Shifts in the Employment Structure of IT Companies Under External Shocks

Since 2020, the Russian labor market has been subject to a series of shocks: the coronavirus pandemic, demographic shocks (population aging, entry of a small generation into the labor market), the spread of ChatGPT or other generative artificial intelligence models (hereinafter - AI), shocks of 2022 (mobilization, increase in conscription age, sanctions pressure and pivot to the East, etc.).

According to the new institutional economic theory and Demsetz's scheme of institutional changes [Demsetz, 1967], external shocks trigger chains of changes in formal and informal institutions. For IT companies, this means that for their sustainable medium-term development, it is necessary to understand the peculiarities of ongoing changes for timely adaptation to them.

The purpose of this report is to describe shifts in the employment structure of IT companies in Russia based on quantitative data analysis and determine the most promising ways to adapt to them.

This report is based on the results of a joint study by the Institute of National Projects, LANIT Group, and PC Aquarius, conducted in 2024 [Auzan et al., 2024][1].

Research Methodology

The study used a complex of qualitative and quantitative methods: review of Russian and international research; analysis of demographic trends, 16 interviews and 8 focus groups with IT company employees, statistical analysis of HR data from two IT companies for 2019-2023 (N=8658), analysis of quantitative survey data from employees of three IT companies (N=2251) conducted in spring 2024. Data was processed using regression analysis (controlling for gender, age, and other socio-demographic characteristics), cluster and factor analyses. For analyzing sensitive issues (particularly attitudes toward female managers) in IT companies, a list experiment was used. To account for professional specifics, the analysis was conducted separately for subsamples of IT specialists and employees representing financial and organizational services of companies.

Currently, there are not many studies in Russia devoted to analyzing changes in the labor market [Kapelyushnikov 2023; 2024]. Despite the surge in interest in analyzing different work formats (in-person, hybrid, remote) after the pandemic, most of these studies are based on foreign data [Emanuel et al., 2023; Knight et al., 2022; etc.].

The novelty of this study lies in its in-depth (including quantitative) analysis of changes in IT company employment in Russia and identification of the most promising approaches to adapting to changes.

Key Research Findings

1. The pandemic is the shock that has most significantly affected the employment structure of IT companies from 2020 to the present, leading to hybrid and remote work formats becoming the norm. The main consequence for companies is related to the transformation of hybrid and remote employment formats into the norm. The consequences of negative demographic trends and AI spread are only beginning to manifest.

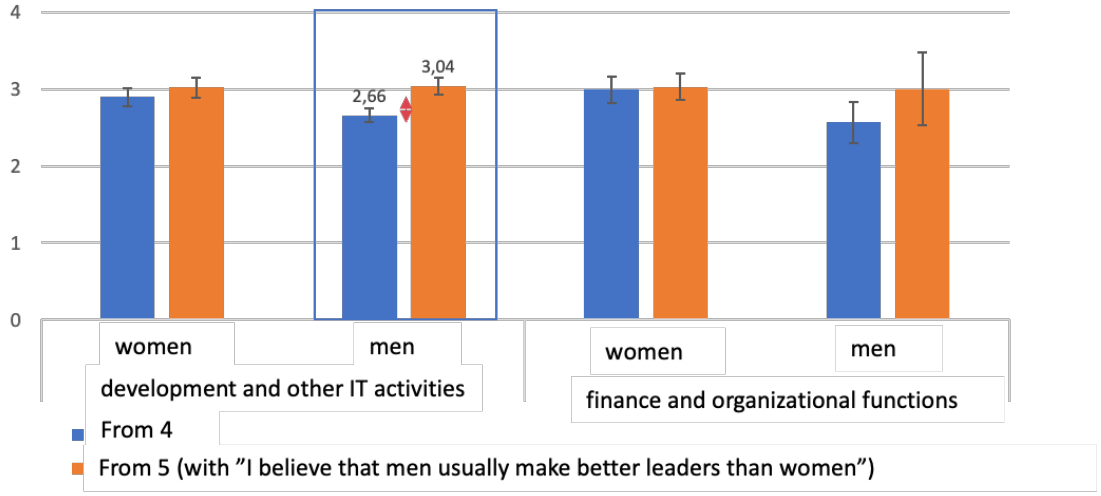
---

[1] The authors express gratitude to the report co-authors: A. Auzan, A. Bakhtigaraeva, V. Bryzgalin, A. Zolotov, I. Kalabikhina, A. Komarov, A. Stavinskaya, S. Trukhachev, I. Barmina, E. Likhacheva, A. Lunina, D. Mikhailov, O. Podbutskaya, S. Felbush, A. Shultz.

2. The most preferred work format for IT specialists is hybrid, where all employees work part-time in the office and part-time remotely. For approximately 30% of surveyed IT specialists, remote format is a key factor in working for the company. Maintaining remote work format is a way to engage additional groups of employees who would otherwise not enter the labor market, primarily specialists from other regions/countries.

3. IT specialists have relatively high trust in new employees from underrepresented groups in IT: women, people from regions, people with disabilities, and Russian citizens abroad. Under conditions of staff shortage, these groups should be attracted first. The lowest trust is in employees under 20 and people for whom Russian is not their native language.

4. The list experiment showed that while declaring no prejudices against women in IT, 38% of surveyed men believe that men make better managers in IT than women. This conclusion is valid for IT specialists but not for specialists from financial and organizational services of the company (Fig. 1). Success in engaging women in leadership positions in IT requires addressing such prejudices.



Источник: По данным опроса сотрудников трех IT-компаний, 2024 г.
Примечание: на графике представлены средние значения для каждой группы и 95% доверительные интервалы; общая выборка по трем компаниям

Figure 1. Average number of selected statements when choosing from 4 and 5 (with sensitive response option)
Source: Calculations based on list experiment data from employees of three IT companies, 2024

5. AI use is an alternative way to fill staff shortages and increase employee productivity, which is not yet fully utilized. Employees perceive AI primarily as an assistant that will help them work faster and better, rather than as a competitor (Fig. 2). Young employees use AI more often than older generations and can be conduits of positive AI use experience in companies.

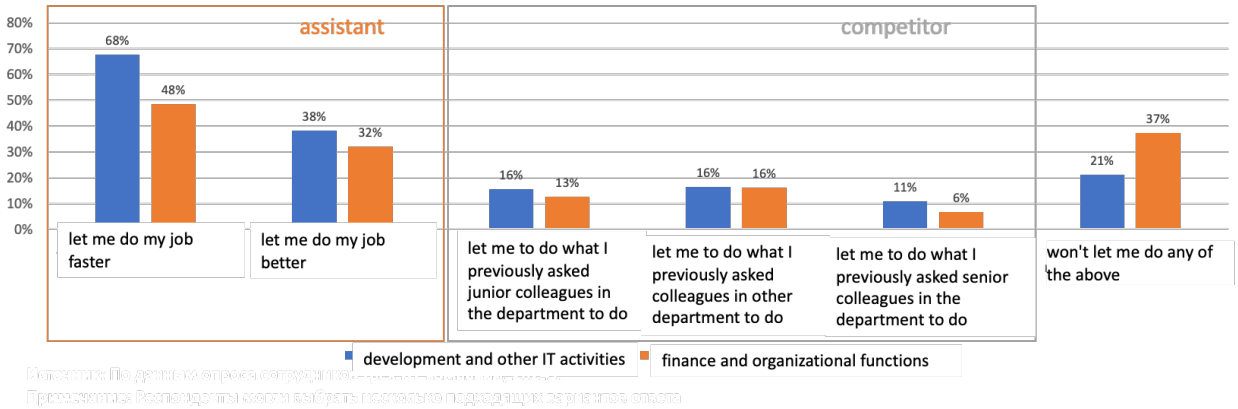


Figure 2. IT specialists' opinion on using ChatGPT (or other generative AI models)
Source: Based on survey data from employees of three IT companies, 2024

6. Income level, self-realization opportunities, and team atmosphere are primary motivation factors for IT specialists. The ranking of other motivators differs from company to company, indicating the importance of customizing the motivation system in the company considering its specifics.

7. For medium-term effectiveness, it's important for IT companies to invest in adjusting and strengthening corporate culture that promotes employee efficiency in hybrid work format, as well as in building trust and social capital in the company.

Sources

1. Аузан А., Бахтигараева А., Брызгалин В., Золотов А., Калабихина И., Комаров А., Ставинская А., Трухачев С., Бармина А., Лихачева Е., Лунина А., Михайлов Д., Подбуцкая О., Фельбуш С., Шульц А. (2024) Сдвиги в структуре занятости ИТ-компаний под воздействием внешних шоков. М: Институт национальных проектов.
2. Капелюшников, Р. И. (2023). Российский рынок труда: статистический портрет на фоне кризисов. Вопросы экономики, (8), 5-37.
3. Капелюшников, Р. И. (2024). Экспансия вакансий на российском рынке труда: динамика, структура, триггеры. Вопросы экономики, (7), 81-111.
4. Demsetz H. (1967). Toward a Theory of Property Rights. American Economic Review, 57, 347–359
5. Emanuel, N., Harrington, E., & Pallais, A. (2023). The power of proximity to coworkers: training for tomorrow or productivity today? (No. w31880). National Bureau of Economic Research.
6. Knight, C., Olaru, D., Lee, J., & Parker, S. (2022). The loneliness of the hybrid worker. MIT Sloan Management Review.