

## SURVEY ON REQUIREMENTS FOR LOGISTICS EMPLOYEE

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**Abstract:** Better preparation can help alumni find employment in the current Polish market. However, this market is changing and education courses must change as well in order to provide skills suitable to meet the emerging employment requirements. Logistics education is one of the most desired by employer. Such a course of study can be very useful. In the paper the author describes the regional employment market in Poland and the results of their survey of employers regarding the role of logistics education in preparing engineering graduates for the current labour market.

**Keywords:** logistics education, unemployment.

### Introduction

Unemployment is one of the most important problems of Polish economy in macro and micro scale. It causes economical and social problems as well. Unemployment rate in Poland is higher than in most of EU countries. It has been higher than average of unemployment rate in all researched period 2006-2010, the situation is better than last years however unemployment rate is respectively 9,6.% for 27 countries of European Union and 11.9% in Poland, in last analysed period – second quarter of 2010<sup>1</sup> (compare Figure 1).

Częstochowa is the city in Silesia province with more than 250 thousand inhabitants living there. The employment of Częstochowa City and the district is based on the one ironworks and many SME's both foreign and domestic. However above-mentioned business cannot fulfil the employment demand. In Częstochowa City and the district, there are 11.1% and 15.5 % unemployment rate, respectively. Częstochowa district unemployment rate is higher than average unemployment rates in Silesia province and in Poland. And Częstochowa city unemployment rate is higher than average unemployment rates in Silesia province and almost the same as average for Poland.

Strong competition on the employment market and changing demand on the employment market from managerial studies to engineering and interdisciplinary studies joining economical, mathematical, technical and social problems causes that higher and higher demands are made for alumni of command and skills of theoretical knowledge application in practical activities. There are only a few problems with effectiveness of theoretical knowledge dissemination whereas teaching the problem solution skills shows much more difficult. The technical universities use high technology achievement in education to prepare the alumni for their future work better, to make education more attractive for students and because of it more effective.

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<sup>1</sup> Eurostat 2010

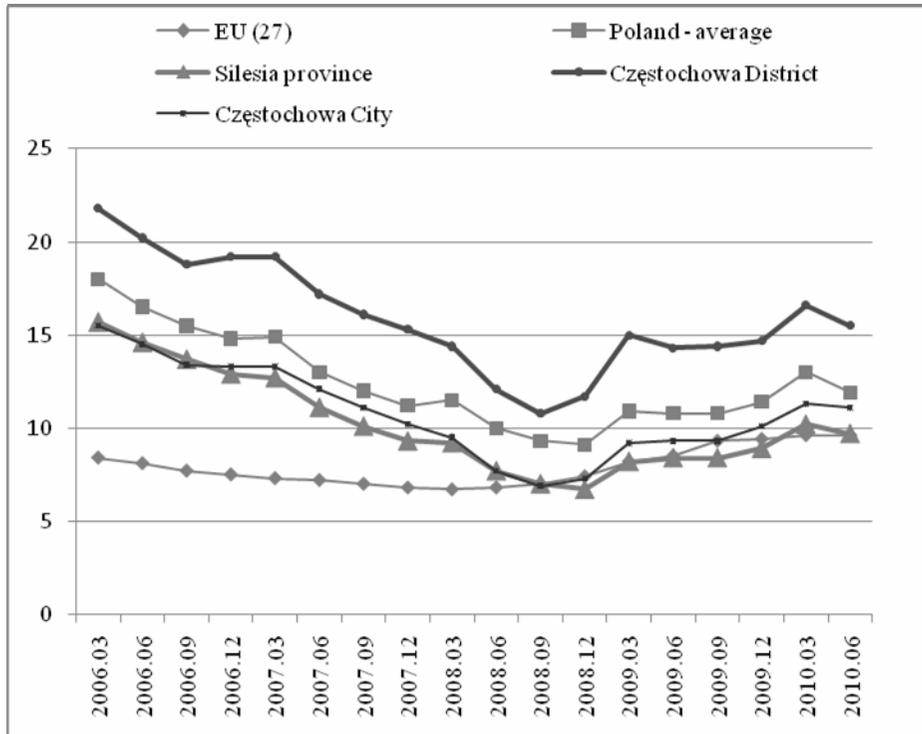


Figure 1. Unemployment rate in chosen regions in 2006-2010

In Czestochowa University of Technology at the Faculty of Management logistics education as a brand new course of study has been started since 2007.

According ministry requirements students are taught the principle subjects: mathematics, economy, basis of management, principle of accounting, statistics, econometrics and sociology. There are also taught many logistics subjects: supply, production and distribution logistics, international logistics, supply chain management, transport economics, packaging and identification techniques, reverse logistics and many others.

In 2008, in Czestochowa University of Technology the “Development Plan 2008-2012” has been started co-financed by European Union funds. In the plan logistics course has been acknowledged as a priority and the following tasks has been started [1.]. New curricula elaboration based on the researches among the business was one of the most important actions.

In order to develop new academic courses, investigations focused on determination of expectations of employers towards employees in logistics departments in their companies. At the same time, analysis of the collected data allowed for highlighting of main barriers to effectiveness of performance of activities connected with both distribution logistics and direct customer service, which results, according to employers, from insufficient level of knowledge among the employees responsible for logistics.

The questionnaire in the survey was distributed among the employers from a variety of enterprises located throughout southern Poland. The respondents included people who are involved, within their daily business practice, with the issues of management and selection of employees of logistics departments. Target group covered 500 people who are responsible for logistics activities in their companies.

The questionnaire of the survey contained questions divided into three categories:

- Part I covers characteristics of logistics processes in the studied enterprise,
- Part II concerns the characteristics of employees who start work in the area of performance of logistics activities.
- Part III contains information about the company where the survey was conducted.

Analysis of the results of the study reveals that 55.86% of all the respondents think that the activities performed by logistics employees are of key importance to the enterprise, 38.36% of them point to similarly important activities in other areas and 5.78% marked the answer: 'No, they do not have any significant importance; there are more important activities in other areas'.

The respondents indicated that working at logistics positions typically requires clearly defined goals for employees, individual coping with problems, strong position in organizational structures. Based on the results of the study, the most important new challenges for logistics' course graduates were determined for the nearest future (Figure 2.).

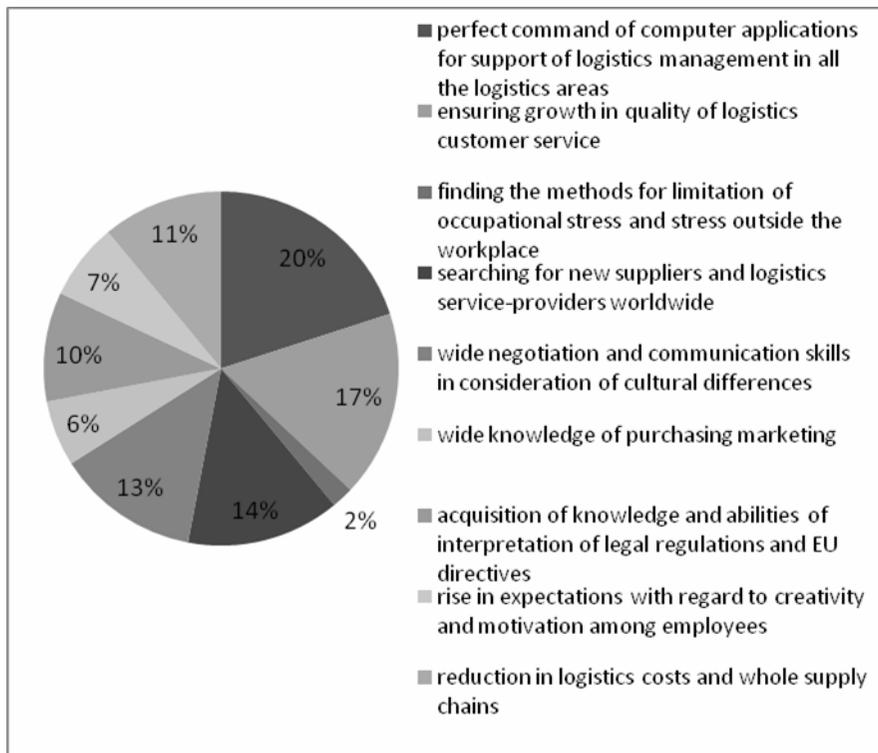


Figure 2. Challenges faced by logistics' course graduates in nearest years

The respondents showed the most important areas of operations to which the graduates of logistics courses should be directed: internal logistics (22.6%), dispatch and acceptance services (17.4%) and inventory management (14.1%).

The most essential skills included: organization of the whole production process, cooperation with suppliers, cost management. Those of little importance were: knowledge of Just in Time, assessment of suppliers, inventory control.

The respondents also indicated that graduates should be characterized by responsibility (21.4%), creativity (19.5%) and ability to work in a team (17.4%).

The effects of the study reveal the domains of science which are most frequently used at logistics positions, which should be the basis for education. The following domains of science were indicated: information technologies and using computer applications, marketing, human resource management and foreign languages. IT skills typical of a graduate profile were also determined (Figure 3.).

The investigations carried out using the questionnaire indicated that expectations towards candidates depend on the specific nature of a particular position. A fundamental criterion frequently reported by the respondents is good command of English, which is a typical foreign language used in this area of business. Other frequently emphasized competencies include organizational, analytical and spatial abilities, flexible thinking and attention divisibility, ability to work under time pressure, under stress and ability to make quick and good decisions. With regard to information systems, on which logistics departments are based, the demanded abilities include use of computer applications and readiness for learning new computer skills.

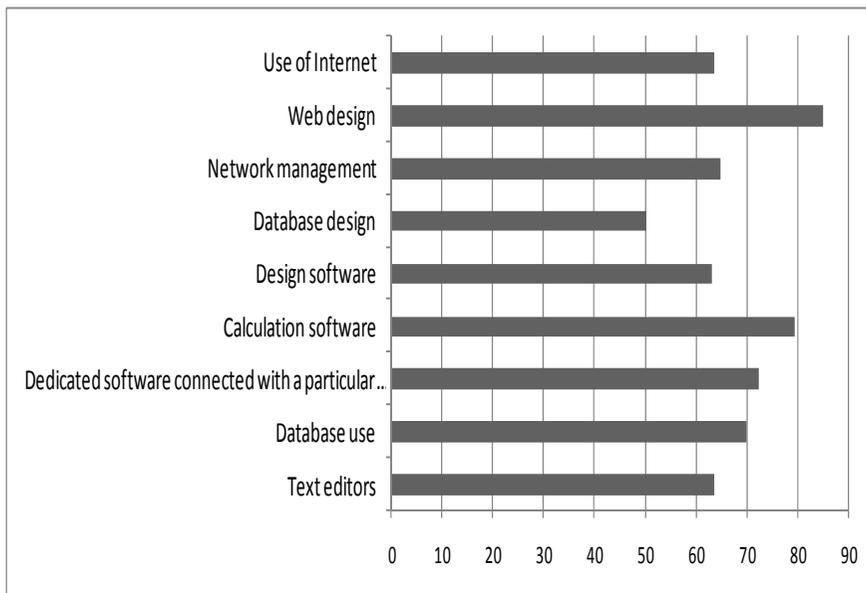


Figure 3. Level of skills in terms of use of the selected computer programs

Drawing conclusions of the necessity of modification of university courses, educating future logistics experts, one should emphasize that logistics courses should be aimed at extending a comprehensive theoretical knowledge and special skills necessary for professional work in the domain of logistics and forwarding among the university students.

They should also familiarize with the principles of implementation of IT systems for support of information flow in logistics and transport, principles of functioning of transport and forwarding enterprises, planning and development of transport and logistics and the essence of logistics customer service.

After graduation from these types of universities, the graduates should know how to:

- effectively perform activities of logistics services in business entities, at both operational and tactical levels,

- efficiently use logistics methods and techniques,
- make use of IT tools for support of management of logistics processes,
- measure and assess logistics processes,
- design logistics support,
- use logistics customer service,
- manage inventory.

Skills and competencies which should be demonstrated by university students after the cycle of lectures comprising the content of fundamental courses include in particular:

- using fundamentals of mathematics as a tool for professional work of logistics,
- understanding and application of mathematics for investigations of the effectiveness of logistics systems,
- ability to select and to employ the methods of descriptive statistics for investigations of the structure of economic and logistics phenomena,
- understanding and application of the methods of mathematical statistics for statistical inference,
- proper interpretation of the world, the organization and its environment,
- understanding of relationships and interdependence between the knowledge of logistics and knowledge of organization and management,
- modelling of the systems and identification of their parameters,
- solving technical problems based on the laws of physics,
- understanding of the essence of economics as well as micro- and macroeconomic problems.

Skills and competencies which should be demonstrated by university students after the lectures comprising the content of the academic major include in particular:

- ability to manage production processes and services using IT support tools,
- interpretation, in system approach, of logistics relationships of economic situation in the company,
- ability to analyse core logistics processes and functions of logistics management,
- identification of the integrating factors in the enterprise and their systems in supply chain,
- definition of fundamental concepts of the infrastructure, techniques and technologies in logistics,
- ability to analyse processes of transport, storage, order picking, goods dispatch,
- understanding of the essence of supply logistics and quantitative methods in management of material resources,
- understanding of the essence of production logistics and use of quantitative methods in management of production material resources,
- understanding of the theory of distribution channels and analysis of the structures and strategies in commerce,
- ability to determine the essence of effective customer service,
- understanding of functions of transport in enterprise management,
- understanding of the concept of eco-logistics and waste management systems,
- design and management of business processes.

## Conclusion

New elaborated curricula allows for the statement that more suitable adaptation of education for present and future market requirements makes logistics course more and more popular among study candidates and in 2009/2010 academic year the number of enrolled students are higher about fifty percent then in previous year with important notice that the candidate number was twice higher.

Moreover logistics education introduction together with other factors as very good geographical location encourage a few firm to start investment in strictly logistics and transport businesses and it is foreseen that this process will be developed and influence crucially for unemployment reduction in researched region.

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