Journal of Psychology and Behavior Studies
ISSN: 2753-2364
DOI: 10.32996/jpbs
Journal Homepage: www.al-kindipublisher.com/index.php/jpbs

JPBS
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Recalibrating Human Capability Advancement Priorities to Balance Tension and Dynamics between Human Intelligence versus Artificial Intelligence in Service-Oriented Organizations

Mustafa M. Bodrick [1, 4, 5], Abdullah A. Alhawas [1], Hani M. Alqarni [1], Khalid M. Aldhayan [2], Mohammed I. Alassaf [1], Lobna A. Aljuffali [1], Mohammed Y. Alrasi [1], Fahad A. Alrowaitea[1], Saleh Y. Alolayan [1], Mutlaq Almutairi [3], Ahmed H. Alshamrani [1], Syed M. Arifi [1], Abdulrahman K. Albisher [1]

[1.] *Saudi Commission for Health Specialties, Riyadh, Saudi Arabia*
[2.] *StarDunes, Private Sector Tourism, Riyadh, Saudi Arabia*
[3.] *King Fahad Medical City, Riyadh, Saudi Arabia*
[4.] *MAHSA University, Malaysia*
[5.] *Johns Hopkins University, Baltimore, USA*
Corresponding Author: Professor Mustafa Bodrick, **E-mail**: mustafabodrick@gmail.com

| ABSTRACT

Artificial intelligence (AI) has been profoundly integrated into service-oriented organizations. As a result, these organizations have experienced increased efficiency, reduced costs, and increased productivity. Nevertheless, human intelligence (HI) still remains critical due to various factors, including its capacity to be uniquely creative, portray emotional intelligence, and comply with ethical imperatives. This study explores the existing dynamic as well as tension between AI and HI in service-oriented industries. It outlines the ethical responsibility of organizations to facilitate the development of HI to match AI integration and ensure responsible and fair AI utilization in service-oriented organizations. In essence, the consideration focuses on recalibrating human capability advancement priorities in as much as AI and HI is concerned for the best interest of the service-oriented organizations. This study integrates a literature review of peer-reviewed articles to make an analysis of the dynamics between AI and HI. Furthermore, case studies were analyzed to provide critical insights into human-AI collaboration paradigms. Subsequently, a thematic analysis was conducted to deduce various themes. AI is increasingly being deployed in service-oriented organizations. AI applications help in various areas like customer service and automation, improving efficiency and reducing costs for these businesses. However, HI continues to play an important role. HI is capable of emotional intelligence, ethics, and creativity, which AI applications lack. Therefore, it is vital to ensure effective AI-human collaboration that would be the underpinning for recalibrating human capability advancement priorities in service-oriented organizations. There are various strategies for coordinating AI and HI to improve the performance of service-oriented organizations. Organizations are encouraged to implement upskilling programs to ensure employees can work alongside AI applications for improved results. By balancing AI and HI through upskilling and ethical responsibility, organizations will accomplish sustainable success in providing customer-centered services.

| KEYWORDS

Service-Oriented Organizations, Artificial Intelligence (AI), Human Intelligence (HI), Human-AI collaboration, Ethical AI, Workforce Upskilling, Organizational Strategy

| ARTICLE INFORMATION

ACCEPTED: 10 June 2025 **PUBLISHED:** 07 July 2025 **DOI:** 10.32996/jpbs.2025.5.2.1

Introduction

In the dynamic realm of contemporary business environments, the tensioin as well as symbiotic relationship between artificial intelligence (AI) and human intelligence (HI) is redefining, transforming, and significantly altering organizational dynamics (Alhayyat et al., 2024). This significant interplay challenges the existing norms, penetrates decision-making mechanisms, and allows for reevaluation of traditional boundaries. A symbiotic relationship between workers and intelligent systems has been established as critical in workplaces and could compensate for existing limitations (Alhayyat et al., 2024; Korteling et al., 2021). These paradigms could significantly improve various forms of industries, including service-oriented organizations, entities that prioritize delivering services to satisfy the specific needs of customers. Organizations must balance AI integration with HI development to achieve sustainable success.

The Role of AI in Service-Oriented Organizations

Liebowitz and Beckman (2020) describe service-oriented organizations as firms prioritizing service delivery to particular segments of individuals, businesses, or the public. These entities emphasize the provision of value through actions as well as expertise rather than only tangible products (Martin, 2024). They could range from non-profits that provide direct assistance to businesses that provide specialized support (Liebowitz & Beckman, 2020). Robertson et al. (2025) establish that AI technologies in service-oriented sectors have robust implications for different aspects of the value chain and operations, leading to multi-faceted effects including benefits such as reduced costs, task automation, elevated personalization, and enhanced customer services as well as negative effects such as tension and dynamics between these systems and human resources. Furthermore, the study by Akter et al. (2023) observes that as a result of intelligent systems, service-oriented organizations have experienced elevated efficiencies, streamlined process automation, visibility of processes, new insights, and minimized lead times. These intelligent systems allow service-oriented organizations to effectively handle tasks that previously required robust human capital, such as handling customer inquiries around the clock (Benbya et al., 2020). By automating these manual tasks and reducing costs, AI systems simplify sophisticated value chains and streamline operations (Guha et al., 2021). Service-oriented organizations that have thus invested in AI technologies have benefited in multiple ways, including gains in productivity and enhancement of the value chain.

According to Ameen et al. (2021), the significant implementation of AI in service-oriented organizations is attributed to various factors, including the availability of vast amounts of firm-based data, the profound growth of AI systems, as well as the numerous benefits realized from the integration of these systems. The abundance of organizational touchpoints enabled by the nature of these organizations enables the generation of vast amounts of data that could be profoundly analyzed by AI to realize valuable customer as well as sales insights (Ameen et al., 2021; Guha et al., 2021). Bonetti et al. (2022) also assert that advancements in machine learning algorithms and cloud computing have made AI more accessible and scalable for service organizations, allowing them to deploy AI-driven solutions at lower costs and with greater efficiency. The competitive pressure to enhance customer experiences and operational agility has accelerated AI adoption, as businesses seek to leverage predictive analytics and automation to stay ahead in dynamic markets (Makarius et al., 2020).

The Value of HI in the AI Era

HI in service-oriented organizations continues to be a pivotal component in the era of AI due to its unique creative capabilities, having ethical judgement, conducting particular critical tasks in a profound way as well as depicting emotional intelligence in the work or operations environments (De Cremer & Kasparov, 2021; Korteling et al., 2021; Akter et al., 2023). Therefore, De Cremer and Kasparov (2021) suggest a human-centered approach in implementing AI systems, ensuring that these systems serve as tools to augment human capabilities instead of replacing them. Ethical paradigms must be foregrounded. Therefore, the development of HI is also a moral obligation for service-oriented organizations instead of a strategic advantage alone (Akter et al., 2023). Organizations must ensure their AI systems are based on human values such as fairness and transparency. Herein is the crucial focus for recalibrating human capability advancement priorities so that an optimistic forecast is project for AI and HI in the best interest of the service-oriented organizations.

Multiple case studies portray how human insights have been critical in elevating the outcomes of AI in the service-oriented industries. For example, the partnership between physician feedback and medical AI systems, such as IBM's Watson, has significantly improved the reliability as well as accuracy of these systems (Yang et al., 2020). Also, AI-powered diagnostic tools in radiology, such as Aidoc and Zebra Medical Vision, have been established to achieve higher precision when radiologists validate findings, reducing false positives and improving patient outcomes (Akhrymenka, 2025). In customer relations, institutions such as banks utilize AI chatbots that have allowed them to constantly handle inquiries, but depend on human agents to manage complex or emotionally charged interactions. These paradigms have elevated customer satisfaction by reducing wait times and increasing the ability to effectively meet customer needs (Li & Xu, 2022). These cases illustrate that while AI excels in data processing, human

judgement remains crucial for contextual understanding, ethical decision-making, and handling exceptions (De Cremer & Kasparov, 2021).

Also, beyond operational efficiency, HI helps organizations meet their ethical obligations. HI guides the ethical implementation of AI technology in organizational operations thereby mitigating bias and sustaining accountability (De Cremer & Kasparov, 2021). Organizations that strategically combine AI efficiency with human expertise achieve superior results, reinforcing the need for balanced human-AI collaboration in the service-oriented sector (Akter et al., 2023; De Cremer & Kasparov, 2021). This symbiotic collaboration between workers and AI systems is necessary for ensuring ethical responsibility.

Tensions Between HI and AI in Organizations

Despite the advancing role of AI in organizations, HI remains indispensable, thereby creating tensions between HI and AI. These tensions stem from workforce concerns and organizational challenges. According to Raftopoulos & Hamari (2024), workforce concerns include job displacement due to the ability of AI to automate human tasks. AI is also increasingly being used by organizational leaders for decision-making. The increased use of AI in making decisions undermines organizational leaders' ability to make instinctive judgements, resulting in biased or incomplete insights (Lee et al., 2023).

Also, the adoption of AI is creating the need for workforce reskilling. The rapid advancements in AI technology result in more tasks being taken over by AI (Lee et al., 2023). Therefore, employees must develop new skills in various areas like emotional intelligence, critical thinking, and creativity to remain relevant. These workforce issues over the adoption of AI technology create organizational challenges such as decreased morale, employee resistance, and social unrest, leading to low productivity and poor organizational performance, especially for service-oriented organizations (Ali et al., 2020). Consequently, there is a need to address these issues through harmonizing AI and HI. Solving these tensions necessitate ethical leadership that focuses on ethical AI integration and employee reskilling to protect employee dignity while enjoying the strategic advantages of AI. The human workforce should not be disproportionately affected by technological advancements.

Creating Harmony between HI and AI

Researchers have proposed various strategies for coordinating AI and HI to ensure they work for organizational betterment. AI should enhance employee attributes rather than replace them, through ethical AI literacy programs that enable employees to use AI systems responsibly. Jaiswal et al. (2023) propose restructuring employee roles and upskilling them to enable workers to work with AI technology. Organizations should determine the essential skills that allow employees to work with AI. Some critical skills for employee upskilling in service-oriented organizations include complex cognitive, decision-making, data analysis, continuous learning, AI literacy, and digital skills (Jaiswal et al., 2023). Emotional intelligence and critical thinking skills are also crucial in the service-oriented sectors. Al Khoury et al. (2023) emphasize the importance of emotional intelligence in providing accurate customer service, aspects that AI cannot offer. Therefore, employees in these industries can upskill themselves through emotional intelligence and critical thinking training.

Also, organizational leaders should implement strategies to balance AI and HI. Leaders play a crucial role in fostering an organizational culture that is conducive to implementing AI for different activities and roles. Zimmermann et al. (2023) report on establishing human-centered intelligent systems in the current digitalization efforts to help service organizations balance between AI and HI. These systems leverage human experiences and observations and AI's ability to analyze vast amounts of information effectively (Zimmerman et al., 2023). The result is a highly digitized system that creates value and enables service organizations to develop smart service ecosystems for their customers. The assertion is supported by Trunk et al. (2020), who argue that strategic decision-making in the current organizational context requires the exploitation of the technological potential of AI to support human decision-making processes. AI used independently may result in biased or poor insights (Trunk et al., 2020). Therefore, implementing AI requires significant human responsibility to ensure the AI technology supports HI in the organizational decision-making processes. Consequently, it is vital to ensure effective AI-human collaboration underpins the recalibration of human capability advancement priorities in service-oriented organizations.

Future Research Recommendations

Several research gaps should be addressed for sustainable human and AI collaboration. Future studies can look into the long-term implications of AI-human collaboration on productivity and job satisfaction. Employee engagement and motivation remain understudied (Kim et al., 2025). Therefore, further research can focus on the impact of AI-assisted roles on productivity and the psychological outcomes of AI process adoption and interactions for employees in service-oriented organizations. It will help determine whether AI makes employees feel redundant or competent over time. Additionally, future studies can explore the best practices for evaluating the effectiveness of various interventions for improving HI (Kitsios & Kamariotou, 2021). Organizations are encouraged to invest in employee upskilling. Therefore, it is necessary to provide standard measures for evaluating the effectiveness and ethical competency of these upskilling programs. Thus, researchers should focus on developing assessment

frameworks for assessing the success of these programs and their impact on employees and organizational leaders. Also, researchers can conduct cross-cultural studies on the effects of AI on workforce dynamics. Investigations into ethical AI-human collaboration should be carried out to provide a global ethical context that is alive to the differences in cultural attitudes toward interactions between human labor and technology (Kitsios & Kamariotou, 2021). The findings will help inform labor policies on integrating AI in the workforce. Addressing these gaps will help organizations harmonize AI and human potential in service-oriented organizations, ensuring technological and ethical sustainability.

Conclusion

Without doubt, as AI is rapidly integrated into service-oriented organizations, HI continues to play an important role. For service-oriented organizations, HI has continued to provide the unique emotional, cognitive, and ethical attributes that AI cannot provide. Therefore, these organizations need to strike a balance between HI and AI. Service-oriented organizations should undertake upskilling programs to ensure a balance between AI adoption and human skill enhancement in facilitating employees as a critical resource despite the AI-driven environment. A sustainable balance can be accomplished through ethical AI deployment and workforce upskilling.

Disclaimer:

The views expressed are entirely those of the coauthors, and therefore are not necessarily perspectives of the institutions associated with the coauthors. Furthermore, the coauthors are not responsible for any errors or omissions, and/or for the results obtained from the sources used to generate this review publication. The coauthors therefore have no liability to any person for any loss or damage arising out of the use of, or the inability to use, the information provided in the review.

Conflicts of Interest: The authors declare no conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

Al Khoury, G., Thrassou, A., Papasolomou, I., & Vrontis, D. (2023). The requisite role of emotional intelligence in customer service in the retail banking sector. *International Journal of Organizational Analysis*, *31*(7), 3315-3347. https://doi.org/10.1108/ijoa-04-2022-3229 https://www.emerald.com/insight/content/doi/10.1108/IJOA-04-2022-3229/full/html

Alhayyat, S., Jaber, S., Nasser, M. (2024). AI-human interactions in the workplace: Navigating dynamics and impact. *Principles of Scientific Research Course.* https://aisel.aisnet.org/saudicis2024/74/ https://www.researchgate.net/publication/381251994_AI_HUMAN_INTERACTIONS_IN_THE_WORKPLACE_NAVIGATING_DYNAMICS_AND_IMPACT_Completed_Research_Paper

Akhrymenka, T. (2025). Innovations and solutions in precision and systems medicine using artificial intelligence. *Innovations in Healthcare and Outcome Measurement*, 19-29. https://doi.org/10.1007/978-3-031-77302-0_2 https://link.springer.com/chapter/10.1007/978-3-031-77302-0_2

Akter, S., Hossain, M. A., Sajib, S., Sultana, S., Rahman, M., Vrontis, D., & McCarthy, G. (2023). A framework for AI-powered service innovation capability: Review and agenda for future research. *Technovation*, *125*, 102768. https://doi.org/10.1016/j.technovation.2023.102768 https://www.sciencedirect.com/science/article/pii/S0166497223000792

Ali, M. H., Hamdan, A., & Alareeni, B. (2020). The implementation of artificial intelligence in organizations' systems: Opportunities and challenges. *Lecture Notes in Networks and Systems*, 153-163. https://doi.org/10.1007/978-3-030-69221-6_12 https://link.springer.com/chapter/10.1007/978-3-030-69221-6_12

Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior*, *114*, 106548. https://doi.org/10.1016/j.chb.2020.106548 https://pubmed.ncbi.nlm.nih.gov/32905175/

Benbya, H., Davenport, T. H., & Pachidi, S. (2020). Artificial intelligence in organizations: Current state and future opportunities. *MIS Quarterly Executive, 19(4).* https://doi.org/10.2139/ssrn.3741983

https://www.researchgate.net/profile/Hind-Benbya/publication/346580474_Artificial_Intelligence_in_Organizations_Current_State_and_Future_Opportunities/links/5fc89120299bf188d4ed06fd/Artificial-Intelligence-in-Organizations-Current-State-and-Future-Opportunities.pdf

Bonetti, F., Montecchi, M., Plangger, K., & Schau, H. J. (2022). Practice co-evolution: Collaboratively embedding artificial intelligence in retail practices. *Journal of the Academy of Marketing Science*, *51*(4), 867-888. https://doi.org/10.1007/s11747-022-00896-1 https://link.springer.com/content/pdf/10.1007/s11747-022-00896-1.pdf

De Cremer, D., & Kasparov, G. (2021). The ethical AI—paradox: Why better technology needs more and not less human responsibility. *AI and Ethics*, *2*(1), 1-4. https://doi.org/10.1007/s43681-021-00075-y https://link.springer.com/article/10.1007/s43681-021-00075-y

Guha, A., Grewal, D., Kopalle, P. K., Haenlein, M., Schneider, M. J., Jung, H., Moustafa, R., Hegde, D. R., & Hawkins, G. (2021). How artificial intelligence will affect the future of retailing. *Journal of Retailing*, *97*(1), 28-41. https://doi.org/10.1016/j.jretai.2021.01.005 https://www.sciencedirect.com/science/article/pii/S0022435921000051

Jaiswal, A., Arun, C. J., & Varma, A. (2023). Rebooting employees: Upskilling for artificial intelligence in multinational corporations. *Artificial Intelligence and International HRM*, 114-143. https://doi.org/10.4324/9781003377085-5 https://www.academia.edu/download/67491720/Artificial_Intelligence_Jaiswal_Arun_Varma_2021_IJHRM.pdf

Kim, H., So, K. K., Shin, S., & Li, J. (2025). Artificial intelligence in hospitality and tourism: Insights from industry practices, research literature, and expert opinions. *Journal of Hospitality & Tourism Research*, *49*(2), 366-385. https://doi.org/10.1177/10963480241229235 https://www.researchgate.net/profile/Hyunsu-Kim-15/publication/377305049_Artificial_intelligence_in_hospitality_and_tourism_Insights_from_industry_practices_research_literature_and_expert_opinions/links/659f833740ce1c5902d3e2e7/Artificial-Intelligence-in-Hospitality-and-Tourism-Insights-From-Industry-Practices-Research-Literature-and-Expert-Opinions.pdf

Kitsios, F., & Kamariotou, M. (2021). Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability*, *13*(4), 2025. https://doi.org/10.3390/su13042025 https://www.mdpi.com/2071-1050/13/4/2025/pdf

Korteling, J. E., Van de Boer-Visschedijk, G. C., Blankendaal, R. A., Boonekamp, R. C., & Eikelboom, A. R. (2021). Human versus artificial intelligence. *Frontiers in Artificial Intelligence*, *4*. https://doi.org/10.3389/frai.2021.622364 https://www.frontiersin.org/journals/artificial-intelligence/articles/10.3389/frai.2021.622364/pdf

Lee, M. C., Scheepers, H., Lui, A. K., & Ngai, E. W. (2023). The implementation of artificial intelligence in organizations: A systematic literature review. *Information & Management*, *60*(5), 103816. https://doi.org/10.1016/j.im.2023.103816 https://scholar.archive.org/work/ympnnq4mrnflhaongb2jicef24/access/wayback/https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1214&context=pacis2021

Liebowitz, J., & Beckman, T. J. (2020). *Knowledge organizations: What every manager should know*. CRC Press. https://www.taylorfrancis.com/books/mono/10.4324/9781003076001/knowledge-organizations-jay-liebowitz-thomas-beckman

Li, F., & Xu, G. (2022). AI-driven customer relationship management for sustainable enterprise performance. *Sustainable Energy Technologies and Assessments*, *52*, 102103. https://doi.org/10.1016/j.seta.2022.102103 https://www.sciencedirect.com/science/article/pii/S2213138822001552

Makarius, E. E., Mukherjee, D., Fox, J. D., & Fox, A. K. (2020). Rising with the machines: A sociotechnical framework for bringing artificial intelligence into the organization. *Journal of Business Research*, *120*, 262-273. https://doi.org/10.1016/j.jbusres.2020.07.045 https://www.sciencedirect.com/science/article/pii/S0148296320305002

Martin, G. (2024). The knowledge context, organizational learning, and managing people. *Managing People in Changing Organizations*, 251-293.

https://doi.org/10.4324/9781003469711-7
https://www.taylorfrancis.com/books/mono/10.4324/9781003469711/managing-people-changing-organizations-graeme-martin

Robertson, J., Botha, E., Oosthuizen, K., & Montecchi, M. (2025). Managing change when integrating artificial intelligence (AI) into the retail value chain: The AI implementation compass. Journal of Business Research, 189, 115198. https://doi.org/10.1016/j.jbusres.2025.115198 https://www.sciencedirect.com/science/article/pii/S0148296325000219

Trunk, A., Birkel, H., & Hartmann, E. (2020). On the current state of combining human and artificial intelligence for strategic organizational decision making. *Business Research*, *13*(3), 875-919. https://doi.org/10.1007/s40685-020-00133-x https://link.springer.com/content/pdf/10.1007/s40685-020-00133-x.pdf

Raftopoulos, M., & Hamari, J. (2024). Artificial intelligence in the workplace: Implementation challenges and opportunities. In *Americas Conference on Information Systems*. Association for Information Systems. https://researchportal.tuni.fi/en/publications/artificial-intelligence-in-the-workplace-implementation-challenge https://researchportal.tuni.fi/files/125271981/Artificial_Intelligence_in_the_Workplace_Implementation_Challenges_and_Opportunities.pdf

Yang, J., Chesbrough, H., & Hurmelinna-Laukkanen, P. (2020). The rise, fall, and resurrection of IBM Watson Health. https://oulurepo.oulu.fi/bitstream/handle/10024/27921/nbnfi-fe2020050424858.pdf?sequence=1 https://corporateinnovation.berkeley.edu/wp-content/uploads/2020/04/The-Rise-Fall-and-Resurrection-of-IBM-Watson-Health_final.pdf

Zimmermann, A., Schmidt, R., Alt, R., Masuda, Y., & Chehri, A. (2023). Digital strategy and architecture for human-centered intelligent systems. *Smart Innovation, Systems and Technologies*, 33-42. https://doi.org/10.1007/978-981-99-3424-9_4 https://link.springer.com/chapter/10.1007/978-981-99-3424-9_4