnel should work with people who completed business school, to support recruitment requirements while maintaining image of the company.

Participation in the nationwide advertising campaigns should intensify opportunities for local press, radio and television in addition to ordering targeted advertising. It is necessary to check constantly regional labor markets. In Personnel policy is like construction of a house: “the stronger foundation leads to longer lifetime of the house” [11].

Reasons for problems of regional management exacerbation are: unilateral improvement of economic base of vulnerable industrial enterprises, created as links of large technological complexes with one consumer of their products — the state); deformations of socio-demographic structure (former planning of deployment of productive forces led to economic base with low-elastic resource — personnel of high-tech industries in high-industrial areas); low level of urban infrastructure (mismatch in the location (quantity) and needs (quality) of the social and living environment).

The labor market forecast is basis for determination of funds amount needed to carry out actions programs of the governing institutions of the labor market and identification of regional policy priorities in this market for forecast period and developing measures aimed to prevent mass unemployment and to provide social guarantees for citizens in their employment sphere. Non-state financing of the labor market policy can be based on both attributive (division) and allocation (external) point of view [12; 13].

The most important methodological principle of forecasting is principle of multivariance (passive forecast based on analysis of current tendencies of process deployment) and active forecast (purposeful activity to increase labor activity of able-bodied citizens in the labor market). Due to crisis instability socio-economic situations it is possible to formulate 2–3 variants of scenario forecast: 1) reflective (change in existing production volumes — minimum); 2) average (which implies slightly higher rates of change in production); 3) maximum (based on possible significant changes in production volumes). Indicators of changes in production volumes are determined on the basis of data of local economic and governing bodies. These indicators are included in different forecast variants. Separate section of program for crisis exit can be formed based on the third variant of the forecast. It presupposes emergence of crisis instability in employment terms of working population of territories (cities, districts), economic sectors, individual enterprises, social and demographic groups of population.

It is necessary to make the calculations in physical persons not in annual values in case of sharply contrasting oversupply of labor supply over de-
mand from job owners by the labor market. When the situation in the labor market becomes stable it would be more advisable to move it to annual values. Calculations should take into account the national and demographic features, specific socio-economic development of territories, spread extent of certain forms of market relations. The labor market forecast can consist of 4 blocks: I block — labor supply, which allows to determine number of different categories of citizens offering labor services in emerging labor market; II block — demand for labor, which allows to estimate need for production in workers based on data; III block — supply and demand, which reflects degree of tension in the labor market; IV block — division of labor, which makes possible to estimate number of citizens who are self-employed and passed employment service (including non-governmental intermediary organizations) who seek assistance in the employment service. The last block also helps to determine possible number of unemployed persons and persons who will need retraining.

Following exemplary trends can be distinguished for the region when considering supply and demand ratio:

a) steady negative balance throughout the region with varying degrees of deviation in one direction or other by individual socio-demographic and occupational groups;

b) temporary supply and demand imbalance across the region and by major socio-demographic and occupational groups, driven primarily by breach of economic ties, contractual obligations, and financial difficulties due to the insolvency of mates or cash shortages.

It is very difficult but very important to identify sectors of economy, and socio-demographic and occupational groups where decline in demand is stable, long-term, where this process becomes short-term, and where possible revival and positive dynamics of demand for labor under certain conditions. When Forming of program documents to ensure population employment based on full-scale calculations of the regional labor market requires provision of passive fixation of supply-demand ratio and measure of active influence on dynamics of these indicators.

It is necessary to determine following among unemployed persons:

1) number of persons receiving financial assistance based on factual data adjusted for possible number of persons to whom assistance may be denied (eg, dismissed for absenteeism and other violations of employment), and person with aid term longer than 12 months;

2) number of persons participating in paid public works, which value depends on number of unemployed citizens, number of unemployed who do not receive unemployment assistance and regional features of economic development (possibility to organise seasonal public works, year-round, in rural and forest farms, utilities and road services, etc.).

Economically active population includes all persons of both sexes who offer labor force for production of economic goods and services during a certain reporting period. Typically, active population includes all persons over a certain age who was employed or unemployed for a number of weeks or days over a long period (for example, previous 12 months or previous calendar
Current workforce or population covers all persons who can be qualified as employed or unemployed. Working population should be divided into employees and self-employed workers. The first should be divided into those who “work for a salary in cash” and those who “have job but do not work temporarily” [10; 11]. For the latter, it is advisable to determine formal link with workplace, taking into account national peculiarities, as well as:

a) salary;

b) assurance in ability to return to work after certain circumstances change, or existence of an agreed date of return to work;

c) period expiry of absence from work which in certain cases can be period during which employee can receive compensation without obligation to agree to another job.

Self-employed are “working” persons who were employed to get profit during researched period. They can have an enterprise (industrial, agricultural or service). Group of employed also should include persons temporarily not working due to illness or injury, holiday or vacation, strike or lockout, vacation for study, child birth, curtailment of economic activity, temporary disorganization and suspension of work due to such causes as bad weather, mechanical breakdown, accident lack of raw materials or fuel, or for any other reason. Persons engaged in production of economic goods and services for their own consumption or household consumption should be referred to those who are employed by state-owned enterprises if such production provides significant contribution to overall household consumption.

Economically active population can be divided into two main groups: armed forces and economically active civilian population. Economically active population can be correlated with general population to obtain a measure of labor force participation. It can be correlated with older population established for economically active population accounting. It is also necessary to implement time-based method which is developed on series of ongoing surveys covering representative sample of reporting periods during the year. Estimations can be expressed in person-days, person-hours, or turn into a standard full person-years classification of employment and income [14].

Income information is required to analyze hidden underemployment. Satisfactory estimates of earnings data can usually only be obtained through surveys of workforce and family income of hired workers or other sources, such as tax reports. Potential underemployment (measured according to the criterion of low labor productivity) is estimated when individual works in an enterprise or economic unit with abnormally low productivity.

In various sectors of the economy (in particular in agriculture) estimation of “surplus of labor force” or “labor reserves” can be obtained by comparing of available labor units and actual units used or required under different assumptions about productivity [15]. In many countries there are individuals who do not belong to the labor force but are included into labor force in addition to those who are currently in the labor force but whose contribution to family income and national product is limited by unemployment and full em-
employment. Such persons can not actively seek for work, for example, due to the lack of suitable work for them; or they can have physical or mental disabilities that could be overcome through training or other corrective measures [13].

We refused from theoretical frameworks of labor market modeling (equilibrium or non-equilibrium with the n-th degree of state participation), and modeled approach to optimize management system of the labor market process. Then we came to conclusion of complex integration of above described component, because the market itself begins to form. Structural and economic principle shows complexity of diversity of interconnected socio-economic structures. Information, ideology, investments, innovations and intelligence are own and external signs of achieving high and flexible level of formation of economic agent, appropriate to situation of the labor market [17].

Way of economic agents interconnection will allow to calculate functional load of each. It involves classification of macroeconomic phenomena (variables) into internal to this system, endogenous and external, exogenous. Their model relationships and relationships between them characterize following types of relationships:

1) relationships resulting from direct identification of macroeconomic variables;
2) conditional formalization of actually existing normative relations;
3) technical dependencies related to conditions of functioning of labor market and in fact labor process;
4) static, reflecting existing trends and interdependence of variables;
5) heuristic dependencies that imply description of behavior of economic agents and reaction to changes of external conditions of internal state of economic system. Any target endogenous variable (eg, unemployment rate) is influenced by all time scenarios due to interdependence of the variables. Intentionally or involuntarily (due to managerial unprofessionalism — incompetence) distortion of hierarchy of existing structures and variables leads to inadequacy of object’s response to actions of management subject. Obviously, the labor market is not a completely closed static set of socio-economic concepts. Like all processes the labor market has certain length in time so called “flow of time”. It can be estimated as intensity of key parameters of internal processes changes [18].

Space/time of the labor market is constituted by internal laws that were historically formed under influence of factors:

It should be noted that efficient counteraction to mass potential, partial and real unemployment is possible only

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<td>Supersystem action. External insurmountable environment</td>
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<td>It separates social, economic, demographic and other emerging contours of the labor market and again shapes way economic agents function</td>
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within the framework of economic crisis program. All economic, including investment, developing programs should include indicators of demand for labor, number of jobs stored or additionally created (real production, technologically necessary or socially significant), as standards (program evaluation criteria) [19].

It is necessary to radically change place of the labor market problems in system of priorities of state economic policy and to restructure governance structure. The highest authorities and key structures of the Government of Ukraine should be subjects of anti-crisis regulation. Content of formally declared active employment policy should be reviewed. The policy is understood as a system of measures to facilitate rapid search for work or to educate able-bodied in working age in new occupations. In Ukraine it is necessary first to restore destroyed and create new (market) mechanisms of “production of workplaces” and then stimulate population to search, because it is impossible to search something that is not available.

Departments of employment abroad, for example, in the USA have information about who and where work. It includes not only unemployed who contacted employment service. It shows spread of the labor market in both employment and unemployment. Support methods for production and workplace systems should shift towards public investment and public procurement programs for domestic producers of specific product groups (primarily high-tech, socially and environmentally significant) instead of virtually addressable cash “inflows”. These “inflows” lead to huge funds operation by commercial banks [16].

It is necessary to bring the Constitution of Ukraine into line with international perceptions of socio-economic human rights and to take into account many ILO documents, in particular, Convention № 122 (1966) in order to raise the public status of pro-employment problems. It is essential to substantially revise and supplement the by-law regulatory framework with extension and specification of responsibility measures of state and rayon governments, state budget and relevant official agencies.

Organizational and management mechanism should consist of the following elements:

1) management structure and coordination system of economic agents formation and their implementation into the labor market;

2) legal regulation of interaction of labor market actors;

3) forms of their activity in the process of interaction at each stage of extracurricular relations;

4) forms and methods of action (indirect or direct) of state, sectoral (economic), territorial bodies of management on activity of enterprises, organizations, institutions;

5) system of information support, study and forecasting of demand for economic agents. Different elements of each control subsystem are interconnected, forming single reproduction process. Persecution in one direction or another reflects discrepancies caused by developments in management mechanism of the region and labor resources development. They are in system of relations built on interests of indi-
vidual, regarding formation, distribution and use of economic agents of labor market [19]. Absence of proper planning for formation of economic agents leads to strengthening of inactive and insufficiently targeted economic levers and incentives by inflexibility of organizational governance structure, bureaucratization of the institutional layer of the labor market.

Economic and organizational methods of market management should be flexible, taking into account constantly changing environment. Economic experiments according to scientific recommendations depend on projected reality and objective development trends taking into account current situation in emerging market space.

Main (but it is difficult to implement them in Ukraine) requirements to overcome work sphere crisis: formation of efficient system of lifelong education in accordance with technical and technological revolution and market economy, i.e. presence of economic agents required and constantly increasing qualification level on the labor market; possibility to form decent “middle class”; establishment of inter-regional relations on employment issues, gradual establishment of unified information systems and distribution of labor resources; removal of restrictions on registration, travel abroad; stimulating geographical mobility by creation of job market and housing market, promoting professional mobility through facilitating retraining; e) freedom increasing of workers to choose their place of residence, work, profession, nature of work and so on; f) development of long-term national policy of Ukraine in the field of migration of specialists and scientists, protection of priority spheres of national science; creation of adequate conditions in the Ukrainian labor market to minimize loss of production from migration of specialists abroad, to encourage export of low-skilled labor from Ukraine; g) implementation of current legislation and creation of comprehensive legal framework for normal labor market functioning; enhancing role of employment contracts in regulating working conditions and paying them; h) fostering of “love for work”, enhancing professionalism and effective career; i) formation of social protection system for those who leave for work abroad, mechanism for departure processes managing. Experience of working Ukrainian citizens in industrialized countries helps to improve their skills; to strengthen their and their family’s well-being; to introduce advanced technologies at home; to create ventures; to develop business activity and entrepreneurship.

**Insights from this study and perspectives for further research in this direction.** Improvement of economic mechanisms system of state regulation of the labor market should be aimed to ensure its efficient functioning and development, balancing labor supply and demand, increasing level of productive employment of labor resources, optimal combination of growth in labor efficiency and expanding demand for labor. It will be significant factor in further socio-economic growth. In all listed above economic instruments should be applied in unity and interconnection during principles implementation of economic mechanisms of state regulation of the labor market both at the national and regional levels.
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