



Funes

Report of Intellectual
Output O₃, Activity O₂:
Defining new skills

FURNITURE NEW EUROPEAN SKILLS 2020
2014-1-ES01-KA202-004883



Erasmus+

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Introduction

The European furniture industry currently operates in the conditions of increasing globalization processes, increasing competition on the international markets (i.a. of China) and economic and financial problems of the European Union, especially in the Euro zone (derivative of the global crisis in 2007-2009). This, as well as striving to base the European economies on knowledge, makes the social capital a key stimulator of development. This means that the productivity and competitiveness of the furniture industry depend largely on the quality of human resources, including the education level and knowledge of the staff and their innovation potential and interest in implementing new solutions. At the same time the technical progress and the development of information and communication technologies make it necessary to adapt traditional trades to market requirements and the creation of new specializations. Therefore, regular training, improvement and retraining of personnel is necessary for the sustainable development of furniture enterprises. Only employees with the right skills, competences and abilities better understand the surrounding reality and operate more efficiently. They may indicate the directions of necessary changes in the company's operations so that it can become more innovative and competitive on the international furniture market.

These factors and the fact that the European furniture industry still has no clearly formulated strategy of human resource development, indicate the need to precisely determine the competences and skills most desirable in the near future.

Methodology

The aim of the study was to identify new competences and skills of staff for the European furniture industry by 2020, taking into account both existing and potential employees (unemployed, students, etc.).

The starting point for the research was to diagnose the furniture industry and the possible scenarios for the future developed in the previous stages of the project. On this basis, the quality of human resources in the furniture industry was described, and the question of adaptation of personnel to the existing and expected profile of technological processes and organizational structures in the industry was answered.

The scope of the study was the furniture industry in Europe, while the time frame of the study covered the period up to 2020.

The work procedure to identify competences needed in the furniture industry in Europe 2020 included:

- identification of major gaps in competences according to the SWOT analysis of the FUNES furniture industry scenario,
- selection and prioritization of identified competences in accordance with areas/departments of the furniture company (indicating in details, if necessary, due to the specificity of the area).

Numerous research methods were used for the study, such as:

- brainstorming (during the workshop, teleconference, via email and at internal meeting of the team

members responsible for the activity O3-A3),

- desk research,
- expert method (for furniture manufacturers and R&D specialists),
- analogy method (resemblance to industries similar to the furniture industry).

The basic definitions of the terms 'skills' and 'competences' were taken from the *Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for Lifelong Learning*. And so, the term 'skills' means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). In turn, the term 'competence' means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

As a result of the research the necessary new competences and skills of employees now and in the future, in relation to the following departments of the furniture companies were indicated:

- management,
- technical office and design,
- production,
- marketing and sales,
- storage and packaging,
- quality and environment.

It should be underlined, that in the case of some selected competences, taking into consideration their specific character, these competences could be pointed as necessary in all analyzed departments of the company. Therefore, when creating a matrix of competences and skills (presenting the assignment of the characteristics to the employees of various departments in the company) the priority was to identify the dominant role of individual competences and skills in the departments where the given employees works.

Furniture industry SWOT analysis

In the first stage, the new skills that arise from the strengths and weaknesses of the European furniture industry and the potential opportunities and threats to the industry (SWOT Analysis) were selected. It was assumed that the strengths of the European furniture industry are mainly:

- strong tradition in wood and furniture industry,
- workers with vast experience,
- technological modernization,
- quality of the product,
- competitiveness through differentiation,
- luxury furniture.

The European furniture industry is also struggling with weaknesses which, above all, include:

- feeble strategic management,
- management training needs,
- human resources strategy,
- low education of workers,
- lack of competences to work with new materials,
- rationalization of productive costs,

- marketing plan inexistent or feeble,
- dependency on the distribution channels,
- research & development.

The possible opportunities and threats in the industry which is heavily influenced by external factors were also indicated. The opportunities for the furniture industry include mainly:

- existence of a local productive system,
- improving business cooperation,
- sustainable internationalization,
- availability of planning and management tools,
- quality management systems,
- raising of eco-efficiency,
- use of new raw-materials,
- more demanding client,
- increase in online sales,
- flexible and intelligent "living spaces",
- flexible lifestyles,
- geriatric furniture,
- equipment for public spaces.

In turn, the identified threats were:

- countries with low costs production,
- increasing costs of raw materials,
- increasing the production costs,
- mobility difficulties of workers.

New skills and competences

As a result of conducted work, new skills were selected:

- cooperation and networking within wood value chain,
- strategic management skills,
- business management skills (knowledge about different production systems),

- ability to use R&D and design as part of the firm's strategy,
- knowledge of and skills in managing and organizing business activity related to ICT tools (VOID - virtual office and integrated design; knowledge of IT platforms and tools for online sales),
- managing and planning the production (incl. QMS, lean management, ergonomics etc.),
- ability of adjusting to the tailor-made production (flexibility to answer the client demands),
- knowledge of new materials and technical specification of materials; know-how of wood usage, raw materials efficiency and substitute materials,
- domotics and high technology knowledge,
- ability to use IT tools,
- knowledge of design programmes (CAD, CNC, Inventor, etc.),
- manual skills; good use of tools
- strategic management of HR skills; strategic management of training needs,
- branding/marketing of European tradition --> Selling European quality,
- knowing rules and laws for exportation,
- knowledge of targets and markets (incl. new trends, e.g. aging society),
- foreign languages skills related to technical and commercial areas,
- controlling (incl. cost efficiency),
- team work skills,
- environmental awareness; applying the environmental and sustainability concepts (incl. ecological concepts in the design of products and 'zero waste' design).

The next stage of work was to systematize the identified new competences of employees by department in which they work or may

work in the future. As a result, the matrix of new skills of workers in the furniture industry was created.

The analysis of the matrix of new skills indicates that the majority of identified new competences and skills should characterize the Management (understood as General Manager), with the exception of knowledge of design programmes and manual skills. The situation is similar in the case of employees holding positions in the Technical Office and Design. It is desirable for this group of workers to have the majority of the identified competences and skills with the exception of strategic management skills, manual skills and knowing the rules and laws for exportation. Less multidisciplinary competences and skills are and will be required from employees of other departments in the company. And so, the production staff should possess skills and competences, such as:

- cooperation and networking within the wood value chain,
- business management skills (knowledge about different production systems),
- managing and planning the production (incl. QMS, lean management, ergonomics etc.),
- ability of adjusting to the tailor-made production (flexibility to answer the client demands),
- knowledge of new materials and technical specification of materials; know-how of wood usage, raw materials efficiency and substitute materials,
- domotics and high technology knowledge,
- ability to use IT tools,
- knowledge of design programmes (CAD, CNC, Inventor, etc.),
- manual skills; good use of tools
- controlling (incl. cost efficiency),

- team work skills,
- environmental awareness; applying the environmental and sustainability concepts (incl. ecological concepts in the design of products and 'zero waste' design).

Employees in the Marketing and Sales department should especially have competences and skills in:

- cooperation and networking within wood value chain,
- knowledge of and skills in managing and organizing business activity related to ICT tools (VOID - virtual office and integrated design; knowledge of IT platforms and tools for online sales),
- ability of adjusting to the tailor-made production (flexibility to answer the client demands),
- ability to use IT tools,
- branding/marketing of European tradition --> Selling European quality,
- knowing rules and laws for exportation,
- knowledge of targets and markets (incl. new trends, e.g. aging society),
- foreign languages skills related to technical and commercial areas,
- team work skills.

The identified new competences and skills should also partially characterize the employees in the Storage and Packaging department in the furniture industry, especially in these areas:

- cooperation and networking within the wood value chain,
- ability to use IT tools,
- manual skills; good use of tools
- team work skills.

In turn, the desired competences and skills for the employees in the Quality and Environment department are:

- managing and planning the production (incl. QMS, lean management, ergonomics etc.),
- ability to use IT tools,
- branding/marketing of European tradition --> Selling European quality,
- controlling (incl. cost efficiency),
- team work skills,
- environmental awareness; applying the environmental and sustainability concepts (incl. ecological concepts in the design of products and 'zero waste' design).

Conclusions

New challenges for the furniture industry cause the intangible resources to be more and more important for its growth, and success is believed to lie particularly in the industry's intellectual resources.

The furniture industry, which is transforming from a relatively traditional industry into a modern industrial sector, and that adapts rather well to the conditions in which it operates, creates a demand for specific competences and skills of employees.

The employees in the furniture industry should not only be able to efficiently perform tasks, but they should have the skills and ability to recognize and accept the upcoming changes. They should therefore have established the general and universal knowledge that they will be able to deepen and expand in professional directions.

The study shows, that the role of multidisciplinary skills and abilities increases significantly (skills needed to research the needs, furniture designing, prototype, production implementation and verification on the market). Also,

the use of computers and the rapid development of digital technology and robotics will increase the demand for highly qualified staff, specialized and with interdisciplinary skills.

Significant competences and skills are particularly relevant for proficiency in learning and self-improvement, problem solving, analytical thinking, communication, organization of work, mastering the techniques and tools of labor, designing activities, as well as taking responsibility for the results of one's work.

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|  FUNES FURNITURE NEW EUROPEAN SKILLS 2020 2014-1ES01-KA202-004883 |  Erasmus+ ERASMUS+ KA2 - COOPERATION FOR INNOVATION AND THE EXCHANGE OF GOOD PRACTICES KA202 - STRATEGIC PARTNERSHIPS FOR VOCATIONAL EDUCATION AND TRAINING |
| Matrix of new skills in the furniture industry in Europe 2020 | |

| Detailed list | Management | Technical Office and Design | Production | Marketing and Sales | Storage and Packaging | Quality and Environment |
|---|------------|-----------------------------|------------|---------------------|-----------------------|-------------------------|
| Cooperation and networking within wood value chain | X | X | X | X | X | |
| Strategic management skills | X | | | | | |
| Business management skills (knowledge about different production systems) | X | X | X | | | |
| Ability to use R&D and design as part of firm's strategy | X | X | | | | |
| Knowledge of and skills in managing and organizing business activity related to ICT tools (VOID - virtual office and integrated design; knowledge of IT platforms and tools for online sales) | X | X | | X | | |
| Manage and plan the production (incl. QMS, lean management, ergonomics etc.) | X | X | X | | | X |
| Ability of adjusting to the tailor-made production (flexibility to answer the client demands) | X | X | X | X | | |
| Knowledge of new materials and technical specification of materials; know-how of usage wood, raw materials efficiency and substitute materials | X | X | X | | | |
| Domotic and high technology knowledge | X | X | X | | | |
| Ability to use IT tools | X | X | X | X | X | X |
| Knowledge of design programmes (CAD, CNC, Inventor, etc.) | | X | X | | | |
| Manual skills; good use of tools | | | X | | X | |
| Strategic management of HR skills; strategic management of training needs | X | | | | | |
| Branding/Marketing of European tradition --> Selling European quality | X | X | | X | | X |
| Knowing rules and laws for exportation | X | | | X | | |
| Knowledge of targets and markets (incl. new trends, e.g. aging society) | X | X | | X | | |
| Foreign languages skills related to technical and commercial areas | X | X | | X | | |
| Controlling (including cost efficiency) | X | X | X | | | X |
| Team work skills | X | X | X | X | X | X |
| Environmental awareness; applying the environmental and sustainability concepts (incl. ecological concepts in the design of products and eco- and 'zero waste' design) | X | X | X | | | X |

Notes:

X - dominant role



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