INTERNATIONAL JOURNAL OF BUSINESS AND MANAGEMENT (IJBM)
ISSN: 2815-9330 (Online)

VOL. 5, NO. 4 2026 https://iessociety.org/

Artificial intelligence and enterprise value creation in human resources: A framework for strategic transformation

Vianka Esteves Miranda

Northwestern State University of Louisiana, USA

*Correspondence: mirandav@nsula.edu

Abstract

Organizations face mounting pressure to demonstrate measurable returns on artificial intelligence (AI) investments, yet evidence of sustained value creation remains uneven, particularly within human resources (HR), a function historically positioned as a cost center rather than a driver of enterprise performance. This article examines how AI can transform HR into a source of enterprise value, using IBM's AskHR platform as a primary case illustration. Building on documented outcomes that include a 40 percent reduction in HR operational costs, the automation of 94 percent of routine tasks, and 3.5 billion dollars in productivity improvements across 70 business units, the article demonstrates that strategically implemented AI in HR can simultaneously reduce costs, increase productivity, and enhance employee experience. To explain how these outcomes are achieved, the article develops a four lever value creation framework encompassing process redesign prior to automation, rapid iterative development, predefined performance measurement, and executive sponsorship. The analysis further shows that AI delivers the greatest organizational value when embedded within redesigned processes, integrated across enterprise systems, and deployed through hybrid human and AI operating models that augment rather than replace human judgment. The article contributes to scholarship on digital transformation and AI adoption by shifting focus from technology acquisition to value realization, and offers practical guidance for HR leaders and organizational managers seeking to align AI investments with long term enterprise performance.

***Keywords*:** Artificial Intelligence, Human Resource Management, Return On Investment, Digital Transformation, Human And AI Collaboration, Enterprise Value Creation, Organizational Change Management

JEL Classification: M12, M15, O33

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

1. Introduction

Organizations across industries are under increasing pressure to demonstrate measurable returns on investments in artificial intelligence (AI). While adoption has accelerated rapidly in recent years, many firms continue to struggle with a fundamental question: How does AI create tangible business value? This challenge is notable in human resources (HR), a function traditionally viewed as a cost center rather than a contributor to enterprise performance. Although AI applications in HR, such as chatbots, workflow automation, and predictive analytics, are expanding, evidence of sustained, organization-wide value creation remains limited (McKinsey & Company, 2023; MIT Sloan Management Review & Boston Consulting Group, 2023). The difficulty lies not in the availability of AI technologies but in translating their capabilities into measurable outcomes. Research suggests that productivity gains from digital technologies are often delayed or uneven, especially when organizations fail to redesign underlying processes or align technology initiatives with broader strategic goals (Brynjolfsson et al., 2017; Verhoef et al., 2021). In many cases, AI is deployed as a tool for incremental efficiency rather than as a mechanism for rethinking how work is performed and how value is created. This article addresses that gap by examining how AI can transform HR from a support function into a driver of enterprise value. Using IBM's AskHR platform as an illustrative case, the article shows how a large organization leveraged AI to reduce costs, increase productivity, and improve employee experience simultaneously. The case is particularly instructive because it provides rare, quantifiable evidence of AI-driven outcomes at scale while highlighting the organizational changes required to achieve them.The article contributes to the growing conversation on AI and digital transformation by shifting the focus from adoption to value realization. Specifically, it demonstrates that AI-driven HR transformation can generate enterprise value when implemented as part of a broader operational strategy rather than as a standalone technological initiative. The findings have implications not only for HR leaders but also for managers across functions seeking to align AI investments with organizational performance and long-term value creation. IBM's use of artificial intelligence (AI) in human resources clearly demonstrates a strong business case for return on investment (ROI). Through its WatsonX, Orchestrate Platform, and internal AskHR assistant, IBM has achieved measurable cost savings, efficiency improvements, and productivity gains. Key results include a reported 40% reduction in HR operational costs (IBM, 2025b), the automation of 94% of routine HR tasks (Westfall, 2025), and $3.5 billion in productivity improvements across 70 business units over two years (Westfall, 2025). These outcomes were driven by AI agents that automate repetitive tasks such as onboarding, support during promotion cycles, and employee case management (IBM, 2025c). The financial benefits go beyond direct cost savings, as they also speed up time-to-hire, lower turnover costs, and enable HR staff to focus on higher-value strategic initiatives by reallocating full-time employees (FTEs) (Outsource Accelerator, 2025). According to IBM's benchmarks, organizations that adopt AI HR tools can expect payback periods of 12–18 months and annual net benefits in the millions, depending on their workforce size (Ekuma, 2024).

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

However, risks remain, including bias in hiring, data privacy, and adoption challenges (SiliconANGLE, 2025). These risks can be mitigated through transparent governance, ethical oversight, and effective change management. Overall, IBM's AI-driven HR transformation demonstrates how strategic AI adoption can deliver significant financial benefits while reshaping HR functions into more strategic, value-added roles.

2. The Managerial Problem: Proving AI's Value

Executives across industries face growing pressure to justify investments in artificial intelligence (AI). While adoption continues to accelerate, many organizations struggle to demonstrate measurable returns. Global surveys suggest that although firms report progress in AI implementation, fewer than half are able to clearly quantify financial outcomes (McKinsey & Company, 2023; MIT Sloan Management Review & Boston Consulting Group, 2023). This challenge is particularly pronounced in human resources (HR), a function traditionally viewed as a cost center rather than a driver of enterprise value. Although AI applications in HR—such as chatbots, workflow automation, and predictive analytics—are expanding rapidly, evidence of sustained, organization-wide financial impact remains limited (Gartner, 2024). Davenport and Kirby (2016) identify five strategies for humans to remain relevant and valuable alongside increasingly capable AI systems: stepping up to higher-order judgment and leadership tasks that machines cannot perform; stepping in to monitor, adjust, and improve AI systems; stepping aside to focus on areas where human emotional intelligence and interpersonal skills remain irreplaceable; stepping narrowly to develop deep specializations that are difficult to automate; and stepping forward to build and design the AI systems themselves (Davenport & Kirby, 2016). This article addresses that gap by examining how a global organization, IBM, has implemented an AI-driven HR platform that delivers measurable financial, operational, and employee experience outcomes. More importantly, it develops a framework for managers seeking to translate AI investments into enterprise value creation.

3. From Automation to Transformation: The IBM AskHR Case

IBM's AI-enabled HR platform, AskHR, was launched in 2017 as a chatbot designed to manage employee inquiries (IBM, 2025a). At the time, IBM faced increasing regulatory complexity, rising employee expectations for digital service, and constraints on HR staffing and budgets. Rather than scaling its existing HR model, IBM adopted a different approach summarized in three principles: eliminate, simplify, and automate (IBM, 2025c). This aligns with research emphasizing that process redesign must precede automation to achieve meaningful performance gains (Hammer, 2015; Davenport & Kirby, 2016). Over time, AskHR evolved from a simple question-and-answer tool into a fully integrated digital agent. With the addition of generative AI capabilities, the system now classifies employee intent, routes requests across HR domains, and executes multi-step transactions across enterprise platforms (IBM, 2025C). However, as Brynjolfsson, Rock, and Syverson (2017) noted, a central paradox of the AI era is that AI systems increasingly match or

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

surpass human performance across domains and are driving soaring stock market valuations, yet measured productivity growth has fallen sharply over the same period and real income has stagnated for most Americans (Brynjolfsson, Rock, & Syverson,2017). Importantly, IBM implemented a hybrid service model, in which AI handles routine transactions while human advisors address complex or sensitive issues (IBM, 2025c). This approach reflects research suggesting that human–AI collaboration often outperforms either fully automated or fully human systems (Jarrahi, 2018; Raisch & Krakowski, 2021). IBM's use of artificial intelligence (AI) in human resources clearly demonstrates a strong business case for return on investment (ROI).

4. Measuring What Matters: Evidence of ROI

Through its WatsonX, Orchestrate Platform, and internal AskHR assistant, IBM has achieved measurable cost savings, efficiency improvements, and productivity gains. Key results include a reported 40% reduction in HR operational costs (IBM, 2025b), the automation of 94% of routine HR tasks (Westfall, 2025), and $3.5 billion in productivity improvements across 70 business units over two years (Westfall, 2025). These outcomes were driven by AI agents that automate repetitive tasks such as onboarding, support during promotion cycles, and employee case management (IBM, 2025c). The financial benefits go beyond direct cost savings, as they also speed up time-to-hire, lower turnover costs, and enable HR staff to focus on higher-value strategic initiatives by reallocating full-time employees (FTEs) (Outsource Accelerator, 2025). IBM's implementation provides rare, quantifiable evidence of AI-driven ROI in HR, including significant cost reductions, high query containment rates, reduced support tickets, and substantial improvements in employee experience. According to IBM's benchmarks, organizations that adopt AI HR tools can expect payback periods of 12–18 months and annual net benefits in the millions, depending on their workforce size (Ekuma, 2024). These outcomes are notable not only for their magnitude but also for their simultaneity. Cost reduction, productivity gains, and employee satisfaction improved together, challenging the assumption that efficiency gains necessarily come at the expense of service quality. This pattern aligns with broader research indicating that digital transformation can enhance both operational efficiency and user experience when strategically implemented (Verhoef et al., 2021). The most effective organizational configurations are those that assign tasks to the intelligence best suited for them and create deliberate interfaces where human judgment supervises, interprets, and acts on AI-generated outputs which supports the argument that AI in HR should be designed to extend human decision-making capacity in areas such as workforce analytics, candidate assessment, and performance management rather than to replace the human judgment that makes those decisions organizationally legitimate and ethically defensible (Brynjolfsson, Rock, & Syverson, 2017; Jarrah, 2018). The central theme of the 2025 research conducted by SiliconAngle is that IBM's cultivation of employees it calls "purple squirrels," those who possess fluency in both business functions and technical execution, possessed the dual capability that enabled faster and more durable adoption of AI-powered systems like watsonx Orchestrate while preparing employees for cross-functional future-ready roles. This reinforces

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

findings that productivity gains from AI are most likely when technologies are embedded within complementary organizational changes (Brynjolfsson, Rock, & Syverson, 2017).

4.1 A Framework for AI-Driven Value Creation

Most AI-driven implementation strategies contain four distinct criteria for a Value Creation Framework:

1. Transform Before Automating - Organizations must resist the urge to automate existing processes without first eliminating inefficiencies. Automation amplifies both strengths and weaknesses; without prior simplification, it risks scaling dysfunction (Hammer, 2015).

2. Iterate Rapidly - Short development cycles enable continuous refinement. Agile approaches improve implementation outcomes by allowing organizations to learn and adapt quickly (Rigby, Sutherland, & Takeuchi, 2016).

3. Define ROI in Advance by identifying Clear performance metrics such as cost per transaction, resolution time, and satisfaction. These should be established before implementation. Without predefined benchmarks, organizations cannot reliably assess value creation (Davenport, Guha, Grewal, & Bressgott, 2020).

4. Lead from the Top - Executive sponsorship ensures alignment with strategic priorities and facilitates organizational change. Leadership commitment is consistently identified as a critical factor in successful digital transformation (Westerman, Bonnet, & McAfee, 2014).

4.2 Managerial Implications

McKinsey's (2023) report indicates that a substantial share of workers in knowledge-intensive roles, including HR, finance, and legal, will have a majority of their task time affected by generative AI tools, and that organizations leading in AI adoption were those integrating AI into core business workflows rather than deploying it in isolated pilots. The report also documented significant variation in value capture across firms, with the highest returns concentrated in organizations that coupled technology investment with workforce reskilling and process redesign (McKinsey, 2023). Generative AI is a present operational reality for HR rather than a future state, and the competitive stakes of adoption timing are material.

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

Managers should reframe AI investments as value creation initiatives, prioritize system integration, adopt hybrid human–AI models, define measurable performance targets, and invest in organizational change alongside technology. The full effects of AI, like those of other general-purpose technologies, will not be realized until waves of complementary innovations are developed and implemented, and the adjustment costs, organizational changes, and new skills required for successful AI adoption represent a form of intangible capital that national statistics largely fail to capture (Brynjolfsson, Rock, and Syverson, 2017). Organizations and individuals who proactively restructure roles around these strategies will gain a competitive advantage, while those who passively wait for AI to define their roles will lose (Davenport & Kirby, 2016). Organizations achieving the greatest AI value are those that invest simultaneously in technology deployment and employee capability development, create clear governance structures for AI use, and align AI strategy with broader business strategy rather than treating it as a standalone initiative (MIT Sloan Management Review & Boston Consulting Group, 2023). As AI is increasingly used to support learning and development, talent management, performance support, and workforce capability within the enterprise HR function, the IBM case reinforces the idea that AI is more effective when augmented by human managers (Davenport et al., 2020; Ekuma, 2024). HR transformation must shift from cost reduction through headcount elimination to value creation through strategic role realignment.

4.2 Risks and Limitations

Despite its success, IBM's approach raises important considerations, including reliance on internal data, variability in organizational readiness, workforce reskilling challenges, and ethical concerns such as bias and transparency in hiring, data privacy, and adoption challenges (SiliconANGLE, 2025). Frey and Osborne (2017) establish the foundational empirical context for why workforce planning, reskilling strategy, and talent redeployment have become central rather than peripheral concerns for the HR function, and why organizations cannot treat AI adoption as operationally neutral with respect to human capital. The industry research report from Gartner examines the pace and pattern of AI adoption across HR functions globally (Gartner, 2024). Among its key findings, Gartner projects that by 2025, 50% of HR departments are expected to augment their operations with AI-driven tools, signaling that AI integration in HR is rapidly moving from early adopter experimentation to mainstream enterprise practice (Gartner, 2024). These human risks can be mitigated through transparent governance, ethical oversight, and effective change management. Overall, IBM's AI-driven HR transformation demonstrates how strategic AI adoption can deliver significant financial benefits while reshaping HR functions into more strategic, value-added roles. HR's transition from cost center to value creator requires a deliberate renegotiation of the human-AI division of labor (Brynjolfsson et al., 2017). Most organizations are not capturing the value their AI investments theoretically promise, and that the gap between AI capability and AI value realization is primarily an organizational and talent problem rather than a technology problem (MIT Sloan Management Review & Boston Consulting Group, 2023). Investments in HR may not

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

immediately register as productivity gains, even when enterprise value is being built (Brynjolfsson et al., 2017).

5. Conclusion

AI-driven HR transformation has the potential to generate measurable enterprise value when implemented as part of a broader operational redesign. Organizations should evaluate AI not merely as a tool for efficiency but as a mechanism for restructuring workflows and creating new sources of value. The highest-value AI applications are those that expand human decision-making capacity rather than replace it. Additional research is necessary to address questions of privacy, algorithmic bias, and ethics as AI scales across enterprise functions.

Declaration: Artificial intelligence used in the preparation of this article includes Grammarly for spelling and grammar, and voice recognition software as a disability accommodation

References

Brynjolfsson, E., Rock, D., & Syverson, C. (2017). Artificial intelligence and the modern productivity paradox: A clash of expectations and statistics. *National Bureau of Economic Research Working Paper No. 24001*. doi.org/10.3386/w24001

Davenport, T. H., & Kirby, J. (2016). *Only humans need apply: Winners and losers in the age of smart machines*. Harper Business.

Davenport, T. H., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science, 48*(1), 24–42. doi.org/10.1007/s11747-019-00696-0

Ekuma, K. (2024). Artificial intelligence and automation in human resource development: A systematic review. *Human Resource Development Review*, *23*(2), 199–229. doi.org/10.1177/15344843231224009

Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change, 114*, 254–280. doi.org/10.1016/j.techfore.2016.08.019

Gartner. (2024). *HR technology trends and AI adoption report*.

Hammer, M. (2015). What is business process management? In J. vom Brocke & M. Rosemann (Eds.), *Handbook on business process management* (pp. 3–16). Springer.

IBM. (2025a). AI agent for HR: watsonx Orchestrate. IBM. www.ibm.com/products/watsonx-orchestrate/ai-agent-for-hr

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56

IBM. (2025b). AI solutions for human resources. IBM. www.ibm.com/solutions/ai-human-resources

IBM. (2025c). AI in HR and talent management. IBM Think. www.ibm.com/think/topics/ai-in-hr

Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human–AI symbiosis in organizational decision making. *Business Horizons, 61*(4), 577–586. doi.org/10.1016/j.bushor.2018.03.007

McKinsey & Company. (2023). *The state of AI in 2023: Generative AI's breakout year*.

MIT Sloan Management Review & Boston Consulting Group. (2023). *Achieving individual—and organizational—value with AI*.

Outsource Accelerator. (2025, May 27). IBM automates HR: 94% of routine tasks now handled by AI. https://news.outsourceaccelerator.com/ibm-automates-hr/

Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation–augmentation paradox. *Academy of Management Review, 46*(1), 192–210. doi.org/10.5465/amr.2018.0072

Rigby, D. K., Sutherland, J., & Takeuchi, H. (2016). Embracing agile. *Harvard Business Review, 94*(5), 40–50.

SiliconANGLE. (2025, March 19). IBM's AI-powered HR transformation reshapes the future of skills. siliconangle.com/2025/03/19/ibms-ai-powered-hr-transformation-skills-future-ibmaiops/

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research, 122*, 889–901. doi.org/10.1016/j.jbusres.2019.09.022

Westfall, C. (2025, May 27). IBM replaces hundreds with AI as HR and L&D leaders rethink roles. Forbes. www.forbes.com/sites/chriswestfall/2025/05/27/ibm-replaces-hundreds-with-ai-as-hr-ld-leaders-rethink-roles/

Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.

Copyright: © 2026 by the author. Licensee IJBM IESS, New Zealand. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

DOI: https://doi.org/10.56879/ijbm.v5i4.56