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İNSAN RESURLARININ İDARƏ EDİLMƏSİNDƏ SÜNİ İNTELLEKTİN TƏTBİQİ

Xülasə

Məqalədə Sənaye 4.0 inqilabı çərçivəsində insan resurslarının (HR) idarə edilməsində süni intellektin (AI) necə istifadə edildiyi və bu texnologiyanın insan resursları proseslərinə təsiri hərtərəfli şəkildə müzakirə edilir. Tədqiqat süni intellektin işə qəbul, təlim və inkişaf, performansın idarə edilməsi, işçilərin məmnunluğu və rifahı kimi müxtəlif insan resursları tətbiqlərində qarşılaşdığı faydaları və çətinlikləri ətraflı şəkildə təhlil edilib. Süni intellekt (AI) insan resurslarının idarə edilməsinə layiq olduğu dəyəri qazandırmığa və mövcud və inkişaf etməkdə olan tətbiqləri vasitəsilə fərq yaratmığa kömək edir. İnsan resurslarının idarə edilməsində süni intellektin əsas funksiyası; Təlim və inkişaf yolu ilə işçilərə kömək etmək ən yaxşı rahat iş mühitini yaradaraq, işçilərin üstünlüklərini və çatışmazlıqlarını müəyyən edir. Bu gün insan resursları iş proseslərində intensiv şəkildə istifadə edilən süni intellekt, xüsusilə iş proseslərini sürətləndirmək və baş verə biləcək insan mərkəzli səhvləri azaltmaq üçün çox əhəmiyyətli hala gəlmişdir. Bu araşdırma çərçivəsində insan resursları idarəçiliyində süni intellektin istifadəsi araşdırılmışdır.

Açar sözlər: İnsan resursları, texnologiya, süni intellektin istifadəsi, insan resurslarının idarə olunmasında süni intellektin istifadəsi

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Giriş

The concept of artificial intelligence emerged in 1884 with a scholar named Charles Babbage. This scholar named a series of mechanical devices that he wanted to demonstrate their behaviors. He conducted experiments based on the premise that machines could not be as intelligent as humans (Da Xu, Lu et al., 2021). In 1950, Alan Turing published an article titled "Computing Machinery and Intelligence," which drew attention to artificial intelligence for the first time. Turing conducted a series of studies to determine whether artificial intelligence could actually think, and this test is now known as the "Turing test." Continuing work in the 1950s enabled a scholar named Arthur Shannon to create an artificial computer game capable of playing chess.

The term 'artificial intelligence' was proposed more recently, in 1955 by John McCarthy. In 1956, John McCarthy and his colleagues organized a conference called the Dartmouth Summer Research Project on Artificial Intelligence; this conference led to machine learning, deep learning, predictive analytics, and

more recently, prescriptive analytics. Thus, a new field of research emerged. The artificial intelligence initiatives we encountered before history made significant progress only in the 1960s with the development of technology in computers (Jia et al., 2018).

The increasing use of artificial intelligence (AI) in government agencies and organizations, as well as in the private sector, is revolutionizing processes such as measuring satisfaction and complaints, as well as hiring employees. AI can be applied to many aspects of life throughout an employee's life cycle to provide personalized experiences. Human resources departments can measure employee engagement, job satisfaction, and satisfaction levels more accurately by integrating AI tools throughout the employee's life cycle. For example, today, artificial intelligence is widely used by human resource management departments. Thanks to artificial intelligence, it is now easy to create personalized feedback surveys and recognition programs to identify employees' needs and preferences. The benefits of artificial intelligence to HR organizations are numerous.

Another application of AI in HRM is the recruitment process. Chatbots can be programmed to respond to pre-written questions and gather information about candidates. This technology can replace first-level interaction between employers and candidates, freeing up HR professionals. Moreover, AI can be utilized for various other tasks. For example, artificial intelligence can enhance employee recruitment and satisfaction surveys. AI can also help with employee retention and reduce hiring costs for new employees.

Artificial intelligence in the recruitment process

According to a news article in World newspaper, artificial intelligence has started to automatically conduct face-to-face processes such as testing and interviews for candidate selection and their manual programming. (Gürsel, 2021) In this situation, individuals are automatically excluded from the system based on age and certain criteria. This situation leads to people feeling empty. Individuals are excluded without being accepted for an interview, without any emotional connection, and lacking characteristics such as honesty and humanity.

However, there are cases where AI in recruitment is beneficial for humans and HRM. For example, if a company is going to hire people with a disability percentage above a certain percentage or disadvantaged groups who have been in prison for a certain number of years, the system ensures that only those groups are selected.

First, that group is immediately found and searched by an AI-powered database or sent an email or message, again with AI.

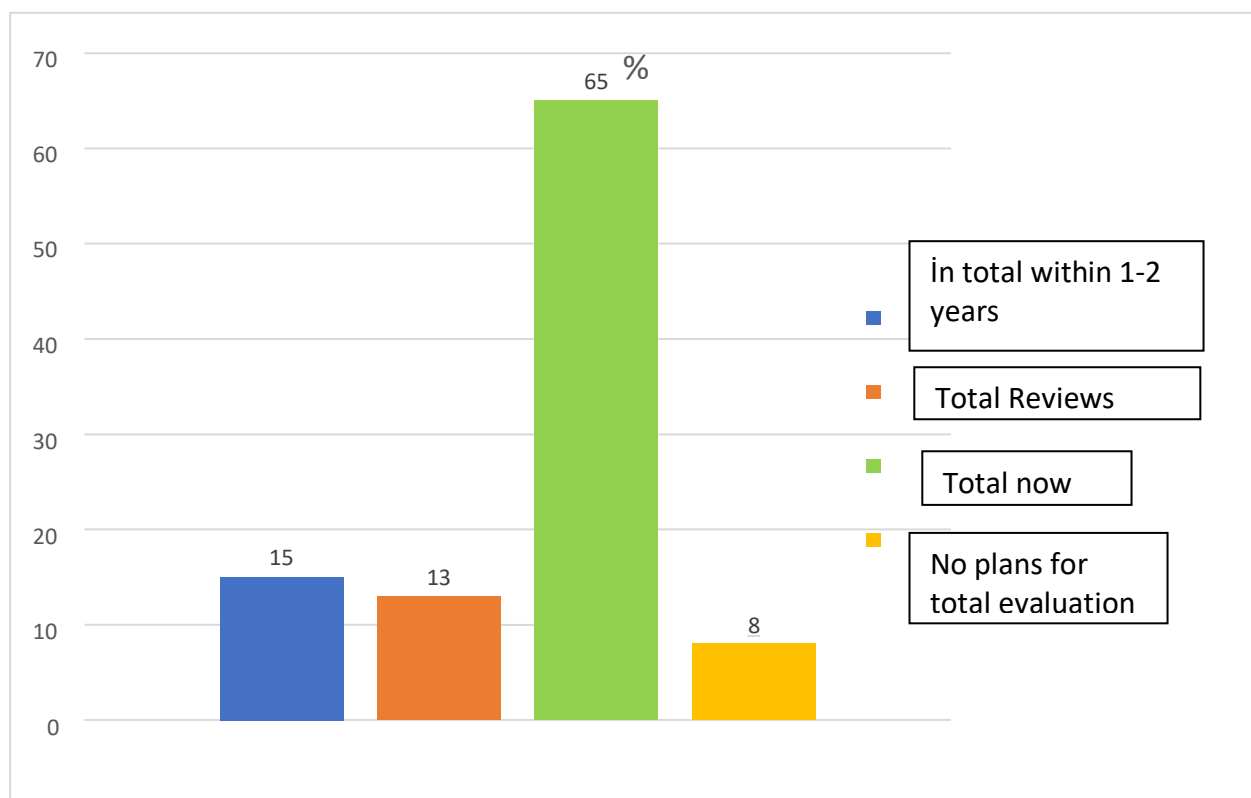
Personnel selection process

- Test,
- Video interview
- The process of using artificial intelligence in

the selection decision is as follows:

The recruitment process, or the process of securing the human resources needed to secure the right talent for a business, is a challenging process for human resources. In large companies, it takes a certain amount of time for the organization to screen applicants from hundreds of applications and select the right candidates for the job to be done.

.Costs and material losses: The technological factor of artificial intelligence emerges as an effective tool for HRM in this era. In the first stage of recruitment, the process of finding and testing candidates is carried out not through face-to-face applications, but through intermediary websites or the websites of institutions and organizations. People who upload their CVs and demographic information to these websites to find a job create a database from which the organization can select the appropriate person. Then, in order to select people suitable for the organization, artificial intelligence selection and testing eliminates most of the candidates through filters such as age, qualifications and facial recognition. This saves time and costs.



Təlim və İnkişaf Prosesində Süni

When artificial intelligence is used to enhance learning, the company will save a lot of time and space. In addition, when artificial intelligence is used in HRM, companies maintain their competitive positions and transparency. Research has shown that AI is truly beneficial for both the workforce and businesses by automating the talent development process and transforming operational processes in the HRM department (Kambur, 2022). All companies are trying to take steps in artificial intelligence technologies. In order to achieve competitiveness in a free market environment, companies are increasing their activities in the field of artificial intelligence every day to gain speed in their workforce and operational processes

Artificial Intelligence in Career Management Process

- Development of talent
- Encouragement
- Team building

With artificial intelligence, team managers plan and create digital training opportunities for talent development based on the assessment of talent gaps. Voice communication AI assists employees and managers in tracking the progress of training.

On the other hand, AI offers HR the opportunity to automate repetitive, low-value tasks and increase focus on more strategic work.

In general, HRM services offer processes such as standard onboarding procedures for new employees and the digital capturing of performance tracking sheets and promotion points through artificial intelligence. The equal and transparent provision of AI-supported digital platforms to all employees in enterprises enhances success and competition within and between teams, increasing their activities every day.

Artificial Intelligence in Compensation Management Process

- Determining the right
- Detection of financial embezzlement

In HRM, the AI process is used to determine payments in the form of salaries, compensations, and rewards, as well as to reward individuals for organizational work. To compete, companies; Employers improve their main compensation systems in their businesses according to employees' performance and utilize variable rewards and salary practices such as profit sharing. Furthermore, it appears that artificial intelligence has both protective and preventive mechanisms concerning financial crimes.

The behavior of employees is analyzed in advance with detection systems of artificial intelligence, creating an additional security mechanism. For example, the system supported by IBM Watson software has the capability to extract large datasets and create meaningful content from the obtained information. The artificial intelligence system is based on the security of accounts. On the other hand, IBM Financial Crimes aims to work in coordination with financial crime investigation units that have the ability to investigate possible attacks against employees' accounts. QuantaVerse, a platform for detecting financial fraud, analyzes data with a program called CAE Checkup to ensure that companies are protected from potential fraud and to quickly detect suspicious transactions. Therefore, artificial intelligence has many functions such as preventing, alerting, and detecting financial fraud before it occurs. By filtering transaction data through a special filter, it allows for the identification of those who finance terrorists, fraudsters, money launderers, bribe takers, and corrupt individuals.

Especially, the applications of artificial intelligence developed in the finance department have become a mechanism that further facilitates the recording and management of revenues.

Measurement of Artificial Intelligence and Performance Data in the Process of Performance Evaluation: Considering large companies, specifically those with more than 3,000 employees, it is quite challenging to create and manage a performance metrics dashboard using traditional methods in the field of HRM. At this point, artificial intelligence acts as a mediator today. The first global company to measure employee performance with artificial intelligence technologies is IBM. For IBM, which has approximately 400,000 large workforce, creating a performance evaluation report and determining performance scores is quite a challenging issue. Moreover, considering that evaluating employee performance with traditional methods often takes a lot of time, this is a very difficult process. With the artificial intelligence support program called Watson, IBM conducts performance evaluations in a very short time. With Watson, employees also strive to maintain continuity in their work

motivation. Watson also predicts how employees will perform in the future (Sindu, 2018, p. 5255). In companies, managers may sometimes confuse performance with potential, see everyone as the same, value individuals who are similar to themselves more highly, exhibit bias, and rate individuals favored by managers as performing better.

Companies have a lot of information about employees thanks to artificial intelligence technologies. However, having a lot of data is not crucial. The most important thing is to use the existing data correctly. Artificial intelligence technologies conduct a comprehensive assessment of each employee based on the information obtained from them. Based on this assessment, an average performance score is determined. It also provides predictions about how the staff will perform in the future. This comprehensive assessment can identify areas of deficiency for employees whose average performance score is below average. Artificial intelligence informs the manager about the areas in which the employee is lacking. Through regular assessments, it is possible to determine whether the employee's deficiencies have been addressed or improved. Employees who do not show progress can be dismissed.

Results and recommendations

Modern human resource management is causing significant changes in the recruitment process through artificial intelligence. Algorithms based on artificial intelligence scan candidates' CVs and perform initial assessments, easing the workload of human resources specialists. Thus, the candidate selection process becomes faster and more efficient.

In addition, the use of artificial intelligence helps to more accurately determine the alignment between candidates' competencies and job requirements. Artificial intelligence also allows offering training and development programs tailored to the individual needs of employees. Machine learning algorithms can analyze performance data to identify the areas where employees need improvement and create personalized training plans accordingly. This situation makes significant contributions to

supporting employees' empowerment and career development.

Another issue highlighted by human resources management specialists is the long-term effects of artificial intelligence applications and their psychological impact on employees, which ultimately leads to decreased company loyalty and the disappearance or reduction of traditional cultures in businesses. Despite this situation, it is possible to ensure the sustainable and human-centered use of artificial intelligence. Another aspect to consider is the development of ethical and legal regulations regarding the use of artificial intelligence in human resources processes and research investigating the impact of these rules on practices. The ethical use of artificial intelligence will enhance the acceptance and effectiveness of technology in the long term..

The overall result of the research, as can be understood from the analysis, is the presence and use of artificial intelligence in human resource management programs. Today's businesses will not be able to survive and compete in the future if they cannot integrate and utilize the innovations brought by digitization. The innovations and opportunities offered by Industry 4.0 allow for the use of artificial intelligence in human resource management. Artificial intelligence has the potential to make human resource processes more efficient, objective, and personalized. However, it is crucial to use these technologies ethically and legally, to implement privacy and security measures, and to prevent algorithmic biases. This thesis has made significant contributions to understanding the role of AI in human resource management and improving applications in this field. Future research may expand and deepen these findings, which could enable a more effective and human-sensitive use of artificial intelligence in the management of human resources..

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ПРИМЕНЕНИЕ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В УПРАВЛЕНИИ ЧЕЛОВЕЧЕСКИМИ РЕСУРСАМИ

Резюме

Искусственный интеллект (ИИ) вносит свой вклад в управление человеческими ресурсами, приобретая заслуженную ценность и внося изменения посредством существующих и развивающихся приложений. Основная функция искусственного интеллекта в управлении человеческими ресурсами; Помогать сотрудникам и давать им возможность стать более экспертами в своей работе посредством обучения и развития. Для достижения этой цели мы стремимся создать максимально комфортную рабочую среду, выявить преимущества и недостатки сотрудников и подготовить путеводитель по выбору карьеры в организации. Однако иногда эта поддержка оценивается сотрудниками негативно. У сотрудников сложилось впечатление, что искусственный интеллект отнимет у них работу и заменит их самих. Искусственный интеллект, который сегодня активно используется в кадровых бизнес-процессах, стал очень важным, особенно для ускорения бизнес-процессов и сокращения возможных ошибок, связанных с человеческим фактором. В рамках данного исследования было рассмотрено использование искусственного интеллекта в управлении человеческими ресурсами.

Ключевые слова: человеческие ресурсы, технологии, использование искусственного интеллекта, использование искусственного интеллекта в управлении человеческими ресурсами

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APPLICATION OF ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCES MANAGEMENT

Summary

Through its existing and developing applications, artificial intelligence (AI) contributes to human resource management gaining the value it deserves and making a difference. The main function of artificial intelligence in human resources management; to help employees, to make it possible for them to become more experts in their work through education and development. For this, while creating the best possible comfortable working environment, identifying the advantages and disadvantages of the employees and preparing a guidance map for their career choices within the organization. However, this support is sometimes negatively evaluated by employees. Employees are under the impression that artificial intelligence will take their jobs from their hands and replace them. Today, artificial intelligence, which is used intensively in human resources work processes, has become very important, especially for

speeding up work processes and reducing possible human-oriented errors. Within the scope of this study, the use of artificial intelligence in human resources management was tried to be examined.

Keywords: Human Resources, Technology, Use of Artificial Intelligence, Use of Artificial Intelligence in Human Resources Management

