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**Employers Expectations Vis-à-vis Graduates Of Faculties  
Of Economics. Results Of A Direct Study<sup>1</sup>**

**Abstract**

*This paper presents employers' opinions concerning competencies they expect of graduates of Faculties of Economics with elements of environmental protection. In order to provide empirical input, we conducted a questionnaire-based study among 200 top managers of (mostly) businesses located in the Lodz region (voivodeship), including 194 enterprises and 6 entities do not involved in business but whose activities are, directly or indirectly, linked with environmental protection. The findings of our study demonstrate that while both soft and professional competencies acquired in the course of university studies are important to employers, the respondents valued soft competencies more. They found foreign languages to be the most important, although surprisingly they also attached high importance to a good command of Polish. When assessing university curricula, employers indicated that general courses, the foundations of a university education, remain important as a basis to improve the professional skills of university graduates and to reinforce their position in the labour market.*

**Keywords:** *higher education, employers, graduates, economics and environmental protection*

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## **1. Introductory remarks: goals, research methodology, and sample profile**

This paper presents the opinion of employers concerning the competencies they expect from graduates of courses in economics combined with environmental aspects. The term ‘competencies’ is understood as “a combination of knowledge, skills and attitudes applied appropriately to a context in order to achieve a desired outcome” (European Commission 2012 p. 30), which is also the definition applied in the Polish National Qualification Framework (Ministry of Science and Higher Education).

The paper has been written within the framework of a project implemented at the Faculty of Economics and Sociology of the University of Lodz which focuses on developing new syllabuses and curricula.<sup>2</sup> In accordance with the assumptions of the project, one of the pillars of the study was to find out what competencies employers expect from their future employees, which in turn would aid us in determining what should be taught and how. Taking into account employers’ expectations in the development of curricula and syllabuses should improve the quality of education and, combined with practical experience, will provide students with the best foundations to effectively face the challenges in the future labour market.

Sampling employers about their opinion with a view to improving the quality of higher education is nothing new or original. Our study differs however from other studies described in the Polish (e.g., SGH 2012, Barwińska-Małajewicz 2013) and foreign literature (e.g., van Werden, Vonk 2014) in that it has been conducted from an *ex ante* perspective, as an element of developing new university courses, not as a part of evaluation of existing curricula and courses. Naturally, there are differences when it comes to the methodology, scope and size of the sample. Such surveys focus on concrete cases and caution is required with respect to drawing general conclusions about educational systems.

These interpretation limitations apply to the text below, especially considering that the study described here is explorative in its nature, meaning it is not a closed unit but a starting point for further research. It is a questionnaire-based direct study. In the first half of 2015 almost 30 interviewers, including students of the Faculty of Economics and Sociology of the University of Lodz, conducted interviews under the supervision and coordination of the authors of this paper.

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<sup>2</sup> The project „The creation of new interdisciplinary curricula in the field of economics of environmental protection (in Polish and English) at the University of Łódź” implemented in the years 2015-2016 and supported by a grant from Norway through the Norway Grants and co-financed by the Polish funds. The project is carried out by a team of research workers of the University of Lodz.

The questionnaire included ca. 30 questions (open, closed, and scaled). Answers were constructed in accordance with the 5-point Likert scale, which enables their further statistical processing. To analyse the results we used the distribution of variables, central tendency, and dispersion measures. In some cases, due to the relatively minor diversification in the results, we used the statistical test of the equality of means (Sobczyk 2000, pp. 183–186). Thus we learnt about how significant the differences between the means are.

Interviews were conducted mostly with top management: CEOs, directors and their deputies, managers (33.5%) and middle management: plenipotentiaries, assistants, specialists (32.5%). The interviewers had special forms to facilitate answers to questions, whereby respondents could choose from among several options. We used quota sampling.

In total we examined 200 operators from the Lodz voivodeship (region), including 194 enterprises and six entities operating directly or indirectly in the area of environmental protection.<sup>3</sup> The enterprises' database was prepared based on data from the Central Office of Statistics of Poland.

The sample included enterprises of various sizes. Based on the employment criterion more than half (59.3%) were micro-enterprises that employ fewer than 10 persons, and less than one fourth (23.7%) were small enterprises with the employment ranging between 10–49 persons. Medium-sized and large enterprises made up the smallest group (Table 1).

**Table 1. Employment in the surveyed enterprises in December 2014**

| Employment             | No. of interviewed operators |       |
|------------------------|------------------------------|-------|
|                        | absolute                     | in %  |
| Enterprises employing: |                              |       |
| up to 9 persons        | 115                          | 59.3  |
| 10 – 49 persons        | 46                           | 23.7  |
| 50 – 249 persons       | 26                           | 13.4  |
| 250 and more persons   | 6                            | 3.1   |
| No reply               | 1                            | 0.5   |
| Total                  | 194                          | 100.0 |

Source: Authors' own compilation.

<sup>3</sup> These latter were: Marshal Office in Lodz, Regional Fund for Environmental Protection and Water Management in Lodz, Regional Inspectorate for Environmental Protection, Organic Waste Composter – Waste Management Board, University Incubators of Entrepreneurship, Lodz Hills Landscape Park.

Using the revenue criterion, the share of micro-enterprises in the sample would be even higher (Table 2). That could partly be attributed to some respondents' failure to disclose their real revenue; 14 enterprises did not reveal their revenue as they considered this information confidential.

**Table 2. Revenue of the surveyed enterprises in 2014**

| Revenue                   | No. of interviewed operators |       |
|---------------------------|------------------------------|-------|
|                           | absolute                     | in %  |
| Enterprises with revenue: |                              |       |
| up to PLN 8 million       | 142                          | 73.2  |
| PLN 8 – 40 million        | 29                           | 15.0  |
| PLN 40 – 200 million      | 7                            | 3.6   |
| above PLN 200 million     | 2                            | 1.0   |
| No answer                 | 14                           | 7.2   |
| Total                     | 194                          | 100.0 |

Source: Authors' own compilation.

Enterprises covered by the study are based in 15 towns in the Lodz voivodeship. The vast majority are based in the Lodz Metropolitan Area (LMA).<sup>4</sup>

The study focused on two sectors of the economy: services (with the largest representation – 79.4% of all operators), and manufacturing (20.6%). Taking into account the industry structure, the largest group was comprised of trade businesses, mostly wholesalers. This group was dominated by entities trading in equipment and machinery, fabrics and clothes, food and medical equipment, pharmaceuticals, and cosmetics. Operations referred to as “other services” were very much dispersed and included fields such as, e.g., training, consulting, advertising, marketing services, renting office space, gardening, fitness and spa (Table 3). Manufacturing enterprises were dominated by manufacturers of all sorts of metal products, but also of clothes and knitted goods, construction materials, furniture and vehicle components, packaging, office materials and electronics.

<sup>4</sup> The Lodz Metropolitan Area includes the city of Lodz and four counties: Brzeziński, Łódzki Wschodni, Pabianicki, and Zgierski.

**Table 3. Surveyed enterprises by main type of activities**

| Sector                     | No. of interviewed operators |       |
|----------------------------|------------------------------|-------|
|                            | absolute                     | in %  |
| Manufacturing              | 40                           | 20.6  |
| Construction               | 5                            | 2.6   |
| Retail and wholesale trade | 87                           | 44.8  |
| Transport and warehousing  | 10                           | 5.2   |
| IT services                | 8                            | 4.1   |
| Other services             | 44                           | 22.7  |
| Total                      | 194                          | 100.0 |

Source: Authors' own compilation.

An overview of the writings of Polish and foreign economists (e.g., Michałek 2013, EFIGE 2012) demonstrates that exporters are the elite among enterprises when it comes to productivity; they offer higher salaries and wages and they seek people with higher qualifications and skills. In our sample more than two thirds of enterprises earned their revenue exclusively from sales in the domestic market. While the rest were involved in exports, only for a few (8.2%) were export markets their main source of revenue (Table 4). However, this moderate share refers only to manufacturing enterprises, not the entire sample. For the entire sample, the percentage of those who “make their living on exports” would reach ca. 28%. The largest share can be found in medium-sized enterprises (52%), while for the remaining size categories (micro, small, large) between 17% and 26% of operators were involved in exports.

**Table 4. Share of export in the sales of the surveyed enterprises in 2014**

| Share of export in sales | No. of interviewed operators |       |
|--------------------------|------------------------------|-------|
|                          | absolute                     | in %  |
| No exports               | 132                          | 68.1  |
| up to 1%                 | 3                            | 1.5   |
| 1.1% - 10%               | 13                           | 6.7   |
| 10.1% - 25%              | 9                            | 4.6   |
| 25.1% - 50%              | 13                           | 6.7   |
| 50.1% - 75%              | 3                            | 1.5   |
| 75.1% - 90%              | 5                            | 2.6   |
| 90.1% - 99%              | 2                            | 1.0   |
| 100%                     | 6                            | 3.1   |
| No reply                 | 8                            | 4.1   |
| Total                    | 194                          | 100.0 |

Source: Authors' own compilation.

## 2. Employers' expectations vis-à-vis graduates of Faculties of Economics

In the National Qualification Framework (Ministry of Science and Higher Education), the competencies that employers are looking for when recruiting graduates of Faculties of Economics with elements of environmental protection are divided into three categories: knowledge, skills and attitudes. Our analysis was conducted in two stages. In the first stage we examined general/core competencies, while in the second stage we examined competencies within the specialist field of economics and environmental protection.

### 2.1. General/core competencies

In their responses to the question concerning the core competencies of university graduates, employers assessed 17 types of competencies on the 5-point Likert scale. In our analysis of their responses we used the distribution of answers, statistical coefficients of central and dispersion measures, and a statistical test.

Attention should be paid to the fact that employers highly valued the need to give graduates the types of knowledge, skills and attitudes<sup>5</sup> listed in the questionnaire. High median and mode values, with average answers all above 3.0 mean a clear majority of positive answers, which indicates the need to exert more pressure on shaping these competencies in the course of university studies (Table 5).

**Table 5. The need to shape competencies during university studies\***

| No.              | Competence                            | Average answers | Standard deviation of answers | Mean relative error | Median | Mode |
|------------------|---------------------------------------|-----------------|-------------------------------|---------------------|--------|------|
| <b>Knowledge</b> |                                       |                 |                               |                     |        |      |
| 1.               | Foreign languages                     | 4.540           | 0.795                         | 0.175               | 5      | 5    |
| 2.               | Internet literacy                     | 4.540           | 0.795                         | 0.175               | 5      | 5    |
| 3.               | Good command of Polish                | 4.440           | 0.796                         | 0.179               | 5      | 5    |
| 4.               | Ability to use negotiating techniques | 4.275           | 0.743                         | 0.174               | 4      | 5    |
| 5.               | Ability to conduct SWOT analysis      | 3.470           | 1.093                         | 0.315               | 4      | 4    |
|                  | <b>Mean</b>                           | <b>4.253</b>    | <b>0.844</b>                  |                     |        |      |

<sup>5</sup> The division that we applied may be questioned. For example, speaking good Polish is a skill one cannot acquire without deep knowledge of the language; hence we classified this competence as a part of the "knowledge" category. Asking employers directly about the importance of a good command of Polish would not make much sense, as for them what counts are practical skills. Similar comment refers to foreign languages or the ability to use negotiating techniques.

| Skills    |  |              |              |       |   |   |
|-----------|--|--------------|--------------|-------|---|---|
| 6.        | Being able to discuss and present arguments in an understandable way | 4.300        | 0.763        | 0.177 | 4 | 5 |
| 7.        | Working under time pressure  | 4.230        | 0.950        | 0.225 | 4 | 5 |
| 8.        | Team work  | 4.220        | 0.816        | 0.193 | 4 | 5 |
| 9.        | Drawing conclusions  | 4.175        | 0.882        | 0.211 | 4 | 4 |
| 10.       | Decision-making under conditions of risk                             | 4.150        | 0.813        | 0.196 | 4 | 4 |
| 11.       | Managing teams of workers  | 4.050        | 0.867        | 0.214 | 4 | 4 |
| 12.       | Presentation skills (e.g. solutions worked out under the project)    | 4.035        | 1.019        | 0.253 | 4 | 4 |
| 13.       | Using numerical and statistical data                                 | 3.879        | 1.089        | 0.281 | 4 | 4 |
| 14.       | Drafting analyses and syntheses                                      | 3.705        | 1.088        | 0.294 | 4 | 4 |
|           | <b>Mean</b>  | <b>4.083</b> | <b>0.921</b> |       |   |   |
| Attitudes |  |              |              |       |   |   |
| 15.       | Ability to find creative solutions to various problems               | 4.380        | 0.699        | 0.160 | 4 | 5 |
| 16.       | Persistence and self-discipline in completing long-term activities   | 4.360        | 0.770        | 0.177 | 4 | 5 |
| 17.       | Coping with stress   | 4.250        | 0.919        | 0.216 | 4 | 5 |
|           | <b>Mean</b>  | <b>4.330</b> | <b>0.796</b> |       |   |   |

\*Respondents could choose from the following answers: clearly yes (5), yes (4), hard to say (neither yes nor no) (3), no (2), clearly no (1)

Source: Authors' own compilation.

At the same time, however, employers see the need to shape attitudes and knowledge in university graduates rather than just equipping them with skills. This conclusion was supported by the results of the test checking the equality of two mean answers (Tables 6a, 6b, 6c).

**Table 6a. Test of the equality of two mean answers for knowledge and skills (based on Table 5)**

| Item                          | Variable 1    | Variable 2    |
|-------------------------------|---------------|---------------|
| Category                      | Skills        | Knowledge     |
| Mean answer                   | $m_2 = 4.083$ | $m_1 = 4.253$ |
| Standard deviation of answers | 0.921         | 0.844         |
| No. of observations           | 200           | 200           |
| $H_0$ :                       | $m_1 = m_2$   |               |

|                |                             |
|----------------|-----------------------------|
| $H_1$ :        | $m_1 < m_2$                 |
| $U_{obl}$      | -1.925                      |
| $\alpha$       | 0.05                        |
| $U_\alpha$     | - 1.64                      |
| Result         | $U_{obl} < U_\alpha$        |
| Interpretation | Null hypothesis is rejected |

Source: Authors' own compilation.

**Table 6b. Test of the equality of two means for knowledge and attitudes (based on Table 5)**

| Item                          | Variable 1                               | Variable 2    |
|-------------------------------|--|---------------|
| Category                      | Knowledge                                | Attitudes     |
| Mean answer                   | $m_1 = 4.253$                            | $m_2 = 4.330$ |
| Standard deviation of answers | 0.844                                    | 0.796         |
| No. of observations           | 200                                      | 200           |
| $H_0$ :                       | $m_1 = m_2$                              |               |
| $H_1$ :                       | $m_1 < m_2$                              |               |
| $U_{obl}$                     | - 0.939                                  |               |
| $\alpha$                      | 0.05                                     |               |
| $U_\alpha$                    | -1.64                                    |               |
| Result                        | $U_{obl} > U_\alpha$                     |               |
| Interpretation                | No reasons to reject the null hypothesis |               |

Source: Authors' own compilation.

**Table 6c. Test of the equality of two means for skills and attitudes (based on Table 5)**

| Item                          | Variable 1                  | Variable 2    |
|-------------------------------|-----------------------------|---------------|
| Category                      | Skills                      | Attitudes     |
| Mean answer                   | $m_1 = 4.083$               | $m_2 = 4.330$ |
| Standard deviation of answers | 0.921                       | 0.796         |
| No. of observations           | 200                         | 200           |
| $H_0$ :                       | $m_1 = m_2$                 |               |
| $H_1$ :                       | $m_1 < m_2$                 |               |
| $U_{obl}$                     | - 2.870                     |               |
| $\alpha$                      | 0.05                        |               |
| $U_\alpha$                    | -1.64                       |               |
| Result                        | $U_{obl} < U_\alpha$        |               |
| Interpretation                | Null hypothesis is rejected |               |

Source: Authors' own compilation.

The difference between the means for opinions on the need to shape competencies in the categories of attitudes and knowledge turned out to be statistically insignificant. The hypotheses of the equality of means connected with the same categories in relation to skills were rejected, meaning the higher values for attitudes and knowledge compared to skills were significant. Among factors in the 'attitudes' category employers saw a particular need to work on students' creativity, and among competencies connected with 'knowledge' they valued foreign languages, a good command of Polish, and Internet literacy. The need to teach SWOT analysis, one of the tools that helps to take rational decisions, was assessed as moderately necessary.

**The 'skills' category contains the longest list of competencies, and the opinions were rather diverse. The ability to discuss and present arguments in an understandable way, i.e., a soft skill, was assessed very highly, while drafting analyses and syntheses was assessed as moderately important.**

## **2.2. Employers' expectations vis-à-vis knowledge of graduates of Faculties of Economics with elements of environmental protection**

In the second part of the study we collected employers' opinions about the scope of knowledge they expect from graduates of Faculties of Economics with elements of environmental protection. Assessment was made based on 21 proposed general courses and 14 specialist courses (Tables 7a, 7b).

**Table 7a. Economic courses\***

| No. | Course                            | Mean of answers | Standard deviation | Mean relative error | Median | Mode |
|-----|-----------------------------------|-----------------|--------------------|---------------------|--------|------|
| 1.  | Basics of economics               | 4.056           | 0.908              | 0.224               | 4      | 4    |
| 2.  | Basics of ethics                  | 3.985           | 0.977              | 0.245               | 4      | 4    |
| 3.  | Writing business plans            | 3.758           | 1.163              | 0.309               | 4      | 4    |
| 4.  | Basics of commercial law          | 3.753           | 0.915              | 0.244               | 4      | 4    |
| 5.  | Financial analysis in enterprises | 3.747           | 1.011              | 0.27                | 4      | 4    |
| 6.  | Microeconomics                    | 3.722           | 0.95               | 0.255               | 4      | 4    |
| 7.  | Business start-up                 | 3.672           | 1.221              | 0.333               | 4      | 4    |
| 8.  | Basics of statistics              | 3.652           | 0.985              | 0.269               | 4      | 4    |

|     |  |       |       |       |   |   |
|-----|--|-------|-------|-------|---|---|
| 9.  | Macroeconomics                           | 3.626 | 0.935 | 0.258 | 4 | 4 |
| 10. | Analysing domestic markets               | 3.596 | 1.002 | 0.279 | 4 | 4 |
| 11. | Basics of management                     | 3.579 | 0.887 | 0.229 | 4 | 4 |
| 12. | Knowledge-based economy                  | 3.551 | 0.864 | 0.243 | 4 | 4 |
| 13. | Managing human capital                   | 3.520 | 0.944 | 0.268 | 4 | 4 |
| 14. | International economics                  | 3.518 | 0.907 | 0.258 | 4 | 4 |
| 15. | Fiscal policy                            | 3.460 | 0.927 | 0.268 | 4 | 4 |
| 16. | Analysing foreign markets                | 3.444 | 0.953 | 0.277 | 4 | 4 |
| 17. | Capital markets                          | 3.434 | 0.925 | 0.269 | 4 | 4 |
| 18. | Public finances                          | 3.409 | 1.027 | 0.301 | 4 | 4 |
| 19. | Economics of European integration        | 3.340 | 1.045 | 0.313 | 4 | 4 |
| 20. | Economic policy                          | 3.335 | 0.953 | 0.286 | 3 | 4 |
| 21. | Introduction to the history of economics | 2.985 | 0.985 | 0.33  | 3 | 3 |
|     | Total courses in economics               | 3.578 | 0.975 | 0.272 |   |   |

\*Respondents could choose from the following answers: clearly yes (5), yes (4), hard to say (neither yes nor no) (3), no (2), clearly no (1)

Source: Authors' own compilation.

**Table 7b. Environmental courses \***

| No. | Course                                | Mean of answers | Standard deviation | Mean relative error | Median | Mode |
|-----|---------------------------------------|-----------------|--------------------|---------------------|--------|------|
| 1.  | Environmental innovation              | 4.03            | 1.007              | 0.25                | 4      | 4    |
| 2.  | Economics of renewable energy sources | 3.863           | 0.988              | 0.256               | 4      | 4    |
| 3.  | Basics of environmental science       | 3.848           | 1.036              | 0.269               | 4      | 4    |
| 4.  | Environmental policy                  | 3.783           | 0.928              | 0.245               | 4      | 4    |

|     |   |       |       |       |   |   |
|-----|---|-------|-------|-------|---|---|
| 5.  | Economic aspects of environmental sciences            | 3.772 | 0.953 | 0.252 | 4 | 4 |
| 6.  | International cooperation in environmental protection | 3.746 | 1.003 | 0.268 | 4 | 4 |
| 7.  | Market of green products and services                 | 3.722 | 0.934 | 0.251 | 4 | 4 |
| 8.  | Environmental and sustainable growth terminology      | 3.702 | 1.134 | 0.306 | 4 | 4 |
| 9.  | Waste water and sewage management                     | 3.695 | 0.979 | 0.265 | 4 | 4 |
| 10. | Fuel and energy management                            | 3.690 | 0.953 | 0.258 | 4 | 4 |
| 11. | Economics of natural resources                        | 3.650 | 1.012 | 0.277 | 4 | 4 |
| 12. | Sustainable growth                                    | 3.510 | 0.958 | 0.273 | 4 | 4 |
| 13. | Managing eco-systems                                  | 3.447 | 0.976 | 0.283 | 4 | 4 |
| 14. | Environmental regulations                             | 3.340 | 1.045 | 0.313 | 4 | 4 |
|     | Total courses in environmental protection             | 3.700 | 0.993 | 0.268 |   |   |

\*Respondents could choose from the following answers: clearly yes (5), yes (4), hard to say (neither yes nor no) (3), no (2), clearly no (1)

Source: Authors' own compilation.

For all courses the mean values were above 3.0, which for the adopted scale (from 1 to 5) means a majority of positive answers. Only for "Introduction to the history of economics" was the number of negative answers ("no" and "clearly no") higher than that of positive ones ("yes" and "clearly yes").

The study demonstrated that employers interested in recruiting the graduates of Faculties of Economics with elements of environmental protection value specialist knowledge and general economic knowledge more or less the same. Differences were found to be insignificant and the hypothesis about the equality of the means for courses connected with economics and environmental protection was not rejected (Table 8).

**Table 8. Test of the equality of two means for courses connected with economics and environmental protection**

| Item                          | Variable 1                               | Variable 2                                      |
|-------------------------------|--|---|
| Course                        | Courses connected with economics         | Courses connected with environmental protection |
| Mean answer                   | $m_1 = 3.578$                            | $m_2 = 3.700$                                   |
| Standard deviation of answers | 0.975                                    | 0.993   |
| No. of observations           | 200                                      | 200   |
| $H_0$ :                       | $m_1 = m_2$                              |   |
| $H_1$ :                       | $m_1 < m_2$                              |   |
| $U_{obl}$                     | -1.124                                   |   |
| $\alpha$                      | 0.05                                     |   |
| $U_\alpha$                    | -1.64                                    |   |
| Result                        | $U_{obl} > U_\alpha$                     |   |
| Interpretation                | No reasons to reject the null hypothesis |   |

Source: Authors' own compilation.

Somewhat surprisingly, the basic economic knowledge of graduates was valued the highest, higher than microeconomics. This opinion was independent of the size of the enterprise (Table 9). Other areas of education considered useful were those which impart practical knowledge and skills: writing business plans, basics of commercial law, financial analysis in enterprises. Basics of ethics were equally important.

Among the fields of education connected with environmental protection which were especially highlighted by respondents we can list environmental innovation, economics of renewable energy sources, and basics of environmental science.

**Table 9. Importance of basic economic knowledge (by the size of enterprises)**

| Enterprise             | Mean of answers | Standard deviation | Mean relative error | Median | Mode |
|------------------------|-----------------|--------------------|---------------------|--------|------|
| Enterprises employing: |                 |                    |                     |        |      |
| up to 9 people         | 4.026           | 0.937              | 0.233               | 4      | 4    |
| 10 – 49 people         | 4.060           | 0.895              | 0.220               | 4      | 4    |
| 50 people and more     | 4.125           | 0.927              | 0.225               | 4      | 5    |
| Other legal entities   | 4.200           | 0.467              | 11.1                | 5      | 5    |

Source: Authors' own compilation.

Further questions concerned the importance of practical knowledge and skills such as (1) using specialist computer software; (2) basic operational principles of business; and (3) foreign languages.

In the first case, a clear majority of employers expected university graduates to be able to use only basic software. This opinion did not depend on the size of the enterprise (Table 10, Table 11).

**Table 10. Using specialist software**

| Should the graduates be familiar with specialist computer software?     | No. of answers |       |
|---|----------------|-------|
|   | Absolute       | in %  |
| No, it is enough if they can use Windows, Office and Internet           | 143            | 71.5  |
| Yes, they should learn the basics of using specialist computer software | 51*            | 25.5  |
| No reply  | 2              | 1.0   |
| Total   | 200            | 100.0 |

\* Six respondents enumerated the software in question. It included: sector-specific software, Auto Cad, basics of ERP, MSD Excel SAP, accounting & invoicing.

Source: Authors' own compilation.

**Table 11. Using specialist software by the size of enterprises (in %)**

| Enterprise             | No, it is enough if they can use Windows, Office and Internet | Yes, they should learn the basics of using specialist computer software | Total |
|------------------------|---|---|-------|
| Enterprises employing: |   |   |       |
| up to 9 people         | 72.2  | 27.8  | 100.0 |
| 10 – 49 people         | 78.7  | 21.3  | 100.0 |
| 50 people and more     | 68.7  | 31.3  | 100.0 |

Source: Authors' own compilation.

In the second case, according to the clear majority of employers university graduates should be familiar with practical operating principles of business, although it is remarkable that as many as over 1/3 of respondents were of a different opinion (Table 12). Perhaps they thought it was enough to acquire this type of knowledge as a part of on-the-job training and hence did not have to be included in the curriculum. Generally speaking, the larger an enterprise the higher the share of answers confirming that graduates should have such knowledge (Table 13).

How should students acquire the practical skills that they need in the working environment? Employers pointed to the need to develop them mainly as

a part of internships during the course of university studies (Table 14). In their opinion, it is important to analyse and prepare projects in relation to real market situation, such as *case studies*.

**Table 12. Basic operating principles of business**

| Answer  | Should they be familiar with basic operating principles of business? |       |
|---|--|-------|
|   | No. of answers   |       |
|   | absolute   | in %  |
| Yes, they are very important                      | 125  | 62.5  |
| Not necessarily, students will learn them at work | 72   | 36.0  |
| No reply  | 3  | 1.5   |
| Total   | 200  | 100.0 |

Source: Authors' own compilation.

**Table 13. Basic operating principles of business by the size of enterprises (in %)**

| Enterprises employing: | Should they be familiar with basic operating principles of business? |   |       |
|------------------------|--|---|-------|
|                        | Yes, they are very important   | Not necessarily, students will learn them at work | Total |
| up to 9 people         | 49.3   | 50.7  | 100.0 |
| 10 – 49 people         | 55.3   | 44.7  | 100.0 |
| 50 people and more     | 72.7   | 27.3  | 100.0 |
| Other legal entities   | 80.0   | 20.0  | 100.0 |

Source: Authors' own compilation.

**Table 14. The need to develop practical skills\***

| Should students of economics with elements of environmental protection develop practical skills concerning how to use the knowledge acquired at the university? | No. of answers |
|---|----------------|
| Yes, as a part of longer internships  | 144            |
| Yes, when analysing case studies, during tutorials/ laboratory classes  | 43             |
| Yes, when working independently on projects connected with real life market situations  | 86             |
| Not necessarily, they will learn how to use their knowledge practically when they start working   | 12             |
| Other answers   | 2              |
| No reply  | 1              |

\*More than one answer could be chosen

Source: Authors' own compilation.

In the third case, almost half of respondents decided that during the teaching of foreign languages at the university stress should be put on general command of the language. At the same time almost the same numbers of respondents were of the opinion that specialist language in the area of economics and environmental science should be a priority (Table 15).

**Table 15. Language courses for students of economics with elements of environmental protection**

| Options  | What should be stressed when learning foreign language? (No. of answers) |
|--|--|
| General command of language                                      | 93   |
| Specialist terminology in economics and environmental protection | 94   |
| No reply   | 13   |
| Total  | 200  |

Source: Authors' own compilation.

### 3. Conclusions

The opinions of employers (mainly entrepreneurs), collected as a result of a questionnaire-based study and presented in this paper, concerned the competencies employers expect to find in graduates of Faculties of Economics with elements of environmental protection. They can be treated as recommendations for curricula and syllabuses, hence awareness of them can be of practical importance to some circles of the academic community. On the other hand, the specificity of a research sample does not permit us to treat the results as fully representative and we need more in-depth research that would compare, e.g., the expectations with the actual level of graduates' competencies. In addition, not all competencies can be acquired exclusively at the university. That can be said about, e.g., decision-making under conditions of risk, managing teams of workers, or team work. Here internships and scholarships could be helpful.

The study demonstrated that in general the soft and professional competencies acquired during the course of studies are important to employers. However, respondents valued the former more, although at the individual level they attached the greatest importance to foreign languages and, surprisingly, highly valued having a good command of Polish. These are basics of general knowledge, unrelated to the principal educational profile, which should be acquired at secondary school or individually by learning foreign languages, taking part in internship schemes abroad or in summer schools, etc. Thus, the results provide food for thought not only for those who develop curricula but also for the students themselves.

Potential employers assess the proposed scope of general economic knowledge and specialist knowledge in environmental protection as equally useful from their point of view. In a detailed ranking all the courses, with the exception of 'Introduction to history of economics' were considered almost equally useful. This may suggest that general courses that provide the foundations of higher education are still relevant to improving the professional skills of graduates and for reinforcing their position in the labour market.

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## Streszczenie

### OCZEKIWANIA PRACODAWCÓW W ZAKRESIE KOMPETENCJI ABSOLWENTÓW STUDIÓW EKONOMICZNYCH WYNIKI BADANIA BEZPOŚREDNIEGO

*Celem artykułu jest przedstawienie opinii pracodawców w kwestii kompetencji, w które powinien być wyposażony absolwent studiów ekonomicznych o profilu uwzględniającym problematykę ochrony środowiska przyrodniczego. Dla jego realizacji przebadano przy pomocy kwestionariusza kierownictwo 200 podmiotów z województwa łódzkiego, w tym 194 przedsiębiorstwa oraz 6 jednostek niebędących przedsiębiorstwami, których przedmiot działalności wiąże się bezpośrednio lub pośrednio z ochroną środowiska. Wyniki ankiet wskazują, że kompetencje miękkie i zawodowe uzyskiwane na studiach są ważne dla pracodawców. Respondenci jednak wyżej cenili sobie zestaw tych pierwszych, aczkolwiek indywidualnie największe znaczenie przypisali znajomości języków obcych, a zaskakująco duże – posługiwaniu się językiem polskim. Oceniając program studiów uznali, że przedmioty ogólne, stanowiące podstawę wyższego wykształcenia, są nadal ważne dla podnoszenia kwalifikacji zawodowych absolwentów i wzmacniania ich pozycji na rynku pracy.*

**Słowa kluczowe:** *szkolnictwo wyższe, pracodawcy, absolwenci, ekonomia i ochrona środowiska*