

integration; quality standard; branch restructuring;  
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## **IMPORTANCE OF ECONOMICS EDUCATION FOR INCREASING MOBILITY OF RAILWAY SPECIALISTS**

**Summary.** The reform of rail transport in Russia is creating entirely new business environment, imposing additional requirements for those working in the industry including the graduates of vocational training institutions. Under these conditions, the responsibility of the industry decision-makers of all management levels is rapidly growing. The reform of JSC Russian Railways reflects the company's goal of conformity to the European standards along with participation in European integration process. The article's focus is on one of the real steps taken to achieve this goal - the retraining program titled Innovative Management (Engineer Entrepreneurship). This paper contains the comparative analysis of education systems of Russia and the leading countries of the world, analyzes the main trends in the global as well as domestic education, vocational education system in Russia and abroad, the goals of innovative programs implementation, its content, the faculty involved, final results indicators for the program participants, its novelty. The issues encountered during the implementation of the program have been discovered. The forms and methods of solving these issues have been offered.

## **О ВАЖНОСТИ ЭКОНОМИЧЕСКОГО ОБРАЗОВАНИЯ ДЛЯ ПОВЫШЕНИЯ МОБИЛЬНОСТИ СПЕЦИАЛИСТОВ ЖЕЛЕЗНОДОРОЖНОЙ ОТРАСЛИ**

**Аннотация.** Реформа железнодорожного транспорта России создает принципиально новые условия хозяйственной деятельности, предъявляет дополнительные требования к специалистам, работающим в отрасли, в том числе к выпускникам учреждений профессионального образования. В этих условиях неизмеримо возрастает степень ответственности принимаемых руководителями любого звена железной дороги решений, их эффективности и целесообразности. Реформа ОАО «РЖД» свидетельствует о стремлении компании к деятельности по европейским стандартам, процессам евроинтеграции. В данной статье рассматривается один из реальных шагов к достижению данной цели - реализация образовательной программы дополнительной профессиональной переподготовки «Инновационный менеджмент» («Инженерное предпринимательство»). В статье дан сравнительный анализ систем образования в России и ведущих странах мира, проанализированы основные тенденции в развитии мирового и отечественного образования, системы профессионального образования в России и за рубежом, цели реализации инновационной программы, содержание, кадровый состав преподавателей, индикаторы конечного результата для субъектов и объектов программы, ее новизна. Обозначены проблемы, возникшие в ходе реализации программы. Рекомендованы формы и методы решения этих проблем.

## 1. INTRODUCTION

The effective functioning of the railway transport in Russia plays an important role in creating conditions for modernization of the national economy. Modernization of the economy is vital for Russia's transition to innovative development path. Modernization is the main tool for sustainable economic growth. The conditions for sustainable growth include increase in population mobility, optimization of product distribution, reinforcement of economic independence, national security and defense, reduction of total transportation costs. The improvements in the competitiveness of the national economy on the basis of innovative development of railway transport is closely linked to the development of other economic sectors, transportation methods as well as the country's regions [1]. These processes won't be possible without the integration of Russian railway industry in the global transportation system. The first step in this process is the country's active participation in European integration.

The reform of JSC Russian Railways testifies of the company's goal of its operations conformity to European standards. The reform is creating an entirely new business environment. The reform of the industry results in additional requirements for those working there.

At the same time the industry restructuring increases the level of uncertainty in their work. The reform process promotes formation of new risks. Under these conditions, the responsibility of the industry decision-makers of all management levels is rapidly growing. The process requires a drastic shift across the industry not only to modernization of materials and equipment used but also to the way it is organized and managed. Transformation of corporate culture, thinking and management system is paramount. The role of marketing, design management and profound knowledge of foreign languages are no less important. The goals of railway transport development for the period up to 2030 can be achieved by providing the industry with highly qualified specialists in the field of public administration and rail transport. To ensure the quality of the educational process the access to long-term perspective planning of specialist training is urgently needed. A particular attention should be paid to the following new areas of training: logistics, transportation branches interaction, management, finance, quality management, and international economic relations [2].

The article touches upon a working tool ensuring quality training of specialists for the transport industry - the program of professionals retraining titled Innovative Management (Engineer Entrepreneurship). The purpose of the article is to validate the innovativeness of the program in question within the system of additional vocational training.

To achieve this goal it is necessary to solve a number of issues: the identification and description of the main trends of the modern labor market, the analysis of the main trends in the development of modern vocational education system, the comparative analysis of the domestic and foreign systems of vocational training including those in the area of additional vocational education, identification and justification of technical students additional training program specific features.

## 2. METHODOLOGY

The main sources for the article are the research papers of Russian and foreign authors, the retraining program contents, the observations of the author's article and the students of the program in the course of its implementation. To achieve the above goals and objectives the author used both scientific research methods and the methods of empirical knowledge. The former include analysis, synthesis, analogy, induction, and the historical method. The method of analysis in the study has allowed the author to identify the main components of the problem. The analogy method made it possible to identify general and specific features in the domestic and foreign education systems. The use of the historical method provided the opportunity to prove the occurrence of Lifelong Learning concept in the structure of vocational education.

With the help of the inductive method were formed the conclusions based on the analysis of separate facts. The method of synthesis let us merge separate components into a single whole. This method allowed us to determine the place and importance of additional vocational training in general

vocational education system. The methods of empirical knowledge include description, comparison, and measurement. The description of the main aspects of the problem has been carried out on the basis of available sources. The article contains the simultaneous correlative study and the evaluation of the general features of Russian and foreign educational systems. The main tool of measurement was the questioning of students participating in the innovative program. It made it possible to estimate the efficiency of the educational process from the point of view of its object.

### **3. RESULTS AND DISCUSSION**

#### **3.1. Main trends of the contemporary labor markets and educational services around the world**

The basic trend of the modern economy and the labor market can be expressed in one sentence: the human resources determine everything. The quality of training, the students' motivation will affect the fate of a present-day business in the market. This means that the efficiency of the economy is determined at the present stage not only by the material and financial resources. The first place there is occupied by the level of human resources. It is formed by the education system. The main factors contributing to the human resources influence growth were finally formed in the 1970s. They include the high rates of change in the subsystems and the elements of the society, the increasing complexity of technological equipment production, the emergence of new products, the expansion of communication technologies, the worsening shortage of highly skilled labor force in the high-tech business [3]. As a sequence, the universal market flexibility has become the main feature of the post-Fordism of capitalism. It relies on the intellectual potential of an employee. Its constituent parts are the flexibility of wage labor, production flexibility and the flexibility of consumption [4]. The present-day employer is interested in a worker capable of performing multi-functional activities. The employee must be able to promptly shift from one sphere of activity to another in response to the changing market conditions. Thus, the economy is increasingly in need of the versatile specialists.

The specialist training orientated to current market requirements is an integral part of the education system operation. The traditional functions of education include academic, economic, political and distributive ones. But this set of functions does not reflect the education specifics. The general functions of education should include socialization, cultural transmission, social control, selection and shaping of a social status. These functions provide the basis for the training of qualified personnel [5].

On this basis, the key principle of professional training is its focus on the requirements expressed by the consumers of educational services. This principle means that the competitiveness of a specialist in the labor market is predetermined by the results of his/her training compliance to the requirements of the employers [6]. As a result, the market shapes a new factor in the development of market entities on the basis of the factors contributing to the growth of the influence of human resources - the staff competitiveness factor [7]. There has been a final shaping and consolidation of the three interest groups in the labor market in relation to vocational education (the individual, the employer, the state) [8]. All of the above allows us to formulate the basic principle of interaction among education, employers and society as a whole: the employer determines what to teach, and the education system dictates how to teach [9]. The main features of the profession in the field of technical education are a systematic, multi-dimensional knowledge and indirect connection with engineering aspects. This is due to the fact that, firstly, there are multiple factors of practical activity and the need to overcome the contradictions between the objectives of this activity and the means of achieving them in practice. Secondly, we must not forget that the engineer does not produce items personally; he/she only controls the production process [10]. Today's labor market requires not only the specialist's core competencies in specific professional activity but also his/her behavioral and special economic competencies. These factors result in carrying out professional activities with a high level of motivation. And if necessary, the specialist can control the production process on any level [6, 11].

Having analyzed the factors present in the labor market, we assumed that the response to the existing challenges in the field of economy and education is the formation and development of an open system of education. It considers the vocational education system as part of a broader system. This

system also includes the project titled Education for Life (Lifelong Learning); the development of the system of social partnership; the comprehensive development of additional professional education [3, 8].

Thus, the open system of education is an effective tool for training highly qualified specialists for the modern economy. However, today there is a tendency of "education" to "training" substitution. This phenomenon emerged as the result of the Western society liberalization in the late 20<sup>th</sup> century. This factor reduces the efficiency of the specialist training system. The allocation of responsibilities among the participants of the system has blurred. The Lifelong Learning as a duty of the state is becoming more and more an individual's duty. This proves once again the utopian nature of E. Forey, who believed that the project could contribute to the formation of the new man committed to the humanist system of collective values and uniform distribution of responsibilities [3].

### **3.2. Comparative analysis of Russian and foreign education systems**

The open system of education is a global trend. However, it may acquire specific features depending on the conditions in which it develops. In view of this, the comparative analysis of Russian and foreign systems of higher education becomes rather relevant. It should be noted that the lack of literature in foreign languages might present a significant obstacle in this aspect. Nevertheless, the findings and conclusions of the author may have a representative character. The most common research available to the author, the one characterizing the system of modern foreign vocational education, was a collective work of American experts titled the Changing Perspectives on International Education [12]. In addition, the article includes a number of materials by domestic and foreign authors as well as online sources. The comparative analysis draws attention to a number of points. There are the global trends in the higher education development, namely the massification of education, the emergence of the "knowledge society", globalization, the deepening competition in the educational environment, the commercialization of education, the introduction of information and computer technologies in the learning process, the involvement of NGOs in the assessment of the quality of education and the development of educational standards.

In parallel, there are local development trends, unique only for the domestic education system. These include the changing of the educational paradigm, i.e. transition to the competence model, the development of educational standards focused on the output characteristics of learning, the active testing of innovative educational technologies [13].

With the presence of certain coincidences there are substantial differences in the issues characteristic to Russian and European education systems. The main issues of European education are the variety of forms of educational process organization under the conditions of the monopoly of a single ideology; the rapid aging of the population; the mass inclusion of migrants into the education system; the decrease in educational level; the weakening of the link between the educational and professional areas; the reorientation of the teaching staff [14].

The problems of Russian education system are in many ways similar to the problems of the post-Soviet states, Latvia in particular: the low level of education financing, the low level of remuneration of teachers, the qualification and social-class structure of the society, the growth of competition in the global market of educational services, the choice between the quality of education and its generality. However, it is worth noting that these countries have already shown the presence of some specificity problems. For example, the problem of the export of education [13, 15]. This is due to the difference in the real, not the declared aims of the education systems. Despite the variety of approaches to the creation of national education systems, the goals of Europeans here are absolutely identical. These are the provision of the universal access to education and the equality of opportunities after it has been received [14]. Unfortunately, this goal is not typical for the Russian education system.

The education management system in Russia, to a greater extent, is similar to the French one in terms of the high degree of centralization and the predominant role of the Ministry of Education. In Germany, the education sector is a priority for regional authorities (areas). In some countries, the municipal authorities play the leading roles. In one form or another, the state plays the leading part in the financing of the education systems in most European countries. Holland is an exception, though,

where the education financing structure is dominated by private funds. In Russia, over the past two decades, there has been a steady trend of the government funding reduction. As a sequence, there is an increase in the citizens' own funding [14].

In similar way the comparative analysis of the structures of higher education systems in different countries on the basis of the sources analysis is also possible [8, 16-22]. The education system structure type is based on the model of the expert who is to be trained as a result of its functioning. Depending on the main subject of the modeling two types of models are used:

- a specialist's activity model, which describes the types, the scope and structures, the situations of professional activities and ways to address them in the possible types of institutions in relation to certain jobs;

- a specialist's personality model, which includes the necessary personal qualities of an employee, as well as the traits ensuring the successful implementation of the tasks emerging in the production sector. In particular, they should ensure the ability for self-learning and self-development.

Thus, the specialist's model should include the components affecting the efficiency of his/her activity, providing him/her with the ability to control it, the ones easily diagnosed and subject to correction.

The current system of higher education in Russia resembles the Western version: Bachelor's degree, Master's degree with Specialist's degree in some institutions. In 2000 additional professional training resulting in the diploma and relevant qualification was introduced. At the same time there is a clear distinction between the levels of education.

Germany has the dual system of vocational education. In France, the studies at the University consist of three cycles. At the end of each a student receives a corresponding diploma. After the first stage (2 years long) the diploma for the general or scientific and technical university education is issued. After the second stage (2-3 years) a student receives a diploma of licentiate and later the Master's degree. After the third stage (1-2 years) a diploma of higher education or a special in-depth university education diploma is issued. However, there is no visible distinction between the secondary vocational and higher vocational education. In the UK there is a two-tier system of higher education (Further Education and Higher Education). At the same time there is a formal distinction between professional and academic education. Canada has a three-tier system: the initial higher education with the bachelor's degree after minimum 3 years of studies (Undergraduate), the master's degree (1-2 years) and the doctorate (4 years).

Thus, the higher education systems palette is rather diverse. However their similarity is evident: they are all multi-stage and continual. This process is carried out with varying degrees of success in different countries. Nevertheless, it allows the youth to solve their social problems. The benefits received are saving of time and financial resources of the state, private companies and individuals. The link between the structure of the education systems and the principles of their funding is based on the quality of the graduates. The main criterion of education quality is the employment of the graduates. And here similar problems can be noticed. In Russia, about 50% of the graduates are employed in positions not related to their specialties. Among those about 70% of the graduates of pedagogical higher education institutions do not work in the education system. The employment level assessment on the basis of funding regulations in other countries is rather indirect. In England and the United States the minimum limit is 20-30% of all the graduates in Germany - 70%.

The multistaging education, the constantly changing external environment, and the rapid obsolescence of knowledge and professional skills have given rise to at least two consistent trends in the education environment. Firstly, the increase in education quality evaluation, the expansion of forms and methods for its assessment. Along with the traditional ones (licensing, accreditation) there are alternative types. In particular, some countries have the education quality assessed by NGOs. In this regard, the United States' experience is quite interesting. There the assessment is carried out both at the school level and at the level of educational programs and even individual courses, which is totally new to Russia. At the same time there is a significant number of alternative techniques that could be useful if explored by the domestic experts [23-28]. Secondly, there is ongoing acceleration of the pace and depth of integration of education, science and business. One reason: the most sought-after knowledge is the one obtained during practical exploration of the surrounding reality, the one

impossible to express verbally [29]. An education complex can act as a type of such integration. In various countries there exist its specific variations. In the United States, for example, it is represented by a university. For instance, the Air University is a complex of education and research units. They provide continuing education and professional development.

The university consists of: Air Force Institute of Technology, Air Force Research Institute, Air War College, Air Command and Staff College, Squadron Officer School, Ira C. Eaker College for Professional Development, etc. [18]. In practice, there are three possible types of integration. The American type: the USA, the UK, Canada, Australia. A research university is the integration core. It bears all functions of implementation and innovation, establishes links with the industry, attracts government grants, and improves the quality of education. It is completely free from obligations before the state, except for the implementation of the social order, i.e. the quality assurance in accordance with the state standards [30].

There are two forms of practical implementation of this type. In the case of the Silicon Valley, the university leases infrastructure to small businesses for a nominal fee. In the case of Road 128 small businesses settle near the university and have a high degree of independence [31]. In the Japanese version of the integration a techno polis attractive to scientists (Japan, China, and South Korea) is set up with the government money. The leading role is assigned to a research lab. In the mixed type (Europe), the state as well as private businesses takes on the role of a customer. They create favorable tax conditions for the integration participants [30].

Another integration tool can be a system of additional vocational training. Here is its brief analysis. Additional professional education can be based on an institution of professional education, a specialized training center or a company. It can be provided on request of the company, the state of the individual. Additional vocational education is implemented in the following forms: additional training with issuance of a qualification, various courses with or without qualification certificates and elitist education. In the course of training programs development the principles of continuity, diversification, synergy, cooperation, reflexive control and facilitation are used [32-34].

In Germany an additional vocational training analogue is called Weiterbildung (retraining). In this case, the concepts Weiterbildung and Ausbildung (training) are clearly distinguished. The difference lies in the fact that the training is conducted in accordance with the approved programs resulting in obtaining a higher education certificate recognized at the state level. These requirements are not necessary for skills improvement. In France, the UK and Canada education is provided both in universities and in specialized centers as well as vocational schools. In Australia, the most developed is the corporate training. The reasons for the growth of attention to corporate learning are the turbulence of the environment, the emergence of new forms of industrial organization, the need for the early access to new markets, the internationalization of business. The leading universities in this aspect are the Centre for Continuing Education, the University of Sydney, Bankstown College in Sydney, Hawkesbury Community College. The common features of additional corporate education are the variability of the courses duration, convenient schedule, the combination of distance and classroom learning experiences, the classes taught in the territory of enterprises and universities, and the courses both with qualifications certificates and without ones. The most popular training areas are economy, computer literacy, and language competence. The types of training – unsystematic, purposeful, reflexive [19-21, 35-38].

### **3.3. Analysis of the innovation management program place within the system of additional vocational education system**

The Russian system of additional vocational training at its baseline is not much different from Western analogues. However, the analysis has shown that its present condition does not meet the demands of the customers. Among the most pronounced shortcomings are the lack of connection with practical activities, uninteresting forms of classes conduct, the low level of courses teaching, the disregard of needs and interests of students, the absence of feedback from the audience, incompatibility of programs with the needs of students, the inability of the institution choosing [32]. Considering all of the above, the analysis of the innovative education program titled the Innovation

Management is rather interesting. However a number of aspects are to be clarified. How innovative is the program? What disadvantages of the Russian system of additional vocational training have been overcome in it? What factors allowed for the program improvement? Which of the advanced forms, methods and technologies used abroad have been borrowed?

This program is relevant to the industry in the light of the objective situation there. Over the last years there has been a steady decline in the share of JSC Russian Railways in Russia's GDP, the drop in passenger throughput and cargo traffic stagnation. This conclusion is confirmed by the statistical data reflected in charts in fig. 1-3.

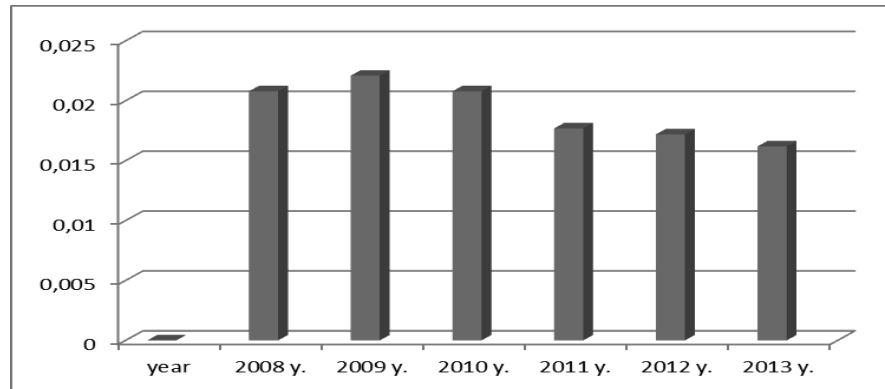


Fig. 1. The Russian Railways Share in Russian GDP (%)

Рис. 1. Составляющая дохода Российских железных дорог в ВВП России (%)

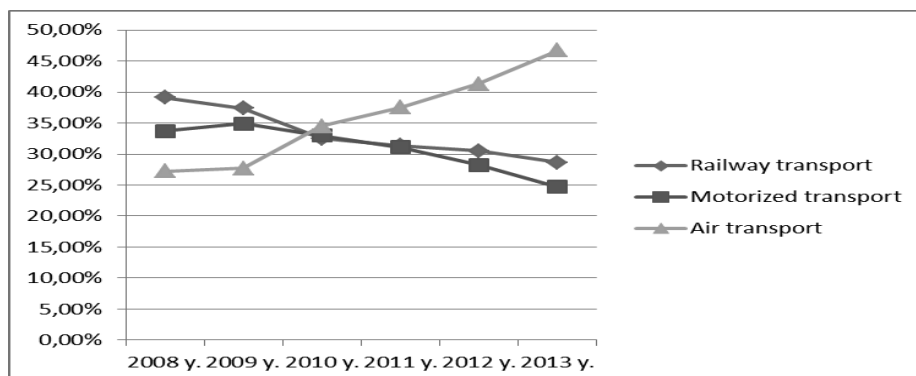


Fig. 2. Passenger Throughput in Russia without Municipal and Water Transport (%)

Рис. 2. Пассажиропоток в России без учета городского и водного транспорта (%)

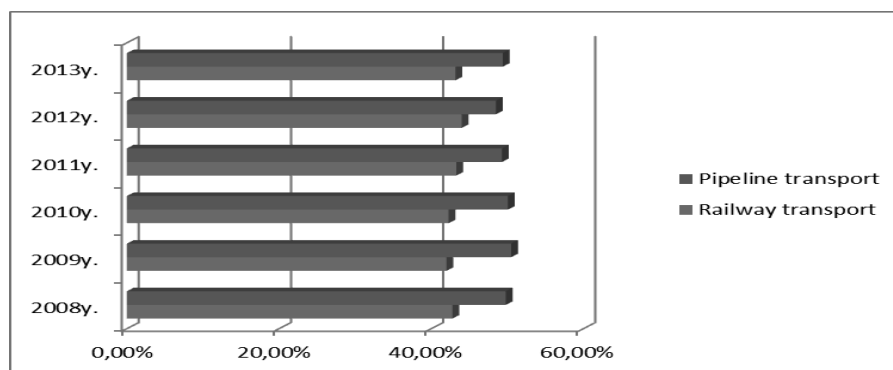


Fig. 3. Cargo Traffic in Russia (%)

Рис. 3. Перевозки грузов в России (%)

The main reason for this phenomenon is the intensification of competition in the transport market and the stagnation of the Russian economy. On this basis, the availability and training of highly skilled managers act as the most important factor of competition. In these conditions, the indicators of the company's human resource policy are ambiguous, although in general they have positive dynamics. After the reduction of the overall number of the company's employees from 942,8 thousand people in 2011 down to 902,7 thousand in 2013, the share of employees with higher education increased (from 20,9% in 2011 to 23,2% in 2013). The share of managers increased from 6,9% to 7.1% of the total number of JSC Russian Railways employees. The staff turnover is within the range of 8-9% annually. The number of the laid-off employees has reduced twofold for the last three years. The company annually recruits about 110,000 employees. It should be noted, however, that the staffing decreased from 98,2% in 2011 to 97,7% in 2013 [39-40]. Thus, the company is aware of the current threats the market of transport services faces and is struggling to improve its personnel policies. Nevertheless, there are still some issues in this aspect. It concerns, in particular, the managerial positions [39]. The implementation of the Innovation Management educational program completely fits into the logic of human resources strategy under these circumstances. On the one hand, the program saves the company from the necessity of retraining technicians as managers. On the other hand, even in the course of their training, students are taught to combine technical and managerial skills, which in turn shapes a qualitatively different worldview of young specialists so much required by the modern market. At the same time, the company subsidizes the training for only those students who will work for it after their graduation.

The program is considered innovative for the Russian education system in the transport sector. It is an integral part of the Lifelong Learning project as the program of further retraining. Omsk State Transport University was the second in Russia and the first higher education institution beyond the Urals to implement the program in conjunction with the regional office of the Railway. Only Moscow State University of Railway Transport has this kind of experience in Russia. In 2014 the similar form of training will be introduced in St. Petersburg State University of Railways. At the same time, OSTU is not the largest institution in terms of the students admitted [41-45]. It should be noted that the annual admission of students on scholarships provided by the Russian Railways in Omsk varies between 350 and 400 (24% of the total number). 80% of applicants are admitted with the scholarships provided by the West-Siberian Railway. In 2012, there were 397 graduates of this category (including 70% from West-Siberian Railway). In 2013, this number reached 381 (including 68% from the West-Siberian Railway) [41]. Thus, despite the fact that OSTU serves Krasnoyarsk, South Urals, Sverdlovsk, and East Siberian railways, the majority of graduates is employed by the West Siberian Railway, since it is the principal employer.

The program agents are the JSC Russian Railways and Omsk State Transport University. Its subjects are the 4-5<sup>th</sup>-year students - recipients of the scholarships from the structural divisions of the JSC Russian Railways of Western-Siberian region. In the future, they will work for the company. It should be noted that today the specific legal framework for the implementation of such programs has been created in Russia [1-2,46]. The program objectives are:

- formation and development of practical management design skills;
- development of the ability to adjust to the complex problem situations;
- formation of innovative thinking, corresponding to the corporate requirements for operation on the basis of European and international standards;
- communication of the mission, values, goals of the JSC Russian Railways, the performance culture by means of a standard assessment;
- increase of young professionals mobility in the labor market;
- diagnostics and problem solution at branches and structural divisions of the Russian Railways in the course of projects implementation [47].

The training program duration is two years. It is being implemented in parallel with the basic educational program. The program consists of 720 academic hours. Of these 520 hours are for classroom studies, 200 hours – for independent work including internships in leading companies of the industry. Lectures occupy no more than 10% of the total study load. The priority is given to active



forms of learning: organizational activities, business role-playing games, workshops, discussion forums, case studies (at least 70% of classroom time).

The trainers:

- OSTU faculty (Doctors of Science, PhD);
- business coaches;
- managers and leading specialists, board members of the West-Siberian Railway, the branch of the JSC Russian Railways;
- entrepreneurs from Omsk and Omsk region;
- representatives of public organizations.

The training program includes the following training modules:

- introduction to innovation management;
- general profile engineer;
- engineer as leader;
- linguistic competence;
- internship;
- final state certification [47].

The comprehension quality is checked during the courses and disciplines day-to-day monitoring with final written examination. The topics of the final certification papers are approved by the Directorate of the West-Siberian Railway, the branch of JSC "Russian Railways. These topics are directly related to the main issues in relation to the staff management at the West Siberian Railway. After completion of the program the graduates should be able to:

- assess economic and social conditions of entrepreneurial activity;
- manage projects and be ready to implement them using modern software;
- model business processes;
- possess the technique of financial planning and forecasting;
- identify and evaluate market opportunities and formulate a business idea;
- manage the assortment and quality of goods and services on the basis of European and international standards;
- analyze, evaluate and develop the organization's strategy;
- work in a team;
- plan and achieve success in professional and career development;
- introduce and implement any new knowledge at work.

In parallel with the competencies acquired after completing the basic education program, students master managerial competence as well. The customer receives an engineer- manager. For him it means spending cuts on an employee's retraining in the future. The company increases the rate of profit and the quality of its services along with creating its personnel reserve. The contract concluded between the student and the Customer undertakes to provide a graduate with a leadership position a certain level not later than 6 months from the date of employment [47]. The basis for the implementation of the program is the relevant decision of the JSC Russian Railways and its regional branch in West Siberia [48-50]. The main students selection requirements:

- a scholarship contract with the regional transport company representative;
- GPA of at least 4,5.

The table below shows the admission data for the Innovation Management program [49-50].

The table analysis resulted in the following conclusions:

- additional training is targeted (about 4% of the number of scholarship students enrolled, 5% of the total number of students mastering various retraining programs) [41];
- increase of the program students number;
- diversification of specialties.

2014 will see the first program graduates. The training included 6 workshops by entrepreneurs of Omsk, 4 lectures by the Railway experts and representatives of NGOs. The certified business trainer teaches the students on an ongoing basis. The students had a weeklong internship at the CINARA group of companies (Ekaterinburg) in November 2013. The internship was hosted by the STM-Service

company (rolling stock servicing) [51]. The students visited the Urals Locomotives, which is engaged in joint activities with Siemens (Germany).

Table 1

## Innovative Managerial Additional Training Program Admission Dynamics

Basic Specialty	Year of Admission.	Year of Admission.
	Number of Students	Number of Students
	2013	2014
Locomotives	3	2
Electric Railway Transport	4	2
Railways Electric Power Supply	3	4
Cars	2	3
Railways Automation and Telemechanics	1	2
Machine-Building technologies	0	1
Total	13	14

The company regional directorate approved the topics of the final certification papers. The training included assessment and final testing. The first tests revealed the initial level of students and the degree of its differentiation. It resulted in adjusting the education process at its early stage. The second testing sessions made it possible to determine the degree of the students' skills comprehension. It revealed the dynamics of skills, abilities and knowledge development at the beginning and at the end of the education process. Due to this the reserves related to the improvement of the education process quality were identified. The anonymous testing attended by 13 students was held on the basis of the internship results. The test was based on the model questionnaire from the teaching aid on sociology containing relevant topics [52]. The test results showed that 70% of students were satisfied with the internship program. About 90% of students felt the need to continue cooperation with the CINARA group of companies. Over 60% of students were satisfied with the living conditions during the internship. All students were satisfied with the cultural program provided during the internship. At the same time, the students made a number of suggestions that could help improve the quality of the internship:

- to increase internship duration up to 2 weeks;
- to organize more visits to the enterprise;
- to pay more attention to individual training.

The average grade given by the students was 8.6 from maximum 10. The lowest grade was 7,7, the highest – 9,6. Besides, the students made a number of proposals in relation to education process improvement:

- to reduce the amount of the classroom study load and to increase independent work hours number;
- to increase the study load for Marketing in Railway Transport;
- to organize students groups according to their English language proficiency levels.

The final assessment of the education services quality will be given by the representatives of the customer after the defense of the final certification papers. The testing results allow us to draw conclusions on the effectiveness of the additional professional training program. The implementation of this program is an example of successful cooperation between the educational institution, the employer and the state in the education market and the labor market. Together they deal with important socio-economic problems of the transport sector and the economy of Russia. From the perspective of the program developers there are a number of objective and subjective factors that hinder the implementation of this program. Firstly, despite the high requirements for the selection of

students the differentiation degree of the students' basic knowledge is rather high. Secondly, there is a big differentiation in students' language training.

Thirdly, the sharp study load increase eventually leads to the students' motivation drop. Fourthly, there is a problem with obtaining actual statistical data from the structural units of the transport company hosting the internship. It is related to data confidentiality. Fifthly, there is no experience of professional and career development among the graduates of the educational program because of its novelty. The lessons learned testify to the need for further implementation of the program. We need to develop a whole system of further professional managerial training for technical students. To achieve this it is necessary to use a variety of forms. One of them has been analyzed in this article. The experience of its implementation confirms the need to differentiate educational programs mastered by the students. This will increase the mobility of graduates in the labor market making them more experienced in the eyes of an employer.

The differentiated education stimulates the versatility of the future specialist. Of particular importance in this case is foreign language training. Equally important is the graduates' introduction to the world and European standards of management, quality of products and services, operation experience of leading foreign companies. Without this it is impossible to increase the speed and efficiency of the integration process involving Russian companies. It should be noted that to date only three out of eleven regional directorates of the Russian Railway adopted managerial training of students.

#### 4. CONCLUSIONS

The innovation of the program is as follows:

- the contradiction related to the substitution of terms "education" by "training" disappears. On the one hand, the state represented by the JSC Russian Railways will finance the program while ensuring the students' employment, professional and career growth in the future. On the other hand, the students take on the responsibility for the state's expenses compensation in the form of working for a certain period of time for the JSC Russian Railways. In addition, they spend their additional amounts of their intellectual capacity and time for the program comprehension;

- the program is an exclusive example of a social partnership between the educational institution and the employer. The partnership is implemented in order to ensure professional and career development of students on a competitive basis on the one hand. On the other hand, the employer increases the competitiveness of its services due to the growth of its human resources potential. The educational institution enhances its image necessary to attract more students and expand its budget;

- the content of the program increases the mobility of young professionals in the labor market providing them with managerial competences. They are applicable not only in the field of railway transport but also in any other area of the economy including those of other countries. Thus, the competitiveness of individual professionals, businesses and the national economy is reinforced as a whole.

The program addresses the following deficiencies in the system of additional vocational education in Russia: the lack connection with the practical activities, uninteresting forms of education process, and low level of teaching. This is accomplished through the attraction of well-trained teachers to the learning process. These include certified business trainers, leading specialists of the Russian Railways, and entrepreneurs.

The internship program is rather diverse. It is held by one of the leading companies in the industry. The training techniques are innovative. The program adopts the following advanced forms of conducting the educational process: business and role-playing games, managerial battle, and case studies.

Thus, the additional managerial retraining for the railway scholarship students is a new and effective form of training. It allows transport companies to improve their personnel skills, reduce future costs, and broaden the base for the integration of the Russian transport sector in the international transport system. The additional training program produces multi-specialists. Additional

managerial training for technical students by the order of the employer is the innovative part of the system of additional vocational training.

It puts into practice the most effective form of social partnership in the Russian economy, increasing the potential of human resources in the transport sector. As a result, the potential of the JSC Russian Railways in the process of modernization of the national economy greatly increases.

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