

## RESEARCH ON LOGISTICS SPECIALISTS' MARKET

**Solskaya, Irina Yu.**, Irkutsk State Transport University, Irkutsk, Russia.

**Freidman, Oksana A.**, Irkutsk State Transport University, Irkutsk, Russia.

### ABSTRACT

The authors analyze the labor market situation prevailing around the profession of logistics specialist, assess the demand from behalf of transport and logistics companies, and in the context of human resource capacity of a region. The article offers approaches to formation of logistics personnel, training programs for logistics personnel

of specialized organizations and future experts in higher schools, as well as performance indicators of professional competencies of logisticians. The example of Irkutsk shows ranking of employers' preferences and structure of demand for the profession. The conclusion on current trends at the regional labor market and on educational services is proposed.

**Keywords:** logistics potential, human resources, educational logistics, educational logistics tools, labor market.

**Background.** The growth in demand for logistics specialists in Russia began with the transition to the system of market relations and was more active in those areas where the company switched to self-dependence. However, market demanded functions were performed separately, item by item, the organization systems of logistics are most often extrusive, which often leads to loss of resources or their insufficient economical use.

**Objective.** The objective of the authors is to study market of logistics specialists of Irkutsk region and of the country.

**Methods.** The authors use economic evaluation, statistical and contents analysis, comparison.

### Results.

#### What is the situation now?

Thanks to the efforts of scientists and practitioners specialty «logistician» (or «logistics specialist») entered into circulation in hiring. Informing the public about the new profession, and the presence of numerous publications on the subject contributed to differentiation of logistics functions (transportation, storage, customs), and, as a consequence, of logistics profile.

The development of logistics, intelligent control systems, implementation of GLONASS program influenced attracting of IT-specialists into logistics. For this reason, logistics coordinators and database operators appeared.

In the regions, a number of commercial organizations that specialize in carrying out logistical operations increases (customs clearance, delivery and monitoring of cargo), working with companies in the network mode and relieving them from a significant part of functions and tasks of logistics. With the growing popularity of outsourcing companies, there is a need to narrow specializations of logisticians.

However, it should be noted that in Russia systematic and rigorous scientifically sociological studies of the labor market in general and logistics in particular are not conducted. More significant reasons for this are related to uncertainty of the actual level of wage of experts, the complexity of creating a unified methodology of case studies, absence of state, public or commercial institution, which would be really interested to carry out full monitoring of the labor market.

At the same time, existing publications on such issues reflect, as a rule, a section of the current state without taking into account the dynamics of changes in the market or opinion about the market of certain recruitment agencies or their associations.

In order to develop effective ways to improve the education activity for training of logistics specialists that have a necessary set of competences, it is necessary to determine the needs of a region, to carry out an analysis of supply and demand on the logistics market, to assess existing human resources.

Before proposing a methodology for calculating personnel potential in the field of territorial logistics, it is

necessary to clarify what is meant by personnel potential (or staff capacity) and what features the concept acquires from the point of view of management of the territory.

The concept of «staff potential» reflects the assumed resource aspect of socio-economic development. It can be defined as a set of abilities of all people who are engaged in the organization and solve certain tasks [1]. At the same time, indicators of economic efficiency of personnel potential as a characteristic of a ratio of results and costs (including implementation of organizational goals), are as important as indicators of social efficiency as the characteristic of working comfort and satisfaction of the staff from their work.

All areas of analysis of human resource capacity of the organization are based largely on assessment methods of quality, creating ranking systems, based on the use of different survey methods, which brings a good deal of subjectivity. In the case of formation of regional transport and logistics centers or transport and logistics clusters capacity assessment methods in the training of logistics specialists can and must change.

Firstly, the assessment of aggregate indicator of logistic infrastructure development needs a system of criteria, able to most objectively determine the logistics status of the area at any level, whether city, state or country. Exclusion of subjectivity in expert assessments will provide an opportunity to ascertain a real situation in the system of inter-regional and international transportation and will allow to carry out preventive operations to reduce risk in the supply chain.

Secondly, the assessment of the region's human resource capacity is required mostly in order to understand a number of specialists required for realization of the goals of logistics entities and related regional programs, what is the level of training of these professionals, whether they are capable of performing the tasks, besides, what is the nature of supply and demand for logisticians in the future, whether there is a basis for creation of scientific support for the activities area under study.

#### Areas of analysis and learning

Relevance of the research of human resources potential is conditioned by restructuring of the economy, which is of particular importance in terms of expansion of foreign economic relations and the global transport integration.

In order to develop new regional management structures, to create market mechanisms there is a need for elaboration of methods of staffing territorial structures with regard to the content and conditions of implementation of regional development programs. Here attention is drawn to:

- Specific HR policy pursued under the leadership of local governments;

- The contradiction between the increase in the number of managers, the cost of training in the requested areas and outcome of their activities;

- Discrepancy between the goals of the reforms and the degree of use of trained human resources;
- Discrepancy between the professional and qualification dynamics of personnel, and change of managers' functions at real workplace;
- A significant lack of demand for existing human resource capacity in the region.

Human resources potential is the ability of staff and the administration, which can be used to achieve the strategic objectives of regional programs.

Accordingly, in terms of territorial logistics management concept of human resource capacity is associated with three levels of analysis:

- Analysis of human resource capacity of municipal management employees, the availability and use of staff with sufficient skills and experience in management of regional programs in a given economic sector;
- Analysis of the capacity of transport and logistics companies;
- Analysis of labor market in the field of logistics and marketing.

In this context we offer the following areas of analysis and evaluation of personnel potential:

1) dynamics and structure of the number of university graduates in the spheres of logistics activities;

2) logistics infrastructure needs of the region;

3) dynamics of indicators of quality of training of logistics and marketing specialists;

4) degree of satisfaction of transport and logistics companies with the level of professional competence of graduates and the rest of the staff.

Regional program of logistics staff training can be formed on the basis of estimates.

One option for determining the human resource capacity in the field of logistics is an aggregated index of population dynamics of graduates by profiles of logistic activities that includes: data on the number of logistics graduates in the transport industry, the field of warehousing and supply chain management ( $Csp_{ij}$ ); the quality of training of graduates, expressed in relative terms at the end of the graduation year ( $K_{ij}$ ); the number of universities, offering regional training (bachelors or masters) of logistics specialists ( $j$ ) [2].

Estimate  $Ps$  (potential of staff), characterizing the human resources of higher education system in this case will be calculated according to the formula

$$Ps = \sum_{i=1, m} \sum_{j=1, n} K_{ij} Csp_{ij} \quad (1)$$

Accordingly, the index, which reflects the dynamics of this profile can be determined by the expression:

$$I_{Ps} = \frac{\sum K_{i1} Csp_{i1}}{\sum K_{i0} Csp_{i0}} \quad (2)$$

Given the fact that the scope of logistician activity may change, possible calculation of personnel potential of the territory by each profile.

For example, to assess the satisfaction of transport and logistics companies (employers) with the level of professional competence of graduates and the rest of the staff the lists of competences are needed according to which professional quality of logistics specialists of various specializations must be defined. When present, it is quite real to calculate the desired potential.

Evaluation parameters may not include estimation components of the personal qualities of specialists, since we are talking about professional potential of employees. Evaluation system involves at the same time, it is important to remember, also the professional competence of the sectoral nature.

## University lays potential

Indicators of human resources management efficiency in the logistics companies are based on the diagnosis of human flows. When it comes to assessing the effectiveness of the personnel flow, it is necessary to analyze costs of organization of movement of labor resources and to compare these costs either with the efficiency or productivity of production systems.

Consequently, the indicator of effectiveness of personnel logistics will include: results from the commission of logistics operations, expressed in terms of value (profit or sales volume of services); the cost of movement of labor resources within the organization of logistical activities.

As the results may appear: time savings in the implementation of logistics operations, obtained by changing the structure of personnel management; cost savings on the movement of human and material resources, and others.

It can be assumed that the characteristic of the region's human resource capacity in logistics should focus on index of development of professional competencies, as well as on the comparison of the level of demand and supply in the labor market for specialized professions.

Our analysis of the logistics meant the state of the scientific environment, training of specialists and bachelors in higher education institutions of Irkutsk region, the state of the labor market in relation to transport and warehousing area.

Firstly we touch the research base in the region.

Before the period of market reforms in Irkutsk the branch of scientific-research institute of material-technical supply of the USSR State Logistics Committee (NIIMS) carried out its activity. In the 1990s it suffered the fate of many institutions that did not fit into a market economy.

In the city and the region there are higher education institutions that train specialists in logistics and have an appropriate scientific potential: Baikal University of Economics and Law, Irkutsk State Transport University, which is a natural center of concentration of scientific and educational activities in transport logistics and supply chain management.

Such alignment of forces is understandable due to the fact that rail transport does not only has its own logistics infrastructure, but is also very engaged in the supply chain. In these universities bachelors are trained within profiles of logistics and supply chain management, logistics, commerce, transportation management processes, trading business.

Over the past four years, the profile of «Logistics and Supply Chain Management» has been gaining popularity. Demand from students for education in the field of logistics at the Transport University is growing every year. So, in 2011, during the first entry of bachelors for «Management» course with «Logistics and Supply Chain Management» profile there were 49 students, in 2012 there were 96 students, in 2013 their number reached 114 persons, and in 2014 119 new students enrolled.

The need for specialists at the level of academic bachelor's studies is owned by logistics operators and freight forwarding organizations, there are more than eighty of them within the region.

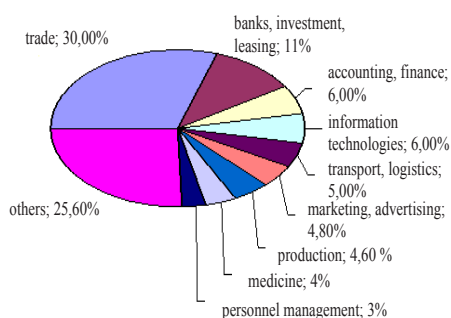
In addition, the foreign contractors who need to control the passage of goods in transit cargo through the territory of Russia also have the interest for specialists in supply chain management.

## Logisticians in the ranking of professions

Describing the demand in the labor market of the city, it is possible to identify professional areas and categories (see. Pic. 1), as there are own leaders and preferences in it.

In addition to the professions for which there is demand in the field of trade, and the need for work force,





**Pic. 1. The structure of demand in the labor market of Irkutsk (2012–2013) [2].**

IT-specialists are most sought after in the labor market of Irkutsk. The reason is related to the penetration of information technology in all areas of business, its increasing influence on the economic results, scientific and technical progress.

The second place can be given to office staff – administrators, secretaries, office managers. The demand for them is high enough – it can be found as a result of a quick analysis of companies offers. Employment of that kind is not considered prestigious, but many young professionals consider such a position as a starting point for their career, especially if the employer is a known branch company.

The top three sought-after specialists comprise also marketing and logistics specialists – sales sphere even in crisis conditions continues to be attractive and requires human resources. Among the most frequently asked logistics jobs we can mention managers for organization of the supply chain, manager of storage facilities, warehouse manager, head of services in charge of trade flows in industrial companies.

Of course, in this sector, there are other incentives than for network programmers and office workers. Much is determined by the level of income, involvement in commerce. Among the factors that affect the salaries of specialists in logistics, there are the following: experience in the field of logistics and marketing, knowledge of a foreign language, type and size of the company.

First the experience defines level of income of professionals involved in logistics [3].

There are generally three categories, taking into account the relatively short duration of the existence of the sphere of activity: with experience up to 1 year, from 1 to 3 years and more than 3 years. The transition to a «high» level can increase wages by 15–30%. The degree of responsibility is also related to the employee experience and is estimated accordingly. Additional education (trainings, courses on logistics) affects wages only in case of the length of service in the profile.

Usually specialists with a good knowledge of the English language are more in demand in the market and can expect a higher level of remuneration. Among the

logisticians within Irkutsk and the region experts knowing Chinese and Korean languages have a particular advantage.

In general, the analysis of demand for specialists in logistics in Irkutsk shows that employers give priority to three categories:

1. Experts on purchases and stocks, the main functional responsibilities of which are calculation and setting of norms of stocks; selection of optimal suppliers (goods, freight forwarding), taking into account the ratio of price / quality / terms; short-term and long-term planning of product distribution; analysis of bonus offers suppliers (discounts, installment payment, etc.); warehouse management, taking into account the seasonal procurement; development of an effective strategy to sell the rests.

2. Specialists-analysts in logistics, capable to competently assess the state of the market of suppliers and customers, the efficiency of the supply chain.

3. Logistics specialists in the field of foreign trade, customs, logisticians, who possess the necessary competence in customs document control.

**Conclusions.** Summarizing the evidence, we can conclude that the trends in demand for logistics specialists in Russia (and in Irkutsk, in particular), are stable and are characterized by growth in demand for specialized professions.

A wide range of educational services for training of logistics specialists are offered to logistics and transport companies, universities train specialists, in accordance with the needs of the labor market, the increasing popularity is attributed to remote training courses.

However, permanent monitoring of the demand, adaptation of educational programs, closer approximation to the problems of regional transport and logistics complexes are necessary.

Since one of the basic priorities of the Russian national educational doctrine is the development of global communications and global economic relations, it would be equally important in the learning process of future logisticians to seek a good knowledge of modern transportation technologies, and the ability to focus on the logistics market, confidently interact with foreign companies.

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Information about the authors:

**Solskaya, Irina Yu.** – D.Sc. (Economics), professor, vice-rector of Irkutsk State transport University, Irkutsk, Russia, [solskaya\\_i@irgups.ru](mailto:solskaya_i@irgups.ru).

**Freidman, Oksana A.** – Ph.D. (Economics), associate professor, dean of the faculty «Management, Logistics and Customs» of Irkutsk State Transport University, Irkutsk, Russia, [oksana-frey@mail.ru](mailto:oksana-frey@mail.ru).

Article received 17.03.2015, accepted 30.09.2015.

**This article is based on papers presented by the authors at International scientific and practical conference «International Logistics: science, practice and education», held on March 3, 2015 at the Institute of Management, Administration and Information Technologies of Moscow State University of Railway Engineering (MIIT).**