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Labour-Market Needs for Industrial Property Skills and Competences of Non-Lawyers
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Introduction and theoretical framework
Industrial Property (IP), as a subfield of Intellectual Property, deals with patents for inventions, industrial designs and models, trademarks, service marks, commercial names and designations, geographical indications, and protection against unfair competition (Bux and Maciejewski, 2022; World Intellectual Property Organization, 2021).

Although IP competences are most often expected from lawyers, they are also very beneficial for non-law experts, such as engineers, researchers, business managers, and entrepreneurs, because workers with awareness and competences in IP are amongst fundamental prerequisites for creating innovative and legally safe work environments. Higher education (HE) institutions are positioned at the crossroads of research, education, and innovation, with a goal to act as sources of competent workforce. Meanwhile, academic libraries are an integral part of HE teaching and learning, with two complementary purposes: they support the curriculum, and research of faculty and students. Therefore, in the context of IP, a central focus should be on developing such competencies. Moreover, this focus and effort must be aligned with the actual needs and expectations of the labour market and industry, which must be carefully investigated.

This study was done within the Erasmus+ project IPEDU, which is carried out by partners from eight European countries. The project is aimed at introducing education in the field of IP in the curriculum of technical universities, through training the teaching, support staff, and librarians in IP (IPEDU, 2021). The entire results of this study are presented in Vilar, Švab and Jug (2022).

Research questions
The goal of the study was to investigate awareness and attention to IP skills and competences of non-lawyers (engineers, scientists, business managers, entrepreneurs) in the labour market of partners’ countries. The goal was to ascertain how important IP skills and competences are to the employers in the industry, as well as to analyse which industrial property skills and competences are needed in the labour market. Our research questions were:
1. **RQ1**: How important are IP skills and competences of non-lawyers to the employers in general? Are these perceptions different in different countries and/or industry sectors?

2. **RQ2**: Which IP skills and competences of non-lawyers are needed in the labour market? Are various IP skills and competences of non-lawyers perceived differently in terms of importance? Which differences in the perception of IP skills and competences of non-lawyers, if any, can be observed in different countries and/or industry sectors?

3. **RQ3**: What is the attitude of the employers towards training in IP?

**Methodology**

We used an online survey with 11 questions (menu-based, Likert-scale, alternative). Sampling was convenient, target population being companies and offices in the partner countries, that handle industrial property (often as outsourcing agents), work with graduates seeking employment, work with patents, trademarks, models, etc., or have an Intellectual Property Department or function. We tried to reach our potential participants with personal invitations by personal phone calls and E-mails, and through social media, Intellectual property offices, Chambers, and technical libraries. Each partner executed the survey locally in February 2021, and, since the project was paused due to the pandemic, in September and October 2021.

**Research Results**

A total of 295 questionnaires were received from all participating countries. However, due to the incompleteness of some partner data, we present comparative analyses for four partner countries: Slovenia, Croatia, Portugal, and Romania (177 respondents). We note that the low response rate still allows only descriptive analyses, which can only be taken as preliminary, and that a more thorough investigation based on more data is needed. However, since these issues have not yet been investigated, our study still provides valuable insight into IP-related practices, competences, and employers’ expectations on non-lawyer employees.

The survey results confirm that knowledge of industrial property is very relevant to the company and organization’s work. The frequency of dealing with IP differs from country to country and IP knowledge is in some areas more valued than in others. In most of the countries (Croatia, Portugal, and Romania), the knowledge of the IP of the employees is perceived as beneficial for the activity of the company. On the other hand, the results show that Slovenian employers think that workers do not need this knowledge. What is more, when dealing with IP issues, most respondents prefer to consult an external specialist, but many of them also rely on their internal or in-house knowledge.

Two competencies are important for both, job candidates and current employees: knowledge, what IP is, and knowledge of the dangers of infringing or misappropriating other people's IP assets.
Both would definitely require to be included in the education and training everywhere, while other competences would probably be best included on more local levels. Also, industry sectors have proven to be very diverse in their perceptions of IP skills and competences. The first observation is that employers apparently have higher appreciation of IP skills for their current employees than for job candidates. While, the same two competences emerged as most important, as they did in the country analysis, the least valued for job candidates were: Ability for financial assessment of industrial property assets, General knowledge regarding the process of obtaining protection of industrial property, Knowledge of industrial-property-related risk management, Knowledge of the role industrial property assets play in strategic business planning, and Knowledge how to utilize the industrial property domain in order to acquire information on competitors.

Discussion
As discussed in the introduction, the aim of the study reported here was to investigate awareness and attention to IP skills and competences of non-lawyers in the labour market of four IPEDU partners’ countries through ascertaining of the importance these skills and competences to the employers.

The general view of importance of intellectual property competences by non-lawyers, covered by the first research question, has shown interesting results in both, partner countries, and industry sectors. We estimate that employers in all countries would be interested a relatively easily available training and education opportunities, such as distance learning and e-learning. Here we see a good opportunity for the libraries and their educational services. This can be further supported with the fact that we found instances where employers prefer to use in-house intellectual property knowledge, meaning that these competences have weight for them. At the same time, it might imply that more IP competent workers, due to having better education and training opportunities, would raise the share of use of in-house knowledge. IP knowledge is more appreciated in some sectors than in others, which implies that this could even be a matter of promotion and advocacy, followed by a targeted offer of education and training – again areas where libraries could jump in. Especially since most sectors show positive attitude toward the influence of IP knowledge of their employees on their business and see this knowledge as an advantage (with some sectors again showing more scepticism, thus opening new windows for promotion and advocacy).

The second research question covered perceptions of various IP skills and competences. There is no doubt that employers have different opinions on different skills and competences, looking from both viewpoints, countries, and industry sectors: some hold more merit than others. The identified differences in perceptions would also require further investigation. It could be that some competences are in the view of the respondents more related to other profiles than engineers and researchers, who are also non-lawyers, but were not included in this survey.
Training needs and possibilities were covered in the third research question. Undoubtedly, IP training is never or almost never offered in all countries, although the employers mostly believe that it would be of benefit to their employees and to the company. But employers everywhere have relatively firm opinions that such training should not be offered too often, best at the moment when the knowledge is needed in the work process. All of this provides a good basis for training planning, in this case especially for current employees, and may even open up opportunities for awareness, promotion and advocacy.

Conclusion
While the expectations of job candidates are mostly a question of formal education, and as such should be addressed to the HE, expectations of current employees are an issue of training opportunities that should be available when needed.

Not all IP competences are considered equally necessary for non-law personnel by employers. Some seem to be more perceived to pertain to the managing profiles but should nonetheless be addressed in the training. The question arises as to whether employers themselves need some kind of awareness raising regarding competence in IP of their non-law experts.

Despite the differences between sectors and countries, and despite the fact that the data allowed for limited possibility of analysis, we found that IP is an asset that is appreciated by the employers and needs constant development and progress.

The knowledge and expertise of academic librarians can help overcome these challenges. Engagement with library enables stronger awareness of the IP skills and competences and leads to improved study success. For these reasons, academic librarians in technical programmes can also contribute and help provide IP skills that meet the needs of the labour-market in the digital age.

REFERENCES


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