Digitalization of personnel management processes: reserves for using chatbots

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- **The purpose of this article** is to analyze the existing practice of personnel management processes automation in higher education organizations and entertainment companies, to search for additional areas where the "HR-bot" can be used.
- **The hypotheses for the study:**

  1) new forms of employment (work) of personnel are tightly associated with the development of digitalization; therefore, they require a re-evaluation of the relevance of approaches to automation (choice of platforms) of various functions of personnel management;

  2) the new socio-economic reality dictates new priorities in HR processes, which brings to the fore the adaptation and motivation of personnel;

  3) the existing models of automation and digitalization of HR processes in Ukraine have big reserves, the use of which will significantly enrich and improve the personnel management practices.

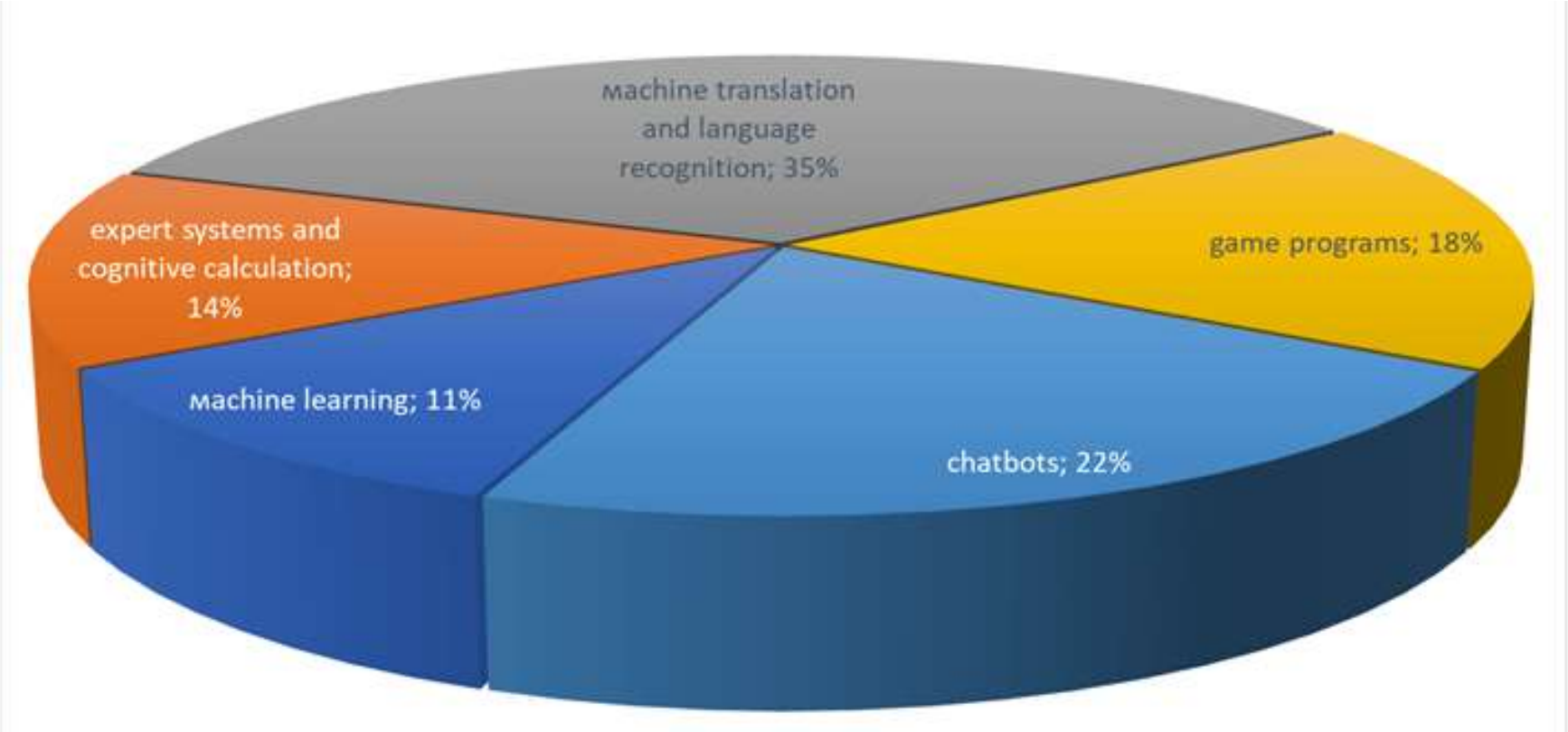

Figure 1: The results of the survey on AI technologies used by companies

The rate of information processing is often used to characterize the work of HR. The rate of information processing by the operator is the amount of information that the operator processes per given time, i.e.:

$$V = {}^{H}/_{t}$$

The efficiency of the chatbot operation, as a rule, is calculated per year as:

$$AE = (Q_1 - Q_2) \cdot V_a,$$

where AE — the annual effect achieved by the implementation of these elements of the system, in units of consumer value; Q_2 — a generalized quality indicator of products manufactured by the system under evaluation, in units of quality; Q_1 — a generalized quality indicator of the basic (optimal) products manufactured by the system for comparison, in units of quality; V_a — the annual volume of production (provision of services) using certain elements of the system during the calculation period, in physical units.

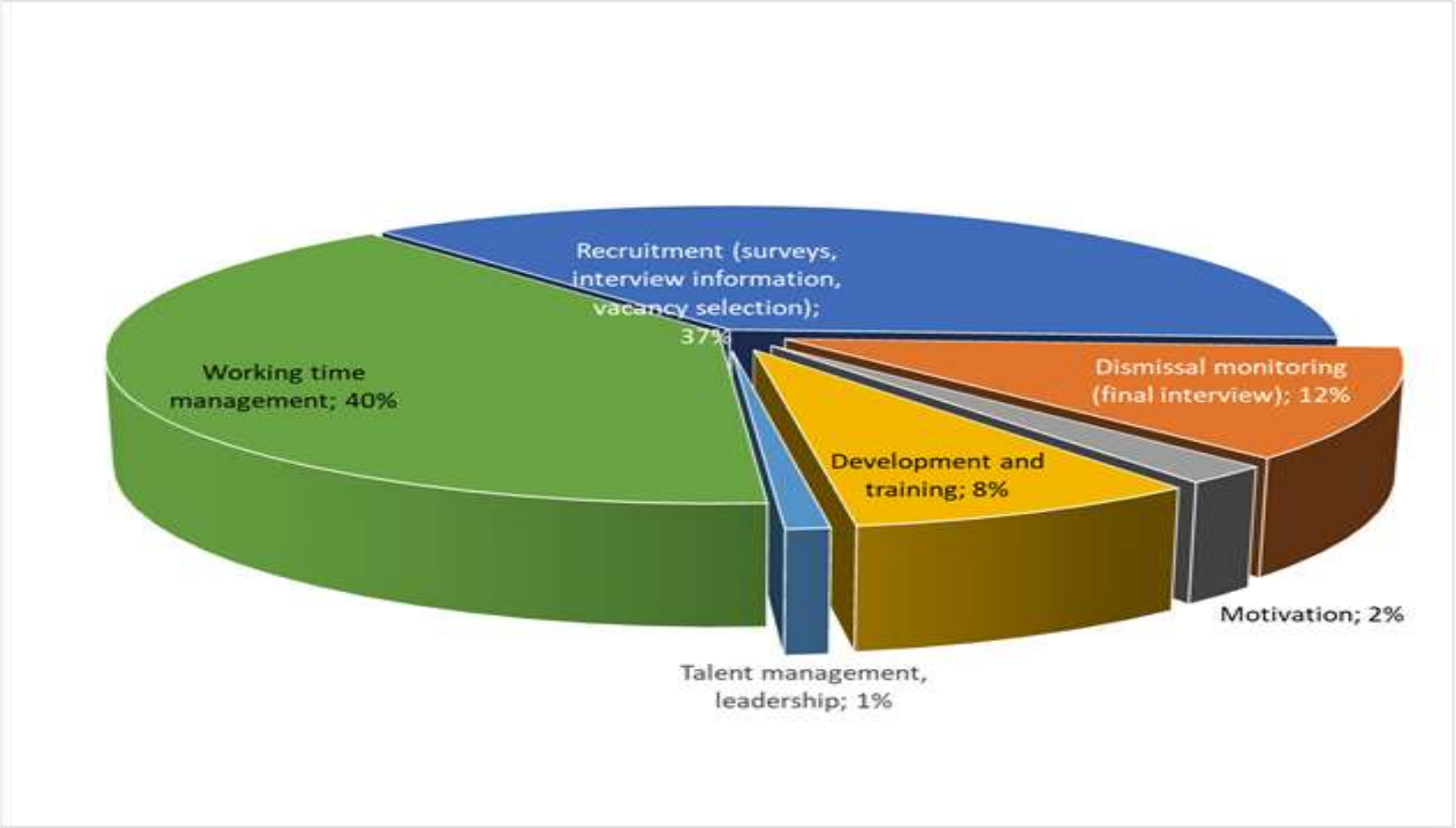

Figure 2: The results of the survey on the use of chatbots in HR-processes

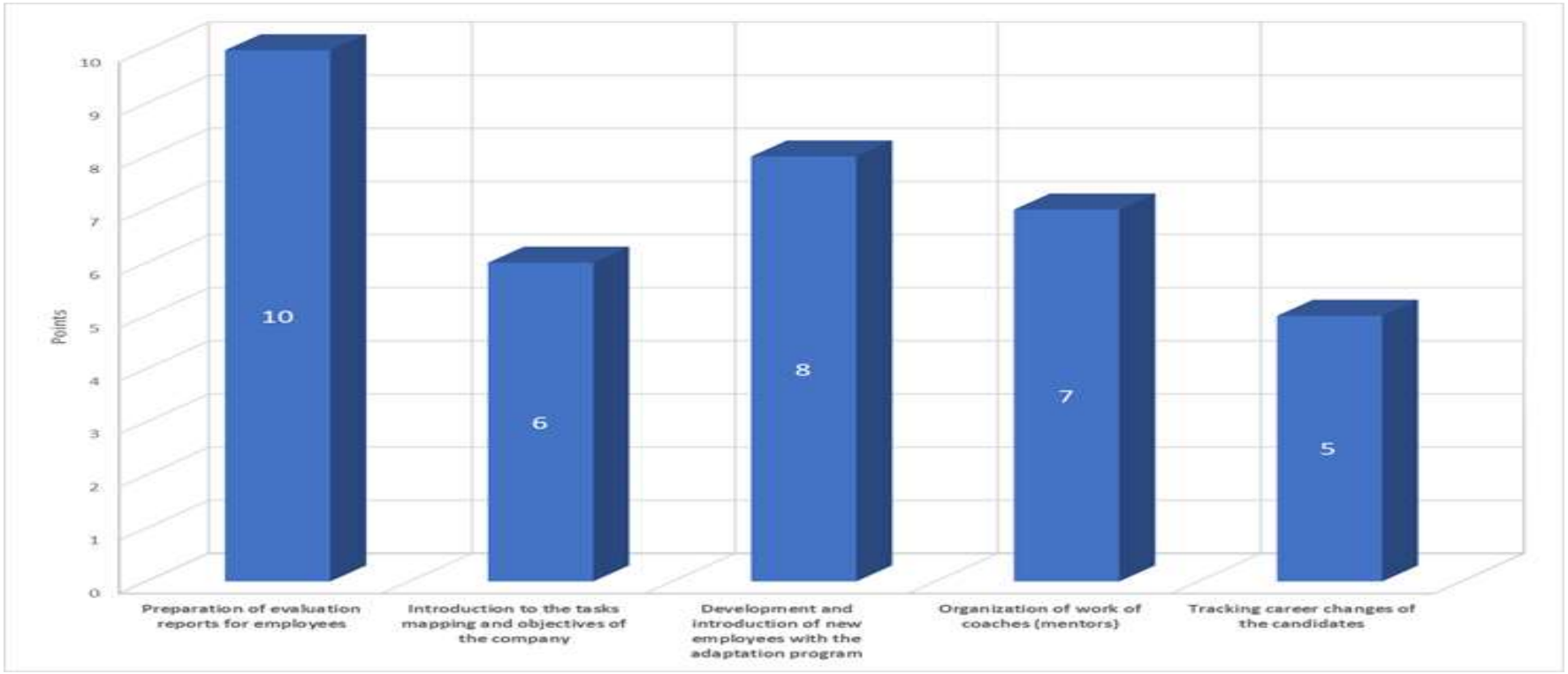

Figure 3: The results of the survey on which of the processes (functions) performed by the personnel manager are routine (repeated) on a scale from 0 to 10 points

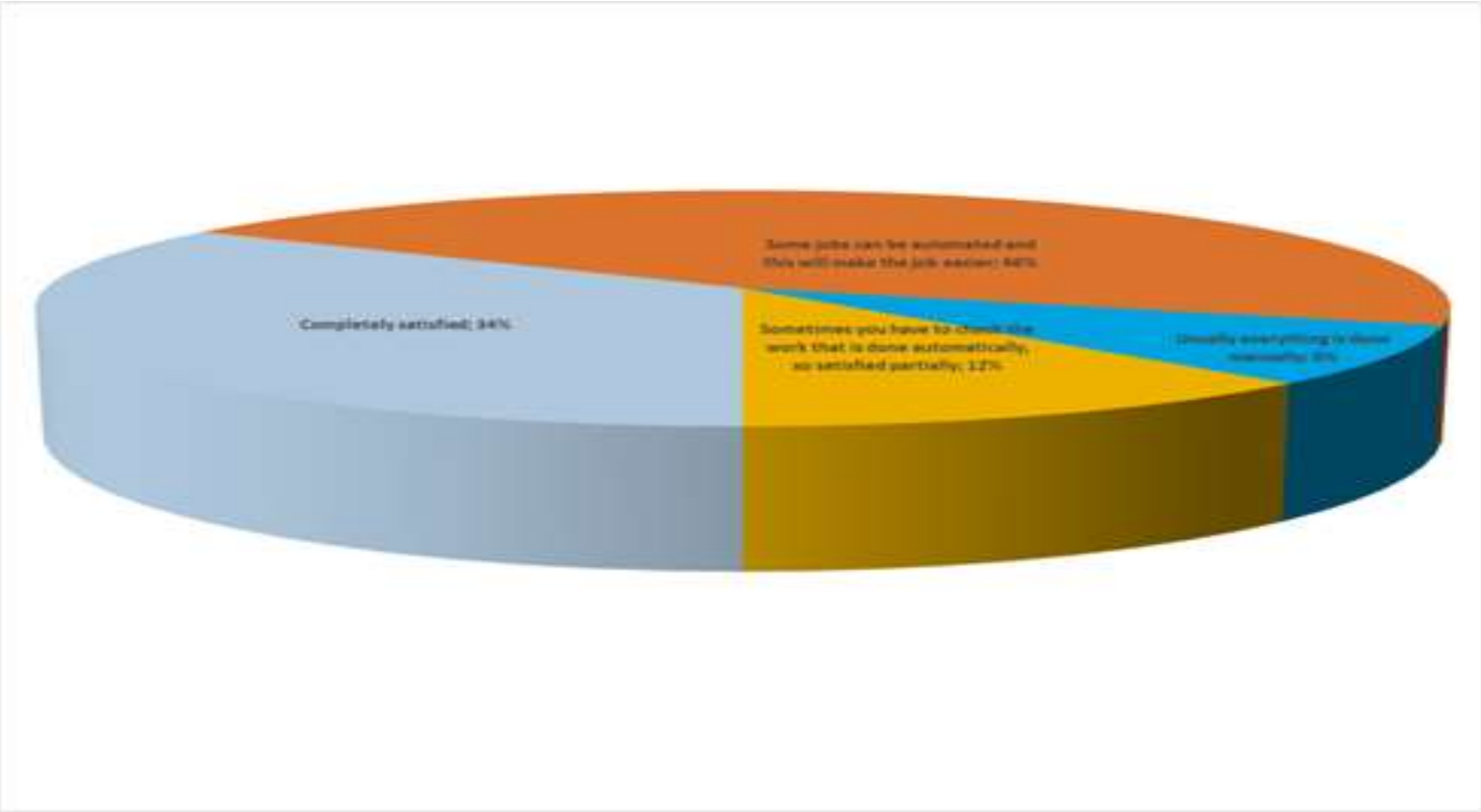

Figure 4: The results of the survey on satisfaction with the automation of work processes in the companies

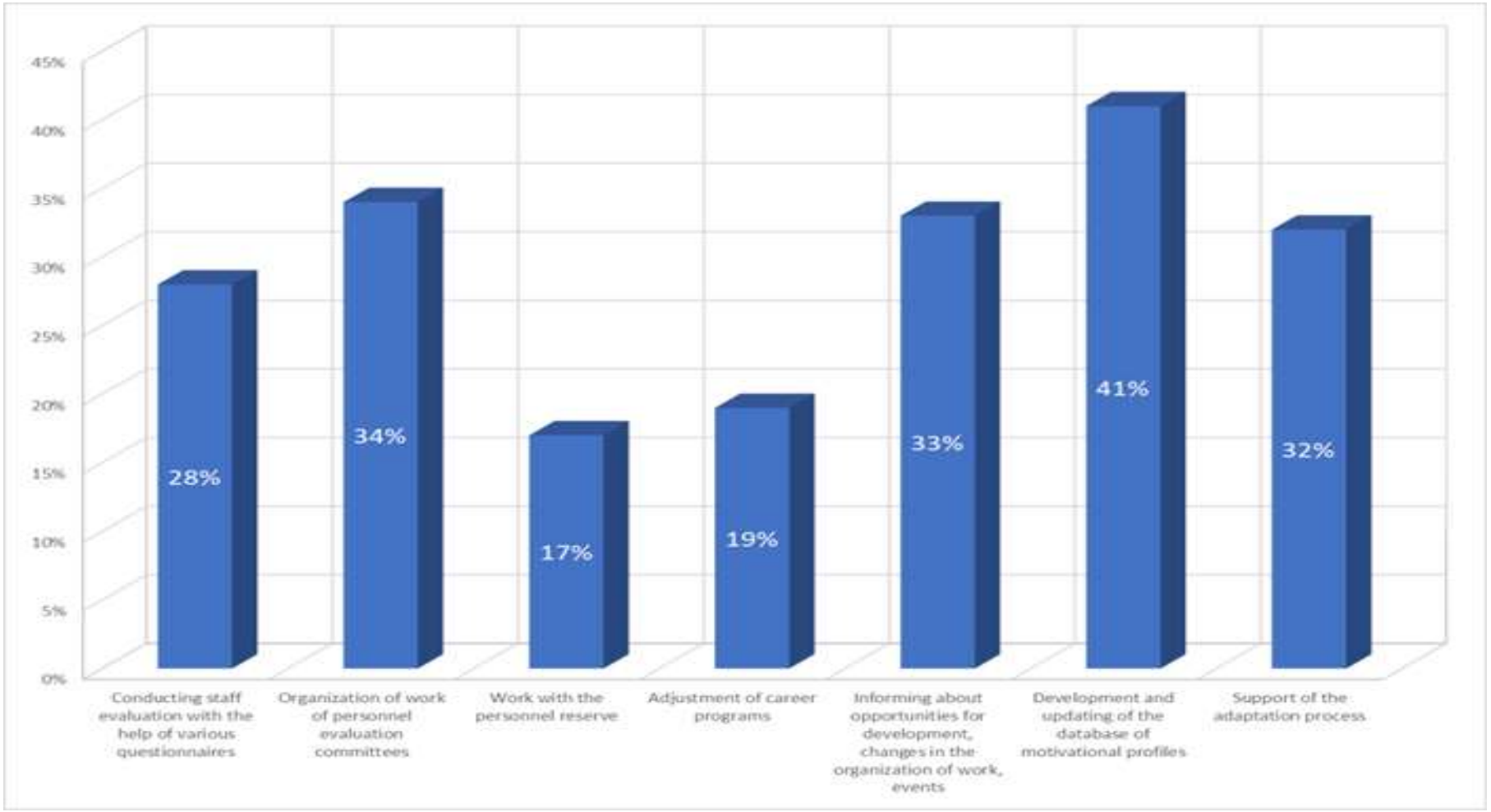

Figure 5: The results of the survey on proposals to automate certain types of work with artificial intelligence

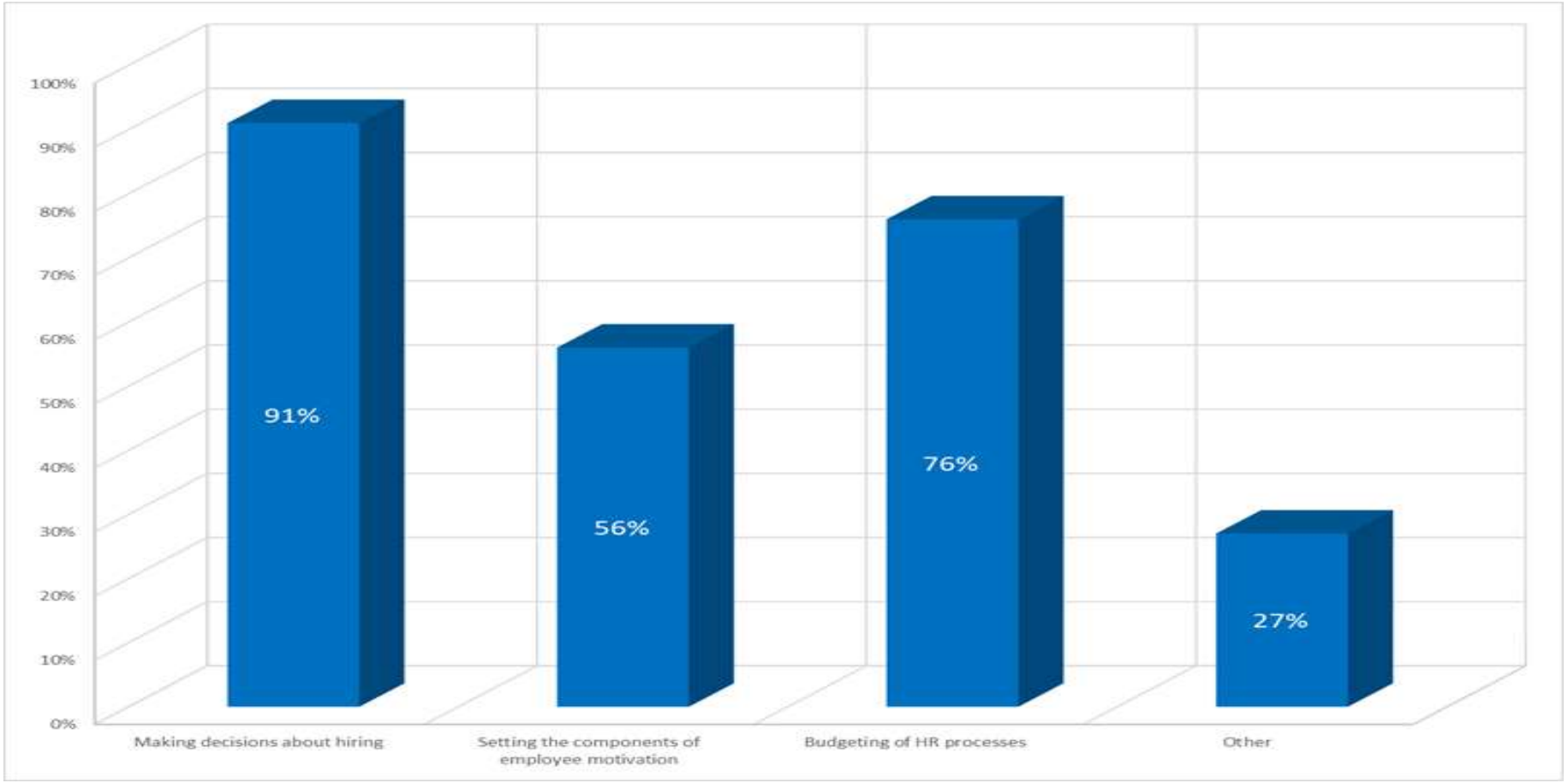

Figure 6: The results of the survey on the inability to perform HR - processes using artificial intelligence

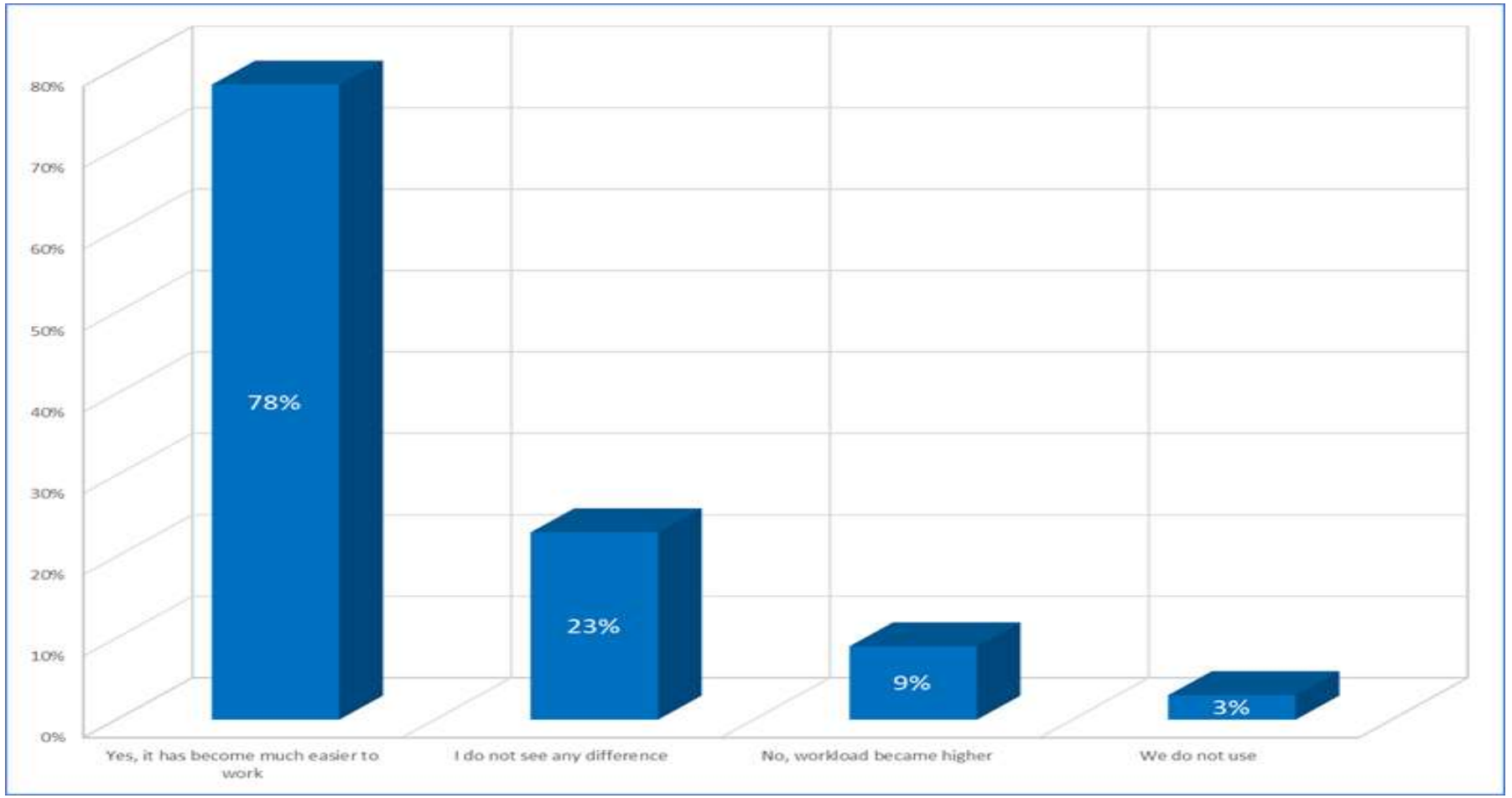

Figure 7: The results of the survey if the use of chatbots in the company facilitates the work

- **The introduction**. The introduction of chatbots contributes to the formation of the brand of an employer that is attractive to talented, high-performing candidates and employees. HR bots reduce time wasted by the employee by optimizing intra-organizational communications. In addition, they increase the efficiency of communication between the employer and candidates, which has a positive effect on the image of the organization in the labor market. All this, in our opinion, contributes to the growth of satisfaction of HR specialists with their work in the company. At the same time, the capabilities of modern HR bots are limited primarily by the fact that they are not able to replace an employee but play the role of an assistant, and also they are dependent on the qualifications of the team that creates and uses them.