

The Digital Era and Employer's Expectations of Employees in the IT Sector

Marek Hlásny¹

Abstract: The scientific study will focus on the digital era and its reflection in the theoretical background of employers' expectations of employees in the IT sector. At the same time, we will also present selected results of the research that was conducted as part of the project UK/1135/2024 Employers' Job Expectations of Employees in the IT Sector in the Digital Era.

Keywords: digital era, employees, employers, job expectations

JEL Classification: G32, G33, C35

1 Introduction

Digital transformation as part of the digital era, according to Urbaniec (2023), is affecting changes in employee-employer relationships. These implications include shifts in job security and job flexibility, as well as alternative work arrangements in the digital economy, with both positive and negative consequences for employees and employers. The digital era is defined by several authors (November, 2012; Kergel, 2023; Callan, 2024; Taplin, 2023, Frenkel, 2024) as the era of humanity's existence under the enormous influence of the Internet, digital technologies, virtual reality, etc. The digital era is directly affecting many areas of people's lives, in the workplace, this includes employers' expectations of employees directly in the IT sector.

Employers' job expectations of employees in different industries have been studied by many authors (Kantane et al., 2015; ManpowerGroup, Oláhová, 2023; Roy, 2023; Treľová and Hlásny, 2023a,b and others). Kantane et al. (2015) define these job expectations: Computer skills, previous experience, responsibility, professionalism, loyalty, reliability, punctuality, negotiation skills, persuasion, initiative, imagination, entrepreneurial spirit, employee who seeks, tries and proposes innovations, with a high degree of resilience, employee with effective time management, planning and organising skills of the employee, analytical and quick in decision making, pro-client orientation, coordination skills, flexible to travel (with a driving license), Employee able to multitask, self-motivated and proactive, dynamic, employee with logical thinking, good memory, ability to assimilate information quickly, results-oriented, enthusiastic and willing to learn, high level of communication skills and cultivated demeanour, dynamic and performance-oriented employee with knowledge of English and other foreign languages, positive work attitude (colleagues, work tasks, customers and clients, suppliers...). In summary, it can be stated that - regardless of the sector of employment - employers expect employees to have a positive attitude at work, adequate communication skills, professionalism, self-motivation, reliability, responsibility, good work ethic, integrity, adherence to health and safety rules, and compliance with deadlines, flexibility, loyalty, learning from mistakes, efficient use of working time, pride in work, professional self-confidence, respect, ability to be a team player, positive (re)presentation of the employer, participation in one's own professional development, willingness to help, self-control, handling crisis situations, handling stressful situations, etc.

According to Miller (2024), the information technology (IT) sector includes companies that manufacture software, hardware, or semiconductor equipment, as well as companies that provide information technology-related services. Thus, the three main industry groups within the IT sector are software and services, technology hardware and equipment, and semiconductors and semiconductor equipment. These three industry groups are further subdivided into sectors and sub-sectors. Employers' job expectations of employees in this specific sector are shown to be influenced by this.

Rommegger et al. (2024) focused on the recruitment of Generation Z IT professionals (those born between the mid-1990s and early 2010s), which they argue present unique challenges for organizations in the rapidly evolving digital era. The authors used a cluster analysis approach to gain insight into the expectations of employers and workplaces of Generation Z IT professionals, enabling organizations to develop targeted strategies to effectively attract and employ digital talent. Analysing the expectations of 370 current IT students across the sample, three distinct groups were identified: prestige-seekers driven by achievement, autonomy-seekers driven by challenges, and security-seekers driven

¹ Comenius University in Bratislava, Faculty of Management, Odbojárov 10, 820 05 Bratislava; Slovak Republic, marek.hlasny@uniba.sk

by money. We show how each cluster prioritizes different employer and workplace characteristics and illustrate ways in which organizations can tailor their recruitment strategies for each cluster. The authors provide valuable insights into the preferences and motivations of Generation Z IT professionals and provide practical recommendations for organizations seeking to build a talented digital workforce by integrating Generation Z IT professionals.

Kantane et al. (2015) write that the world is changing at a rapid pace and businesses, companies and organizations need to keep up with the times. Thus, the importance of work motivation and innovation is undeniable. Employers need to turn their attention to all employees, even the youngest in age. Kantane et al. (2015) conducted two studies. Qualitative research using content analysis as a research method, in which they analysed 100 online recruitment advertisements for entry-level positions with a required university degree. Employer requirements collected from the advertisements were divided into technical and personal characteristics and then analysed. The second study focused on identifying the expectations of younger generations in the job market. Questionnaires were sent to universities from different geographical areas and two focus groups to identify the expectations of the young generation of employees. One of the main findings of the research is that there is a mismatch between what employers and young employees want. The main dissatisfaction among young people relates to the importance that employers place on work experience, even for jobs and positions where it was not needed. It also appears that academic performance does not matter in the job market because employers do not make decisions based on academic performance, but rather on the previous work experience and charisma of the job applicant. This has already led to the neglect of academic tasks and will lead to a further decline in student engagement in academic courses and activities.

Prokhorov, Tsaryk, and Fainglozs (2024) examined employers' expectations of students' generative AI skills. The research notes that knowledge of using generative AI (GenAI) products will be needed in their professional careers and will contribute to professional growth. The authors found no scholarly publications that examined students' views on employers' expectations of students' skill levels in generative AI. Based on a survey of 689 students from one Ukrainian university, this study examines students' perspectives on employers' expectations of their ability to select and apply generative AI products. The results are compared with a survey of teachers at this university, as well as with a survey of students at Latvian universities. The study also used methods of comparative analysis, descriptive statistics, and econometric methods. We found that only 54% of students believe that employers will soon expect university graduates to have the knowledge and skills to select and use GenAI products effectively. We also examined differences in student responses based on discipline, mode of study, program of study, age, gender, and use of GenAI in the educational process. However, a statistically significant association was only found between students' views on whether employers will expect AI knowledge from potential employees and how students will use AI in their learning process. Based on expectancy-value theory, Prokhorov, Tsaryk, and Fainglozs (2024) draw an important conclusion that serves as a signal to university administrators and educators: to better prepare students for the demands of the labor market, they need to be appropriately motivated and incentivized to use GenAI already in the preparation of candidates for IT practice.

2 Methods

Research used methods such as analysis, literature search, synthesis, comparison, evaluation, valid and reliable questionnaire of own provenance as a research tool.

As part of a scientific research project, we conducted research on employers' expectations of employees in the IT sector in the digital era. The research population consisted of a total of 301 respondents. The research population consisted of a total of 301 respondents from employers in the IT sector, by gender we can divide the research population into 222 males and 79 females. Statistical evaluation was carried out using SPSS 22 software. We used a questionnaire which contains the following 7 dimensions:

Dimension 1 Business acumen and entrepreneurial mindset of managers in the IT sector in the digital era.

Dimension 2 Strategic thinking of managers in IT sector in digital era.

Dimension 3 Communication, representation, and collaboration skills of managers in IT sector in digital era.

Dimension 4 Ability to solve problems and new situations of managers in the IT sector in the digital era.

Dimension 5 Self-control, self-motivation, and internal independence of managers in the IT sector in the digital era.

Dimension 6 Change management of managers in the IT sector in the digital era.

Dimension 7 Leadership of managers in the IT sector in the digital era.

Respondents answered on a scale of 5 maximally important - 1 minimally important.

3 Research results

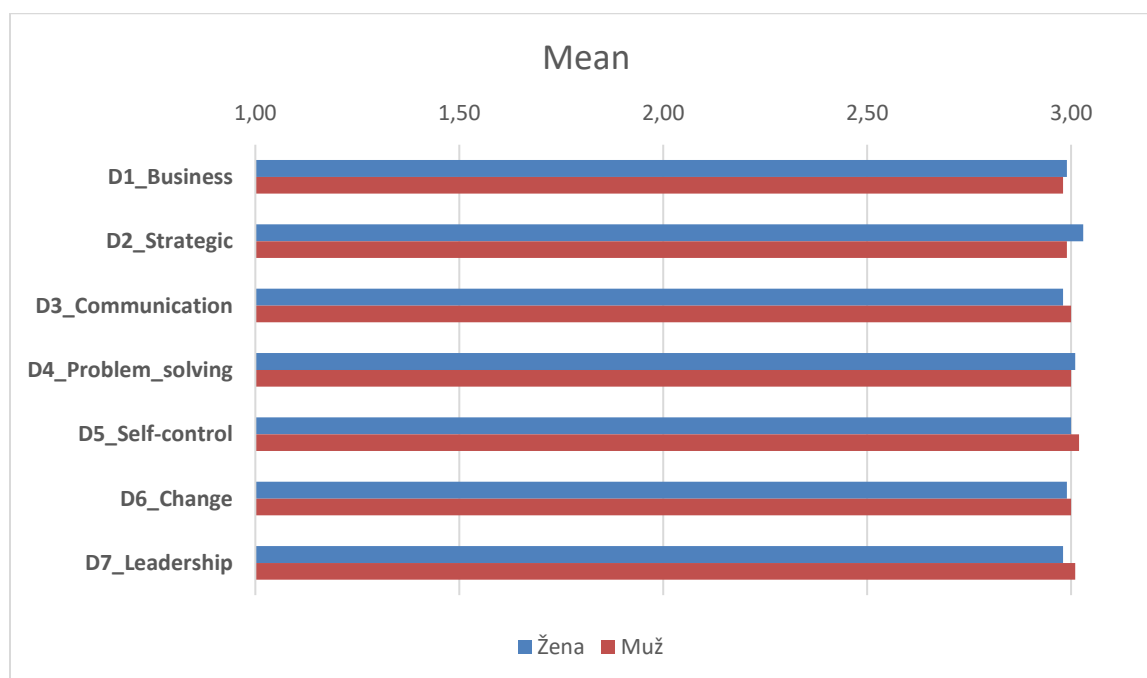
We established a research question and several hypotheses. In this study, we report the results of independent T test for each dimension by respondents' gender in Table 1. and in Figure 1. In H1, we hypothesized that there would be a statistically significant difference in employers' job expectations of IT employees in the digital era for each dimension based on the respondents' gender variable.

Table 1 Independent T test for each dimension by gender of respondents

Independent Samples Test							
	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
D2_Strategic	-0.634	299	0.527	-0.04709	0.07429	-0.19329	0.09911
D1_Business	-0.326	122.165	0.745	-0.02506	0.07689	-0.17727	0.12714
D4_Problem_solving	-0.246	299	0.806	-0.01545	0.06291	-0.13925	0.10835
D6_Change	0.100	299	0.921	0.00613	0.06143	-0.11476	0.12701
D3_Communication	0.240	164.598	0.811	0.01490	0.06214	-0.10779	0.13759
D5_Self-control	0.422	299	0.673	0.02831	0.06710	-0.10373	0.16036
D7_Leadership	0.608	299	0.544	0.03950	0.06497	-0.08837	0.16736

Source: carried out research

Figure 1 Average rating of dimensions by gender of respondents



Source: carried out research

The results by respondents' gender show that the average expectations of employers in each dimension are not statistically distinguishable, thus the stated hypothesis 1 is not confirmed, in our research set we did not find a statistically significant difference in the job expectations of employers from employees in the IT sector in the digital era for each dimension based on the variable of respondents' gender. This means that in our research set, both women and men in the

position of employers in the IT sector do not have statistically distinguishable job expectations, which respondents ranked as follows:

Dimension 2 represents the Strategic Thinking of Managers and its components that the respondent employers in the IT sector consider most desirable.

Dimension 4 represents the Ability to solve problems and new situations of managers in the IT sector as the second group of the most desired skills of employees in the IT sector.

Dimension 5 represents Self-control, Self-motivation, and Intrinsic Independence of managers in the IT sector as the third most desirable group of characteristics of employees in the IT sector.

Others include Dimension 1 Business acumen and entrepreneurial mindset of managers in the IT sector and Dimension 6 Change management of managers in the IT sector in the digital era.

Dimension 3 Communication, Representation and Collaboration Skills of IT Sector Managers and Dimension 7 Leadership of IT Sector Managers were identified as less desirable by IT sector employers - regardless of gender.

Regarding the obtained results, it should be noted that the average rating of the questionnaire dimensions according to the gender of the respondents showed minimal differences, which proves not only the relatively accurate formulation of the dimensions and their components, but also the relatively uniform job expectations of employers in the IT sector from employees in the context of the digital era. Knowing the expectations of employers in this specific segment, which we assume to be a realistic representation of the current needs of the labour market in this sector, a space is created for their implementation through key competences. Their building, development and updating should become the subject of (self)education, institutionalized education, vocational education, and training in secondary and higher education, within the system of dual education or company practice, as well as part of the professionalization of individual professions and lifelong (self)education.

4 Conclusions

As Laczko (2024) writes, the current situation in the IT sector suggests that artificial intelligence will bring more jobs rather than take them away. Nor is the new technology currently contributing to solving the labour shortage problem. On the other hand, there are surveys and figures which suggest that the deployment of these new technologies is not currently contributing to unemployment growth, nor is it solving the current problem of the shortage of skilled labour. Evidence of this can be seen in the information technology sector in Slovakia, which is ahead of other sectors in the introduction of artificial intelligence. According to a survey by Manpower Group, 56 per cent of IT companies surveyed are already using it fully or at least partially. In any case, there is a need for theoretical, conceptual, and empirical analysis of labour relations in the digital economy, which are manifested, among other things, in flexible or non-standard forms of employment, contract work and a radical shift from position-based to skills-based work. Practitioners also want to understand, Urbaniec (2023) reminds us, the ongoing changes in employment relations and the emergence of new forms of work because of the digital transformation. Representatives of labour market institutions involved in the implementation of new forms of work and employer-employee relations in Industry 4.0 will also gain valuable insights.

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