

DEVELOPMENT OF COMPETENCY MODEL FOR WOOD INDUSTRY

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INTRODUCTION



❖ THE FACTS

- ❖ wood industry is **labour-intensive**
- ❖ fast and dramatic **changes in past few years**
 - ❖ globalization of business environment and
 - ❖ general technological progress and development
- ❖ great **opportunities and possibilities for growth and development**
- ❖ **new value in companies is generated by employees**
- ❖ **demands for new skills, knowledge and competences are increasing**

INTRODUCTION



- ❖ **Competences** are a set of
 - ❖ knowledge, skills, abilities, aptitudes, personal suitability behavior and **impact on performance at work.**
 - ❖ **General competences**
 - ❖ skills and abilities for effective and efficient performance of work,
 - ❖ **Specific competences**
 - ❖ linked to its contents - technical and other skills, important to successfully work on the specific area.
- ❖ **Competences are normally shown in competency model.**
- ❖ **Competency model** - detailed, behaviorally specific description of the skills and traits that employees need to be effective in a job.

INTRODUCTION



- ❖ **PROBLEMS**
- ❖ **lack of certain skills and competences**
 - ❖ (1) due to inadequate qualification structure of employees and
 - ❖ (2) due to out-of-date knowledge
 - ❖ **possible solutions**
 - ❖ hiring young, highly educated staff,
 - ❖ training and/or educating existing employees.
- ❖ **educational structure in Slovenian wood-industry companies is poor**
- ❖ **external education providers offer**
 - ❖ inflexible in content and execution
 - ❖ physical presence of trainees is required, which imposes costs due to absence of staff and travel costs
 - ❖ inflexibility in the coordination of terms of education
 - ❖ obligations of employees in the work and business process of companies

GOALS



1. To determine the **statistical significance of differences between**
 - ❖ **the importance of the knowledge for qualitative performance of tasks and**
 - ❖ **the current level of knowledge** in wood companies.
2. To **expose knowledge** where
 - ❖ the **biggest lack of knowledge and competences for working on different fields of work** were found.
3. To **check the companies' attitude to the various forms of education** and
 - ❖ **to compare** it with an offer of **lifelong learning** in Slovenia.
4. To **develop a model/matrix of knowledge and competences**
 - ❖ **for individual work areas**, on which it is possible to create individual/group training and education programs in enterprises.

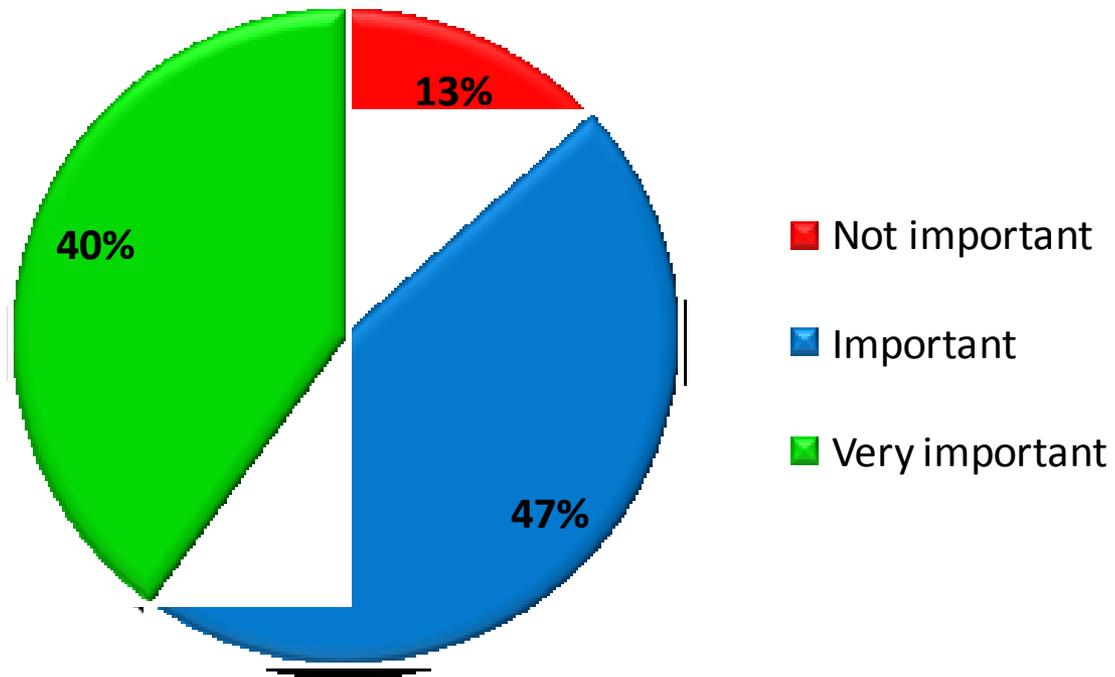
WORKING METHOD

- ❖ **checking** the available data from previous years
- ❖ **analysing** the situation in Slovenian wood-industry companies
- ❖ **calculating** the Wilcoxon signed-rank nonparametric test for paired data
- ❖ **developing a model/matrix of knowledge and competences for individual work areas**



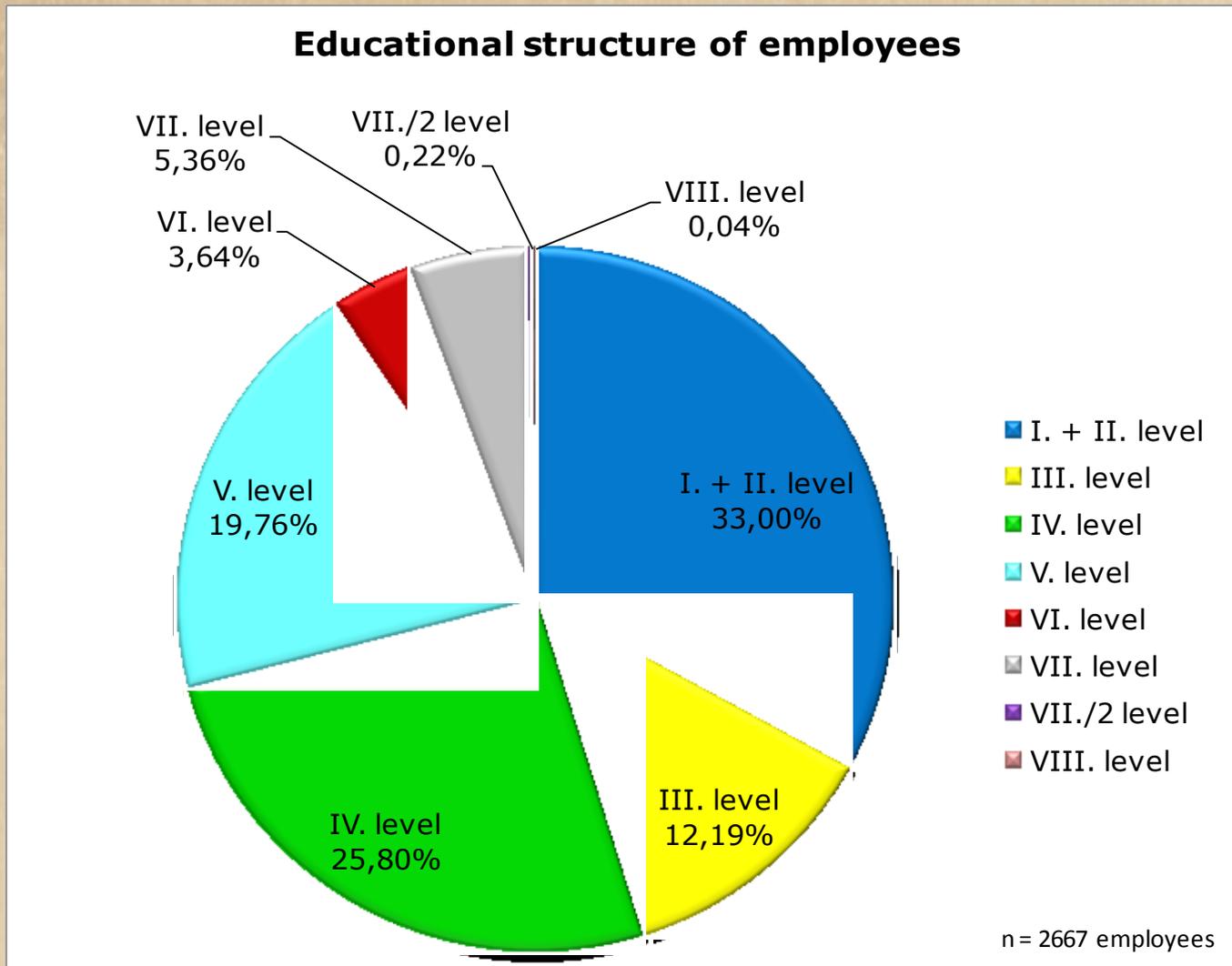
RESULTS

Importance of education and training



n = 15

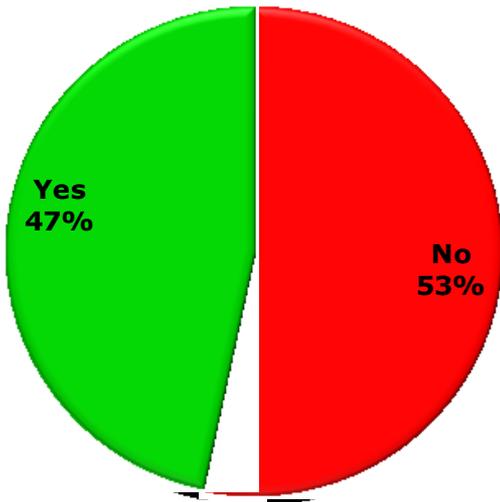
RESULTS



RESULTS

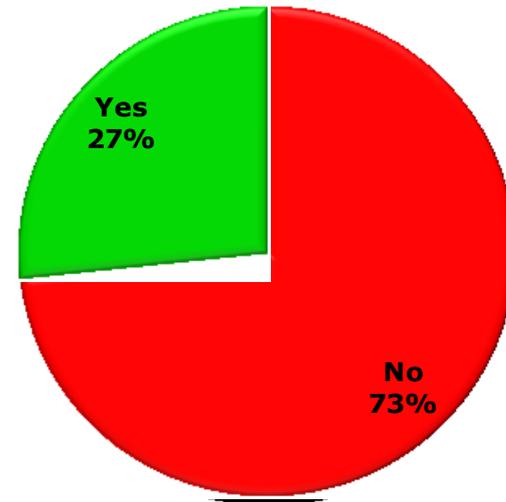
- ❖ Less than half (**47 %**) of surveyed companies **have an annual plan of education and training at the enterprise level**
- ❖ Only **27 %** of the companies **have accurate annual education and training plans for individual employees or groups of employees**

**Annual plan of education and training
at the enterprise level**



n = 15

**Annual education and training plans
for individual employees or groups of
employees**



n = 15

RESULTS

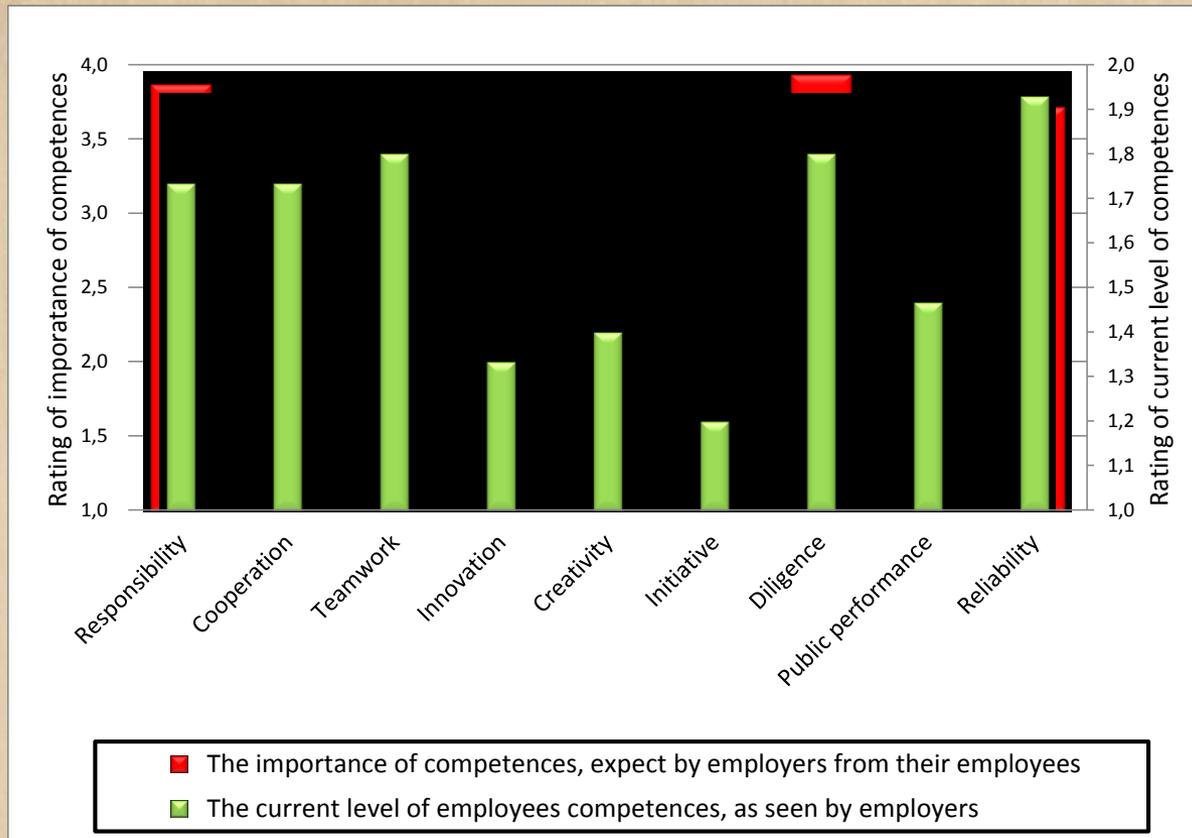
- ❖ Wilcoxon signed-rank test showed that **the difference** between the importance of knowledge and current level of knowledge **is statistically significant** ($z = 77.3$, $p = 0.0000$).

The differences between the importance of knowledge and the current level of knowledge at specific work areas.

Area	The average difference
Management	0,72
Supply	0,72
Sale	0,72
Production preparation	0,61
Production	0,49
Finance	1,27
Development	0,34
Total average	0,63

RESULTS

The importance of general competences and current state of key competences of employees as they are seen by employers

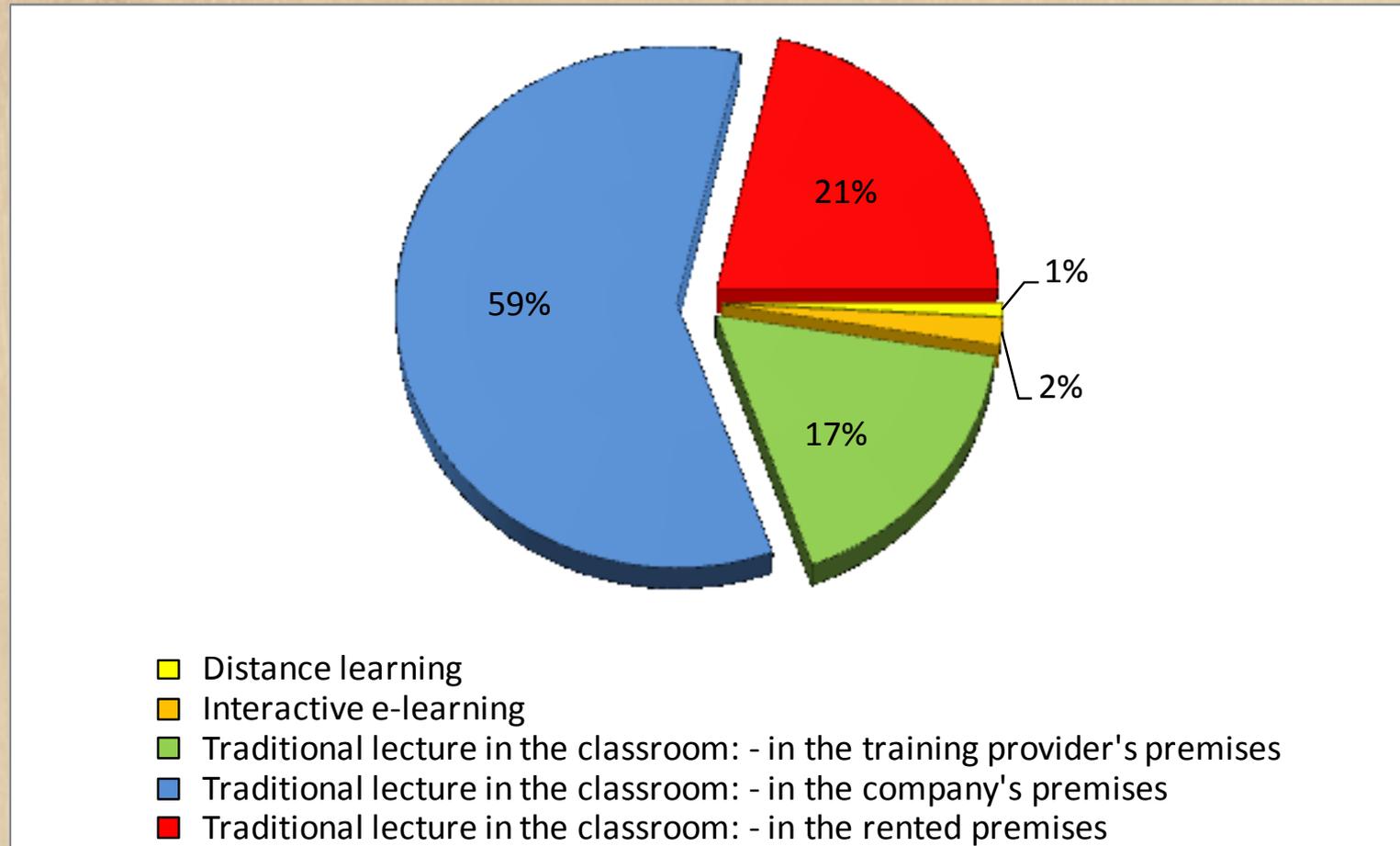


Legend of relevance: irrelevant (1); little importance (2) important (3) very important (4)

Legend of the current situation: unsatisfactory (1), satisfactory (2)

RESULTS

Appropriateness of media or educational performance method



RESULTS

Model/matrix of specific competences for different work areas

Knowledge	Competences	Work area						
		Management	Supply	Sale	Production preparation	Production	Finance	Development
Governance	plans and organizes his/her own work and the work of others to achieve business excellence							
	plans and organizes his/her own work and the work of others within the project approach							
	develops his/her own entrepreneurial qualities, skills and behaviors							
	plans and organizes his/her own work and the work of others and is able to use modern motivational approaches							
Communication skills	interacts and communicates with colleagues, thereby using modern communication media							
	interacts and communicates in a professional foreign language							
	interacts and communicates with colleagues, customers and the public; mastering the art of negotiation							
Strategic and tactical planning	plans and develops a business plan at the strategic and tactical level and monitors its implementation							
	prepares, coordinates and monitor the operational plan							
Marketing and product development	develops new products according to his/her own ideas or customer's ideas							
	knows and uses modern marketing methods in the frame of marketing mix							
Legislation, standards and tenders monitoring	knows the novelties and knows how to follow the development of legislation and regulations; ensures the quality and efficiency of the work in the working environment in accordance with the regulations							
	knows the novelties and knows how to follow the development of standards; ensures the quality and efficiency of the work in the working environment in accordance with standards							
	knows how to find information on tenders and how to declare							
Business Informatics and Computer Science	knows the methods of effective business process management and optimization							
	knows the novelties in business informatics and plans their implementation; applies modern ICT							
Financial reports	uses financial reports and understands their meaning; actively cooperates in the preparation of financial reports							
Production preparation	knows and applies modern approaches to technological and operational preparation of the production							
Modern technologies and materials	knows the news and monitors the development of the profession at wood processing technology field							
	knows the novelties and monitors development of materials							
Environmental	rationally uses energy, materials and time, protects health and the environment							
Creative thinking	thinks creatively and is innovative							



CONCLUSIONS

- ❖ **The formal educational structure** in Slovenian wood industry companies **has improved** in recent years, **but is still poor**.
- ❖ **Wilcoxon Signed-rank test proved** that the **difference between the importance of knowledge and current level of knowledge** was **statistically significant** in all areas of work.
- ❖ The **most critical knowledge** are those associated with:
 - ❖ the products development and marketing
 - ❖ management and business planning
 - ❖ tracking novelties in development of materials, technology and legislation
 - ❖ production preparation and
 - ❖ informatisation of business
- ❖ Employers believe that **employees are missing some general competences**
 - ❖ sense for self-initiative, innovation, creativity



CONCLUSIONS

- ❖ The **model/matrix of specific competences** (knowledge catalog):
 - ❖ **includes the necessary competences** to successfully perform the tasks for different work areas
 - ❖ can be **the basis for long-term human resources development planning** in the wood industry companies
 - ❖ the model can also be **important information for education providers**

By this, the wide applicability of the model in practice is achieved.



CONCLUSIONS

- ❖ We can conclude that level of knowledge in the wood companies, in general, is pretty unfavorable for the transition to a modern knowledge-based society, which require from companies creativity and fast adaptability of business. This situation is partly consequence of the poor formal educational structure and lack of knowledge/competences.
- ❖ **In every work area, not matter of formal education of employees, are some tasks, for which employees mean that they do not have sufficient knowledge and/or competences for their quality performance.**
- ❖ **It is therefore essential for companies to enable to employees a systematic and continuous (lifelong) education/training.**

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Thank's for your attention!

That's all Folks!

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