## CONTRIBUTION OF HIGHER EDUCATION QUALITY IMPROVEMENT TO THE SAFE AND SUCCESSFUL OPERATING IN THE GLOBAL WOOD-BASED ENVIRONMENT: STUDENT'S PERSPECTIVE MEASURED BY SERVQUAL MODEL

Lucija Marković,mag. ing. techn. lign. doc. dr. sc. Kristina Klarić izv. prof. dr. sc. Andreja Pirc Barčić

15th International Scientific Conference WoodEMA 2022 CRISIS MANAGEMENT AND SAFETY FORESIGHT IN FOREST-BASED SECTOR AND SMES OPERATING IN THE GLOBAL ENVIRONMENT



# **1. INTRODUCTION**



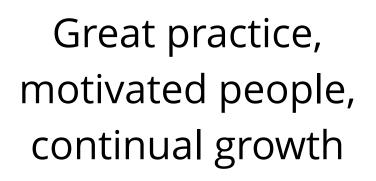
Quality of the study programs with a result of producing highly educated and capable young engineers at University of Zagreb, Faculty of Forestry and Wood Technology

# **2. MATERIALS AND METHODS**

How to be better than the best?

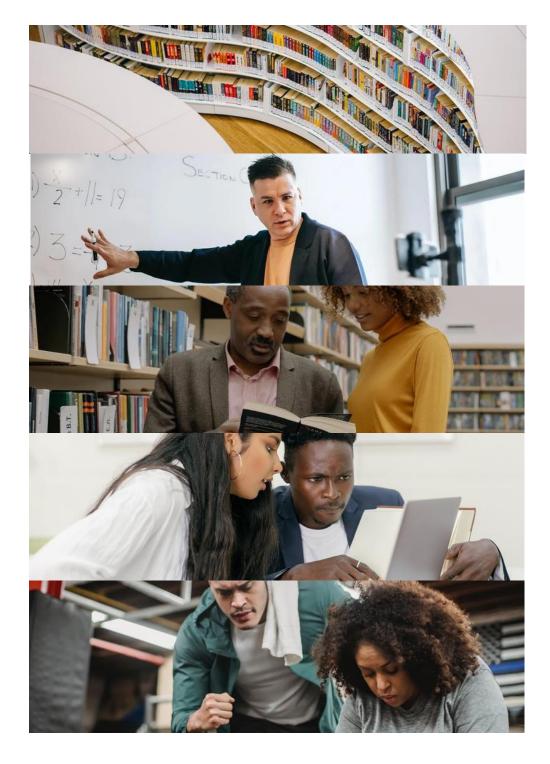
> quality of **EDUCATION** measured by students satisfaction

quality of **BUSINESS** measured by client satisfaction









**TANGIBLES** – a group of question items to get answers about the appearance of physical facilities, equipment, personnel, and communication materials

**RELIABILITY** - a group of question items to get answers about the ability to perform the promised service dependably and accurately

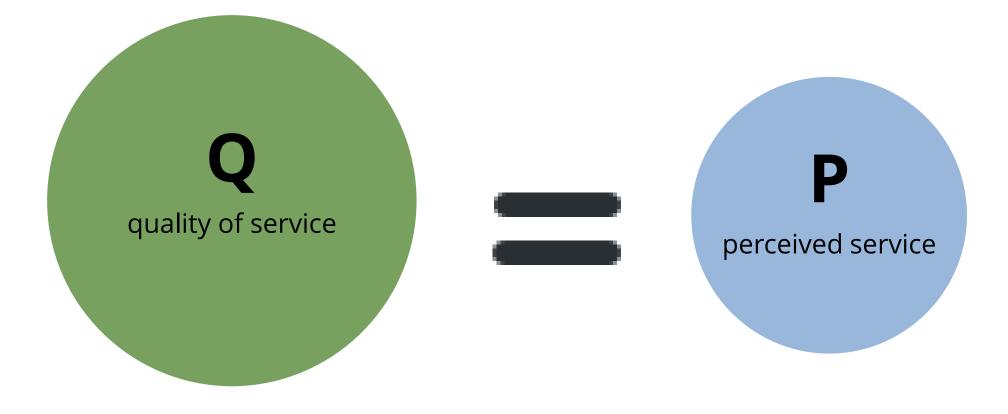
**RESPONSIVENESS** - a group of question items to get answers about the willingness to help customers and to provide prompt service

**ASSURANCE** - a group of question items to get answers about the knowledge and courtesy of employees and their ability to convey trust and confidence

**EMPATHY** - a group of question items to get answers about the provision of caring, individualized attention to customer.

## 2. MATERIALS AND METHODS

# SERVQUAL model



#### 2. MATERIALS AND METHODS

# SERVQUAL model



The questionnaire was conducted among the students of Faculty of Forestry and Wood Technology who participated in the implementation of the

EU project "Development and implementation of professional practice in the studies of the Faculty of Forestry". 25 students

## 2. MATERIALS AND METHODS

# RESPONDENTS

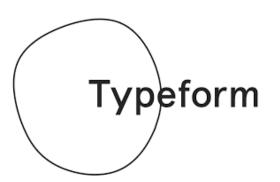






HRVATSKA KOMORA INŽENJERA ŠUMARSTVA I DRVNE TEHNOLOGIJE





questionnaire (People-Friendly Forms and Surveys)

Send by email with an accompanying link and QR code



Skeniraj QR kod

Ispuni upitnik i

Poboljšaj kvalitetu obrazovanja na Fakultetu šumarstva i drvne tehnologije

#### 2. MATERIALS AND METHODS

# APPLICATION



## **RESPONDENT PROFILE**

Ч		<u>.                                    </u>
	$\checkmark$	_
	$\checkmark$	—
	$\checkmark$	—

The undergraduate study you are studying or have completed: Wood technology / Forestry / Urban Forest

The graduate study you are studying: Wood technology processes / Design of wood products / Engineering, technology, and management in forestry / Growing and arranging forests with hunting management / Urban forestry and nature and environmental protection / I haven't enrolled in graduate studies

Please select the number of years of study by study: The undergraduate study: 1 / 2 / 3 / 4 / 5 / 6 The graduate study: 0 / 1 / 2 / 3 / 4 / 5 / 6

What is your average grade during your studies according to your studies: The undergraduate study: 2 / 2,5 / 3 / 3,5 / 4 / 4,5 / 5 The graduate study: 2 / 2,5 / 3 / 3,5 / 4 / 4,5 / 5

**Gender:** W / M / other

#### Activities in which you have participated so far during your studies at the Faculty of Forestry and Wood **Technology:**

Faculty projects / Intersumfak / Fairs / Conferences / Faculty Day / Professional practice / SuZ Review / Humanitarian actions FŠDT / Other:

## 2. MATERIALS AND METHODS

# QUESTIONNAIRE





## TANGIBLES

### 10 questions formed to ask for perceived service:

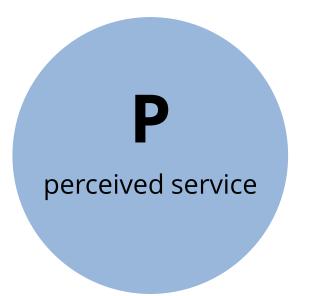
ex. Faculty classrooms and spaces intended for student use <u>are equipped with</u> modern IT equipment (computers, projectors, etc.)

other questions were about internet access, laboratories, faculty library, practical work, the number of teachers per student, access to software programs, students' participation in fieldwork, professional practice for students, involving students in research projects ex. Faculty classrooms and spaces intended for student use <u>should be equipped with</u> modern IT equipment (computers, projectors, etc.)

other questions were about internet access, laboratories, faculty library, practical work, the number of teachers per student, access to software programs, students participation in fieldwork, professional practice for students, involving students into reasearch projects



# 10 questions formed to ask expected service:





## RELIABILITY

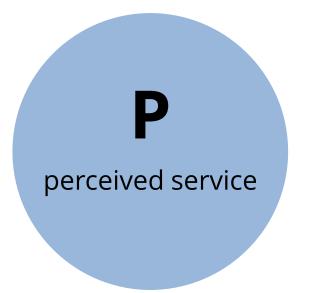
6 questions			
formed to ask for perceived service:	fo		
ex. The learning outcomes of the course <u>are</u>	ex. <i>Co</i>		
<u>clearly defined</u> , and the knowledge and skills that	<u>d</u>		
students acquire from each course	st		
other questions were about acquired			
knowledge during study, lectures and			
exercises, class schedule, exams, e-learning	exer		



## 6 questions ormed to ask about expected service:

ourse learning outcomes <u>should be clearly</u> <u>defined</u>, and the knowledge and skills that tudents need to acquire from each course

other questions were about acquired knowledge during study, lectures and rcises, class schedule, exams, e-learning





## RESPONSIVENESS

### 7 questions formed to ask for perceived service:

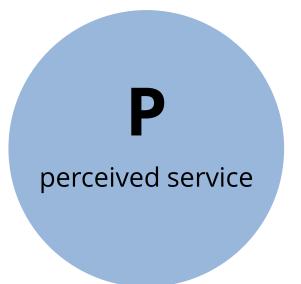
ex. Consultations for students <u>are organized</u> outside of class time

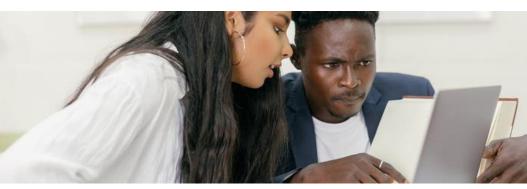
other questions were about effective learning through workshops, students mentoring support, the possibility of continuing studies, advice on future careers, student office, resolving students' inquiries and complaints other questions were about effective learning through workshops, students mentoring support, the possibility of continuing studies, advice on future careers, student office, resolving students' inquiries and complaints



# 7 questions formed to ask expected service:

ex. Consultations for students <u>should be</u> <u>organized</u> outside of class time





## **ASSURANCE**

## 4 questions formed to ask for perceived service:

ex. *The content and quality of compulsory* courses *follow* the modern market and the requirements of the economy

other questions were about the content, quality and offer of elective courses, teachers modern approach to education, teachers advice and support to students

ex. *The content and quality of compulsory* requirements of the economy

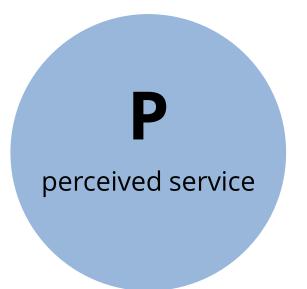
courses <u>should follow</u> the modern market and the

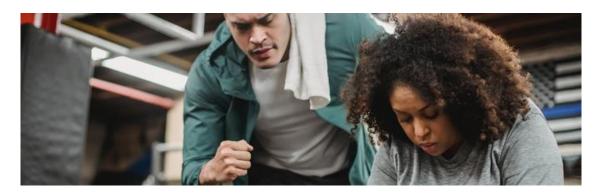
other questions were about the content, quality and offer of elective courses, teachers modern approach to education, teachers advice and *support to students* 





## 4 questions formed to ask expected service:





**EMPATHY** 

## 6 questions formed to ask for perceived service:

ex. The teaching staff <u>is friendly</u> and available to students and motivates them to learn

other questions were about teachers objectivity and individual approach to students, administrative staff, providing student support ex. Teaching staff <u>should be friendly</u> and available to students and motivate them to learn

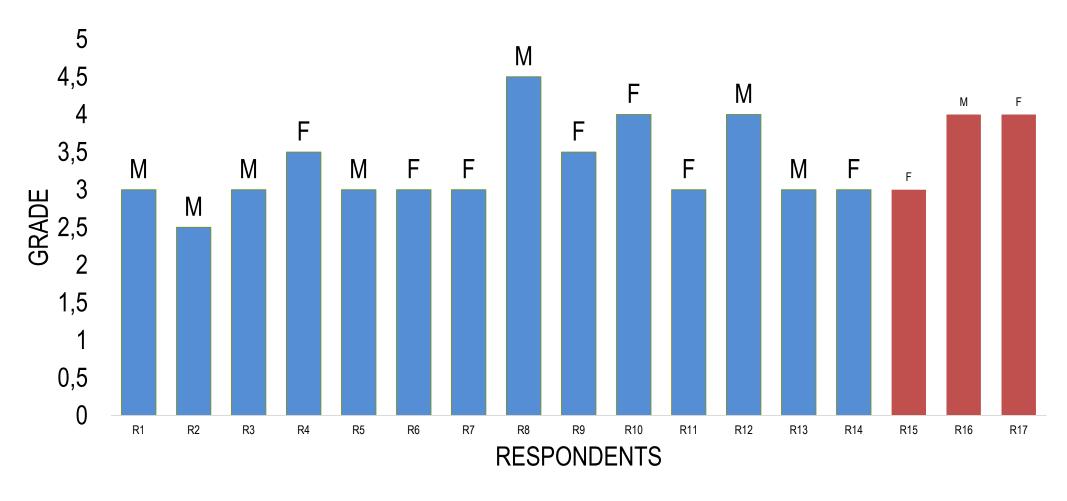


# 6 questions formed to ask expected service:

other questions were about teachers objectivity and individual approach to students, administrative staff, providing student support

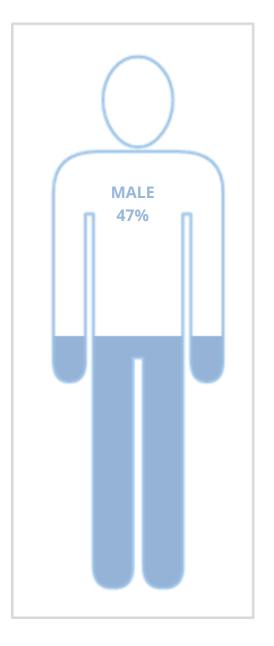
## **RESPONDENT PROFILE**

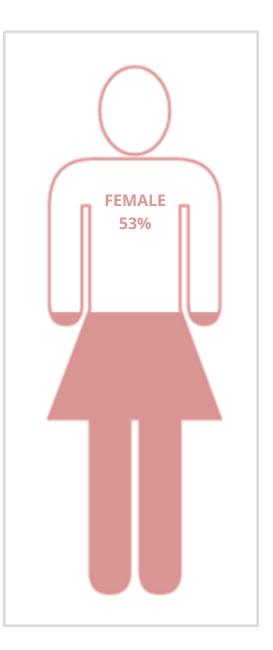
# The response rate was **68%** (17 of 25 responded to the questionnaire).

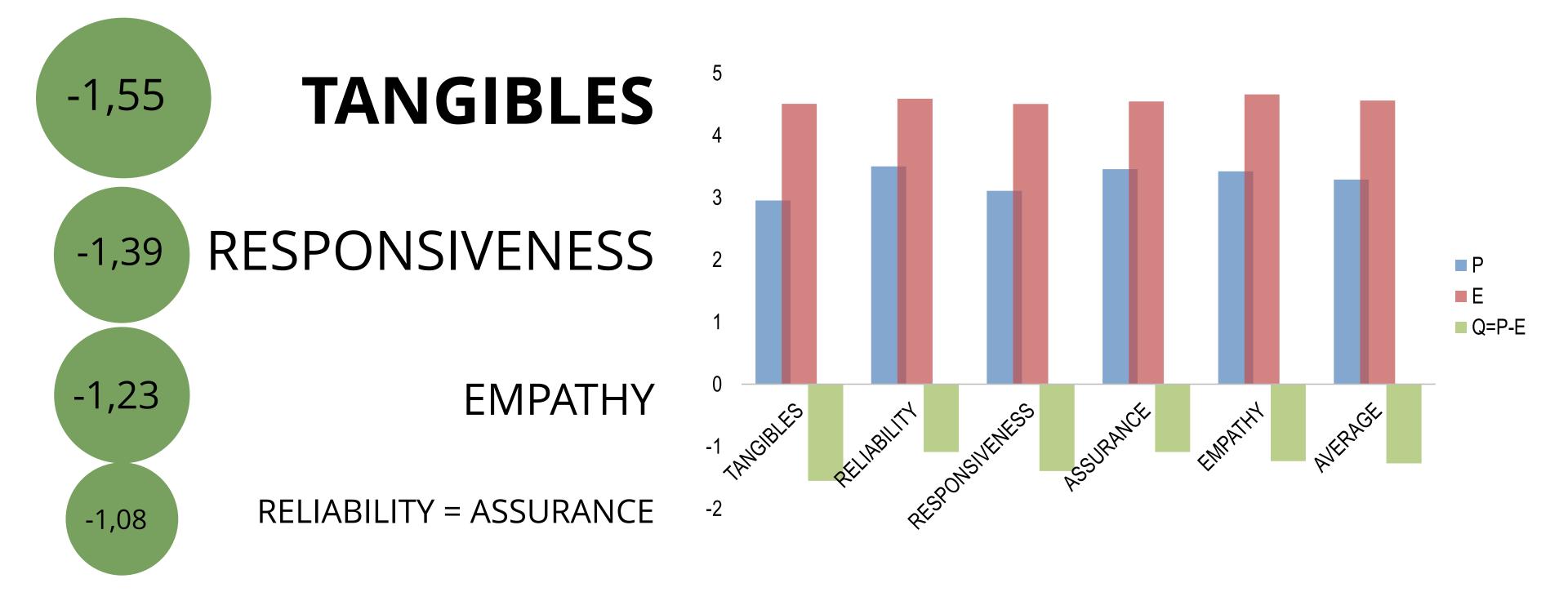


Undergraduate studies of Wood Technology
Graduate studies Wood Technology Processes

# **3. RESULTS**







## **3. RESULTS**

- Students from the Faculty of Forestry and Wood Technology have a quite negative perception of the service quality - negative result is obtained in all 5 SERVQUAL model categories
- The lowest gap was for reliability that is a good practice of teaching and the ability to perform education service accurately, and the same gap result was for assurance which represents the knowledge and courtesy of teachers and their ability to convey trust and confidence to students
- The results of responsiveness and empathy had similar gaps between perception and expectation
- The highest gap was defined in the category of tangibile service, which defines the appearance of physical facilities, equipment, personnel, and communication materials.

# 4. CONCLUSION

# Thank you for your attention!

