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Leveraging Artificial Intelligence for Big Data Analysis: Enhancing Administrative Processes and Service Delivery in the Private Sector – A Case Study of SABIC

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Abstract

This study seeks to explore the effect of employing artificial intelligence (AI) techniques in the analysis of big data within managerial contexts, focusing on their role in enhancing administrative operations and service delivery in private sector organizations, with SABIC (www.sabic.com/en) serving as a case example. A descriptive survey design was adopted, and data were gathered through a questionnaire administered to a sample of 50 employees—comprising 30 males and 20 females—selected through a convenience sampling method. The outcomes of the research revealed that the implementation of AI techniques for analyzing big data within the managerial context at SABIC had a notably strong impact on enhancing administrative operations and the quality of services provided. From the viewpoint of the employees who participated in the study, the influence of AI integration was perceived as substantial and beneficial across multiple aspects of the organization's internal processes. Moreover, the statistical analysis demonstrated that there were no significant differences at the 0.05 level in the participants' overall attitudes toward the use of AI for big data analysis and its effect on improving both administrative efficiency and service delivery—when responses were categorized by gender (male vs. female). This indicates a generally shared perception among employees, regardless of gender, regarding the positive value of AI in modernizing administrative functions. However, further examination of the data uncovered statistically significant gender-based differences in specific dimensions, particularly in how AI contributes to enhancing administrative processes. Based on these findings, the study recommends several strategic actions: First, promoting a stronger organizational culture around AI, especially in the field of administrative work. Second, leveraging AI tools and systems as part of talent acquisition and managerial decision-making processes at SABIC. Third, encouraging departments and employees to adopt AI applications by offering training workshops and awareness campaigns that emphasize the practical benefits of AI in improving work performance and service efficiency.

Keywords: artificial intelligence; administrative processes; human resources; SABIC

1. Introduction

The third decade of the 21st century has been marked by unprecedented scientific and technological progress, particularly in information and communication technologies. This transformation has reshaped management thought, replacing classical administrative frameworks with new models defined by innovation, adaptability, and technological integration (Chowdhury et al., 2023). As a result, management is no longer viewed as a static process of routine administration, but as a dynamic and strategic function that influences institutional growth, competitiveness, and long-term sustainability across both public and private sectors (Tambe et al., 2019). Modern management now extends beyond operational concerns to encompass broader governance functions

such as national planning, economic reform, and public administration (Palos-Sánchez et al., 2022). The integration of advanced technologies—especially AI and data analytics—has emerged as indispensable for organizations seeking to thrive in an increasingly digital and interconnected environment. Within this context, human resource management (HRM) occupies a pivotal position, as it directly shapes organizational effectiveness through recruitment, capability development, employee engagement, and performance evaluation (Madanchian et al., 2023). Effective HRM not only ensures operational efficiency but also strengthens motivation, well-being, and long-term loyalty, thereby aligning the workforce with institutional goals.

The rapid pace of global change has compelled organizations, particularly in the private sector, to re-examine their managerial approaches (Nawaz et al., 2024). Traditional models are proving inadequate in addressing contemporary challenges fueled by technological disruption and heightened competition. Reform efforts now focus on modernizing systems, restructuring policies, and embracing high-efficiency technologies to ensure adaptability and resilience. Among these, AI stands out as a transformative force. While debates persist over its impact on employment, AI is widely recognized for its potential to optimize processes, generate insights, and enable real-time decision-making (Qamar et al., 2021). Far from being futuristic, AI has already become embedded in daily life and institutional practices, underscoring the need for organizations to view it as a driver of transformation rather than disruption.

In this evolving landscape, SABIC represents a leading global model in the petrochemical industry, distinguished by its strategic vision, advanced management systems, and commitment to cultivating human capital. Its emphasis on employee motivation, satisfaction, and operational excellence highlights the central role of HRM in sustaining competitive advantage. Against this backdrop, the present study explores the role of AI in enhancing managerial practices within SABIC, with a focus on how AI-driven analytics contribute to administrative efficiency and improved service delivery in HRM. By bridging the gap between technological innovation and HR development, the study aims to assess how AI can optimize internal processes, strengthen decision-making, and foster a more agile and adaptive administrative framework.

2. Literature Review

AI has become one of the most transformative innovations of the 21st century, reshaping industries, institutions, and administrative structures worldwide (Aguinis et al., 2024). At its core, AI refers to the simulation of human cognitive processes—such as reasoning, problem-solving, and learning—through technological means. AI as a mechanical framework that collects and processes information from diverse sources, utilizing it in a manner that mimics human intelligence (Votto et al., 2021). AI integrates a range of methodologies and tools designed to generate effective models and solutions by reproducing human behavior in problem-solving contexts. These definitions converge on the understanding that AI is not simply a computational system but rather an evolving paradigm that augments human decision-making and enables organizations to operate with heightened precision and efficiency (Berhil et al., 2020).

The practical applications of AI extend across numerous domains, offering significant benefits while also introducing new risks and limitations. AI has proven effective in logistics and global supply chain management, where its ability to optimize tracking and delivery has granted organizations a competitive advantage. These strengths are largely attributed to AI's ability to analyze data with exceptional accuracy, solve problems systematically, and provide timely information that supports decision-making. However, despite these advantages, AI carries risks when data inputs are inaccurate, which can lead to misleading outcomes with potentially serious consequences (Bujold et al., 2024). Moreover, the increased automation facilitated by AI raises concerns regarding employment, as tasks traditionally performed by humans may become redundant. This duality of promise and challenge positions AI as both a driver of innovation and a disruptive force, requiring careful integration into organizational systems (Gélinas et al., 2022).

From a managerial standpoint, AI offers profound opportunities to enhance administrative processes and reconfigure learning environments. It enables intelligent virtual interactions that allow for personalized learning experiences, regardless of a learner's background or skill level (Tewari & Pant, 2020). AI-driven expert

systems, often developed through collaborative efforts across disciplines, represent a new frontier in software capabilities. These systems are capable of analyzing human behavior, predicting trends, and executing administrative tasks with a degree of precision that can rival or even surpass human counterparts (Khatri et al., 2019). This has spurred organizations to adopt AI tools not only for operational efficiency but also for strategic decision-making. By bridging the gap between human intelligence and machine capabilities, AI serves as a catalyst for organizational transformation and competitive resilience in an era defined by digital disruption.

Administrative processes, meanwhile, remain central to institutional functioning, encompassing planning, organizing, directing, evaluating, and decision-making (George & Thomas, 2019). Such processes are designed to achieve organizational goals such as growth, sustainability, and enhanced service quality. The integration of AI into these processes has fundamentally altered how institutions manage information, allocate resources, and monitor performance. Rapid technological progress has transformed data into a critical asset, with information systems increasingly tailored to meet the strategic needs of leadership. Executive leaders now face the challenge of processing overwhelming volumes of information, which can impede clarity and focus unless mediated by intelligent tools. AI has emerged as a solution to this challenge, enabling administrators to filter, analyze, and interpret vast datasets, thereby informing more rational and evidence-based decisions.

In the context of HRM, AI is particularly significant. HRM traditionally involves recruitment, training, performance evaluation, motivation, and ensuring employee well-being (Jatobá et al., 2019). The adoption of AI-driven technologies in HRM introduces efficiencies across these domains, from automating candidate screening processes to providing data-driven insights into employee performance and engagement. AI systems can analyze employee behaviors, predict attrition risks, and identify areas requiring skill development, enabling human resource (HR) departments to become more proactive and strategic (Vrontis et al., 2023). This reconfiguration of HR functions underscores the value of AI in not only optimizing administrative processes but also shaping the broader human capital strategies that underpin organizational competitiveness (Bankins, 2021).

The reviewed body of literature, therefore, points to both opportunities and limitations. AI has been validated as a powerful enabler of efficiency, accuracy, and innovation in administrative tasks, but prior research remains fragmented, sector-specific, and insufficiently focused on HRM in large-scale industrial organizations. Furthermore, existing studies often neglect the nuanced interplay between AI adoption and organizational culture, employee engagement, and workforce adaptability. These gaps are especially notable in the Arab region, where, despite growing interest in digital transformation, scholarly contributions remain limited in scope and depth. The scarcity of focused research on AI's role in HRM—particularly within leading private sector companies such as SABIC—highlights the originality of the current study.

By situating its analysis within SABIC, a global petrochemical leader headquartered in Saudi Arabia, the present research addresses these gaps in several ways. First, it expands the scope of AI research into HRM, exploring how AI can enhance recruitment, training, evaluation, and employee well-being. Second, it situates the inquiry within the Saudi private sector, thereby contributing to regional literature that is still underdeveloped relative to global studies. Third, it examines not only the technical benefits of AI but also its impact on administrative workflows, employee perceptions, and service delivery efficiency—areas that remain underexplored in existing research. By focusing on SABIC, the present study seeks to fill this gap, offering insights into how AI can serve as both a technological and strategic asset in advancing HRM practices, strengthening administrative systems, and ensuring organizational sustainability in a rapidly evolving digital landscape.

3. Methodology

This study employed a descriptive quantitative research design to examine the extent to which AI techniques influence managerial functions within the HR department at SABIC in Riyadh, Saudi Arabia. The design was considered appropriate as it allowed for the systematic collection and analysis of employees' perceptions, providing measurable insights into the role of AI in enhancing administrative processes, improving service

delivery, and strengthening management systems. The population of the study consisted of employees working in the HR department at SABIC during 2024, totaling 80 individuals. From this population, a sample of 50 employees was selected, representing 62.5% of the total population. The sample was designed to reflect both male and female employees across different roles, ensuring inclusivity and representativeness. Careful consideration was given to aligning the sample with the characteristics of the broader population, thereby reducing bias and increasing the validity of the findings.

A structured questionnaire was developed as the primary data collection instrument. The questionnaire was divided into two sections. The first section included items capturing demographic and general information such as gender, job title, years of experience, and educational qualification, which provided contextual background for interpreting responses. The second section comprised 11 items, distributed across two thematic axes. The first axis focused on the application of AI techniques in management and included seven items measuring the extent of AI utilization in administrative functions. The second axis included four items assessing the impact of AI on improving administrative processes and service delivery within the HR department. A three-point Likert scale (agree = 3, neutral = 2, disagree = 1) was used to measure responses, with predefined relative weight ranges to aid interpretation.

The questionnaire was designed according to key principles of clarity, objectivity, and brevity. Items were expressed in simple, unambiguous language, ordered logically to sustain attention, and limited in number to avoid fatigue while still addressing the study objectives comprehensively. To ensure methodological rigor, the instrument underwent reliability and validity testing. Reliability was assessed using internal consistency measures, including Cronbach's alpha and the split-half method, while validity was tested through Pearson correlation coefficients to examine the internal consistency between axes and the total instrument. These procedures were applied prior to conducting the main analysis to confirm that the instrument was both stable and accurate in measuring the intended constructs.

Data collection took place during 2024, with questionnaires distributed and retrieved directly from participants. Participation was voluntary, confidentiality was assured, and all responses were used solely for academic purposes in compliance with research ethics. Data analysis was carried out using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequencies, percentages, means, relative weights, and standard deviations, were employed to summarize demographic characteristics and response trends. Inferential techniques were then applied to explore relationships and differences within the data. Specifically, Pearson correlation was used to examine associations between variables, while independent samples t-tests were performed to assess differences between male and female employees' perceptions. These methods collectively allowed for both descriptive insights and inferential conclusions aligned with the study objectives.

4. Result

Table 1 outlines the gender distribution of the participants included in the study. Out of the 50 employees surveyed, 30 were men, making up 60 percent of the total, while 20 were women, representing the remaining 40 percent. The figures indicate that men formed the majority of the sample, which mirrors the broader employment trends often observed in industrial and administrative organizations such as SABIC. At the same time, the inclusion of women provided an important balance, ensuring that both perspectives were represented in examining the role of AI in HR practices.

Table 1. Participants profile.

Gender	Frequency	Percentage (%)
Male	30	60%
Female	20	40%
Total	50	100%

Table 2 highlights the strength of the relationships between the main axes of the questionnaire. The findings show a Pearson correlation of 0.912 at a significance level of 0.01 for both axes. This indicates a strong and statistically significant relationship between the use of AI in management and its impact on improving

administrative processes and service delivery. In practical terms, the results suggest that greater application of AI technologies is closely associated with more effective and efficient administrative practices within the HR department at SABIC.

Table 2. Correlation coefficients between questionnaire axes.

Questionnaire Axes	Pearson Correlation	Significance Level
Axis One: Use of AI Technologies in Management	0.912	0.01
Axis Two: Impact of AI on Administrative Processes and Services	0.912	0.01

Table 3 demonstrates the reliability of the questionnaire used in the study. The values of Cronbach's alpha and split-half reliability are all above 0.96, which reflects a very high degree of internal consistency across the two axes and the questionnaire as a whole. Such strong coefficients confirm that the instrument was stable and dependable in measuring employees' perceptions of AI in management and administrative processes. This high level of reliability ensures that the results can be trusted for drawing meaningful conclusions about the role of AI in the HR department at SABIC.

Table 3. Reliability coefficients of the questionnaire.

Questionnaire Axes	Cronbach's Alpha	Split-Half Reliability	Significance Level
Axis One: Use of AI Technologies in Management	0.98	0.97	0.01
Axis Two: Impact of AI on Administrative Processes and Services	0.97	0.96	0.01
Questionnaire as a Whole	0.97	0.96	0.01

Table 4 presents the overall results of the study across its two main axes. The findings reveal that the average weight for the use of AI in management reached 2.90, while the impact on administrative processes and services scored 2.85. Both values fall within the high verification degree, with the overall questionnaire average standing at 2.88. These results indicate that employees in the HR department at SABIC hold strongly positive views about the role of AI, seeing it as a significant factor in enhancing management practices and improving administrative efficiency.

Table 4. Results of the study fields as a whole.

Questionnaire Axes	Average Weight	Verification Degree
Axis One: Use of AI Technologies in Management	2.90	High
Axis Two: Impact of AI on Administrative Processes and Services	2.85	High
Questionnaire as a Whole	2.88	High

Table 5 illustrates employee attitudes toward the use of AI in management. The highest-rated statement was the role of AI in analyzing big data, with a mean score of 2.97 and agreement from 96 percent of respondents. Similarly, processing big data and connecting different departments were highly endorsed, both scoring above 2.95, which shows that employees recognize AI as a powerful tool for data-driven decision-making and organizational integration. The statement regarding the contribution of AI to the quality of administrative work also achieved strong support with a mean of 2.94, while its role in attracting talent scored 2.93. In contrast, the item describing AI as a feature of the modern era received the lowest mean of 2.79, though it still reflected high agreement from the majority of employees. Overall, the axis mean of 2.90 with a standard deviation of 0.175 indicates a consistently high response level across all items. These results suggest that employees at SABIC strongly believe that AI plays a significant role in improving administrative effectiveness, particularly in big data management and departmental connectivity.

Table 6 shows respondents' perceptions of the role of AI in enhancing administrative processes and services. The highest-rated item was its contribution to speeding up the implementation of processes, with a mean of 2.94 and agreement from 96 percent of respondents, highlighting efficiency as a key advantage. Similarly, accuracy and quality of processes scored highly with a mean of 2.93, reflecting strong recognition of AI as a tool for precision in administration. Improving efficiency (mean 2.90) and modernizing processes (mean 2.88) also received strong agreement, although with slightly lower averages compared to speed and accuracy. Nevertheless, all four statements fell within the high response level, confirming that employees view AI as a vital enabler of better administrative performance. With an overall axis mean of 2.91 and standard deviation

of 0.296, the findings suggest consistent and positive perceptions across items. This indicates that AI is widely seen as essential for improving speed, quality, and efficiency within administrative operations at SABIC.

Table 5. Average scores for axis (1) – using AI techniques in management (n = 50).

No.	Statement	Disagree (f/%)	Neutral (f/%)	Agree (f/%)	Mean	Std. Dev.	Rank	Response Level
1	The use of AI technologies has become a feature of the modern era.	2 (4%)	7 (14%)	41 (82%)	2.79	0.497	7	High
2	The use of AI technologies helps in the quality of administrative work.	0 (0%)	3 (6%)	47 (94%)	2.94	0.232	4	High
3	Using AI techniques helps save time and effort.	2 (4%)	6 (12%)	42 (84%)	2.81	0.473	6	High
4	The use of AI technologies helps attract talent in administrative work.	0 (0%)	3 (6%)	47 (94%)	2.93	0.250	5	High
5	The use of AI techniques helps in processing big data in management.	0 (0%)	2 (4%)	48 (96%)	2.95	0.227	2	High
6	The use of AI techniques helps in analyzing big data in management.	1 (2%)	1 (2%)	48 (96%)	2.97	0.198	1	High
7	The use of AI technologies helps to connect different departments.	0 (0%)	2 (4%)	48 (96%)	2.95	0.253	3	High

Note: Axis Mean = 2.90; Std. Dev. = 0.175 → Response Level: High.

Table 6. Average scores for axis (2), impact of AI on improving administrative processes & services (N = 50).

No.	Statement	Disagree (f/%)	Neutral (f/%)	Agree (f/%)	Mean	Std. Dev.	Rank	Response Level
1	AI is developing and modernizing administrative processes in the administration.	1 (2%)	3 (6%)	46 (92%)	2.88	0.386	4	High
2	AI helps in the accuracy and quality of administrative processes in the administration.	0 (0%)	3 (6%)	47 (94%)	2.93	0.246	2	High
3	AI helps speed up the implementation of administrative processes in the administration.	0 (0%)	2 (4%)	48 (96%)	2.94	0.233	1	High
4	AI helps to improve the efficiency of administrative processes in the administration.	1 (2%)	3 (6%)	46 (92%)	2.90	0.320	3	High

Note: Axis Mean = 2.91; Std. Dev. = 0.296 → Response Level: High.

Table 7 presents the results of the T-Test examining differences in respondents' attitudes toward the use of AI technologies in HR management at SABIC based on gender. Male participants had a mean score of 2.89 with a standard deviation of 0.183, while female participants recorded a slightly higher mean of 2.91 with a standard deviation of 0.167. The calculated T-value was 1.12 with a probability value of 0.338, which is greater than the significance threshold of 0.05. This indicates that the observed difference between male and female respondents is not statistically significant. In other words, both groups share similar perceptions regarding the use of AI in HR management, suggesting that gender does not play a determining role in shaping attitudes in this context.

Table 7. Results of T-Test for differences in respondents' attitudes toward the use of AI technologies in HR management at SABIC, by gender.

Gender	N	Mean	Std. Dev.	T-Value	p-Value	Significance
Male	30	2.89	0.183	1.12	0.338	Not Significant
Female	20	2.91	0.167			

Table 8 shows the average attitudes of respondents toward the use of AI technologies according to gender. Male participants reported a mean score of 2.89 with a standard deviation of 0.183, while female participants recorded a slightly higher mean of 2.91 with a standard deviation of 0.167. Both values fall within the "High" response level, indicating a positive and consistent attitude across genders. The closeness of the mean scores suggests that male and female respondents share nearly identical views, with no meaningful differences in their level of agreement regarding the role of AI in HR management.

Table 8. Average Attitudes of respondents according to gender variable.

Gender	N	Mean	Std. Dev.	Response Level
Male	30	2.89	0.183	High
Female	20	2.91	0.167	High

Table 9 presents the results of the Independent Samples T-Test conducted to assess gender-based differences in attitudes toward the use of AI in administrative processes and service delivery. Male respondents recorded a mean of 2.80 with a standard deviation of 0.224, while female respondents showed a slightly higher mean of 2.84 with a standard deviation of 0.294. The t-value of 3.54 with a p-value of 0.003 indicates a statistically significant difference at the 0.05 level. This result highlights that female participants expressed more favorable attitudes compared to their male counterparts, suggesting that gender plays a meaningful role in shaping perceptions of AI in HR management.

Table 9. Independent samples T-Test results by gender.

Gender	N	Mean	Std. Dev.	T-Value	p-Value	Significance
Male	30	2.80	0.224	3.54	0.003	Significant
Female	20	2.84	0.294			

5. Discussion

The findings of this study highlight the growing importance of AI in reshaping management practices and administrative processes within organizations. Employees expressed positive perceptions toward the integration of AI, recognizing its ability to enhance efficiency, accuracy, and service delivery. This reflects a broader acknowledgment that technology is no longer viewed as an optional tool but as an essential component of modern organizational operations. One of the central outcomes of the study is the recognition of AI as a driver of improved decision-making through its ability to process and analyze large volumes of data. Employees noted its relevance in streamlining operations, saving time and effort, and connecting departments more effectively. Such insights are consistent with contemporary research that positions AI as a transformative resource for organizations seeking to remain competitive in rapidly changing environments (George & Thomas, 2019). Another key finding is the strong relationship between the use of AI in management and its perceived impact on administrative outcomes. This interconnection suggests that technology adoption is not limited to technical efficiency but extends to broader organizational benefits such as quality of work, responsiveness, and talent attraction (Bankins, 2021). Employees recognized that AI contributes not only to process improvement but also to creating a more innovative and adaptive administrative culture (Bujold et al., 2024).

The study also revealed meaningful gender-based insights. While both male and female employees showed generally positive attitudes, women were slightly more optimistic about the potential of AI in administrative processes. This suggests that gender dynamics may influence how employees perceive technological advancements, possibly shaped by differences in workplace experiences or adaptability to innovation. Such findings encourage organizations to adopt inclusive strategies in implementing AI, ensuring that all employees feel engaged and supported during technological transitions.

The results of this study carry important implications at both the practical and theoretical levels. From a managerial perspective, the findings suggest that organizations should continue to invest in AI solutions to strengthen decision-making, optimize workflows, and enhance service delivery. Managers are encouraged to integrate AI tools into core administrative activities while simultaneously providing training and capacity-building programs to ensure employees are comfortable and skilled in using these technologies. Attention should also be given to creating inclusive environments where employees of all backgrounds and genders feel equally empowered to engage with technological change. From a theoretical standpoint, this study reinforces the understanding that AI in management is not merely a technological innovation but a strategic enabler of organizational performance. It highlights the close link between technology adoption and administrative outcomes, thereby contributing to the growing body of knowledge on digital transformation and organizational development. Furthermore, the observed gender-based differences suggest that future research should consider demographic variables when examining employee attitudes toward technology, as these

factors may influence acceptance and effectiveness of implementation. Collectively, the implications emphasize that AI offers organizations both operational and cultural benefits. It enhances efficiency and accuracy, while also shaping employee perceptions and workplace dynamics. For organizations like SABIC, the integration of AI can be seen not just as a means to modernize processes, but as a pathway to fostering a more agile, innovative, and inclusive organizational environment.

5. Conclusion

This study set out to explore the extent to which AI influences managerial functions and administrative processes within the HR Department at SABIC in Riyadh. The findings revealed that employees hold a generally positive perception of AI, recognizing its role in enhancing the efficiency, accuracy, and overall quality of administrative work. The results also demonstrated a strong alignment between the use of AI in management and its impact on improving service delivery and decision-making, confirming its value as both a technological and strategic resource. Moreover, the study highlighted that AI is not only seen as a tool for operational improvement but also as a driver of organizational adaptability and innovation. While perceptions were positive across all participants, subtle gender-based differences emerged, suggesting that employee attitudes toward technology adoption can vary according to demographic factors. This underscores the importance of designing inclusive strategies when implementing AI in the workplace. The research contributes to a deeper understanding of how AI can transform administrative functions in HR management. It emphasizes the necessity for organizations to invest in AI-driven solutions while simultaneously fostering a culture that supports learning, adaptability, and inclusiveness. For organizations such as SABIC, these insights can serve as a roadmap for integrating AI in ways that not only optimize processes but also strengthen organizational performance and employee engagement.

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References

Aguinis, H., Beltran, J. R., & Cope, A. (2024). How to use generative AI as a human resource management assistant. Organizational Dynamics, 53(1), 101029. https://doi.org/10.1016/j.orgdyn.2024.101029

Bankins, S. (2021). The ethical use of artificial intelligence in human resource management: a decision-making framework. Ethics and Information Technology, 23(4), 841-854. https://doi.org/10.1007/s10676-021-09619-6

Berhil, S., Benlahmar, H., & Labani, N. (2020). A review paper on artificial intelligence at the service of human resources management. Indonesian Journal of Electrical Engineering and Computer Science, 18(1), 32-40. https://doi.org/10.11591/ijeecs.v18.i1.pp32-40

Bujold, A., Roberge-Maltais, I., Parent-Rocheleau, X., Boasen, J., Sénécal, S., & Léger, P. M. (2024). Responsible artificial intelligence in human resources management: a review of the empirical literature. AI and Ethics, 4(4), 1185-1200. https://doi.org/10.1007/s43681-023-00325-1

Chowdhury, S., Dey, P., Joel-Edgar, S., Bhattacharya, S., Rodriguez-Espindola, O., Abadie, A., & Truong, L. (2023). Unlocking the value of artificial intelligence in human resource management through AI capability framework. Human resource management review, 33(1), 100899. https://doi.org/10.1016/j.hrmr.2022.100899

Gélinas, D., Sadreddin, A., & Vahidov, R. (2022). Artificial intelligence in human resources management: A review and research agenda. Pacific Asia Journal of the Association for Information Systems, 14(6), 1. https://doi.org/10.17705/1pais.14601

George, G., & Thomas, M. R. (2019). Integration of artificial intelligence in human resource. International Journal of Innovative Technology and Exploring Engineering, 9(2), 5069-5073. https://doi.org/10.35940/ijitee.L3364.129219

Jatobá, M., Santos, J., Gutierriz, I., Moscon, D., Fernandes, P. O., & Teixeira, J. P. (2019). Evolution of artificial intelligence research in human resources. Procedia Computer Science, 164, 137-142. https://doi.org/10.1016/j.procs.2019.12.165

Khatri, S., Pandey, D. K., Penkar, D., & Ramani, J. (2019). Impact of artificial intelligence on human resources. In Data Management, Analytics and Innovation: Proceedings of ICDMAI 2019, Volume 2 (pp. 365-376). Singapore: Springer Singapore. https://doi.org/10.1007/978-981-13-9364-8_26

Madanchian, M., Taherdoost, H., & Mohamed, N. (2023). AI-based human resource management tools and techniques; a systematic literature review. Procedia Computer Science, 229, 367-377. https://doi.org/10.1016/j.procs.2023.12.039

Nawaz, N., Arunachalam, H., Pathi, B. K., & Gajenderan, V. (2024). The adoption of artificial intelligence in human resources management practices. International Journal of Information Management Data Insights, 4(1), 100208. https://doi.org/10.1016/j.jjimei.2023.100208

Palos-Sánchez, P. R., Baena-Luna, P., Badicu, A., & Infante-Moro, J. C. (2022). Artificial intelligence and human resources management: A bibliometric analysis. Applied Artificial Intelligence, 36(1), 2145631. https://doi.org/10.1080/08839514.2022.2145631

Qamar, Y., Agrawal, R. K., Samad, T. A., & Chiappetta Jabbour, C. J. (2021). When technology meets people: the interplay of artificial intelligence and human resource management. Journal of Enterprise Information Management, 34(5), 1339-1370. https://doi.org/10.1108/JEIM-11-2020-0436

Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. California management review, 61(4), 15-42. https://doi.org/10.1177/0008125619867910

Tewari, I., & Pant, M. (2020, December). Artificial intelligence reshaping human resource management: A review. In 2020 IEEE international conference on advent trends in multidisciplinary research and innovation (ICATMRI) (pp. 1-4). IEEE. https://doi.org/10.1109/ICATMRI51801.2020.9398420

Votto, A. M., Valecha, R., Najafirad, P., & Rao, H. R. (2021). Artificial intelligence in tactical human resource management: A systematic literature review. International Journal of Information Management Data Insights, 1(2), 100047. https://doi.org/10.1016/j.jjimei.2021.100047

Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., & Trichina, E. (2023). Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review. Artificial intelligence and international HRM, 172-201. https://doi.org/10.4324/9781003377085-7