



# **THE ROLE OF ARTIFICIAL INTELLIGENCE IN EMPLOYEE ENGAGEMENT: A LITERATURE APPROACH**

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## **Abstract**

Employee engagement is a critical factor in an organization's success, impacting productivity, retention, and overall workplace satisfaction. As the business landscape evolves, so do the tools and technologies used to enhance employee engagement. This abstract explores the role of Artificial Intelligence (AI) in revolutionizing the way companies engage with their workforce.

AI has emerged as a powerful ally in transforming traditional employee engagement strategies. It offers unique capabilities to gather and analyze data, predict trends, and personalize interactions with employees. This paper delves into various aspects of AI-driven employee engagement, such as sentiment analysis, chat bots, and predictive analytics.

To handle the scenario, Artificial intelligence (AI) and Employee Engagement are emerging as significant dimensions to be taken up for the research. Thus, this study aims to examine the role of artificial intelligence in Employee engagement. To investigate the association between these two important variables, a review of the literature was conducted. The findings demonstrate that much research has validated the association between Artificial intelligence and Employee engagement.

Key words: Artificial Intelligence, Employee engagement.

The purpose of this introductory section is to provide an overview of the topic at hand and set

Artificial Intelligence (AI) is a rapidly developing and progressive discipline that possesses significant potential to revolutionize various sectors and augment human capacities. Artificial intelligence (AI) is significantly transforming multiple industries and facets of our everyday existence, encompassing healthcare, banking, transportation, and entertainment. Artificial General Intelligence (AGI) exhibits cognitive capabilities that are comparable to those of humans, enabling it to execute a diverse array of tasks, acquire knowledge via experience, and adjust its behavior in response to novel circumstances. The attainment of genuine general artificial intelligence (AI) continues to be a long-term objective and an area of ongoing scholarly investigation. Machine learning is a subfield within the realm of artificial intelligence (AI) that

concentrates on the advancement of algorithms and models, enabling computers to acquire knowledge from data and enhance their performance through iterative processes. It assumes a pivotal position in numerous artificial intelligence (AI) applications, encompassing picture and speech recognition, natural language processing, and predictive analytics. Deep learning is a specialized domain within the study of machine learning that employs artificial neural networks, drawing inspiration from the intricate structure and functioning of the human brain. The utilization of this technology has played a pivotal role in facilitating significant progress in various domains, including but not limited to image and speech recognition, language translation, and autonomous robots.

The field of Human Resource Management (HRM) is undergoing a significant transformation due to the integration of Artificial Intelligence (AI) technology. This integration has resulted in the automation of repetitive operations, the generation of insights based on data analysis, and the improvement of decision-making processes within HRM. The utilization of Artificial Intelligence (AI) is progressively being employed to augment employee engagement inside organizational settings. Employee engagement is defined as the affective attachment and unwavering devotion that individuals exhibit towards their job responsibilities and the overall entity they are affiliated with. Employees that are actively involved in their work exhibit higher levels of motivation, productivity, and job retention, hence contributing to enhanced organizational success. Engaged employees are characterized by their perception of work as meaningful, their sense of respect and support from their supervisors, and their recognition of being entrusted with the success of their organization.

Artificial intelligence (AI) possesses the capability to analyze a multitude of data points, encompassing employee engagement surveys, with the purpose of forecasting prospective troubles and discerning patterns within the organizational context. The implementation of a proactive approach enables organizations to effectively mitigate issues prior to their escalation, consequently enhancing the overall level of employee satisfaction. In recent years, many progressive firms have placed a high priority on engagement due to the detrimental effects that low engagement can have on financial performance.

Artificial Intelligence (AI) is a field of study and research that focuses on the development of intelligent machines capable of performing tasks. Artificial intelligence (AI) encompasses a range of technological advancements that empower computers to execute diverse sophisticated tasks, such as visual perception, comprehension and interpretation of spoken and written language, data analysis, and provision of suggestions, among others.

Artificial intelligence (AI) serves as a fundamental component driving innovation in contemporary computing, enabling the creation of substantial benefits for both individuals and enterprises. One instance of utilizing artificial intelligence is through the use of optical character recognition (OCR), which enables the extraction of textual information and data from various photos and documents. This technology facilitates the

transformation of unorganized content into structured data that is suitable for business purposes, ultimately providing access to important insights.

The field of artificial intelligence pertains to the scientific endeavor of constructing computers and machines capable of engaging in reasoning, learning, and decision-making processes that typically necessitate human intelligence. Additionally, it encompasses the analysis of data sets that beyond the analytical capacity of people.

Artificial Intelligence (AI) is a multidisciplinary domain that spans various fields such as computer science, data analytics, statistics, hardware and software engineering, languages, neurology, as well as philosophy and psychology.

At an operational level within the context of business applications, artificial intelligence (AI) encompasses a collection of technologies mostly rooted in machine learning and deep learning. These technologies are employed for various purposes such as data analytics, predictive modeling, forecasting, object classification, natural language processing, recommendation systems, intelligent data retrieval, and other related tasks.

The utilization of artificial intelligence necessitates a fundamental infrastructure comprising dedicated hardware and software components to facilitate the development and implementation of machine learning algorithms. There is no singular programming language that can be considered synonymous with artificial intelligence (AI). However, Python, R, Java, C++, and Julia are computer languages that possess capabilities that are widely favored among developers working in the field of AI.

AI systems typically operate by consuming substantial quantities of labeled training data, scrutinizing the data for correlations and patterns, then leveraging these patterns to generate predictions concerning forthcoming conditions. By employing a dataset of textual examples, a chatbot can acquire the ability to generate realistic conversations with others. Similarly, an image recognition tool can enhance its capacity to recognize and provide descriptions of items within photos through the examination of a vast collection of instances.

## **Employee Engagement:**

Employee engagement refers to the level of commitment, motivation, and involvement that employees have towards their work. Employee engagement plays a pivotal role in the achievement of corporate objectives and serves as a significant catalyst for enhancing productivity, fostering job satisfaction, and ultimately, improving overall business performance. Employee engagement is a phenomenon characterized by the emotional investment and unwavering loyalty that individuals exhibit towards their professional responsibilities and the overall entity they are affiliated with. Increased employee engagement has been found to positively impact motivation, productivity, and staff retention within organizations. Employee

engagement refers to the degree to which individuals exhibit strong enthusiasm for their work, demonstrate dedication to the objectives and principles of the organization, and exert additional effort above what is required in their job responsibilities.

Employees that are actively involved and committed to their work exhibit increased concentration and efficiency, resulting in enhanced overall organizational outcomes. Employees who are actively involved and committed to their work are more inclined to stay in their current positions, resulting in a decrease in expenses related to hiring and training. Employees that are actively involved in their work are more likely to deliver superior customer service, resulting in increased levels of customer satisfaction and loyalty. Employees that are actively involved and committed to their work are more inclined to offer creative and inventive suggestions and resolutions. There exists a positive correlation between high levels of engagement and improved mental and physical well-being among employees.

The measurement of employee engagement can be conducted by many methods such as surveys, feedback sessions, and other tools, which serve to assess the extent of employee happiness, commitment, and motivation. Employee engagement is sometimes hindered by several challenges, such as disengagement, burnout, stress, and a lack of congruence between individual and organizational objectives. These difficulties have the potential to adversely affect both morale and production. The utilization of technology, such as artificial intelligence (AI) and analytics, is experiencing a growing prevalence in the monitoring and analysis of employee engagement data. This practice aims to uncover patterns and pinpoint specific areas that require enhancement. The role of effective leadership is of utmost importance in the establishment of an engaged organizational culture. Leaders that demonstrate exemplary behavior and actively participate in interactions with their subordinates are more likely to cultivate higher levels of engagement within their teams. The implementation of diversity and inclusion initiatives has the potential to enhance employee engagement by fostering a collective sense of belonging among all individuals. Organizations adopt a range of techniques to cultivate employee engagement, encompassing the provision of consistent feedback, chances for professional growth, flexible work arrangements, programs aimed at recognizing employee contributions, and a concerted emphasis on employee well-being.

Therefore, employee engagement is a complex and comprehensive notion that exerts a substantial influence on both the performance of an organization and the well-being of its employees. The establishment of a comprehensive strategy is necessary, one that incorporates several aspects such as leadership, culture, communication, and continuous endeavors, in order to cultivate a constructive work environment that fosters employee appreciation, motivation, and dedication towards the attainment of organizational objectives.

## **A comprehensive examination of existing scholarly works pertaining to the topic of employee engagement.**

According to Shuck and Reio (2013, p. 5), cognitive engagement is influenced by employees' evaluation of their work environment and the nature of their jobs. When doing an employee appraisal, individuals assess the extent of positive or negative affect, subsequently impacting their behavior. The findings of their research demonstrate that employees who are actively involved in cognitive tasks are more likely to respond affirmatively to statements such as "the tasks I perform have a meaningful impact on the organization," "I experience a sense of security in my workplace," "I am not subjected to ridicule in this environment," and "I possess the necessary resources to fulfill the expectations of my role."

A study conducted by Shuck et al. (2011, p. 427), the concept of employee engagement may be described as the cognitive, emotional, and behavioral state of an individual employee that is focused on achieving desired objectives inside a business. The research suggested that individuals employed in occupations that align with their interests and values, resulting in a good fit between their personal preferences and job requirements, have a sense of emotional attachment to their workplace. Consequently, these employees are more inclined to exhibit higher levels of engagement.

The Author Konrad (2006, p. 1), the implementation of high-involvement work practices has the potential to cultivate favorable beliefs and attitudes linked to employee engagement. Furthermore, these practices are capable of eliciting discretionary behaviors that contribute to improved performance. The implementation of high involvement work practices, which empower employees to make decisions in the workplace, provide training to enhance their knowledge and skills for effective decision-making and implementation, offer information regarding the impact of their actions on business unit performance, and provide rewards for their endeavors to enhance performance, can lead to a mutually beneficial outcome for both employees and managers.

Engagement is a fundamental aspect of effective leadership. According to Brunone (2013), the presence of effective leaders who possess the ability to disseminate the organizational vision and motivate individuals to achieve outstanding performance is a crucial factor in fostering engagement within a team, department, or company (p. 1).

Schroeder-Saulnier (2010) asserts that the establishment of trust through proficient communication is of utmost importance. It is imperative for employees to possess a sense of trust in the competence of their leaders in order to ensure the success of the firm. In order to gain the confidence of their subordinates, leaders must exhibit a well-defined strategy, effectively communicate this strategy to personnel, and provide evidence of its successful execution. Trust is a reciprocal dynamic that operates in both directions. Leadership is contingent upon the demonstration of reciprocal trust between leaders and employees, wherein leaders exhibit confidence in their employees' abilities to contribute towards the achievement of organizational objectives. It is imperative to establish a sense of partnership between employers and

employees inside a shared organization. Employees have a need to not only possess knowledge of the overarching objectives, but also to experience a sense of belonging and inclusion inside the organizational framework.

According to Kanaka (2012, p. 65), it is imperative for organizations to cultivate employee engagement by promoting their involvement in decision-making processes and various organizational activities. The active involvement of employees in organizational activities fosters a strong sense of connection to the organization, which can be referred to as employee engagement.

According to Gallup's research conducted in 2011 (pp. 3-4), it has been found that productive workplaces demonstrate a consistent practice of clearly defining the overarching purpose of the business, along with the specific contributions made by each team member towards accomplishing this purpose. As individuals, humans possess an inherent inclination to experience a sense of belonging. While individual accomplishments are commendable, individuals are more likely to sustain their dedication when they perceive themselves as integral components of a larger entity.

According to Dicke et al. (2007, p. 50), the level of employee engagement has a direct impact on their willingness to go beyond their regular duties and achieve exceptional on-the-job performance. Consequently, when employees are actively engaged in a change management endeavor, they are more likely to demonstrate a higher level of commitment and exhibit improved performance, thereby contributing to the overall success of the organization. The paper asserts that employee engagement plays a crucial role in effectively implementing a change management initiative. Given the strong correlation between employee engagement and organizational commitment, examining the relationship between organizational commitment and change management can offer valuable insights.

## **A critical analysis of Artificial Intelligence (AI) reviews**

The following discourse pertains to critical evaluations of artificial intelligence (AI).

Artificial intelligence emulates the cognitive processes of the human brain, encompassing learning, analysis, and decision-making capabilities (Mikalef and Gupta, 2021). Jabłońska and Pólkowski (2017) assert that the primary rationales behind the adoption of artificial intelligence-driven procedures encompass problem resolution, alleviating human burden, and mitigating expenses associated with inexpensive labor. Artificial intelligence signifies a significant advancement in corporate development, enabling employers to effectively acquire, store, and analyze an unprecedented volume of data and information. The global adoption, investment, and implementation of advanced systems in both public and private sectors are experiencing significant growth (Davenport and Ronanki, 2018; Eubanks, 2018).

Furthermore, as stated by Mikalef and Gupta (2021), the utilization of artificial intelligence has the potential to cultivate innovation within organizations. The implementation of automation in many repetitive and manual chores will enable employees to allocate additional time towards engaging in creative endeavors. Furthermore, it has been argued that the utilization of artificial intelligence in certain applications has the

potential to enhance the proficiency of employees in task execution with the assistance of extended intelligence (Eubanks, 2018). Artificial intelligence (AI) techniques possess the capability to effectively handle extensive datasets and provide valuable assistance to professionals in creative domains, including engineering. By enhancing input quality and offering suggestions that are otherwise challenging to generate, AI contributes to the improvement of professional outcomes (Bag et al., 2020; Yigitcanlar et al., 2020). However, the successful implementation of AI faces significant hurdles, primarily centered around the need to transform organizational culture and leadership, acquire novel knowledge and skills, and modify existing business processes (Eriksson et al., 2020).

The integration of artificial intelligence (AI) into the domain of human resource management (HRM) inside organizations entails the utilization of technological advancements to address a range of activities associated with various HR operations. This includes but is not limited to talent acquisition, employee education, professional growth, and workforce administration (Kambur & Akar, 2021). Consequently, it is imperative for the organization to prioritize the provision of comprehensive training and development opportunities for its personnel (Eriksson et al., 2020). Artificial intelligence (AI) has the potential to be utilized throughout several stages of human resource management, encompassing activities such as short-term talent selection, candidate screening, onboarding processes, and performance evaluation (Mikalef and Gupta, 2021). In addition to the reorganization of monotonous administrative chores, the utilization of artificial intelligence solutions serves to streamline personnel tasks and get valuable insights into individual candidates and employees (Di Francescomarino and Maggi, 2020).

According to Coulibaly et al. (2019), the utilization of artificial intelligence tools in human resource management holds significant potential for shaping the future of work. These tools possess the capability to carry out activities without being influenced by human bias and are less prone to errors. Artificial intelligence is predominantly employed in high-technology firms, the financial sector, healthcare, and logistics, as a general observation. The most significant lag in Slovenia is observed in processing and manufacturing enterprises, agriculture, healthcare, tourism, and trade, as reported by the Statistical Office of the Republic of Slovenia (SURS, 2021a). The management of organization and human resources presents significant challenges inside organizations. The majority of organizations exhibit a significant deficiency in their preparedness to implement artificial intelligence. Enterprises lack an adequate workforce possessing the requisite skill set. The dominant perspective within the majority of organizations is that the presence of technical employees with expertise in technology development and maintenance is essential. The aforementioned observation denotes a prevalent error committed by a majority of Slovenian firms (SURS, 2021a).

The introduction of artificial intelligence encompasses two parallel streams of essential knowledge and invention that are of equal significance. In conjunction with technological considerations, organizational, procedural, and personnel factors also hold significance. Organizations want personnel who possess the aptitude to effectively bridge the gap between company operations and technological advancements. Primarily, organizations require personnel that possess the ability to see the potential advantages presented by artificial intelligence and possess the proficiency to effectively utilize it within their professional

endeavors. Hence, it is imperative for organizations to allocate substantial resources towards the enhancement of staff education, training, and retraining initiatives (Shaffer et al., 2020). The following list presents the most significant backlogs seen in Slovenian firms, as reported by SURS in 2020. Conversely, there exist potential dangers that can impact the efficacy of leaders' decision-making processes when incorporating artificial intelligence-driven data analysis outcomes. Artificial intelligence (AI) algorithms are developed by human beings, which renders them susceptible to inheriting biases that may be either unintentionally or purposely embedded inside the algorithm. If artificial intelligence algorithms are constructed with bias, they will generate outcomes that are also biased (Tambe et al., 2019; Paesano, 2021). Artificial intelligence (AI) may exhibit some limitations, such as the potential omission of crucial elements inside its algorithm or the inadvertent perpetuation of structural biases due to its programming. Furthermore, it is important to note that bias can manifest not just in human decision-making processes but also in decisions made by artificial intelligence systems, as bias can potentially emerge during the machine learning phase (Barn, 2020; Pangarso et al., 2022).

In order to promote the use of artificial intelligence (AI) within organizations, it is imperative to enhance their understanding of the potential benefits that AI can bring to their company operations in the next years (SURS, 2021b). Furthermore, the utilization of artificial intelligence in contemporary times extends beyond the confines of large-scale organizations. The utilization of technologies has enabled smaller firms to enhance their business operations (Wamba-Taguimdje et al., 2020). Therefore, it is imperative for the organization to develop a comprehensive plan for the successful integration of artificial intelligence into its operations (Yigitcanlar et al., 2020). Consequently, we have developed fundamental frameworks that are crucial for the successful integration of artificial intelligence within the corporate setting, thereby enhancing both employee involvement and overall organizational efficacy.

According to Munir et al. (2022), artificial intelligence has the potential to bring about a comparable transformative effect by potentially augmenting or displacing human tasks in various domains, including social, industrial, and intellectual realms. The potential influence of artificial intelligence (AI) technology is substantial, particularly in domains such as finance, human resources, healthcare, manufacturing, retail, supply chain management, logistics, and the public sector (Paschen et al., 2019).

The demand for the utilization of artificial intelligence has increased in tandem with the expanding prospects for digitization. The operational procedures inside organizations have experienced a reduction in duration, with a significant portion of business communications occurring through digital media. Additionally, a noteworthy aspect is the migration of a segment of corporate operations to digital platforms (Goel et al., 2022).

The rise of online commerce has given rise to novel measures that necessitate comprehensive and computationally intensive analysis. One of the key benefits of using artificial intelligence into marketing analysis is its capacity to efficiently process and allocate vast amounts of data, while also facilitating continuous learning. Artificial intelligence (AI) exhibits comparable functioning to human cognitive processes and demonstrates analogous learning mechanisms (Danyluk & Buck, 2019; Dabbous et al., 2022).



The utilization of artificial intelligence in human resource management has significant implications for several aspects such as talent acquisition, education, and other foundational areas within the field (Kumar et al., 2020; Saxena and Kumar, 2020). These advancements in technology have the potential to bring about transformative changes in the work environment and the whole landscape of human resource management.

According to Nayal et al. (2021), the implementation of novel artificial intelligence technologies has the potential to address many difficulties faced by the HR function. By automating HR activities, these technologies might potentially optimize resource allocation, enabling greater efficiency.

The utilization of artificial intelligence (AI) has the potential to alleviate the burden associated with the search for qualified candidates, consequently mitigating the repetitive nature of managers' recruitment efforts (Kiron, 2017; Wamba-Taguimdje et al., 2020; Kambur and Akar, 2021). The widespread adoption of digital technologies, particularly AI, is expected to bring about substantial transformations in the labor market, including a shift towards task-oriented work and a departure from traditional employment structures (Lee and Chen, 2022). Currently, the process of digitizing business models is a significant barrier across several industries. The utilization of digital technologies significantly influences the strategies employed by organizations in the creation and delivery of value to their consumers. Moreover, it is imperative for organizations to undertake the task of revising their business models, with a particular focus on the integration of technology inside their internal structure, administration, operations, and strategic framework (Di Francescomarino and Maggi, 2020).

Despite the widespread enthusiasm surrounding the potential benefits of artificial intelligence, organizations that are implementing artificial intelligence solutions have certain obstacles that hinder their ability to attain optimal performance (Bag et al., 2020).

Managers and staff encounter numerous obstacles when attempting to integrate an artificial intelligence system into their work processes (Chiarini et al., 2020; Amoako et al., 2021). The constraints encompass a broad spectrum, encompassing factors such as systems bias, skepticism in data gathering and algorithms, as well as theoretical concerns pertaining to the decision-making system and the assertion of control over workplace decision-making (Okunlaya et al., 2022). The integration of artificial intelligence is a significant problem for organizations. The implementation of emerging technologies, such as artificial intelligence, is expected to have a transformative impact on the nature of work, leading to significant changes in work organization and procedures inside enterprises (Yigitcanlar et al., 2020). Consequently, it is imperative for organizations to effectively integrate artificial intelligence systems into their current operations and provide comprehensive training to staff in order to mitigate any concerns related to self-preservation and conflicts (Soni, 2020).

## **A Comprehensive Literature Analysis on the topic of Artificial Intelligence (AI) in Employee Engagement.**

The aim of this review is to synthesize existing research and provide an overview of the current state of knowledge in this area. The review begins by defining the concept of employee engagement and highlighting its importance in organizational settings. Subsequently, the paper explores the various ways in which the utilization of artificial intelligence (AI) has the potential to significantly improve decision-making in both the short and long term within the realm of human resource management (HRM) practices. Nevertheless, scholarly research neglects to examine the negative aspects of artificial intelligence when it intersects with human resource management (HRM), instead predominantly presenting a favorable portrayal of the benefits of AI. The existing body of research highlights the difficulties encountered within the field of Human Resource Management (HRM) while implementing Artificial Intelligence (AI) in HRM practices. Additionally, it explores potential strategies to optimize the impact of AI on HRM in the future. An examination of the aforementioned sources reveals that the implementation of AI algorithms has the potential to lead to the routinization of work. Several factors can potentially hinder the successful implementation of artificial intelligence (AI) in the domain of human resource management (HRM). These include ethical considerations in HRM, ensuring the safety and integrity of data, the presence of biased algorithms developed by programmers, limited availability of data for training AI models, inadequate technical skills among HR executives, disregard for organizational values, and the failure to recognize and encourage creative thinking among employees. These challenges may impede the effective integration of AI technology in HRM practices. Consequently, there may be an increase in superfluous surveillance of employee conduct, resulting in a potential decline in workplace welfare and a reduction in the humanistic aspect of Human Resource Management (HRM).

In the context of recruitment analytics, V R Uma explores the process of hiring within the era of artificial intelligence (AI). This article emphasizes the necessity of using artificial intelligence (AI) and the potential benefits that technology could offer in the context of the recruitment process. This article aims to elucidate some strategies that have gained significant attention and are extensively employed by organizations. These techniques include chatbots, gamification, virtual employment interviews, and resume screening. The purpose of this description is to facilitate the readers' comprehension with little cognitive effort. Process flow charts are utilized to depict the description of chatbots and gamification strategies. In addition, we provide an overview of the several categories of interviews that may be done using virtual platforms, as well as an examination of the methodology employed in resume screening techniques. In the present era, it is crucial to recognize the dominance of technology-driven methodologies in comparison to conventional approaches. This chapter aims to provide readers with an understanding of the methodologies involved in implementing chatbots, gamification, virtual interviews, and online resume screening approaches, as well as an exploration of their respective merits.

The objective of this research is to examine the impact of artificial intelligence (AI) on employee engagement by conducting a comprehensive evaluation of existing literature. Artificial intelligence (AI) is progressively being employed in many facets of human resource management, encompassing the pivotal domain of employee engagement, which holds significant importance in the effective administration of the workforce. The progress made in the field of artificial intelligence (AI) and machine learning has facilitated the exploration of novel approaches to augmenting employee engagement within enterprises. These approaches include the utilization of real-time performance monitoring, sentiment analysis, and natural language processing. Establishing a comprehensive work environment that fosters transparency, enhances competency growth, acknowledges achievements, and prioritizes well-being is crucial for effectively engaging employees. The primary objective of this study is to assess the influence of artificial intelligence (AI) on employee engagement through a comprehensive examination of pertinent scholarly works, ultimately culminating in the formulation of a conclusive statement. Drawing upon the existing body of scholarly literature, this study aims to provide insightful recommendations for the augmentation of artificial intelligence (AI) in the realm of employee engagement, specifically within varied organizations. In essence, the integration of artificial intelligence (AI) with employee engagement holds the potential to yield heightened productivity, enhanced communication, and a more cohesive and cooperative work environment.

Ishika Agarwal is enhancing employee engagement practices through the integration of data analytics. The objective of this study is to gain insight into the several aspects of employee engagement and explore the application of Natural Language Processing techniques in fostering a highly engaged workforce. In order to gain a comprehensive understanding of the problem at hand, primary data gathering was conducted through the utilization of interviews. The researchers conducted interviews with a sample of 100 experts employed in manufacturing, fast-moving consumer goods (FMCG), and information technology (IT) organizations in India in order to gain a comprehensive understanding of the issue at its fundamental level. The paper subsequently introduces a theoretical framework, namely the PAUSE model, with the objective of classifying the expansive subject of employee involvement into five separate categories. These categories provide insights into the diverse domains in which employees may have a sense of separation or disengagement from the organization. Subsequently, the model proposes remedial measures that can be implemented at the grassroots level to enhance involvement within the specific category.

The objective of this article is to analyze the prominent role of each component of future work skills (FWS) in the context of ongoing automation in the field of Human Resource Management (HRM). The primary emphasis will be placed on the integration of emotional and social intelligence (ESI), which is a fundamental aspect of the framework for well-being and success (FWS), during the implementation of artificial intelligence (AI). The recognition by researchers is evident that the adoption of sustainable growth skills serves as a catalyst for fostering lifelong learning among individuals. Furthermore, artificial intelligence (AI) has facilitated robots with the capacity to acquire knowledge and improve their performance through continuous learning. This article emphasizes the significance of soft skills, specifically Emotional and Social Intelligence (ESI) and Future Work Skills (FWS), in the successful integration of Artificial Intelligence (AI) within Human Resource Management (HRM).

This research examines the impact of artificial intelligence (AI) on employee performance and work engagement, with a specific focus on the moderating influence of change leadership. The authors of this study are Dewie Tri Wijayati, Zainur Rahman, A'rasy Fahrullah, Muhammad Fajar Wahyudi Rahman, Ika Diah Candra Arifah, and Achmad Kautsar. The objective of this study is to investigate the perspectives of employees about organizations involved in service and banking sectors, specifically focusing on the influence of change leadership on the implementation of artificial intelligence (AI). The study seeks to examine how this implementation affects both performance and work engagement in contexts characterized by rapid changes. The objective of this study is to investigate the perspectives of employees in service and banking industries about the influence of change leadership on the implementation of artificial intelligence (AI). The study intends to understand how this implementation affects performance and work engagement in contexts characterized by rapid changes.

The utilization of artificial intelligence (AI) facilitates the examination of diverse applicant profiles, enabling the assessment of their suitability based on the presence of requisite competencies. This process contributes to the enhancement of talent identification and employee retention strategies. In addition, it facilitates communication through the utilization of automated email correspondence with candidates. Artificial intelligence (AI) assists businesses in obtaining a comprehensive range of necessary information and skills, hence expediting the process of identifying prospective employees with exceptional abilities (Vaishnavi and Achwani, 2018). Technology plays a significant role in assisting HR professionals in the process of candidate selection, enabling them to allocate their time more efficiently towards duties that offer higher levels of value and concentrate on the more crucial aspects of the business and strategic responsibilities (Eubanks, 2018; Hogg, 2019). Highly skilled personnel possess the ability to integrate and organize various business processes holistically, demonstrate adeptness in swiftly and effectively resolving problems, exhibit a strong inclination towards embracing novel challenges, display motivation and self-driven initiative, exude confidence, exhibit curiosity, demonstrate empathy, and exhibit a desire to enhance organizational transformation. According to Anlesinya and Amponsah-Tawiah (2020), highly skilled personnel demonstrate a strong sense of allegiance to the organization as they establish a personal connection with it.

The topic of discussion pertains to the correlation between employee performance and equal employment opportunities (EE). Currently, artificial intelligence (AI) has considerable value within a market characterized by the proliferation of AI systems designed to execute intricate activities (Goel et al., 2022). The advent of novel artificial intelligence applications signifies a significant advancement in the field of technology development (Lee and Chen, 2022). According to Cichosz et al. (2020), conventional software possesses significant capabilities, while necessitating extensive configuration and setup in order to deliver enhanced value. According to Nayal et al. (2021), artificial intelligence systems possess a high degree of adaptability and exhibit efficient task completion due to their rapid learning capabilities. Nowadays, artificial intelligence is becoming a competitive advantage for early users (Bag et al., 2020). According to Okunlaya et al. (2022), firms that fail to incorporate and utilize artificial intelligence in their operational procedures may experience reduced competitiveness and less success in the marketplace. Therefore, the implementation of artificial

intelligence has a beneficial impact on the overall performance of enterprises. The principal objective of integrating artificial intelligence into the operational workflows of organizations is to achieve cost reduction and enhance the overall quality of products and services. The utilization of artificial intelligence fosters organizations to engage in new and effective strategies in addressing contemporary difficulties, while also enhancing work processes by automating repetitive jobs, hence lowering their frequency (Ribeiro et al., 2021). Furthermore, the integration of artificial intelligence utilizing various algorithms and methodologies has been shown to significantly improve the precision and effectiveness of automated operations (Yigitcanlar et al., 2020). The concept of Industry 4.0 encompasses a range of technologies that facilitate advancements in various operations. Automation has a significant role in enhancing the efficiency of organizational processes and introducing novel market opportunities (Malik et al., 2021; Mikalef and Gupta, 2021). The integration of many concepts and technologies, including automation, smart appliances, and processes, has a profound impact on corporate operations, influencing the digital workflow across the entire organization (Ribeiro et al., 2021). The implementation of new technologies in enterprises has the potential to enhance operational efficiency, reduce employee burden, and facilitate the attainment of company objectives and outcomes in a more expedient, effective, and superior manner (Eriksson et al., 2020; Yigitcanlar et al., 2020). Bag et al. (2020), Kambur and Akar (2021), and Goel et al. (2022) highlight the frequent challenge encountered by organizations when employees experience a decline in their potential and creativity due to the monotony of everyday tasks. Artificial intelligence has the capability to assume control of cyclical processes and carry them out with precise adherence to predetermined schedules. By adopting this approach, the organization facilitates its employees to allocate additional time towards fostering creativity and promoting innovation. Over an extended period, the implementation of artificial intelligence has the potential to greatly enhance the operational effectiveness of both the department and the organization as a whole (Bag et al., 2020; Kambur and Akar, 2021; Goel et al., 2022). Moreover, the task of handling substantial quantities of data is a demanding endeavor that necessitates significant investments of both time and resources. The completion of this assignment poses a significant challenge for human individuals, however it is very effortless for artificial intelligence systems. The utilization of technology has been found to have a substantial impact on the reduction of lead time and the elimination of errors (Bushweller, 2020; Sari et al., 2020; Wang, 2021).

The training of personnel should be conducted with careful consideration of the appropriate evaluation of investments in artificial intelligence, as highlighted by Goel et al. (2022). While artificial intelligence has numerous advantages in handling mentally hard tasks, it is crucial to assess its potential impact thoroughly.

According to De Bruyn et al. (2020), organizations may encounter challenges when attempting to use artificial intelligence (AI) due to difficulties in effectively converting employees' tacit knowledge into a programming language. The comprehension of many phenomena by employees is lacking, hence posing challenges in the translation of specific business decisions to artificial intelligence, which is otherwise capable of executing all tasks in a sensible manner (Kambur & Akar, 2021). Another issue that arises pertains to the transfer of knowledge in the reverse way. Transferring the knowledge generated by artificial intelligence to employees poses a significant difficulty, particularly due to the requirement of presenting the data in a visual format that effectively facilitates knowledge transfer. Furthermore, it is imperative to reiterate the learning cycle for employees, similar to the application of artificial intelligence (Maity, 2019; De Bruyn

et al., 2020). Artificial intelligence has the potential to facilitate and enhance learning and development processes. As an illustration, organizations have the capacity to apply artificial intelligence techniques in order to create a tailored educational curriculum for their workforce (Soltani et al., 2020).

According to Maity (2019), the application possesses the capability to be customized according to the specific requirements and inclinations of the user, hence facilitating a more rapid and efficient acquisition of novel abilities. According to Kashive et al. (2021), artificial intelligence has been found to enhance employees' levels of engagement and facilitate accelerated learning. Furthermore, organizations have the capability to leverage artificial intelligence technology in order to monitor and assess the advancement of their employees, afterwards delivering appropriate feedback (Paesano, 2021). According to a study conducted by Wijayati et al. (2022), the provision of support, motivation, and engagement can contribute to enhancing employees' skill development and fostering a positive work environment.

## **The application of Artificial Intelligence (AI) in the context of employee engagement**

The impact of Artificial Intelligence (AI) on the future of work is anticipated to be substantial, as it has the potential to boost employee productivity and confer a competitive advantage in the market. Based on a research conducted by IBM, it was found that 35% of organizations reported the integration of artificial intelligence (AI) into their business operations, representing a 4% increase compared to the preceding year. According to a separate study conducted by Snaplogic, it was found that a majority of employees, specifically 61%, have expressed that the integration of artificial intelligence (AI) in their professional environments has resulted in notable improvements in their overall productivity levels. The statement suggests that artificial intelligence (AI) is gradually causing significant changes to the nature of work and the workplace. This is evident as computers are increasingly capable of completing jobs traditionally carried out by humans, often surpassing human performance levels. The utilization of machine learning algorithms and historical data is employed in the prediction of future outcomes. Potential concerns and trends can be identified through the assessment of personnel data, including factors such as employee engagement, performance, and attrition rates. Implementing proactive steps can effectively resolve complaints, enhance employee happiness, and mitigate turnover rates.

Artificial intelligence (AI) possesses the capability to examine a multitude of data points, encompassing employee engagement surveys, in order to forecast prospective challenges and discern patterns within the organizational context. The implementation of a proactive approach enables firms to effectively mitigate issues before they reach a critical stage, consequently enhancing the overall level of employee satisfaction.

AI-powered recruitment tools have the potential to assist firms in effectively identifying individuals who possess both the necessary qualifications and a strong alignment with the organizational culture. Artificial intelligence (AI) has the potential to optimize the onboarding process through the automation of paperwork and the provision of pertinent information and resources to newly hired individuals.

Artificial intelligence (AI) has the potential to assist firms in enhancing the efficacy of their recognition and rewards initiatives through the identification and celebration of employee accomplishments and significant milestones.

The utilization of AI-driven feedback loops enables the ongoing collection and analysis of employee feedback, facilitating the ability of enterprises to promptly adapt policies, procedures, and workplace conditions. AI-powered language translation systems have the potential to mitigate language barriers and promote inclusivity and cultural awareness inside global enterprises.

Artificial intelligence (AI) possesses the capability to evaluate employee surveys and feedback in order to detect prevailing patterns and feelings. This analytical process assists human resources (HR) teams in effectively addressing pertinent issues and enhancing overall employee engagement. Artificial intelligence has the capability to forecast possible disengagement or turnover by examining past data and discerning the factors that contribute to diminished involvement. Artificial intelligence (AI) has the capability to monitor and emphasize the accomplishments and significant events of employees, so guaranteeing that the endeavors of employees are promptly recognized and appropriately rewarded. The acknowledgment of achievement has the potential to enhance individuals' morale and motivation levels.

Conversational interfaces, such as chatbots, address a significant issue within the professional setting by offering employees immediate input. The urge for instantaneous pleasure among millennials is effectively addressed by the provision of instant feedback. Artificial intelligence (AI) chatbots possess the capability to efficiently navigate intricate directories and swiftly retrieve the desired information requested by employees. Artificial intelligence (AI) chatbots have the potential to assist human resources (HR) departments in effectively disseminating crucial policy updates, providing various services such as managing leave and attendance, maintaining an employee directory, and offering information on benefits. Additionally, AI chatbots can also serve as valuable resources for facilitating employee learning and development. Establishing connections with employees on a tailored platform enhances the overall employee experience.

## Conclusion:

Artificial intelligence (AI) has the potential to make a substantial impact on enhancing employee engagement through various means, such as offering tailored experiences, automating administrative duties, permitting immediate feedback, and enabling decision-making based on data analysis. The aforementioned advantages ultimately contribute to a workforce that is more content and driven, hence potentially enhancing an organization's achievements and competitive edge. The concept of employee engagement is complex and has a substantial influence on both organizational performance and the well-being of employees. The establishment of a comprehensive strategy is necessary, one that incorporates several aspects such as leadership, culture, communication, and ongoing initiatives, in order to cultivate a favorable work environment that fosters a sense of worth, motivation, and dedication among employees towards the attainment of organizational objectives. The utilization of artificial intelligence (AI) in employee engagement enables human resources (HR) personnel to direct their attention towards cultivating enduring connections with employees. Although the name "AI" may appear intimidating in the realm of human resources, we believe that employing AI is the optimal approach for enhancing employee engagement.

## Citation

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