

WOMEN IN TECH

BARRIERS AND OBSTACLES
TO THE NEW DIGITAL
SKILLS ACQUISITION

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KOŠICE REGION

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Digital / ICT skills

**In the context of upskilling and reskilling
within the ICT sector in this survey**

The ability to proficiently navigate and leverage advanced technologies, including programming, cybersecurity, cloud computing, data analytics, artificial intelligence, and network management, to meet the evolving demands of the information and communication technology sector.

Objectives of the Survey

01

Motivation

Knowing what motivates women from different groups to change careers or join the ICT sector is important for choosing appropriate activities for future women in ICT and for current ICT professionals.

02

Educational platforms

Understanding the educational platforms most frequently utilized by women allows us to tailor educational support, resources, and initiatives to meet their specific needs, fostering a more inclusive and effective learning environment.

03

Barriers and obstacles

Knowing what obstacles women face most in improving their ICT skills can be very valuable information when designing activities to help women in their professional self-development.

04

What might help

The quickest way to determine what women need to enhance their digital skills for the ICT sector is by gathering the personal opinions of respondents on what would assist them in overcoming obstacles during the acquisition of new digital skills.

Methodology of the Analysis

Survey period: 15.3.2023 - 15.7.2023

Methodology: CAWI

Sample tested: 111 women (from 209 answers)

level of significance: $\alpha = 0,05$

Target Groups

We analyzed the responses of women from 2 separate perspectives. We compared differences in the answers:

between women who are already working in IT regardless of seniority, so called **IT professionals** and women who are interested in working in IT and have no work experience in this sector so called **candidates,**

and in the answers between women who have children, called **mothers** and **women who do not have children.**



IT professionals



Candidates



Mothers



**Women without
children**

Target Groups

CANDIDATES

(women actively trying to upskill in tech with no experience in working in the ICT sector)

PROFESSIONALS

(women already working the ICT sector regardless of their level of seniority)

WOMEN WITHOUT CHILDREN

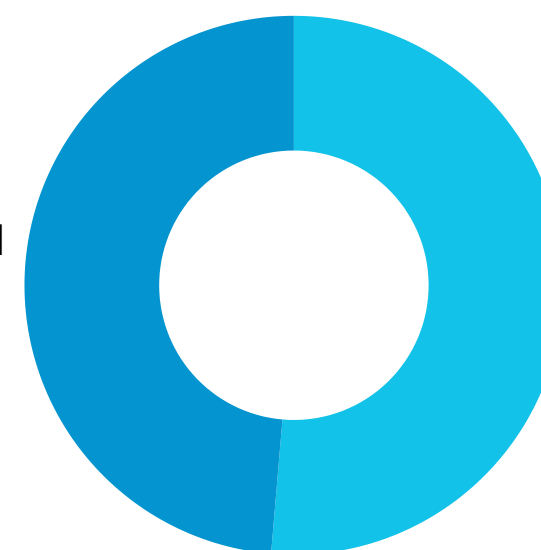
MOTHERS

CANDIDATES
42.3%



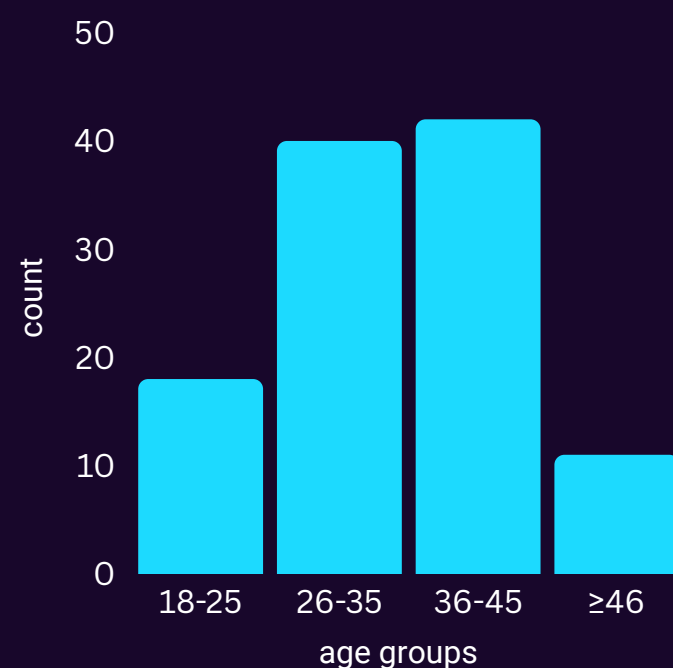
PROFESSIONALS
57.7%

WITHOUT CHILDREN
48.6%

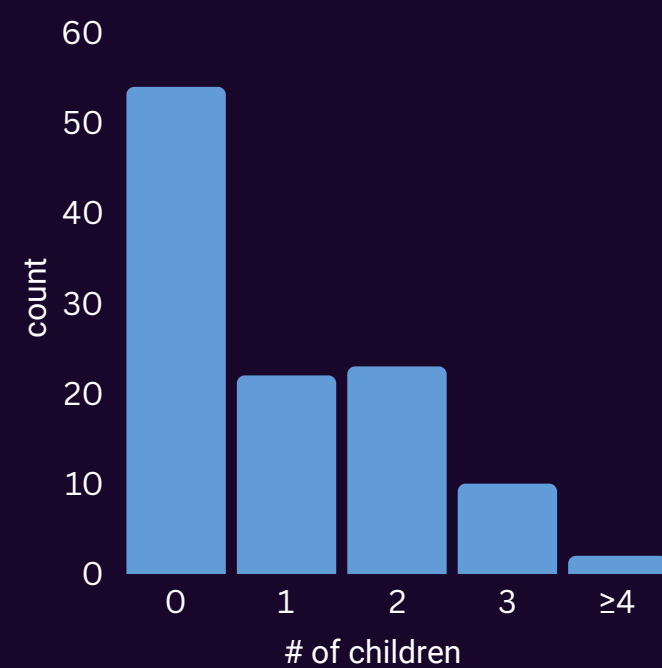


MOTHERS
51.4%

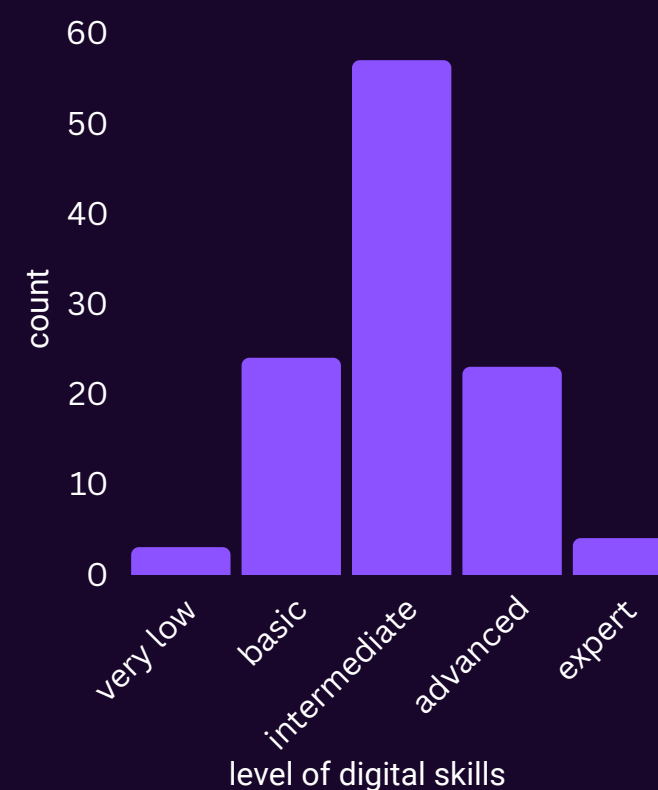
On Respondents



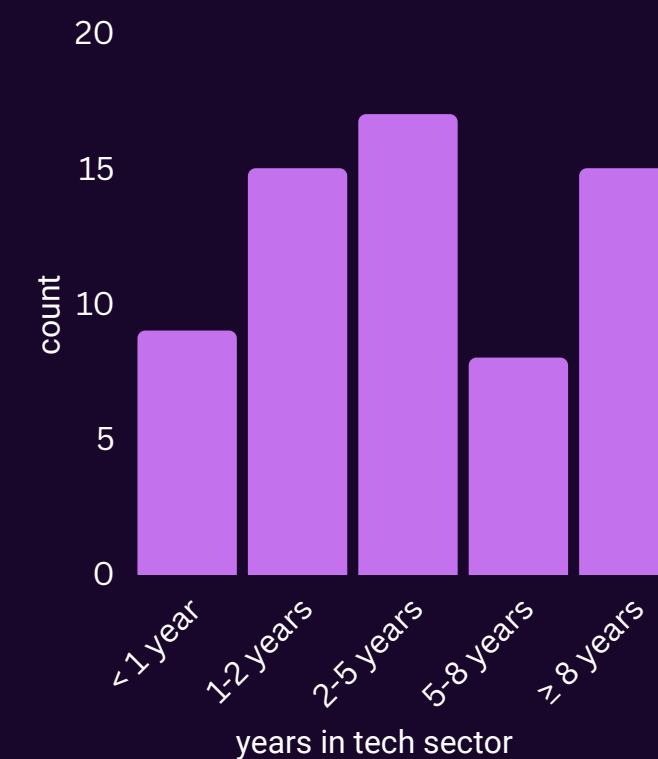
74 % of the respondents are between 26 and 45 years of age. Only one respondent was from the category 56 to 65 years, therefore the last two categories were merged.



51.4 % of the respondents have children and only 2 of them have more than 3 children. The average number of children among respondents with children is 1.9.



The majority of the respondents (51 %) indicate an intermediate level of their digital skills. Basic and advanced levels were reported by almost 3% of respondents in both cases.



The distribution of years working in IT sector of IT professionals.

On Respondents

89%

of respondents have tried to
acquire new digital skills.

Motivation to upskill



BETTER SALARY



**OPPORTUNITIES TO
LEARN**



**FLEXIBILITY IN WORKING
TIME**

Motivation



Motivation to upskill

IT professionals vs. candidates

IT PROFESSIONALS

96 %

Financial evaluation

83 %

Flexibility in working time

62 %

Opportunities to learn

CANDIDATES

Opportunities to learn

53 %

Flexibility in working place

53 %

Interest in technology/new carrier

45 %

Motivation to upskill

Statistically significant differences

BETTER SALARY

MOTIVATES 96 % OF IT PROFESSIONALS AND ONLY 34% OF THE CANDIDATES.

FLEXIBILITY IN WORKING HOURS

MOTIVATES 83 % OF IT PROFESSIONALS AND ONLY 13% OF THE CANDIDATES.

INTERESTING JOB

MOTIVATES 58 % OF IT PROFESSIONALS AND ONLY 34% OF THE CANDIDATES.

FLEXIBILITY IN WORKING PLACE

MOTIVATES ONLY 31 % OF IT PROFESSIONALS AND 53 % OF THE CANDIDATES.

Educational Platforms

Statistically significant differences

92 % OF IT PROFESSIONALS AND ONLY 10 % OF THE CANDIDATES USED AS AN EDUCATION PLATFORM TRAINING OR PROFESSIONAL DEVELOPMENT SPONSORED BY THE EMPLOYER.

Most used Educational Platforms



**ONLINE/OFFLINE
TRAINING AND
MENTORING PROGRAMS
(FOR MEN AND WOMEN)**



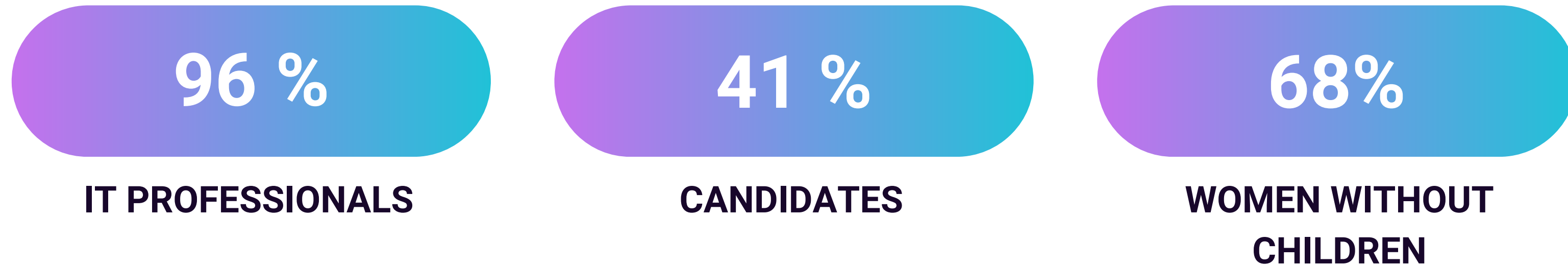
**TRAININGS AND
PROGRAMS FOR
WOMEN ONLY**



**EDUCATION THROUGH
GOVERNMENT
AND NON-PROFIT
PROGRAMS (FOR MEN AND
WOMEN)**



Most used educational Platforms



use for digital skills acquisition **online and/or offline training and mentoring programs** targeted at men and women

Most used educational Platforms

63 %

MOTHERS

use for digital skills acquisition training and mentoring programs
for women only

Obstacles and Barriers

82%

**of women have encountered an obstacle
when trying to acquire new digital skills.**

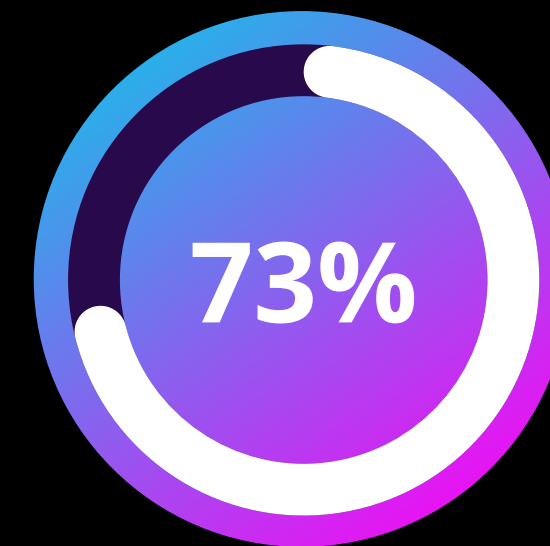
Obstacles

82 %

of women have encountered an obstacle when trying to acquire new digital skills.



OF MOTHERS



OF WOMEN
WITHOUT CHILDREN

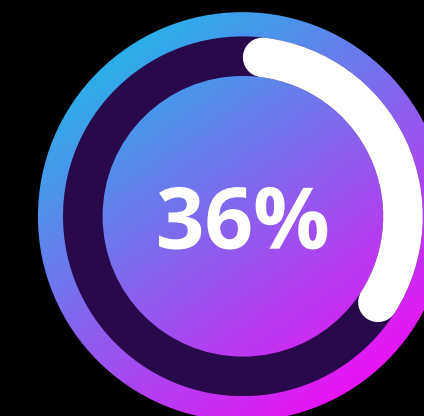
Obstacles

The 5 most frequently cited barriers encountered by respondents who were trying to acquire new digital skills.

The most common barrier cited by 50% of candidates is a **insufficient knowledge or skills**. In comparison, only 26% of IT professionals cited this barrier.



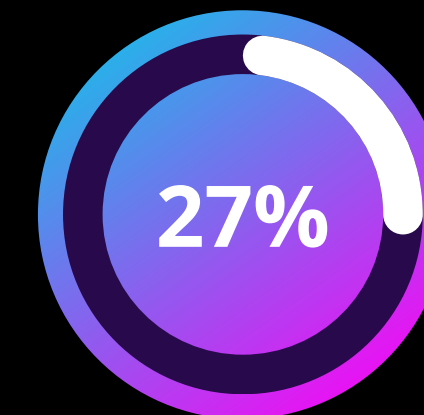
LACK OF SELF-CONFIDENCE



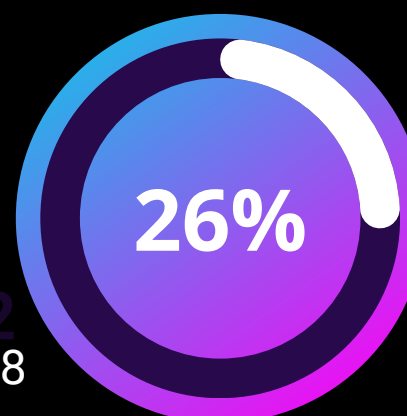
INSUFFICIENT KNOWLEDGE
OR SKILLS



FINANCIAL COSTS



TIME LIMITATIONS



LANGUAGE BARRIERS

Barriers

Main barriers to acquiring IT skills and starting a career in IT or changing roles within IT

31 %

LACK OF TIME

28 %

**LACK OF INFORMATION
ON EDUCATION AND
CAREER OPPORTUNITIES
IN IT**

22 %

**LOW SELF-CONFIDENCE
IN OWN ABILITIES**

Gender Discrimination

14%

of respondents experienced
different treatment based
on their gender.

Gender Discrimination

Statistically significant differences

21 %

**IT PROFESSIONALS
ENCOUNTERED
SOME FORM OF
DISCRIMINATION
BASED ON GENDER**

3 %

**CANDIDATES
ENCOUNTERED
SOME FORM OF
DISCRIMINATION
BASED ON GENDER**

Gender Discrimination

Women face underestimation and mistrust of their abilities.

Examples included

- preference for young male graduates,
- belief that women do not belong in this field,
- mistrust of women's abilities,
- underestimation of career experience,
- lack of recognition from superiors,
- lower expectations (less technical and non-business oriented areas).

What might help

Q: What do you think will help you to remove and overcome the barriers you face when trying to learn new digital skills or retrain to start your career in the IT sector?



What might help

62 %

**short-term
(weekend/evening)
programs and courses**

56 %

**better availability of free
or low-cost training
programs and resources**

41 %

mentoring programs

43% OF CANDIDATES SAID THEY WOULD BENEFIT FROM ENCOURAGEMENT AND KNOWLEDGE OF PEOPLE'S STORIES AND THEIR SUCCESSFUL IT CAREER JOURNEY.

ONLY 18% OF PROFESSIONALS SAY THAT THIS IS WHAT WOULD HELP THEM OVERCOME THE OBSTACLES THEY FACE.

Interest in Job Positions

IT PROFESSIONALS

25 % Scrum master
23 % data analyst
23 % project manager
23 % product manager

CANDIDATES

37 % manual tester
33 % automated tester
15 % IT consultant
15 % cybersecurity specialist

MOTHERS

33 % automated tester
30 % manual tester
24 % Scrum master
17 % IT consultant, project manager

WITHOUT CHILDREN

25 % data analyst
25 % frontend developer
19 % IT consultant, manual tester, UX/UI designer
17% backend developer, automated tester

TESTER 32 %, DATA ANALYST 19 %, SCRUM MASTER 18 %, IT CONSULTANT 18 %, PROJECT MANAGER 15 %

Summary

• New skills

89% of women have tried to acquire new digital skills and 82% of them have encountered an obstacle in doing so.

• Barriers

The most frequently cited barrier is lack of confidence (41% of respondents).

Lack of time was cited by 31% of women as the **main barrier** to acquiring digital skills.

• Motivation

67% of women are motivated by better salary. IT professionals (96%) are strongly motivated by better salary.

Flexibility in working place and learning opportunities motivate 53% of the candidates.

• Help

62% of respondents thought that short-term programmes and courses would help them remove or overcome barriers to acquiring digital skills, while 56% said they would benefit from better access to free or low-cost training programmes and resources.

Recommendations

1

Strategies to overcome self-confidence barriers

To overcome the confidence barrier identified in the survey, consider implementing skill-building workshops, leadership training, and mentorship programs tailored for women, or collaborate with organizations dedicated to supporting women in tech. By creating a supportive and inclusive environment, the company can empower women, boost their self-confidence, facilitate successful skill acquisition initiatives, and promote diversity and inclusion within the workforce.

2

Strategic approaches for skill development

Encourage in-house knowledge sharing as an additional avenue for skill acquisition. Establish a platform for employees to share their experiences, insights, and expertise, creating a collaborative learning environment that aligns with short-term program preferences. Given the preferences of IT professionals, the company should strategically focus on upskilling employees for roles with high interest, such as Scrum Master, Data Analyst, Project Manager, and Product Manager, making it particularly attractive.

Recommendations

3

Targeting (future) employees

For current IT professionals, competitive salaries drive motivation for skill acquisition. To attract future junior employees, focus on flexible work arrangements and robust learning opportunities. This dual approach may help attract and retain talent, positioning your company as an attractive and adaptive employer in the IT sector.

4

Motivation and learning opportunities

The survey results reveal that women prefer offline and online courses for skill acquisition. Offering educational platform memberships as a benefit can be a compelling incentive. This initiative not only encourages upskilling in tech but also has the potential to attract and retain highly qualified employees through continuous learning opportunities, as it appeals to both IT professionals and candidates/future employees. Furthermore, this approach effectively addresses the desire for accessible resources and overcomes barriers related to time constraints.

Editorial

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More about CIPE: www.cipe.org

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