

ADDRESSING GENDER IMBALANCE IN IT COMPANIES IN UKRAINE

Viktoriya Kulyk

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© Viktoriya Kulyk

Doctor of Economics, Professor

Department of Management and Logistics,

Yuri Kondratyuk Poltava Polytechnic

E-mail: feup.Kulyk@nupp.edu.ua

ORCID: <https://orcid.org/0000-0002-3271-7845>

Abstract. Gender imbalance in the Ukrainian information technology (IT) sector remains a critical issue, with women significantly underrepresented in both technical and managerial roles. In 2024, women comprised only 26 percent of the IT workforce, highlighting persistent disparities despite recent sector growth. This study investigates the socio-professional characteristics of female IT specialists in Ukraine, aiming to identify patterns in employment, career progression, and income, as well as to assess the influence of education, English proficiency, work experience, family status, and organizational factors on professional development.

The empirical basis of the study comprises 26 in-depth surveys conducted with women working in diverse IT companies. The questionnaires collected information on respondents' educational background, employment type, professional role, income, career intentions, mentorship experiences, and perceptions of gender-related challenges in the workplace. Descriptive statistical analysis and correlation methods were applied to examine the relationship between key variables, including age, years of experience, and monthly income. The results indicate that higher education and advanced English language skills are associated with greater access to senior positions and higher income, while income levels are more influenced by company sector and professional role than by years of experience. Mentorship, ongoing professional development, and willingness to



assume managerial responsibilities emerged as important factors for career advancement.

The study emphasizes the role of inclusive leadership, supportive organizational culture, and targeted managerial strategies in fostering equitable workplaces. Digital tools and technologies were identified as enablers of professional growth, providing women with improved access to resources, training, and networking opportunities. The findings underscore the necessity of coordinated efforts among companies, educational institutions, and governmental agencies to address systemic barriers, promote women's participation in IT, and strengthen the sector's competitiveness. By providing empirical insights and practical recommendations, this research contributes to the development of a more inclusive and innovative IT ecosystem in Ukraine, highlighting strategies to reduce gender disparities, enhance professional opportunities for women, and support sustainable sector growth.

Keywords: Career, Gender Equality, Gender Imbalance, IT company, Leadership, Management, Remuneration.

Introduction

The Ukrainian information technology (IT) sector is a crucial driver of economic growth and digital transformation. Despite its rapid expansion and the rising demand for skilled professionals, the industry continues to exhibit a pronounced gender imbalance. Women remain underrepresented across technical and managerial positions, limiting both their professional opportunities and the sector's potential for inclusive and sustainable development (Lagesen et al. 2021).

This persistent disparity results from a combination of systematic barriers, organizational practices, and culture stereotypes that shape career trajectories, influence compensation patterns, and restrict access to leadership roles (Mills 2011; Smith et al. 2020). Consequently, the underrepresentation of women not only hinders individual career development but also restricts the innovative capacity and global competitiveness of Ukrainian IT companies (Kraugusteeliana 2023).

To effectively address these challenges, it is essential to examine the professional and socio-demographic characteristics of women in the IT sector, including their education, work experience, family responsibilities, and perceptions of organizational support. Understanding factors such as career intentions, mentoring experiences, mobility plans, and perceived gender bias provides critical insights for developing strategies to reduce disparities, promote inclusivity, and support equitable career advancement within the Ukrainian IT industry.

Objectives of the Study

The purpose of the study is to examine the professional and socio-demographic characteristics of women working in the Ukrainian IT sector, to identify patterns in employment, career progression, and income, and to assess the impact of factors such as education, work experience, family status, and organizational environment on their professional development. Additionally, the study aims to explore mentoring practices, career intentions, and mobility plans, with the objective of informing strategies to reduce gender disparities and promote inclusivity in the IT industry.

Review of Related Literature

The issue of gender imbalance in the IT sector has been widely discussed, with research emphasizing socio-economic, cultural, and organizational determinants of women's underrepresentation. Walker et al. (2013) applied the Capability Approach, underlining the need for institutional environments that expand women's professional opportunities, a perspective particularly relevant for IT, where capability development influences career trajectories. Studies also show that external shocks, such as macroeconomic crises, exacerbate inequalities (Annesley & Scheele 2011), while leadership styles shape workplace gender relations (Salminen-Karlsson 2015).

Regional contexts further determine women's participation in IT. Comparative research demonstrates that e-business development pathways in Ukraine and the Czech Republic differ substantially due to local institutional settings (Kulyk & Parmová 2017). Later findings highlight that digital transformation in Ukrainian enterprises can simultaneously increase organizational efficiency and create conditions for inclusivity (Kulyk, Parmová & Jílek 2025). Similar arguments are advanced in Franco et al. (2021) and Baiyere et al. (2020), who stress that digitalization reshapes managerial practices and enhances opportunities for women's advancement. At the same time, Fleisch (2004) cautions about potential risks, while Xu et al. (2005) and Rahmatila (2025) suggest that digital management aligned with inclusivity supports both efficiency and diversity.

Another strand of literature focuses on socialization and role models. Strapko et al. (2016) and Lundberg (2018) show that gender norms influence decision-making and career aspirations, whereas Corneliusen et al. (2019) point to the importance of role models and mentorship in sustaining women's careers in IT. Lagesen et al. (2021) and Smith et

al. (2020) argue that targeted educational programs and degree apprenticeships can mitigate gender disparities by creating structured pathways into the profession. Recent contributions also highlight how ICT can empower marginalized women (Pei et al. 2024), facilitate knowledge sharing (Yan et al. 2023), and strengthen employee engagement in digitally transformed environments (Zahoor et al. 2022).

Overall, the reviewed scholarship suggests that gender imbalance in IT is a multidimensional phenomenon shaped by cultural, structural, and managerial factors. It highlights the role of education, English proficiency, family responsibilities, and organizational practices as key determinants of women's professional development, while also pointing to the potential of digital transformation to expand career opportunities. These insights align with the present study's objective to examine socio-demographic and professional characteristics of Ukrainian women in IT, identify barriers and enablers of career growth, and outline strategies for fostering inclusivity at both organizational and systemic levels.

Research Framework

In the Ukrainian IT industry, gender inequality persists, as reflected in the low representation of women in technical and managerial positions. As of 2024, women accounted for only 26 percent of the Ukrainian IT workforce, representing a modest increase from 24 percent in 2019. Despite rapid industry growth, women's participation in leadership and decision-making roles remains disproportionately low, which not only constrains their professional development but also limits organizational innovation, creativity, and long-term growth.

This study focuses on managerial and organizational factors contributing to persistent gender disparities in the Ukrainian IT sector. Evidence suggests that systemic barriers hinder women's career progression, including cultural biases, unequal access to mentorship, exclusionary workplace practices, and limited recognition of women's contributions. Specifically, traditional masculine leadership norms often dominate organizational culture, marginalizing women's participation in strategic decision-making. By clarifying the notion of effective leadership, this study emphasizes leadership approaches that actively promote inclusivity, encourage diverse perspectives, and ensure equitable opportunities for all employees.

The challenges faced by women in IT are multifaceted. Beyond structural barriers, women frequently experience double workloads, balancing professional responsibilities with household and caregiving

duties, a burden exacerbated even in contexts offering flexible or remote work. While technology and digital tools can facilitate collaboration, enhance communication, and provide access to training resources, their potential to empower women depends on organizational support, target skill development programs, and equitable access to these resources. In contrast, men in similar roles are less likely to experience these compounded domestic-professional responsibilities, highlighting the gendered nature of these challenges.

To address these issues, organizations can implement a suite of targeted management strategies, including structured mentorship programs, flexible work arrangements, bias awareness and training initiatives, and investment in digital skill-building for women. These measures not only dismantle systemic barriers but also foster a culture of inclusivity that enhances retention, job satisfaction, and performance. Systemic barriers can be categorized into four main types: (1) cultural barriers, such as stereotypes and gendered expectations; (2) organizational barriers, including leadership styles; (3) resource barriers, like limited access to training or networking; and (4) societal barriers, including family responsibilities and social norms.

Overall, the research framework positions digital technologies, effective leadership, and organizational strategies as interrelated levers to mitigate gender imbalance. By critically examining these factors, this study aims to identify actionable pathways for enhancing women's participation and advancement in the Ukrainian IT sector, thereby promoting equitable organizational growth, innovation, and a more diverse workforce.

Methodology

This study employed a mixed-methods survey of 26 women employed in IT companies across Ukraine, aiming to examine professional and socio-demographic characteristics, career trajectories, and perceptions of gender bias. The sample was selected using a purposive sampling strategy, targeting women with varying positions, educational backgrounds, and levels of experience in the IT sector.

Selection criteria included current employment in Ukrainian IT companies, at least one year of professional experience, and willingness to participate. Participants were recruited through professional networks, online IT communities, and direct contacts with IT companies. Data collection was conducted via semi-structured interviews, allowing respondents to provide detailed answers and ensuring that qualitative insights complemented the quantitative analysis. Each

interview lasted approximately 30–45 minutes, and data collection spanned two months.

The relatively small sample size of 26 participants was justified as an initial exploratory stage to capture diverse experiences and perceptions within the sector. While insufficient for making broad generalizations at the macro level, the sample allowed for the application of descriptive and correlation-based statistical methods to identify trends and relationships among key variables, providing a basis for future larger-scale studies.

The survey instrument consisted of four main sections. The first section collected organisational and employment-related information, including the type of company, position held, type of employment (full-time, self-employed, specialist on a gig contract), years of experience in IT, and average monthly income. The second section aimed to create a socio-demographic profile, capturing respondents' age, education, English language proficiency, family status, and offspring. The third section examined career intentions and professional development, with questions such as: “Do you plan to continue working in the IT sector for the next 3 years?”, “Do you continue to improve your professional knowledge?”, “Would you like to hold a managerial position?”, “Did you have a mentor when you entered the IT industry?”, and “Are you ready to mentor colleagues with less experience?” The fourth section addressed experiences of gender bias, asking: “Do you think there are prejudices against women professionals in the Ukrainian IT sector?”, “Have you ever experienced biased treatment by management because of your gender?”, and “Have you experienced prejudice from male colleagues?” Finally, given the current security situation in Ukraine, respondents were asked about their mobility plans: “Are you planning to move to another country in the next 3 years?”

Quantitative data were analysed using descriptive statistics and graphical methods to illustrate trends across variables. Relationships between metric variables—specifically, monthly income with age and years of IT experience — were examined using correlation analysis. Prior to applying parametric tests, the data were assessed for normality using the Shapiro-Wilk test, which confirmed that the variables met normal distribution requirements. Accordingly, Pearson's correlation coefficient was employed to measure associations between these variables. Frequency tables were also used to analyse categorical responses, providing insight into patterns of employment, career intentions, mentoring experiences, and perceptions of gender bias.

This methodological approach ensured a detailed examination of both structural and perceptual dimensions of gender imbalance in Ukrainian IT, aligning with the study's objective to identify factors

affecting women’s professional development, organizational participation, and potential pathways toward a more inclusive IT sector.

Results

During the study, in-depth interviews were conducted with female professionals employed in Ukrainian IT companies. Comprehensive information regarding the sectors and types of companies represented by the respondents is presented in Table 1.

Table 1. Types of companies the respondents work for

Type of company	Frequency	%
Business productivity software	6	23.08%
E-commerce & Retail	4	15.38%
DefenseTech	3	11.54%
Fintech & InsurTech	2	7.69%
Gaming	2	7.69%
EdTech	2	7.69%
Martech & Media	2	7.69%
HealthTech & Wellness	2	7.69%
Hardware & IoT	2	7.69%
Logistics & Transportation	1	3.85%
Total	26	100%

As shown in Table 1, the majority of respondents are employed in companies focused on business productivity software, with six women representing 23.08 percent of the sample. Four respondents (15.38 percent) work in the E-commerce and Retail sector, and three women (11.54 percent) are employed in DefenceTech companies. Other sectors, including FinTech & InsurTech, Gaming, EdTech, Martech & Media, and HealthTech & Wellness, each employ two respondents (7.69 percent). One participant (3.85 percent) works in a company within the Logistics & Transportation sector.

In the Ukrainian IT industry, a significant portion of professionals are engaged not as traditional employees but through alternative contractual arrangements, such as service contracts for registered private entrepreneurs (FOPs) or gig contracts. These employment models are often selected based on organizational strategies for tax optimization, operational flexibility, and individual preferences. Figure 1 illustrates

the distribution of employment types in relation to positions, reflecting the diverse professional arrangements within the IT sector and their potential implications for women's career development.

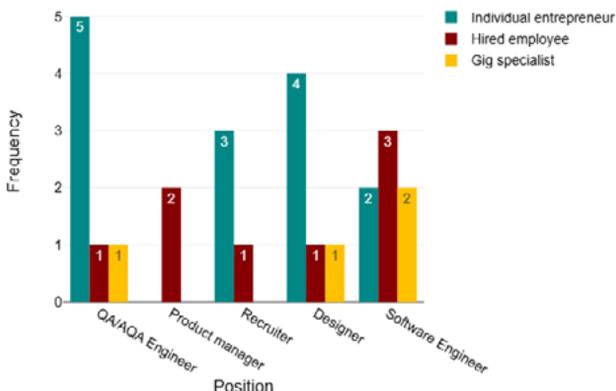


Fig. 1. Type of employment by Position

Fig. 1 demonstrates that among female respondents registered as private entrepreneurs, the majority occupy positions as QA/AQA Engineers (5 participants) and Designers (4 participants). In contrast, women employed under standard contracts are predominantly engaged as Software Engineers (3 participants).

Proficiency in English represents a critical competency for women in the Ukrainian IT sector, often correlating with their level of education. The relationship between participants' educational attainment and English language skills is summarized in Table 2, providing insight into how these factors may influence career opportunities and professional development within the sector.

Table 2. English language skills and Level of Education

English language skills	Education						Total	
	Higher		Still a student		Secondary specialized			
	n	%	n	%	n	%	n	%
Advanced	3	11.54%	0	0%	0	0%	3	11.54%
Upper Intermediate	9	34.62%	1	3.85%	0	0%	10	38.46%
Intermediate	4	15.38%	3	11.54%	1	3.85%	8	30.77%
Pre-Intermediate	1	3.85%	1	3.85%	3	11.54%	5	19.23%
Total	17	65.38%	5	19.23%	4	15.38%	26	100%

Table 2 indicates that 11.54 percent of respondents possess an advanced level of English in conjunction with higher education, while 34.62 percent hold an upper-intermediate level of English and have also completed higher education. Additionally, 3.85 percent of participants are currently enrolled in higher education programs. Among respondents with secondary specialized education, the majority demonstrate a pre-intermediate level of English. The relationship between educational attainment and professional position is further depicted in Figure 2, highlighting the influence of education and language proficiency on career roles within the Ukrainian IT sector.

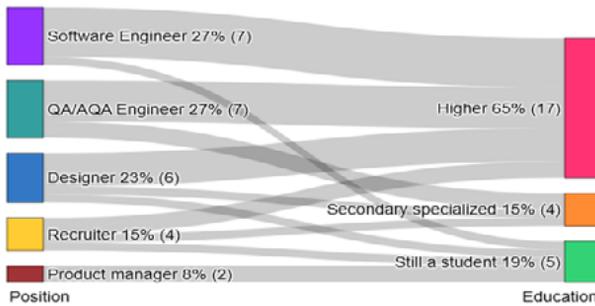


Fig. 2. Position by Education

As illustrated in Figure 2, 65 percent of respondents (17 participants) hold a university degree, which enables them to occupy positions such as Software Engineer, QA/AQA Engineer, Designer, or Recruiter. At the time of the survey, 19 percent of participants (5 respondents) were enrolled in higher education programs. Additionally, 15 percent of respondents (4 participants) possess a secondary specialized education.

To construct a socio-demographic profile of female IT professionals in Ukraine, the study examined variables including family status and presence of offspring. The results of this analysis are summarized in Table 3, providing insight into how personal and family characteristics intersect with professional engagement in the Ukrainian IT sector.

Table 3. Family Status and Offspring

Family status	Offspring				Total	
	Have children		Do not have children			
	n	%	n	%	n	%
Married	10	38.46%	4	15.38%	14	53.85%
Single	0	0%	6	23.08%	6	23.08%
In a relationship	1	3.85%	2	7.69%	3	11.54%

Divorced	2	7.69%	1	3.85%	3	11.54%
Total	13	50%	13	50%	26	100%

The analysis presented in Table 3 indicates that over half of the respondents (53.85 percent) are married, while 11.54 percent reported being in a committed relationship. The distribution of respondents with and without children is equal, highlighting diverse family circumstances among women in the Ukrainian IT sector.

The average monthly income among female IT professionals in Ukraine varies according to both the type of company and the position held. Table 4 provides a detailed overview of the mean monthly income of respondents across different industry sectors, offering insights into how organizational context and role influence compensation patterns.

Table 4. Types of companies and Monthly income of respondents

Monthly income, euros	Frequency	%	Mean	Std. Deviation	Minimum	Maximum
Business productivity software	6	23.08%	1266.67	450.19	500	1800
E-commerce & Retail	4	15.38%	1000	336.65	800	1500
DefenseTech	3	11.54%	933.33	321.46	700	1300
Fintech & InsurTech	2	7.69%	950	353.55	700	1200
Gaming	2	7.69%	1050	212.13	900	1200
EdTech	2	7.69%	950	70.71	900	1000
Martech & Media	2	7.69%	1200	424.26	900	1500
HealthTech & Wellness	2	7.69%	850	70.71	800	900
Hardware & IoT	2	7.69%	950	353.55	700	1200
Logistics & Transportation	1	3.85%	900	-	900	900

As presented in Table 4, female employees in companies developing business productivity software receive the highest average monthly salaries, amounting to €1,266.67. In contrast, women employed in the Logistics & Transportation sector report the lowest average income of €900. Compensation levels also vary according to the professional position held. Figure 3 illustrates the distribution of salaries across different positions, providing insight into how role and sectoral affiliation influence earning potential for women in the Ukrainian IT sector.

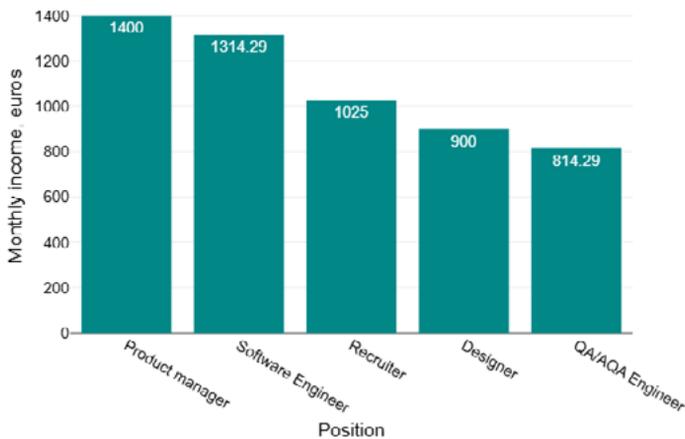


Fig. 3. Monthly income by Position

Analysis of the data presented in Figure 3 demonstrates that the highest average monthly incomes are reported by respondents employed as Product Managers (€1,400) and Software Engineers (€1,314.29). In contrast, women working in QA/AQA Engineer positions receive the lowest salaries, averaging €900.

Beyond gender disparities, the IT sector is also affected by the challenge of ageism. To explore this issue, the study examined the age distribution of respondents and its relationship with average monthly income. The outcomes of this analysis are summarized in Tables 5 and 6.

Table 5. Age of respondents

Indicators	Age, years
Mean	30.13
Std. Deviation	5.01
Minimum	21
Maximum	41

Table 5 indicates that the mean age of the respondents is 30.13 years, with individual ages ranging from 21 to 41 years.

Table 6. Monthly income of respondents

Indicators	Monthly income, euros
Mean	1046.15
Std. Deviation	321.53
Minimum	500
Maximum	1800

The average monthly income among the respondents is €1,046.15, with reported salaries ranging from a minimum of €500 to a maximum of €1,800. To assess the relationship between the variables 'Age' and 'Monthly income,' the Pearson parametric correlation test was employed, as the data satisfied the assumptions of normal distribution. The results of this analysis are presented in Table 7.

Table 7. Results of the analysis using the Pearson test for the variables 'Age' and 'Monthly income'

Indicators	r	p
Monthly income, euros and Age, years	0	.997

Table 7 presents the results of the correlation analysis between monthly income (in euros) and age (in years), including the Pearson correlation coefficient (r) and the corresponding p-value (p). The analysis indicates no significant relationship between respondents' age and their monthly income, with a Pearson correlation coefficient of $r = 0$. This result suggests that variations in age are not systematically associated with changes in income levels. The p-value of 0.997 further confirms statistical insignificance, supporting the retention of the null hypothesis. Therefore, within the studied sample, age does not appear to have a statistically meaningful impact on monthly income.

Given that the preliminary analysis revealed no significant association between age and income, the study further examined the relationship between respondents' years of experience in the IT sector and their monthly income, recognizing that income represents a critical factor for professional evaluation among participants. Table 8 summarizes the distribution of IT sector experience among the surveyed women, providing the basis for subsequent correlation analysis.

Table 8. Years of experience in IT of respondents

Indicators	Years of experience in IT
Mean	3.8
Std. Deviation	1.63
Minimum	1
Maximum	7

Among the survey participants, the average tenure in the IT sector is 3.8 years, with individual experience ranging from 1 to 7 years. Analysis of the variable 'Years of Experience in IT' confirmed that the data follow a normal distribution. Consequently, the Pearson parametric

test was applied to examine the correlation between these variables and other relevant indicators, as presented in Table 9.

Table 9. Results of the analysis using the Pearson test for the variables ‘Years of experience in IT’ and ‘Monthly income’

Indicators	r	p
Years of experience in IT and Monthly income, euros	0.18	.402

Table 9 presents the results of the correlation analysis between years of experience in the IT sector and monthly income (in euros), including the Pearson correlation coefficient (r) and associated p-value (p). The analysis revealed a low positive correlation between years of IT experience and monthly income; however, this relationship was not statistically significant, $r(23) = 0.18$, $p = 0.402$. These findings suggest that within the Ukrainian IT sector, salary levels are not significantly associated with either the age of employees or the length of their professional experience. Instead, income appears to be more closely linked to the industry in which a company operates and the position held, which are, in turn, influenced by respondents’ education level and English language proficiency.

While income represents an important determinant of professional satisfaction, it is not the only factor shaping women’s perceptions of their workplace. Additional considerations include access to ongoing professional development, opportunities for career advancement, and industry growth prospects. The study also explored respondents’ attitudes toward managerial positions and mentoring, recognizing these as potential avenues for career development and leadership engagement. The results of this analysis are summarized in Tables 10, 11, and 12, providing insights into women’s career intentions, mentoring experiences, and professional aspirations within the Ukrainian IT sector.

Table 10. Respondents’ answers to the questions ‘Do you plan to continue working in the IT sector for the next 3 years?’ and ‘Do you continue to improve your professional knowledge?’

Questions	Do you continue to improve your professional knowledge?				
		Yes		Total	
		n	%	n	%
Do you plan to continue working in the IT sector for the next 3 years?	Yes	20	76.92%	20	76.92%
	No	6	23.08%	6	23.08%
	Total	26	100%	26	100%

The analysis presented in Table 10 indicates that 76.92 percent of respondents intend to remain employed in the IT sector over the next three years. Although 23.08 percent of participants expressed a desire to change their professional field or temporarily pause their careers, all respondents reported actively pursuing opportunities to enhance their professional skills.

Table 11. Respondents' answers to the questions 'Do you plan to continue working in the IT sector for the next 3 years?' and 'Would you like to hold a managerial position?'

Questions	Do you plan to continue working in the IT sector for the next 3 years?						
		Yes		No		Total	
Would you like to hold a managerial position?		n	%	n	%	n	%
	No	9	34.62%	1	3.85%	10	38.46%
	Yes	11	42.31%	5	19.23%	16	61.54%
	Total	20	76.92%	6	23.08%	26	100%

Among the respondents, 61.54 percent expressed a desire to pursue managerial positions. It is noteworthy, however, that not all participants envision themselves in management within the IT sector, as 19.23 percent indicated interest in managerial roles outside the industry.

Table 12. Respondents' answers to the questions 'Did you have a mentor when you entered the IT industry?' and 'Are you ready to be a mentor for colleagues with less experience in IT?'

Questions	Are you ready to be a mentor for colleagues with less experience in IT?						
		Yes		No		Total	
Did you have a mentor when you entered the IT industry?		n	%	n	%	n	%
	No	17	65.38%	3	11.54%	20	76.92%
	Yes	4	15.38%	2	7.69%	6	23.08%
	Total	21	80.77%	5	19.23%	26	100%

Notably, although the majority of respondents (76.92 percent) reported not having a mentor upon entering the IT sector, a substantial proportion (80.77 percent) expressed willingness to serve as mentors for less experienced colleagues.

To explore perceptions of gender discrimination in the Ukrainian IT industry, the study examined respondents' views on potential gender-based biases at multiple levels: within the industry overall (Table 13), from company leadership, and from male colleagues (Table 14).

Table 13. Respondents' answers to the question 'Do you think there are prejudices against women professionals in the Ukrainian IT sector?'

Do you think there are prejudices against women professionals in the Ukrainian IT sector?	Frequency	%
No	19	73.08%
Yes	7	26.92%
Total	26	100%

Table 13 indicates that 73.08 percent of respondents perceive no prejudice against women professionals in the Ukrainian IT sector, whereas 26.92 percent acknowledge the presence of gender-based biases.

Table 14. Respondents' answers to the questions 'Have you ever felt biased by management because of your gender?' and 'Have you experienced any cases of prejudice against you by male colleagues?'

Questions	Have you experienced any cases of prejudice against you by male colleagues?						
		No		Yes		Total	
		n	%	n	%	n	%
Have you ever felt biased by management because of your gender?	No	18	69.23%	4	15.38%	22	84.62%
	Yes	3	11.54%	1	3.85%	4	15.38%
	Total	21	80.77%	5	19.23%	26	100%

Table 14 presents respondents' perceptions of gender-based prejudice in the workplace, with 19.23 percent reporting biased attitudes from male colleagues and 15.38 percent indicating similar experiences with company leadership.

Given the unstable political situation in Ukraine, many individuals, particularly women with children, must consider the possibility of relocating abroad. Accordingly, the questionnaire included an item addressing respondents' intentions to move to another country, and the results of this analysis are summarized in Figure 4.

Are you planning to move to another country in the next 3 years?

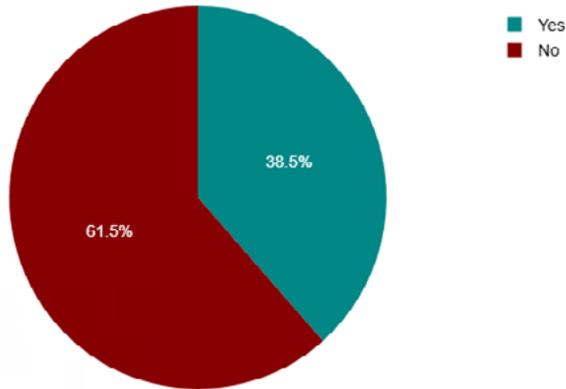


Fig. 4. Respondents' answers to the question 'Are you planning to move to another country in the next 3 years?'

As shown in Figure 4, 38.5 percent of respondents are contemplating relocation to another country within the next three years. This substantial proportion highlights a critical factor that company management should consider when developing strategic plans and designing talent management and professional development initiatives.

The study findings indicate that reducing gender disparities in the Ukrainian IT sector requires coordinated strategies at both organizational and systemic levels. At the company level, effective leadership, transparent recruitment and promotion, mentorship programs, and continuous professional development in digital skills and English can expand women's career opportunities and representation in management. At the systemic level, policies promoting gender-balanced hiring, flexible work, childcare support, and gender-sensitive IT education, alongside public-private partnerships for training and mentorship, are essential. Together, these measures can enhance gender equality, strengthen innovation, and increase the global competitiveness of Ukraine's IT industry.

Conclusion

This study examined the gender imbalance in Ukrainian IT enterprises, highlighting managerial, organizational, and socio-demographic factors affecting women's professional development. An analysis of 26 interviews revealed that women remain underrepresented in technical and managerial roles, with career advancement influenced by

education, English proficiency, family status, and organizational context.

Findings show that income depends more on company type and position than on age or experience, while mentorship, professional development, and willingness to assume managerial roles support career growth. Digital tools also provide access to resources and networking, helping to overcome structural barriers.

Addressing gender imbalance requires a multidimensional approach combining inclusive managerial practices, organizational culture transformation, and technological support, supported by collaboration among companies, and educational institutions. Promoting gender equality is both a social responsibility and a strategic necessity, enhancing innovation, performance, and diversity in the Ukrainian IT sector.

The results suggest that coordinated strategies at organizational and systemic levels – such as effective leadership, mentorship, professional development, gender-sensitive education, and supportive policies – are essential. Collectively, these measures can advance equality while strengthening the innovative capacity and global competitiveness of Ukraine's IT industry.

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References

- Annesley, C., & Scheele, A. (2011). Gender, Capitalism and Economic Crisis: Impact and responses. *Journal of Contemporary European Studies*, 19(3), 335–347. <https://doi.org/10.1080/14782804.2011.610604>.
- Baiyere, A., Salmela, H., & Tapanainen, T. (2020). Digital transformation and the new logics of business process management. *European Journal of Information Systems*, 29(3), 238–259. <https://doi.org/10.1080/0960085x.2020.1718007>.
- Corneliussen, H. G., Seddighi, G., & Dralega, C. A. (2019). 18. Women's Experience of Role Models in IT: Landmark women, substitutes and supporters. In *Universitetsforlaget eBooks*. <https://doi.org/10.18261/9788215034393-2019-18>.
- Fleisch, E. (2004). Business Impact of Pervasive Technologies: Opportunities and Risks. *Human and Ecological Risk Assessment an International Journal*, 10(5), 817–829. <https://doi.org/10.1080/10807030490513838>.

- Franco, M., Godinho, L., & Rodrigues, M. (2021). Exploring the influence of digital entrepreneurship on SME digitalization and management. *Small Enterprise Research*, 28(3), 269–292. <https://doi.org/10.1080/13215906.2021.1938651>.
- Kraugusteeliana, K. (2023). A Study on Gender Roles in the Information Technology Profession and its Impact on Human Resources. *Technology and Society Perspectives (TACIT)*, 1(3), 104–111. <https://doi.org/10.61100/tacit.v1i3.58>.
- Kulyk, V., Parmová, D. Š. (2017). E-business Development: the Comparative study of the Czech Republic and the Ukraine. *DEUROPE – the Central European Journal of Tourism and Regional Development*, 9(1), 80–110 (2017).
- Kulyk, V., Parmová, D. Š., & Jilek, M. (2025). Organizational efficiency in the context of e-business: Evidence from Ukrainian companies. *Problems and Perspectives in Management*, 23(3), 457–468. [https://doi.org/10.21511/ppm.23\(3\).2025.33](https://doi.org/10.21511/ppm.23(3).2025.33).
- Lagesen, V. A., Pettersen, I., & Berg, L. (2021). Inclusion of women to ICT engineering – lessons learned. *European Journal of Engineering Education*, 47(3), 467–482. <https://doi.org/10.1080/03043797.2021.1983774>.
- Lundberg, A. K. A. (2018). Gender Equality in Conservation Management: Reproducing or Transforming Gender Differences through Local Participation? *Society & Natural Resources*, 31(11), 1266–1282. <https://doi.org/10.1080/08941920.2018.1471175>.
- Mills, J. E. (2011). Reflections on the past, present and future of women in engineering. *Australasian Journal of Engineering Education*, 17(3), 139–146. <https://doi.org/10.1080/22054952.2011.11464065>.
- Pei, X., Chen, Z. T., & Zhang, L. (2024). Comprehending ICT for gender empowerment in an aging context: digitalization of marginalized female elderly in the Global South during COVID-19. *Information Technology for Development*, 30(2), 291–307. <https://doi.org/10.1080/02681102.2023.2300669>.
- Rahmatila, A. (2025). Digital Management Practice: Mastering Exponential Change with Collective and Artificial Intelligence. *The Information Society*, 1–2. <https://doi.org/10.1080/01972243.2025.2484104>.
- Salminen-Karlsson, M. (2015). Expatriate paternalistic leadership and gender relations in small European software firms in India. *Culture and Organization*, 21(5), 409–426. <https://doi.org/10.1080/14759551.2015.1068776>.
- Smith, S., Taylor-Smith, E., Fabian, K., Barr, M., Berg, T., Cutting, D., Pater-son, J., Young, T., & Zarb, M. (2020). Computing degree apprenticeships: An opportunity to address gender imbalance in the IT sector? 2021 *IEEE Frontiers in Education Conference (FIE)*, 1–8. <https://doi.org/10.1109/fie44824.2020.9274144>.
- Strapko, N., Hempel, L., MacIlroy, K., & Smith, K. (2016). Gender Differences in Environmental concern: Reevaluating gender socialization. *Society & Natural Resources*, 29(9), 1015–1031. <https://doi.org/10.1080/08941920.2016.1138563>.
- Walker, J., Berekashvili, N., & Lomidze, N. (2013). Valuing Time: time use survey, the Capability Approach, and gender analysis. *Journal of Human Development and Capabilities*, 15(1), 47–59. <https://doi.org/10.1080/19452829.2013.837033>.
- Xu, X. F., Zhang, L., Li, Y., & Zhan, D. C. (2005). Digital enterprise management in China: current status and future development. *International Journal of Production Research*, 43(12), 2593–2601. <https://doi.org/10.1080/00207540500045402>.

- Yan, W., Xiong, Y., Gu, A., Lu, H., & Zhang, X. (2023). Digital technology and enterprise knowledge management: literature review and theoretical framework construction. *Asia Pacific Business Review*, 29(4), 931–949. <https://doi.org/10.1080/13602381.2023.2197394>.
- Zahoor, N., Christofi, M., Nwoba, A. C., Donbesuur, F., & Miri, D. (2022). Operational effectiveness in post-pandemic times: Examining the roles of digital technologies, talent management and employee engagement in manufacturing SMEs. *Production Planning & Control*, 35(13), 1625–1638. <https://doi.org/10.1080/09537287.2022.2147863>.