

Perceptual Differences Toward Women Professionals in the Field of Information Technology Among Male and Female Students

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Abstract

The persistent underrepresentation of women in the field of Information Technology (IT) continues to raise questions about gender perceptions and their influence on career choices, workplace dynamics, and educational experiences. This study examines the perceptual differences regarding women professionals in IT among male and female university students. Using a mixed-methods approach, data were collected through a structured questionnaire and follow-up interviews conducted with undergraduate students enrolled in IT-related programs. The analysis examined attitudes toward women's competence, leadership, and contributions to technological innovation, as well as perceptions of gender equality and career advancement opportunities in the IT sector. Findings reveal significant gender-based differences: female students generally express more favourable and equitable perceptions of women in professional roles, while male students demonstrate greater adherence to traditional gender stereotypes. These perceptual gaps highlight the ongoing influence of social and cultural factors on how future IT professionals perceive gender roles in the technology sector. The study underscores the need for educational interventions that promote inclusivity, challenge gender bias, and foster a more supportive environment for women pursuing IT careers.

Keywords: Gender Perceptions, Women in Information Technology, Gender Bias, Gender Equality, Professional Competence, Inclusivity in Education

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1 Introduction

Over the past few decades, the field of Information Technology (IT) has become a cornerstone of global economic growth, innovation, and social transformation. Despite its rapid expansion, the participation of women in IT remains disproportionately low compared to their male counterparts. Numerous studies have highlighted the persistent gender gap in both educational and professional contexts within the technology sector, where women often encounter barriers such as gender bias, limited representation, and restricted access to leadership roles. These disparities not only hinder women's professional advancement but also limit the diversity of perspectives essential for technological innovation and inclusive design.

Perceptions about women's roles and competencies in IT play a critical role in shaping this gender imbalance. Students in higher education, particularly those enrolled in IT-related programs, represent the next generation of technology professionals. Their attitudes toward women in the field can significantly influence the inclusivity of future workplaces and the overall image of IT as a gender-neutral discipline. Understanding how male and female students perceive women in professional roles in IT, therefore, provides valuable insight into the social and cultural factors that perpetuate or challenge existing stereotypes.

While previous research has explored general gender attitudes in STEM fields, there remains a need for focused examination of perceptions within the specific context of IT. This study aims to address that gap by analysing and comparing the perceptions of male and female university students toward women professionals working in the IT field. Through this investigation, the research aims to identify prevailing stereotypes, assess the extent of gender-based perceptual differences, and highlight potential strategies for fostering a more equitable and inclusive environment in technology education and careers.

2 Literature review

The Information Technology (IT) sector continues to demonstrate a significant gender imbalance, despite sustained efforts to promote diversity and inclusion over the years. Women remain underrepresented in IT education, research, and professional environments, particularly in leadership and decision-making roles (Bian et al., 2017; UNESCO, 2021). This disparity is largely attributed to enduring stereotypes that associate technological competence and innovation with masculine characteristics (Cheryan et al., 2017). Such perceptions often deter women from pursuing education and careers in IT and contribute to the "leaky pipeline" effect, wherein women exit the field at various stages of their professional journeys.

Recent European studies have echoed these findings. Miština (2024) emphasises that recognition of women's achievements in science and technology remains limited, reinforcing

systemic barriers and undervaluing women's intellectual contributions. Similarly, Miština and Široká (2025) observed that students' attitudes toward women in science and technology are often shaped by cultural expectations and educational practices, which can either reinforce or challenge gender bias. Their research highlights the importance of awareness-raising initiatives in academic institutions to foster greater gender sensitivity among future professionals. Perceptions of women in IT are deeply intertwined with broader societal norms and gender roles. Studies reveal that both male and female students internalise cultural narratives about gendered competence in technology, which can influence self-efficacy, career aspirations, and interpersonal dynamics within educational settings (Master et al., 2016; Sax et al., 2018). Male students often exhibit more traditional perceptions of gender roles in computing, while female students tend to display higher awareness of inequalities and greater support for inclusivity (Wang & Degol, 2017).

Miština and Široká (2025) found that female students generally demonstrate stronger support for women's participation in science and technology fields, associating gender equity with innovation and collaboration. Their results align with Dasgupta and Stout's (2014) findings that exposure to female role models and inclusive learning environments positively influences students' perceptions of women in technical domains. Furthermore, Cheryan et al. (2015) note that cultural stereotypes often manifest visually and symbolically, for instance, in classroom design or media representations of computer scientists, and these subtle cues can shape students' sense of belonging. The persistence of such stereotypes underscores the necessity of critical pedagogical strategies that address gender bias at both institutional and societal levels.

Educational contexts play a decisive role in shaping students' understanding of gender in technology-related fields. Early socialisation and the cultural framing of computing as a male-dominated pursuit continue to influence students' choices and confidence levels (Charles & Bradley, 2009). Institutions can either reinforce or counteract these patterns depending on curriculum design, representation of female educators, and exposure to inclusive narratives (Cheryan et al., 2015). In this regard, recent research has highlighted the transformative role of digital tools and artificial intelligence (AI) in fostering gender awareness and critical thinking.

Pondelíková and Luprichová (2024) demonstrated how AI-assisted reading comprehension activities can enhance gender sensitivity among students by encouraging reflection on historical and cultural representations of women. Similarly, Luprichová (2025) showed that integrating AI-powered tools in higher education not only improves students' historical understanding but also deepens their awareness of gender perspectives and societal biases. These studies suggest that technology, when thoughtfully integrated, can become a medium for challenging gender stereotypes rather than perpetuating them.

While significant progress has been made in examining gender disparities in STEM, there remains a shortage of focused research addressing perceptions of women professionals in the IT field. Existing literature tends to emphasise participation rates or performance indicators

rather than the underlying perceptual and attitudinal factors that shape gender inclusion (Miština, 2024; Sax et al., 2018). Understanding how male and female students conceptualise women's roles in IT is therefore critical for predicting future workplace dynamics and promoting equitable professional cultures.

This study draws upon *Social Role Theory* (Eagly, 1987) and *Gender Schema Theory* (Bem, 1981) as theoretical foundations. Social Role Theory posits that perceived gender differences stem from the societal distribution of roles and expectations, while Gender Schema Theory explains how individuals internalise and reproduce these cognitive frameworks. Together, these theories provide a lens for interpreting how students' beliefs about gender and technology intersect.

Building on the insights of Miština and Široká (2025), this research aims to contribute empirical evidence on how educational and cultural factors influence gender perceptions in IT, ultimately informing strategies to foster inclusivity, recognition, and gender equity in the technology domain

3 Methodology

The principal aim of this study was to explore and compare perceptual differences toward women professionals in the field of Information Technology among male and female university students. The research examines how gender and academic orientation influence students' attitudes, beliefs, and stereotypes regarding women's roles, competencies, and contributions to the IT profession. The objectives are to identify and analyse gender-based differences in perceptions, examine how students' disciplinary backgrounds affect their understanding of gender equality in professional contexts, and assess the extent to which social, cultural, and educational influences shape these perceptions within the Slovak higher education environment. The study further seeks to contribute empirical findings to the ongoing academic discussion on gender inclusivity in science and technology education.

The subject of the research comprises the perceptions of bachelor's students toward women working in and shaping the development of IT. The analysis focuses on two contrasting groups at the University of Ss. Cyril and Methodius in Trnava, Slovakia: students of Applied Informatics at the Faculty of Natural Sciences, representing a technical and predominantly male environment, and students of English Language and Culture in Specialised Communication at the Faculty of Arts, representing a humanities-oriented and predominantly female environment. This comparison allows for an examination of how disciplinary culture and gender composition influence students' attitudes toward women professionals in technology. The research sample included bachelor's students from both faculties during the academic years 2024/2025 and 2025/2026. In the Applied Informatics program, there were 79 male and 6 female students in 2024/2025, and 81 male and 8 female students in 2025/2026. Conversely, the Faculty of Arts enrolled 71 female and 13 male students in 2024/2025, and 83 female and 16 male students in 2025/2026. The strong gender asymmetry within both faculties mirrors

the broader gender segregation in academic disciplines: technology-oriented fields remain male-dominated, whereas humanities and language studies attract predominantly female students. This structural imbalance also represents an inherent limitation of the research, as it reduces statistical comparability between male and female subgroups while simultaneously reflecting the authentic demographic realities of Slovak higher education.

A mixed-methods design was employed, integrating both quantitative and qualitative approaches to capture a comprehensive view of students' perceptions. The quantitative component consisted of a structured questionnaire containing Likert-scale and multiple-choice items that measured attitudes toward women's participation, leadership, and competence in IT. The data were analysed using descriptive and inferential statistics to detect differences across gender and academic orientation. To complement the quantitative findings, a qualitative component was implemented through semi-structured interviews and open-ended questionnaire responses, allowing for deeper exploration of students' reasoning, experiences, and underlying beliefs. Thematic analysis was applied to identify recurring patterns and narratives, thereby enriching the statistical results with interpretive insights. This methodological combination enables triangulation of data, enhancing the validity and depth of the findings, and aligns with the interdisciplinary character of the research that bridges gender studies, education, and information technology.

Despite its comprehensive design, the study acknowledges several limitations. The most significant constraint arises from the pronounced gender imbalance within both faculties, Applied Informatics being predominantly male (over 90%) and the Faculty of Arts predominantly female (around 85%). This uneven distribution may influence both the nature of social interaction within academic environments and the respondents' perceptions of gender roles. Moreover, as the research focuses exclusively on one Slovak university, the findings cannot be generalised to other national or international contexts without caution. Finally, while the mixed-methods approach provides depth, it also introduces potential interpretative bias, particularly when analysing qualitative data drawn from demographically uneven groups.

All participants took part voluntarily and were informed about the purpose and confidentiality of the study. Ethical principles of anonymity, informed consent, and data protection were strictly observed in accordance with the research ethics guidelines of the University of Ss. Cyril and Methodius in Trnava.

4 Research results

The analysis of students' responses revealed clear perceptual differences toward women professionals in the field of Information Technology, shaped by both gender and academic orientation. Quantitative results from the structured questionnaire were supported by qualitative insights derived from interviews and open-ended questions, which provided a more nuanced understanding of the students' attitudes and reasoning.

4.1 General attitudes toward women in IT

Across the entire sample, the majority of respondents expressed a generally positive view of women’s participation in IT; however, the degree of positivity differed significantly between faculties and genders. Students from the Faculty of Arts demonstrated notably stronger support for women in IT than those from Applied Informatics. As shown in Table 1, 84% of Arts students agreed or strongly agreed that women possess the same level of technical competence as men, compared with only 59% of Applied Informatics students.

Field of study	Agree/Strongly Agree	Neutral	Disagree/Strongly Disagree
Applied Informatics	59%	27%	14%
Faculty of Arts	84%	12%	4%

Table 1: Students’ perceptions of women’s technical competence in IT.

A chi-square test confirmed that these differences were statistically significant ($p < .01$), suggesting that academic orientation and disciplinary culture play a considerable role in shaping gender-related attitudes.

A further breakdown by gender revealed that female students, regardless of faculty, tended to evaluate women professionals more positively. Among male students in Applied Informatics, 41% agreed that women contribute equally to technological innovation, compared with 78% of female students from the same program. Female respondents from the Faculty of Arts displayed the highest support overall, with 90% affirming the importance of women’s leadership in technology. Figure 1 illustrates these differences, showing a clear gender gap in perceptions of women’s leadership potential in IT-related contexts.

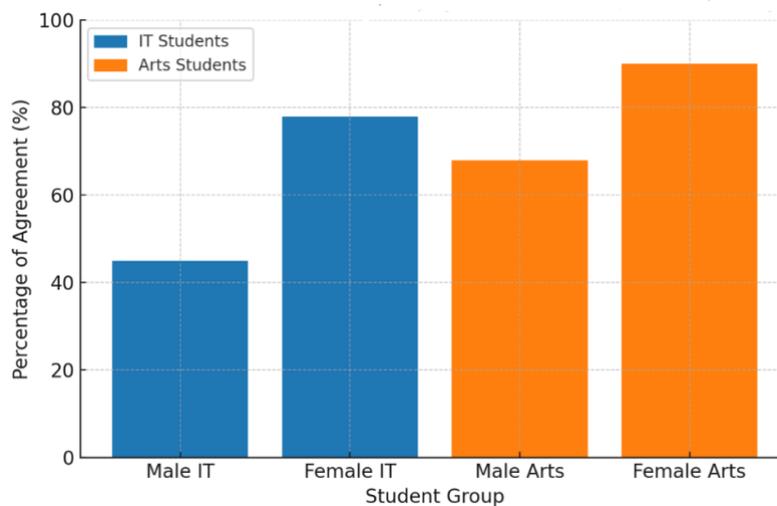


Figure 1: Percentage of agreement with the statement “Women are equally capable of leadership in IT fields”.

It shows notably higher agreement among female students, especially those from the Faculty of Arts, and lower agreement among male students in Applied Informatics, clearly visualising the perception divide across gender and discipline. These results highlight a consistent gender gap, with female respondents expressing significantly higher support for gender equality than male respondents. The responses also indicate that male students within technical disciplines tend to evaluate women’s success through a performance-based lens, often separating competence from issues of representation or discrimination.

4.2 Influence of academic context

Disciplinary orientation emerged as a major determinant of perception. Students from humanities-oriented programs generally displayed higher levels of empathy and critical reflection on social inequality, likely influenced by coursework involving language, culture, and communication (Luprichová, 2025; Pondelíková & Luprichová, 2024). Conversely, Informatics students exhibited more pragmatic and skill-based views, often evaluating professional competence through measurable performance rather than social context. Table 2 summarises differences in students’ mean responses across key perception dimensions, measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Perception Dimension	Applied Informatics (M)	Faculty of Arts (M)	Overall Difference
Technical Competence of Women	3.62	4.34	0.72
Leadership Ability of Women	3.48	4.41	0.93
Gender Equality in IT Careers	3.19	4.09	0.90
Existence of Gender Bias in IT	3.23	4.18	0.95

Table 2: Mean Scores on Key Perception Dimensions

The mean differences across all categories were statistically significant ($p < .05$). The pattern indicates that students from the Faculty of Arts consistently express stronger awareness of gender inequality and greater support for women’s professional advancement in IT, whereas Applied Informatics students maintain more neutral or traditional attitudes.

4.3 Perceptions of barriers and gender bias

When asked about the barriers women face in IT careers, both groups recognised gender bias as a persistent problem, though the perceived intensity of such bias varied. Approximately 72% of Arts students identified structural discrimination as a key obstacle, compared to 45% of Informatics students. Male students from the IT fields were more likely to attribute women’s underrepresentation to personal interest rather than systemic inequality, echoing findings from Sax et al. (2018) and Miština (2024), who observed similar tendencies among male respondents in science and technology disciplines.

Qualitative data from interviews revealed recurring themes related to cultural expectations and socialisation. Many male Informatics students described IT as “a naturally male field,” citing early exposure to technology as a gendered experience. In contrast, female Arts students often emphasised the need for representation and role models, expressing the belief that “visibility of successful women in IT would inspire others.”

These qualitative insights align with Dasgupta and Stout (2014) and Miština and Šíroká (2025), who both stress the role of role models and inclusive education in reshaping gender perceptions.

4.4 Qualitative insights

The qualitative analysis reinforces the quantitative findings. Thematic analysis of qualitative responses revealed four dominant themes: (1) gendered socialisation and early exposure to technology, (2) underrepresentation and visibility of women professionals, (3) the influence of academic culture on perceptions, and (4) shifting attitudes through education. Students from the Faculty of Arts frequently discussed gender as a social construct, connecting women’s underrepresentation in IT to broader systemic and cultural issues.

In contrast, Informatics students often framed the topic in terms of individual interest or meritocratic values, downplaying structural factors. Some notable quotes illustrate these contrasts:

“I think women can succeed in IT if they are truly passionate and hardworking, but not everyone is naturally drawn to it.” (Male IT student, 2025)

“IT has always been seen as a man’s world. It’s not about skill, it’s about culture.” (Male IT student, 2025)

“Equal opportunity isn’t just about competence. It’s about the environment. If the environment feels unwelcoming, fewer women will join.” (Female IT student, 2025)

“Some men think gender doesn’t matter in tech. But that’s easy to say when you’re not the one being doubted.” (Female IT student, 2025)

“The issue is not ability but encouragement. Women need to see they belong in these spaces.” (Female arts student, 2025)

“If we saw more women teaching IT or leading projects, it would normalise their presence.” (Female arts student, 2025)

“Interest doesn’t develop in a vacuum. If girls never see women in tech roles, how can they imagine themselves there?” (Female arts student, 2025)

“The media shows male hackers and male programmers. No wonder kids assume tech is a guy thing.” (Male arts student, 2025)

“If more movies or games had women programmers, it would normalise seeing them in real workplaces.” (Male arts student, 2025)

*“It’s not discrimination. It’s just that fewer girls are really interested in coding.”
(Male arts student, 2025)*

These statements mirror findings by Master et al. (2016) and Cheryan et al. (2017), who documented how belongingness and identity strongly influence women’s engagement in STEM, as well as support the assumptions of Social Role Theory (Eagly, 1987) and Gender Schema Theory (Bem, 1981), showing that social expectations and institutional environments continue to shape students’ perceptions of gender roles in technology. The differences observed here suggest that educational context and disciplinary framing significantly affect students’ interpretations of gender inequality in technology.

5 Synthesis and discussion

The findings of this study highlight the complex interplay between gender, academic orientation, and disciplinary culture in shaping students’ perceptions of women professionals in the field of Information Technology. Although students across both faculties generally acknowledged women’s competence in IT, the nuances of their responses reveal persistent gendered assumptions and differing interpretive frameworks that influence how women’s roles in technology are conceptualised. These differences reflect not only individual attitudes but also the broader social and educational environments in which these students are embedded.

A central finding concerns the contrast between students enrolled in the Faculty of Arts and those studying Applied Informatics. Humanities students, regardless of gender, demonstrated a consistently higher awareness of structural inequalities and were more likely to perceive gender bias as a significant factor influencing women’s participation in IT. Their responses suggest that the reflective and discourse-oriented nature of humanities education promotes sensitivity to issues of identity, representation, and social justice. Exposure to discussions of power dynamics, cultural narratives, and critical theory likely equips these students with conceptual tools for interpreting gender disparities not merely as matters of personal choice but as outcomes of socialisation and institutional constraints.

In contrast, students of Applied Informatics tended to adopt a more individualistic and meritocratic lens, often attributing women’s lower participation in IT to differences in intrinsic interest rather than systemic barriers. This perspective aligns with well-documented trends within STEM fields, where students are socialised to value quantifiable performance and technical proficiency, sometimes at the expense of recognising the broader cultural and institutional factors that shape access and participation.

The prevalence of such views among male Informatics students, in particular, corresponds with the findings of Cheryan et al. (2017) and Sax et al. (2018), who observed that male STEM students frequently interpret gender inequality through a depoliticised framework that minimises structural bias.

Quantitative data reinforce these disciplinary contrasts. Arts students consistently rated women's technical competence, leadership potential, and equality of opportunity more highly than Informatics students. The gender gap was most pronounced among male IT students, whose lower levels of agreement suggest that they may more readily internalise traditional gender schemas associating technological expertise with masculinity. This pattern is consistent with the predictions of **Gender Schema Theory** (Bem, 1981), which posits that individuals interpret new information through culturally embedded cognitive structures. For many male Informatics students, these schemas appear to frame IT as a "male domain," a perception often reinforced by their immediate learning environment, which is overwhelmingly male.

Conversely, female IT students, although greatly outnumbered, expressed attitudes far more aligned with those of the female and male students in the Faculty of Arts. Their responses frequently underscored both competence and belonging while also acknowledging the pressure associated with navigating a minority position. These students often articulated a dual consciousness: confidence in their abilities accompanied by heightened awareness of subtle biases, stereotypes, or unequal expectations. This reflects findings from Dasgupta and Stout (2014), who argue that underrepresented groups in STEM frequently develop social and cognitive strategies to cope with stereotype threat while simultaneously advocating for more inclusive environments.

The interviews further reveal the interpretive dichotomy between faculties. Male Arts students often contextualised gender inequality within a broader socio-cultural framework, drawing connections between representation, media narratives, and professional identity. Their language reflected the academic vocabulary of the humanities, terms such as "stereotypes," "symbolic barriers," and "visibility", indicating that disciplinary training shapes not only perceptions but the very discourse through which students articulate their understanding of gender. Meanwhile, male Informatics students favoured vocabulary centred on "interest," "effort," or "ability," reflecting a culture that prioritises individual performance metrics over structural analysis.

These findings offer strong support for Social Role Theory (Eagly, 1987), which asserts that gender stereotypes arise from observations of social roles, particularly occupational patterns. In a faculty where women are scarce and technical roles are normalised as male roles, students naturally infer gendered divisions of competence and interest. In contrast, in a humanities environment with strong female representation, students encounter a wider array of gender-role models and learning contexts that problematize reductive assumptions about gender and ability.

An important interpretive insight emerging from this study concerns the role of higher education as both a site of social reproduction and potential transformation. The study's context, a university with sharply gendered disciplinary demographics, mirrors broader societal patterns and contributes to the perceptions students internalise. Yet the results also suggest that curricular design and pedagogical practices can mitigate or challenge gender bias.

Students in the Faculty of Arts clearly benefit from educational content that foregrounds issues of identity, representation, and social power. Integrating similar reflective elements into IT curricula, through interdisciplinary modules, gender-awareness training, or the inclusion of women IT professionals as lecturers and mentors, could foster more nuanced understandings among technical students.

It is also significant that, despite the noted differences, students across faculties expressed a belief that gender diversity benefits IT. Even male Informatics students who maintained more traditional views acknowledged the value of diverse perspectives in innovation and problem-solving. This shared recognition suggests that conversations around inclusion are possible across disciplinary boundaries and that interventions aimed at reducing bias may find receptive audiences in both contexts, though, perhaps, for different reasons.

Finally, the strong gender asymmetry in both participating faculties constitutes both a limitation and an interpretive lens. While the imbalance complicates statistical comparisons and generalizability, it simultaneously provides a realistic depiction of the environments students navigate daily. These environments shape the “gendered landscapes” of their academic experiences, reinforcing the need for institutional policies that address representation both symbolically and structurally.

The findings underscore that perceptions of women in IT are deeply rooted in gendered cultural norms and academic environments. While progress is evident, particularly among female and humanities students, notable gaps persist, especially within male-dominated technical fields. Addressing these gaps requires not only curricular innovation but also institutional commitment to fostering inclusive learning cultures, promoting female visibility in IT, and encouraging interdisciplinary understanding of gender and technology.

6 Recommendations

The study demonstrates that a complex interplay of gender, disciplinary identity, and educational culture shapes perceptions of women professionals in Information Technology. Students from the Faculty of Arts expressed consistently more egalitarian and inclusive attitudes toward women in IT, while those from Applied Informatics, particularly male students, displayed more traditional, meritocratic, and sometimes stereotypical interpretations.

These findings highlight the extent to which academic environments and gender representation within them influence students’ beliefs and expectations. Although the majority of respondents acknowledged women’s potential and competence, female IT students stood out as uniquely positioned and expressed strong confidence in women’s abilities. Still, they were simultaneously more attuned to subtle bias and the pressures of operating as a minority in a male-dominated field.

Their voices reveal both the resilience and vulnerability that accompany the experience of underrepresentation, underscoring the need for sustained institutional support.

Based on these findings, several key recommendations can be made:

1. **Increase the visibility of women in IT education.** Universities should prioritise inviting female IT professionals, researchers, and alumni as guest lecturers, mentors, or workshop facilitators to normalise women's presence and leadership in technology.
2. **Integrate gender-awareness content into technical curricula.** Short interdisciplinary modules or assignments focusing on representation, bias, and the social dimensions of technology may help technical students develop a broader, more reflective understanding of gender dynamics in IT.
3. **Strengthen support systems for female IT students.** Mentoring programs, peer support groups, and dedicated advising for women in technical fields could mitigate feelings of isolation and promote academic success.
4. **Promote cross-faculty learning experiences.** Collaborative tasks between IT and Arts students may foster mutual understanding and expose technical students to discussions of identity and representation, while giving arts students insight into the logic and language of technological fields.
5. **Encourage faculty development in inclusive teaching.** Lecturers in both faculties should receive training in gender-sensitive pedagogy and inclusive communication to ensure that learning environments are equitable and welcoming.
6. **Monitor and evaluate gender climate regularly.** Systematic data collection and student feedback can help identify emerging issues and track improvements in gender-related perceptions and experiences.

These recommendations aim to bridge the perceptual gaps observed in the study and to encourage institutional strategies that foster gender equity within both academic and professional spheres of Information Technology.

7 Conclusion

This research has examined perceptual differences toward women professionals in Information Technology among bachelor's students of Applied Informatics and English Language and Culture in Specialised Communication at the University of Ss. Cyril and Methodius in Trnava, Slovakia. Through a mixed-methods design combining quantitative questionnaires and qualitative interviews, the study revealed that students' gender perceptions are shaped not only by personal identity but also by academic culture and the gender composition of their respective study programs.

The Faculty of Arts students, both male and female, demonstrated a high degree of awareness of gender issues, frequently highlighting structural and cultural barriers that hinder women's participation in IT.

In contrast, students of Applied Informatics often interpreted gender disparities in IT as reflective of individual preferences or differences in interest rather than systemic obstacles.

This distinction suggests that academic environments and curricular focus significantly shape the conceptual frameworks students employ when thinking about gender and technology. Female IT students provided particularly compelling insights. Despite their confidence in their own capabilities, they often reported experiences of being underestimated, overlooked, or positioned in ways that subtly reflect gendered assumptions. Their accounts lend strong support to existing research on stereotype threat and underrepresentation in STEM fields, demonstrating how gender dynamics manifest in everyday academic interactions. Taken together, the findings emphasise the importance of addressing gender bias at both structural and instructional levels. While perceptions are gradually shifting toward greater inclusion, the persistence of gendered assumptions indicates that more targeted interventions are needed. By promoting visibility, fostering critical reflection, and cultivating inclusive educational cultures, universities can play a significant role in creating a more equitable technological future.

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