Useful methods for diagnosing environmental conditions in the workplace in wood industry

Prof. dr. Leon Oblak
University of Ljubljana, Biotehnical Faculty,
Department of Wood Science and Technology
Ljubljana, Slovenia

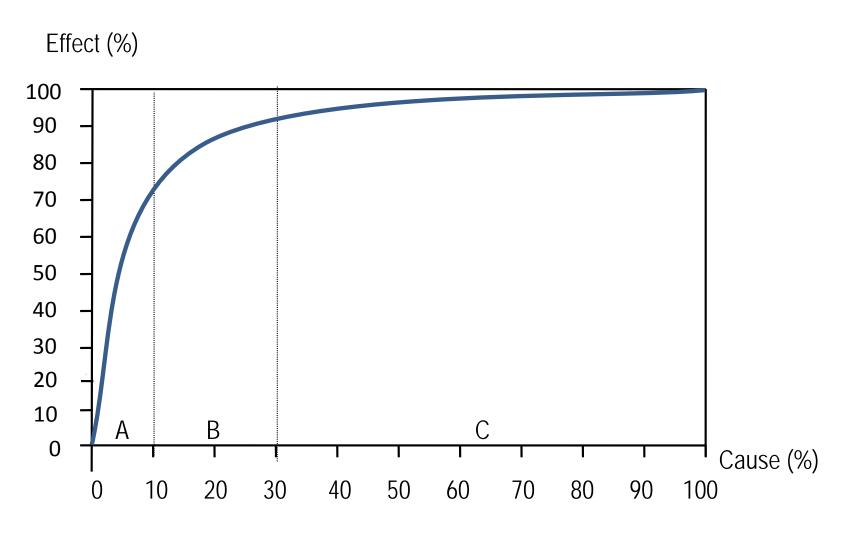
INTRODUCTION

This paper deals with two useful methods – ABC analysis and Multi-criteria decision-making method - that can be used to diagnose the environmental conditions in the workplace in wood industry.

METHODS

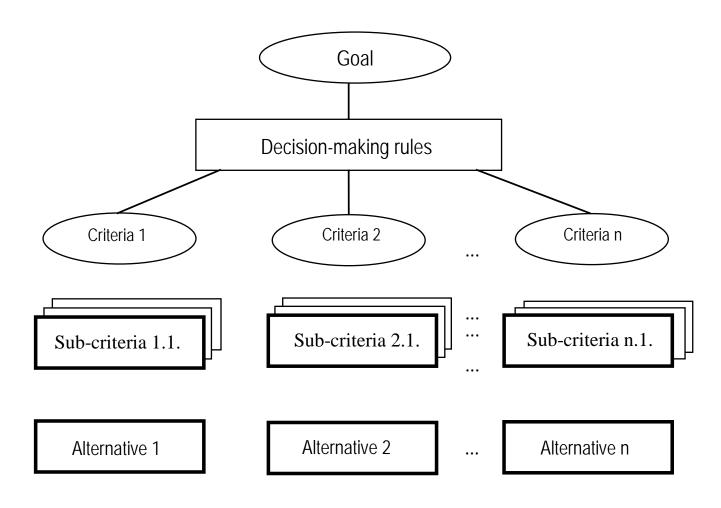
- ABC analysis
- Multi-criteria decision-making method

ABC analysis



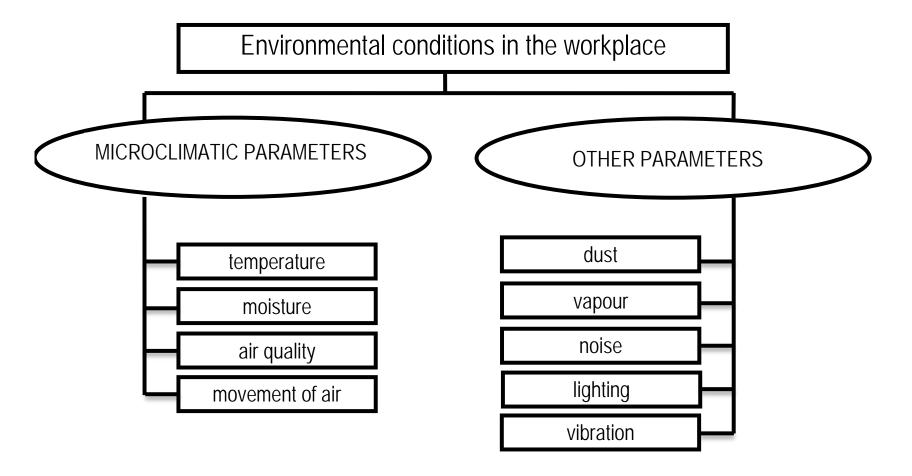
Relation of cause and effect according to the theory of ABC analysis

Multi-criteria decision-making method



Multi-criteria decision-making model

Methodology: the first step



A diagnostic tree used in determining the environmental conditions in the workplace in wood industry companies

Methodology: the second step

ENVIRONMENTAL PARAMETER	ABC analysis	
temperature	A or B or C	
moisture	A or B or C	
quality of air	A or B or C	
movement of air	A or B or C	
dust	A or B or C	
vapour	A or B or C	
noise	A or B or C	
lighting	A or B or C	
vibration	A or B or C	

Evaluation of individual environmental parameters

Methodology: the third step

	Microclimatic parameters	Other parameters	Environmental conditions in the workplace
1	А	Α	unacceptable
2	A	В	unacceptable
3	А	С	unacceptable
4	В	Α	unacceptable
5	В	В	bad
6	В	С	acceptable
7	С	Α	unacceptable
8	С	В	acceptable
9	С	С	good

Decision-making rules for the top level of decision-making tree

CONCLUSION

