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THE APPLICATION OF ARTIFICIAL INTELLLGENCE IN HUMAN RESOURCE MOTIVATION

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Abstract. This paper explores the application of artificial intelligence (AI) to enhance human resource (HR) motivation within organizations. It examines AI-powered tools and systems in supporting personalized employee engagement, performance incentives, feedback mechanisms, and career development opportunities and by reviewing recent research and practical utilization, highlights the potential of AI to adapt motivational strategies based on individual employee data, improve communication, and foster a more motivated and productive workforce. It also discusses the role of AI in finding motivational factors and predicting employee needs, allowing for proactive interventions in the field of HR.

Keywords: artificial intelligence; human resource motivation; motivation theories

JEL: J24, J28, O35

Introduction

In today's competitive business environment, organizations are constantly looking for innovative ways to motivate and engage their employees. Human resources (HR) professionals play a key role in developing strategies and initiatives that promote employee motivation, which directly impacts job satisfaction, productivity, and organizational success.

With the rapid development of technology, especially in the field of artificial intelligence (AI), new opportunities are emerging for HR professionals to use AI applications to improve employee motivation.

The purpose of this paper is to explore the potential of AI to revolutionize HR motivation strategies. By exploring the various applications of artificial intelligence, discussing their benefits, overcoming challenges, and examining ethical considerations, this paper aims to provide insight into the role of artificial intelligence in reshaping traditional HR practices and improving employee engagement and productivity.

Traditional approaches to human resource motivation

Motivation Theories

Traditional motivation strategies in the field of human resources are often based on well-established motivational theories. Maslow's hierarchy of needs theories, Herzberg's two-factor theory, and Vroom's expectancy theory are widely used to understand and address employee motivation in organizations. These theories emphasize the importance of factors such as recognition, rewards, career development, and a positive work environment in stimulating employee motivation (Johansson & Herranen, 2019; Mironova et al., 2024). Motivation theories have evolved from focusing primarily on the individual to taking into account social and relational factors in the workplace. Early person-centered models viewed motivation as something internal to the person, shaped by individual needs and aspirations. Examples include Maslow's Hierarchy of Needs, which explains motivation through satisfying physiological, safety, social, self-esteem, and self-actualization needs. Examples include Maslow's Hierarchy of Needs, which explains motivation through fulfilling physiological, safety, social, esteem, and self-actualization needs, Herzberg's Two-Factor Theory, which separates hygiene factors from motivators, and McGregor's Theory X and Theory Y, which focus on management's assumptions about employee motivation. These theories emphasize personal growth, achievement, and intrinsic driving forces (Mansaray, 2019; Gomez-Mejia et al., 2020). Over time, scholars have recognized that motivation is also influenced by social relationships and organizational culture, leading to sociocentric models. Social Exchange Theory emphasizes that motivation stems from reciprocal relationships between employees and the organization. Self-determination Theory emphasizes relatedness, along with autonomy and competence, as key motivators. Teamwork and goal-setting approaches also recognize that motivation is shaped by cooperation, feedback, and social interactions within groups.

With the rise of artificial intelligence and digital HR tools, social-centric motivation is increasingly mediated by technology. AI platforms shape feedback, recognition, and collaboration, influencing social interactions and group dynamics in the workplace. Therefore, motivation is not only individual, but also stems from data-driven social contexts, mixing human and technological influences (Tepliuk, & Domina, 2022; Gomez-Mejia et al., 2020).

Limitations of Traditional Approaches

Although traditional motivation theories have provided valuable frameworks for human resource professionals, they have certain limitations. One challenge is the inherent complexity of individual motivations, as different employees have unique needs and aspirations. Traditional approaches often rely on one-size-fits-all solutions that may not be effective in addressing the diverse motivational factors in the workforce. Furthermore, traditional approaches are often time-consuming, require significant manual effort, and may lack real-time feedback mechanisms (Johansson

& Herranen 2019; Mironova et al., 2024). HR professionals need AI tools because employee motivation is not the same; it varies based on personality, goals, skills, work style, and life circumstances. Traditional one-size-fits-all approaches to motivation often fail to meet individual needs, which can reduce engagement and productivity. AI tools allow HR professionals to analyze large amounts of employee data – such as performance metrics, engagement surveys, communication patterns, and training preferences – to understand what motivates each employee (Pratt, et al, 2020). By using AI, HR can provide personalized feedback, rewards, and development opportunities that are tailored to each individual's motivation. For example, some employees may be motivated by recognition and career growth, while others value work-life balance or collaborative team projects. AI platforms can identify these differences and offer personalized interventions. In addition, AI helps HR professionals monitor changes in motivation over time. By tracking engagement, well-being, and performance trends, AI enables proactive adjustments to HR strategies, ensuring that employees remain motivated and engaged. Ultimately, AI tools enable a more dynamic, data-driven, and personalized approach to human resource management, which is essential in today's diverse workplaces (Pratt, et al, 2020).

Role of Artificial Intelligence in Human Resource Motivation

Maslow's Hierarchy of Needs suggests that individuals are motivated by fulfilling a series of needs, from basic physiological requirements to self-actualization. However, this model assumes a linear progression and does not account for individual differences, changes over time, or organizational context. AI can address this limitation by continuously analyzing employee behavior, preferences, and engagement data. For example, AI-powered platforms could identify when an employee is motivated more by recognition than skill development, and adapt interventions in real time. This suggests that AI-driven HR systems can provide personalized motivational strategies that align with the changing needs of employees, overcoming the "one-size-fits-all" limitation of Maslow's model (Pratt, et al., 2020). Herzberg's Two-Factor Theory separates hygiene factors, such as pay and working conditions, from motivators, such as achievement and recognition. While useful, it does not account for how the factors interact dynamically or vary across employees, and assumes that managers can accurately determine what motivates each person. AI can monitor engagement and feedback to dynamically assess which factors act as motivators or hygiene elements for each employee, allowing for tailored interventions. In this way, AI-based HR systems can continuously track and predict individual motivators, optimizing workplace interventions and increasing engagement more effectively than static assessments (Pratt, et al., 2020; Gomez-Mejia et al., 2020). Self-Determination Theory emphasizes autonomy, competence, and relatedness as core motivators. Consistently implementing these principles in large organizations is a challenge, as managers cannot provide

the same level of personalized support to every employee. AI tools can support autonomy by recommending personalized development paths, monitor competency development through performance analytics, and foster connectivity through engagement platforms. This suggests that AI systems can scale principles of social differential development (SDT) across organizations by personalizing opportunities for autonomy, skill acquisition, and social connection, enhancing motivation at both the individual and group levels. Equity and Social Exchange Theories suggest that motivation stems from perceived fairness and reciprocal relationships between employees and the organization. Human managers can inadvertently introduce bias or inconsistencies into monitoring and reward systems. AI can provide objective, data-driven performance assessments and detect inequalities or patterns of bias in human resource management processes. This shows that AI-based monitoring and analytics can improve perceptions of fairness and reciprocity, enhancing motivation by reducing bias and increasing transparency (Gomez-Mejia et al., 2020; Sin, 2022).

In summary, traditional motivation theories provide valuable insights but are limited by assumptions of uniformity, linearity, or managerial capacity. Artificial intelligence offers the potential to personalize, scale, and dynamically adapt motivational interventions, addressing these limitations in a data-driven and socially conscious manner (Gomez-Mejia et al., 2020; Sin, 2022).

Artificial Intelligence Models applied in the contemporary Human Resource Management

In recent years, we have seen an increasing role of artificial intelligence in human resource management. Some of the most widely applied artificial intelligence models in the human resource management system include:

Personalized Feedback Systems

One of the key areas where AI can significantly improve HR motivation strategies is personalized feedback systems. AI algorithms can analyze vast amounts of employee data, including performance, peer feedback, and self-assessments, generating personalized feedback and recommendations. These systems can provide timely and constructive feedback to employees, highlighting their strengths, areas for improvement, and actionable growth suggestions. These systems can provide timely and constructive feedback to employees, highlighting their strengths, areas for improvement, and actionable suggestions for growth. By offering personalized feedback, AI-based systems can improve employee engagement, increase self-awareness, and facilitate continuous learning and development (Nawaz et al., 2024).

Performance Analytics and Predictive Modeling

AI allows HR professionals to analyze performance and use predictive modeling techniques to delve deeper into employee motivational factors. By studying historical performance data and combining it with various contextual variables, AI algorithms can discover patterns, correlations, and trends related

to motivation. These insights can help HR professionals understand the underlying drivers of motivation and design targeted interventions. For example, AI analytics can uncover factors contributing to high employee turnover rates, allowing HR teams to effectively implement retention strategies (Nawaz et al., 2024).

Intelligent Hiring Processes

AI can play a key role in improving the hiring process, thereby influencing employee motivation from the start. By using AI algorithms, HR departments can automate resume screening, candidate selection, and even conduct initial interviews. AI-powered recruiting platforms can analyze candidate profiles, match them to job requirements, and assess their fit with organizational culture. This streamlined and efficient process not only saves time and resources, but also ensures that the right candidates are selected, leading to greater job satisfaction and motivation among employees (Islami & Mulolli, 2024).

AI-powered virtual assistants

AI-powered virtual assistants, such as chatbots or voice-activated interfaces, can support and increase employee motivation in a variety of ways. Virtual assistants can provide employees with real-time access to information, policies, and procedures. They can also answer frequently asked questions, remind you of important tasks, and offer guidance on career development opportunities. By providing personalized and immediate support, virtual assistants create a sense of empowerment and engagement, allowing employees to focus on meaningful work and increasing their overall motivation (Islami & Mulolli, 2024; Kessing, 2021).

Benefits of AI in HR Motivation

Enhanced Personalization and Personalization

One of the significant benefits of AI in HR motivation is its ability to provide personalized and customized experiences for employees. Traditional approaches often use generic motivational strategies that do not take into account individual differences. AI, on the other hand, can process large volumes of data and create personalized interventions tailored to each employee's unique preferences, strengths, and areas of development. This personalized approach not only increases employee satisfaction, but also increases the effectiveness of motivational initiatives (Johansson & Herranen, 2019).

Real-time feedback and continuous improvement

AI feedback systems enable real-time monitoring and feedback, ensuring that employees receive immediate information about their performance and progress. This timely feedback allows employees to make necessary adjustments, correct their course, and continuously improve their performance. By fostering a culture of continuous learning and growth, AI-based feedback systems contribute to higher levels of motivation and engagement among employees.

Data-driven decision-making

Integrating AI into HR motivation strategies facilitates data-driven decision-making. AI algorithms can analyze vast amounts of data and generate meaningful insights that help HR professionals make informed decisions about motivation initiatives. By using artificial intelligence-based analytics, HR teams can identify trends, correlations, and patterns in employee data, allowing them to proactively address motivational challenges and implement targeted interventions (Rashidov, 2024; Islami & Mulolli, 2024).

Improved efficiency and time savings

AI automates repetitive and time-consuming tasks, freeing HR professionals to focus on more strategic aspects of motivation. Automating administrative tasks such as data entry, performance evaluation, and candidate screening allows HR teams to allocate their time and resources more efficiently. This increase in efficiency allows the HR department to allocate its time and resources more effectively (Rashidov, 2024; Kessing, 2021).

Challenges in Implementing AI in HR Motivation

Implementing artificial intelligence into human resource motivation strategies comes with its own set of challenges that organizations must address effectively. These challenges include:

Data Privacy and Security Issues

Using AI in HR motivation relies heavily on collecting and analyzing vast amounts of employee data. This data can include personal information, performance metrics, feedback, and more. Organizations must prioritize data privacy and security to protect sensitive information about their employees. Ensuring compliance with data protection regulations, implementing robust security measures, and obtaining employee consent for data collection and use are key steps to address these issues. Transparent communication about data use and establishing clear data access and storage policies are essential for building trust and maintaining employee confidence in AI-powered systems (Islami & Mulolli, 2024; Kessing, 2021).

Ethical Considerations

Artificial intelligence systems have the potential to inadvertently perpetuate bias and discrimination if not properly designed and monitored. HR professionals must be vigilant to ensure fairness, transparency, and inclusion when using AI in motivational strategies. It is important to regularly evaluate and audit AI algorithms to identify and correct any biases or unfair treatment. Additionally, HR teams should create clear guidelines and ethical frameworks for the use of AI, incorporating principles such as fairness, accountability, and explainability into the design and implementation of artificial intelligence systems (Johansson & Herranen, 2019; Rashidov, 2024).

Employee Acceptance and Resistance

The use of AI in HR motivation can be met with resistance and skepticism from employees, as it can create fear of losing their job or control. It is important to address these concerns through open communication and to clearly explain how AI will be used to increase employee motivation and not replace personal interaction. Organizations should focus on popularizing the benefits of AI, such as improved feedback, personalized experiences, and more efficient processes. Involving employees in the decision-making process and providing training and upskilling opportunities can help alleviate fears and encourage adoption of AI-driven systems (Mironova et al., 2024).

Integration with existing HR systems

Integrating AI with existing HR systems can be a complex task. Many organizations have established HR processes and technologies, and seamlessly integrating AI into these systems requires careful planning and coordination. HR and IT departments must collaborate closely to ensure the smooth integration of AI-based solutions. Issues of compatibility, data synchronization, and potential disruptions to existing workflows must be carefully considered. Extensive testing and pilot programs can help identify and mitigate potential integration challenges before full-scale implementation. By proactively addressing these challenges, organizations can minimize risks and ensure the successful implementation of AI into their HR strategies. It is crucial to prioritize data privacy, adhere to ethical standards, address employee concerns, and focus on seamless integration to harness the full potential of AI to enhance employee motivation and achieve organizational success (Nawaz et al., 2024). While AI offers powerful HR tools for motivation and management, it also introduces challenges and potential risks that need to be carefully considered. A major concern is the "black box" nature of many AI algorithms. HR professionals can rely on AI-generated assessments or recommendations without fully understanding how they were calculated. This lack of transparency can create uncertainty and distrust among employees, as decisions affecting compensation, promotions, or career paths may appear opaque or unfair (Zincirli & Altin, 2025). Automation in HR can also lead to depersonalization in the workplace. When routine interactions – such as feedback, recognition or registrations – are handled primarily by AI systems, employees may feel less valued as individuals. Human managers play a key role in interpreting nuances, offering empathy, and understanding context that AI cannot fully replicate. Over-reliance on automation risks diminishing the human connections that are essential for motivation and engagement (Zincirli & Altin, 2025). Furthermore, AI-enabled continuous monitoring introduces complex power relations. Algorithms that track employee productivity, behavior, or communication patterns can shift power toward management or the organization, potentially creating feelings of surveillance and pressure. Employees may change their behavior to "work according to the algorithm" rather than acting authentically or creatively. This raises ethical questions about privacy, consent, and fairness, highlighting that AI in HR is not value-

neutral. Automation in HR can bring efficiency and consistency, but it also runs the risk of depersonalizing the workplace. When routine processes – such as feedback, performance appraisals or recognition – are largely handled by AI systems, employees may feel that their unique contributions and circumstances are being overlooked. The personal touch that human managers provide, including empathy, understanding context, and interpreting nuance, is difficult for AI to replicate. Over time, this can make employees feel like they are interacting with machines rather than being recognized as individuals, which can reduce motivation and engagement (Hornung & Smolnik, 2022; Stoycheva & Vitlemov, 2024). Continuous monitoring, enabled by artificial intelligence, is also changing power relations in the workplace. Algorithms that track productivity, communication patterns, or engagement give organizations unprecedented visibility into employee behavior. While this can help drive data-driven decision-making, it can also create a sense of constant surveillance. Employees can feel pressured to change their behavior to meet algorithmic expectations, shifting power to management and technology rather than human judgment. This raises ethical concerns about autonomy, privacy, fairness, and trust, highlighting that artificial intelligence in human resources is not neutral but embedded in social and organizational power dynamics (Zincirli & Altin, 2025).

In essence, while AI can increase efficiency and provide personalized insights, its implementation must carefully balance automation with human connection, transparency, and ethical oversight to prevent depersonalization and maintain healthy social relationships in the workplace (Hornung & Smolnik, 2022).

Conclusion

The application of artificial intelligence (AI) in human resource motivation has the potential to revolutionize traditional human resource (HR) practices and improve employee engagement and productivity.

This paper explores various ways to integrate AI into HR motivation strategies, including personalized feedback systems, performance analytics, intelligent hiring processes, and AI-powered virtual assistants. AI offers several benefits in the area of HR motivation.

Improved personalization and customization allow for personalized interventions tailored to individual employee needs and preferences. Data-driven decision-making and analytics powered by artificial intelligence allow HR professionals to make informed decisions and implement targeted interventions (Johansson & Herranen, 2019).

However, AI implementation in HR motivation is not without challenges. Issues of data privacy and security must be carefully considered to ensure ethical and responsible use of employee data. AI integration with existing HR systems and ensuring seamless collaboration between HR and IT departments is crucial for a successful implementation.

In conclusion, artificial intelligence has the potential to transform human resource motivation practices by offering personalized experiences, real-time feedback, data-driven decision-making, and improved efficiency. As organizations continue to use artificial intelligence technologies, HR professionals must carefully consider the benefits, challenges, and ethical implications associated with integrating artificial intelligence. By harnessing the power of artificial intelligence, organizations can create a motivating and engaging work environment, leading to higher levels of employee satisfaction, productivity, and organizational success (Kessing, 2021).

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