## TOWARDS THE BACKGROUND TO USING BUSINESS INTELLIGENCE SYSTEMS IN IT RECRUITMENT

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Human resource management is a continuous process of recruiting, selecting, orienting, training, compensating and evaluating personnel [1]. Personnel is one of the most valuable resources of any company, IT (Information Technology) companies are not the exception. The effectiveness of the HR (Human Resource) department determines the achievement of the company's business performance and the competitiveness of the organization as a whole. That is why much attention should be paid to finding and managing talent and linking the goals of each employee to the company's strategic goals, increasing overall productivity [2].

One of the main HR processes is recruiting. It consists in hiring the best candidates for a particular vacancy according to their skills [3].

A recruiting strategy can be based on two types of candidates: active and passive. Active candidates are those who are currently in the process of looking for a job, posting their resumes (CVs) on career sites, etc. Passive candidates are those who are not actively searching or applying for jobs online and are satisfied with their current employment, but are open to hearing about new opportunities that could help them move up the career ladder [4].

Because active candidates are looking for job opportunities themselves, it is not a problem for recruiters to engage them in the hiring process. At the same time, finding passive candidates can be challenging and requires a lot of time and expertise from the HR team.

Many may wonder why complicate the hiring process by searching for passive candidates if active candidates are looking for a new job on their own? To answer this question, we can look at research conducted by LinkedIn (Global Talent Trends), which reports that 70% of the global workforce is passive talent (Figure 1) [5].



Figure 1 – Global Talent Trends [5]

Working with passive candidates also has its advantages:

1. Hiring a passive candidate can be more profitable because there is less competition for them within their existing role [6].

2. An employer can gain a competitive advantage and meet candidates that its competitors and other organizations do not even know exist [4].

3. Passive candidates do not aim to find a new job as soon as possible and do not negotiate with multiple companies at the same time. This allows both parties to carefully consider the details of cooperation and make an informed decision [4].

The process of working with a vacancy can be described as follows (Figure 2) [3]:

1. Understand the job requirements in terms of skills that are mandatory (e.g., list of technologies) and those that are optional but desirable (e.g., language skills, soft skills, etc.), experience criteria, if any, location preferences, etc.

2. Review each resume and discard those that do not match the skills required for the job.

3. Find the best candidate for the job among the remaining ones. To do this, the recruiter must read the CV in detail and compare it with the requirements. In addition, since the number of candidates for interview is limited, the recruiter must make a relative judgment about them.



Figure 2 – The vacancy handling process

Regardless of whether a company works with active or passive candidates, it needs to access various candidate databases when working with a vacancy. Interacting with such databases can be very inconvenient because the data is located in different places, for example, active candidates are located on each individual job search site, and the database of passive candidates existing in the company is organized in a spreadsheet in Microsoft Excel or Google Docs. Therefore, manual screening can miss potentially better candidates for a job, which in turn can lead to a suboptimal selection of potential employees [3].

In order to improve the recruitment processes, it is proposed to develop the BI (Business Intelligence) system's components for efficient storage and processing of the candidate storage. It is planned that the main functions of the future BI solution will be:

1. Filling the database with passive candidates, i.e., by adding feedback from already closed vacancies and candidates recommended by colleagues.

2. Recommending suitable specialists from the database for new vacancies by analyzing the text of the vacancy and CVs available in the database.

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