

**THE MONITORING OF THE EDUCATION SERVICE AND LABOR MARKETS  
INTERACTION BASED ON THE LEVEL MODEL**

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*The monitoring need for regulation the interaction of the education and labor market has been grounded. The peculiarities and objectives of the educational monitoring has been defined. The main stages of the monitoring study have been considered. The use of the level model for the diagnosis and monitoring of the education services and labour markets interaction have been proposed.*

**Key words:** *interaction, regulation, educational services market, labor market, monitoring*

Competitiveness in the global market depends on the level of the development of the knowledge economy. The accumulation and effective application of knowledge becomes an important core of the competitive advantage of the country, and therefore requires a modern and innovative approaches to the regulation of educational services to meet the needs of the economy. This problem becomes very actual in the light of increasing international integration. However, at present a comprehensive solution of this problem, comprising all the necessary set of algorithmic and methodological support has not been developed. This is of depth and versatility of theme, each aspect of which requires thorough independent research and careful consideration.

At present, the problems of regulating the education market and its compliance with the requirements of the labor market are paid special attention to the different levels of government: national, departmental, individual school. Therefore, the problems of monitoring of the education market in the proportion to the development of the economy and labor market requirements have now acquired a special importance from the point of view of theory and practice. The educational

monitoring peculiarity is usually the subject of a comprehensive evaluation, directed a result of educational activities, and the process leading to this result: training, education, teaching, management, resource support and etc.

The monitoring of the interaction of the education market and labor is required for: study of education service and labor markets state; research of balance (imbalance) between demand and supply of specialists in the labor market; identification the level of satisfaction of educational services (graduates, employers, government, society) taking into account the needs and requirements of the labor market; identification areas of training and core competencies demanded in the labor market; research of the forms, trends and patterns of the cooperation in the educational market and labor, the implementation of control actions aimed at regulating the interaction between the education market and works according to the principle of continuous improvement.

On the stage of creating the monitoring system it is important to identify the priority objects of monitoring, information that could materially affect the regulatory process interaction and management decisions. These objects are primarily related to the quality of training, needs and satisfaction of consumers of educational services. The research of consumer opinions is particularly important because of its long neglect, which led to a number of challenges currently before the schools and the education system as a whole.

Depending on this object the general plan of the monitoring study may have certain peculiarities, but there is a certain set of consistent actions which are obligatory for any research of the educational quality. The tentative plan of this study includes the following steps:

1. The definition of the goals and research planning (determination of the goals and objectives of the study, research facilities, design and sampling, plotting the study, the definition of criteria and indicators for evaluation, the selection of the research methods and generalization the statistical information).

2. The development of the tools (development tools for assessment, preparation of instructional and teaching materials for the study coordinators at all levels and its participants, the choice of statistical and mathematical methods of processing and calculation of the results of research).

3. Conducting a study (pilot study, study results, detection and error analysis, estimation errors, basic research).

4. Collection and processing of results.

5. Analysis and the interpretation of the research results (summarizing statistical information identification the factors of influence, the detection of correlations between the factors of influence, the evaluation of the results of the analysis, their interpretations, preparation for the conclusions, the

formation of recommendations for remedial work, removal of negative factors, the formation of an educational policy).

Lack of uniform diagnostic procedures and mechanisms for monitoring studies can not effectively manage the interaction of the education market and labor at all levels. In this case we recall the classical process model E. Deming [1-2], which implements the cycle PDCA (Planning, Doing, Checking, Acting). E. Deming Cycle allows to realize for each criterion the process of continuous improvement in all areas of cooperation between educational institutions on the labor market. Implementation methodology PDCA cycle in the context of studies of the effectiveness of interaction education market and labor can divide the process into stages that form a cycle as shown in Table 1.

Table 1 - Stages of PDCA cycle in the context of the interaction of the education market and the labor market

Stage	The content stage	Processes stage
Planning	The development of the objectives and processes necessary to deliver the results in accordance with customer requirements and the policy harmonization the education service and labour markets. Planning collaboration with employers and its results. Assessment of the labor market and education. Prediction of the education service markets, the design of educational services in accordance with the labor market and policy of educational institutions.	Studies of consumers opinions of educational services: an analysis of the needs and satisfaction of graduates, polled employees of educational institutions, analysis of needs and satisfaction labor market. The development objectives, tools and models for cooperation the education service and labour markets. Determination of quantitative and qualitative needs labor market. Planning of human resources, logistics, finance, teaching and others.
Doing	Management and provision of educational services scheduled as planned implementation process, implementation of the set of objectives, the use of allocated resources in the education and support processes of interaction of educational institutions and employers.	Development and implementation of models of interaction education market and labor. The development of integration processes in the educational market. Establishing strategic partnerships. The use of social partnership model.
Checking	Monitoring and measurement, determination the extent of conformity of educational services to the requirements of the labor market, evaluation of the effectiveness of the interaction of the education market and labor and to identify the balance / imbalance, making recommendations on the harmonization of the education market and labor.	Monitoring and control of the educational market and labor market requirements. Evaluation of customer satisfaction. Comparison of external and internal evaluation of interaction. Determining balance / imbalance interaction. Evaluating the effectiveness of the interaction of the education market and labor.
Acting	Improving the quality of education services, identifying areas for cooperation between the education market and labor. Removal of existing imbalances. Formation of preventive measures and improvements for customer's satisfaction, transition planning and adjustment rules, and repeating the cycle PDCA	Analysis of the monitoring and evaluation of the interaction of the education market and labor. Analysis of customer satisfaction. Recommendations, corrective actions and management decisions. Re-engineering, benchmarking of educational institutions and businesses in partnerships. Implementation (installation) corrective measures.

Shown in Figure 1 level model of regulation the educational services and labour market interaction describes the quality management as a set of processes distributed across levels.

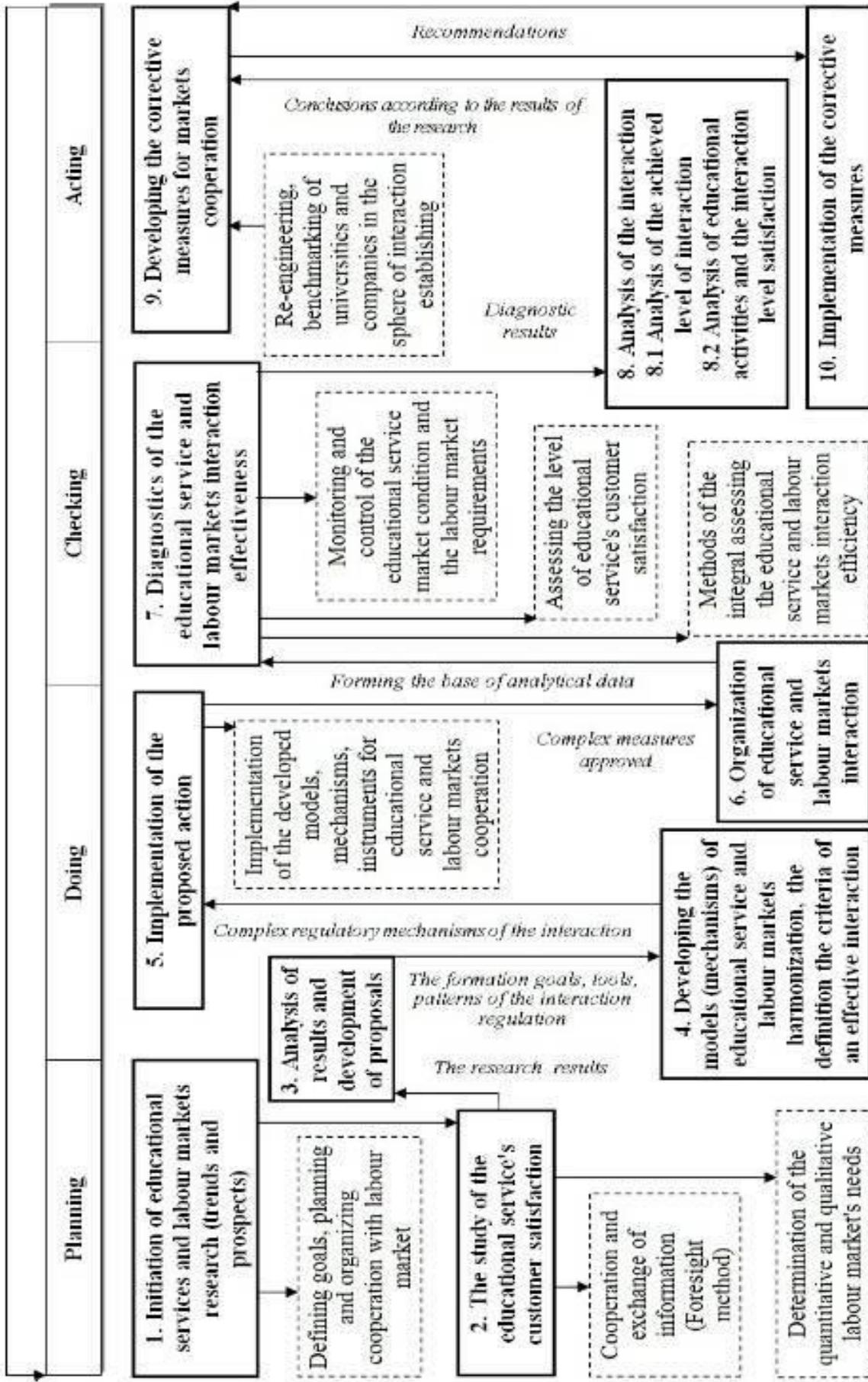


Fig. 1 - The level model of regulation the educational services and labour market interaction

The process of evaluating the effectiveness of the interaction of markets prompted is divided into the following stages:

1) determine the factors interaction efficiency education market and labor (description of criteria and indicators that characterize them).

2) identification expert by the weight of each indicator in the overall assessment of the effectiveness of the interaction of the education market and hard work.

3) evaluation by expert level achieved by the interaction of each factor (criterion) among employers, educational institutions, graduates.

4) building on the basis of the results (level achieved for each criterion).

5) The calculation of the integral index of interaction efficiency education market and labor as a result of internal and external evaluation.

6) analysis of the results and deciding for cooperation between the education market and hard work.

Research consumer opinions held twice per one cycle of PDCA - the design phase content of the educational process, the quality of educational services, market interaction, and at the stage of assessment. It is not possible to use the same technique for examining consumers' opinions on these two stages. The first stage applies a method of getting quality advice, in the second - quantitative evaluation.

Quality guidelines provide descriptive details of the requirements for the process of interaction of markets and the quality of training, such as competitive graduates, satisfaction with given education and the possibility of its application in practice, development centers provide educational services (internal quality audit), the participation of employers the system ensuring the quality of educational services (external quality audit), the use of modern high quality management education services, the state of logistical and methodological base of universities, the quality of professors - teaching staff, use of modern forms of partnership universities and employers, co-operation of individual activities, organizing meetings with employers (companies' presentations, job fairs, interviews, workshops, etc.); urgency and relevance of research results and so on.

Quantitative estimates provide for information on the dynamics of the number of employed graduates, the percentage of educational institutions graduates assigned to work under commercial applications and public employers, to balance supply and demand in the labor market, the evaluation of customer satisfaction education services, the number of contracts for training (retraining) qualified staff on basis paid for the business community and government agencies, the discovery of new (innovative) specialties, innovative programs of additional education to the population as educational services demanded by the labor market, joint research contracts with the private sector, the volume of joint scientific and technological innovation research, scientific -

research and development, research funding from public funds and funds business community and others.

The advantage of high-quality recommendations lies in a specific reflection of the quality of the components of the educational process. Quantitative estimates provide for information about how good or bad each component is in comparison with the standard.

The employers impact on the quality of educational services (in the external evaluation of programs and institutions) is possible on the condition that participate in the assessment real results in studying and graduates and provided quality assurance of education programs and state accreditation of educational institutions as experts, independent external evaluation of educational programs and institutions as experts, the process of accreditation of educational programs by employers or professional communities, the collegial bodies with external agencies evaluating the quality of education, assessment and certification of qualifications of graduates.

Thus, the harmonization of the education market and labor will depend not only on the processes taking place on the internal educational level, but also, above all, on the outside. Consistency interaction between the labor market and the education market is a complex socio-economic challenge that requires a systematic approach and is a common component of consideration: the demand for educational services - offering education market - labor market needs. The level of interaction between the education market and labor, as well as the quality of graduates should be measured and evaluated. One of the most frequently used tools to overcome the imbalance of the education market and labor is a continuous monitoring of customer satisfaction education. In this regard, the results of educational services are correlated with the expectations: of business community and the state as potential employers, graduates and society as a whole.

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