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THE DEVELOPMENT OF AI IN PHILIPPINE HUMAN RESOURCE MANAGEMENT: A STRATEGIC EXAMINATION OF EDUCATIONAL AND MARITIME ESTABLISHMENTS

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Abstract
HRM practice in the Philippines employs a two-speed approach to AI, informed by a vast divide in the adoption of automation among authority types, specifically maritime and higher education institutions (HEIs). In this article, we trace the adoption of AI along a wide swath of five domains: recruitment & selection, crew & employee lifecycle/credentialing, learning & development (L&D), performance management and people analytics, and policy, ethics, and governance. The key takeaway is that AI is perceived as a complementary, rather than a replacement, technology, and that it will create a need for individuals in the workforce to be able to work with and benefit from these technologies. These issues include: data silos and an explosion of data. This report pulls the pieces together and provides a comparative analysis, and makes a case for how we can ride the wave of change.
Keywords: Artificial Intelligence, Human Resource Management, Philippine HRM, Maritime Sector, Higher Education Institutions, Recruitment, Learning and Development, People Analytics, Ethical Considerations, IMRAD

Introduction

We are currently experiencing a deep and unprecedented change in the structure of the world's workforce, owing to the pervasive proliferation of Artificial Intelligence (AI) technologies. AI is not automation, but an enabler that leads to the re-shaping of business-as-usual and organisational models. "In a volatile and changing world, HRM is more than ever a proactive business partner and not a reactive administrative function, based on data-driven information. This is a technology of particular national interest for the Philippines. As the single largest source of seafarers in the world, and a global leader in the delivery of international-level Business Process Outsourcing (BPO) services (Magellan Solutions n.d.), the implications are not only corporate but of strategic national importance to the Filipino labor force.

AI's economic, operational and regulatory drivers in the Philippines: diocese has increasing volume of routine work tasks, need for even more rational evidence-based decision-making to guide workforce performance, need to move closer to quickly emerging best practices in the industry.

These drivers are similar across sectors, but vary dramatically in form and content. In this paper, we have selected two very important yet distinct industries in the Philippine context to undergo a detailed analysis of their AI adoption; HEIs (higher education institutions) and the maritime industry. By following the trajectories of two of these domains, this study adds a multi-dimensional explanation of the status of AI in Philippine HRM and the trajectory it has taken.

This report will help you to get a thorough knowledge of what is AI from its use in operation to its ethics and governance. Embedded in a systematic review of AI applications across five key Human Resource Management (HRM) functions, the analysis also provides an account of the challenges, opportunities and strategic imperatives for Philippine organizations and policy makers at this transformative time.

Methods

We revisit the topic with a systemic and holistic view to understand the present and the future of AI in the Philippine HRM. The approach is underpinned by a literature analysis of academic and grey literature sources, including academic literature, industry reports, government policy documents, and expert opinion. More than a description of an existing activity, this approach provides deeper insights into the underlying motivations, systematic implications, and strategic implications. Based on the review of literature provided, the analysis is presented in five HRM practice areas that were constructed as a systematic framework for comparative analysis of the practice areas.

Analytical Framework

The analytical perspective a ssumed in this report is to look at:

AI Applications Identification: Mapping and characterization of AI applications/tools and system scurrently used/mechanisms developed or used in pilot with in the maritime and HEI sectors.

Motivators and Outcomes: Looking at drivers of, and gains from, AI a doption and efficiencies; decisioning and workforce.

Comparative Sectoral Analysis: Detecting convergences and divergences in technology take-up of AI in the maritime and HEI sector: this comparative approach allows for a developed awareness of the contextual character of technology take-up.

Synthesis of Challenges and Enablers: Removal of the bottlenecks (e.g.datafragmentation) AND the pivotal enablers (e.g. governmentportals) for the speed and effectiveness of AI integration.

Since the report is made up of parts conveying a multi-layered perspective on the subject, information from various sources is cross-referenced:

Ethical Considerations

Considering that the Philippines is anunderdeveloped country with a culturally and socioeconomically diverse population, there are ethical issues regarding AI as it concerns HRM in the Philippines that are of significance in addressing this topic (Triple i Consulting, n.d.). These is sues are not an afterthought to the adoption process; they are partof the process.

Algorithmic bias and fairness: The biggest risk is that AI models can be biased; they learn from past events and can actually reify and amplify existing biases and disadvantage minority candidates or those with less access to technology (IBM,n.d.). And with inequality becoming the hallmark of social and economic life. The trick is to ensure efficiency improvements do not come at the expense of fairness and equity. One public sector research paper on AI-driven recruitment saw a tension between the organisational goals of efficiency and the goals of fairness, the latter of which was deemed "not relevant" to the achievement of operational goals (Journal of Advanced Researchand Reviews,2025). This is a very significant driver for the need for a thoughtful approach to ensure that fairness can be embedded into the design and deployment of AI.

Data privacy and security: Given the volume of personal data used to train AI systems, there are risk factors related to data privacy, from data leakage, misuse of data, and gathering data without the consent of the individual or organization well, IBM, n.d. Data Privacy Act 2012 (DPA): The Act sets out eight principles that deal with consent, limitation of purpose, limitation of collection, limitation of disclosure, transparency, destruction of information, access and correction, and destruction that is to be followed if you're dealing with personal data (National Privacy Commission, 2024)

As well as complying with the DPA, organisations should also ensure they have strong internal policies and security procedures to help protect any personal data of employees and job applicants that might be accessed or used by third parties.

Responsibility and Human Control: One of the ethical imperatives i sto ensure that AI decision-making is responsible and human-controlled. This desire is manifesting through parliamentary legislation that include House Bill No.9448 (Protection of Labor against AI Automation Act, 2023) and House Bill No.7913 (Artificial Intelligence Regulation Act, 2023) which outlaw the use of AI as the sole decision maker and mandates that human oversight be given to critical decisions taken through the use of AI. This in turn sets the scene for a demand for human-in-the-loop approach in which human judgment, discretion and empathy continue to be a paramount running feature of human resource management functions such as recruitment, performance management andt ermination. Furthermore, the employees need to be given the right of appeal againstthe AI-powered decisions.

Transparency and Explainability: Employers have an ethical obligation to be transparent about how AI is being deployed in HRM processes. "This means they must be transparent about how weuse AI with employees and candidates and, as far as possible, provide information about how the algorithm arrived at it sdecision. "Lack of transparency: Lack of transparency can create space for injustice and distrust in th eorganization. Institutional policies can act as a guardrail in responsible use of AI in academe, for example, by requiring faculty to indicate their levels of AI use in their assessments submitted to their students and peers so students and peers can trace or track the use for transparency and accountability (The La Sallian, 2025).

Of course. The text below has been rew ritten as a formal Results and Discussion section followed by a distinct Conclusions and Recommendations section, as is appropriate in a paper.

Results and Discussion

This chapter summarizes the results of the analysis on how Artificial Intelligence (AI) is implemented in the Philippine Human Resource Management (HRM) context, observing two specific sectors in the country - the maritime and Higher Education Institution (HEI) sectors. The findings are presented thematically by HR function, and then by general discussion of cross-cutting themes.

Conclusions: a Trend toward Incremental and Uneven Adoption

Our analysis finds a slow but uneven uptake of AI across the Philippine HRM ecosystem. While there is alignment between maritime and HEI organizations on the vision of leveraging AI for increased efficiency and alignment of strategic objectives, the details of actual applications, level of maturity, and drivers for adoption vary greatly.

4.1 AI in Recruitment and Selection - A Tale of Two Drivers

The most popular application of AI for Philippine HRM is employed in recruitment and selection in certain high-volume hiring industries such as the Business Process Outsourcing (BPO) industry (Marasigan, et al., 2025). The most important stimulus in this context is administrative efficiency. Automated screening: AI-powered solutions like Applicant Tracking Systems (ATS) and resume parsers enable the automation of large-scale application screening, extraction of pertinent information, and candidate matching to job specifications in early hiring stages (Textkernel, n.d.).

In contrast, a different motive for the adoption of AI in the public sector and HEIs is becoming increasingly common: making the process more fair and objective. The most advanced institutions are experimenting with predictive models to make merit-based criteria more explicit in faculty selection and promotion decisions. This is a strategic move away from using AI for process optimization and toward using it to increase governance and transparency.

However, such an enabling application remains highly-challenging, as it requires clean and reliable data for model training and runs the risk of an over-reliance on technology in a traditionally subjective process (Marasigan et al. 2025).

AI for Credentialing and Compliance: The Maritime Mandate

The Philippines maritime industry is a pillar of the national economy, and the compliance issues unique to this sector that manages a large workforce of seafarers are complex and high-stakes. Here, AI is a key enabler for handling the complexity of seafarer credentialing, documentation and lifecycle management. For example, it is reported that key applications include cleaning and matching of seafarer records, automated document expiration management, and optimized crew scheduling (Orca AI, n.d.).

A major enabler for these applications is the centralised national database, the Philippine Maritime Workforce Portal (PMWP). This portal delivers the low-level, clean, and accessible data needed for use in higher-level applications in AI and policy management. As Maritime Fairtrade (n.d.) points out, it is "the operational version of the log book for seafarers... an essential tool for developing predictive models for crew churning." The PMWP is a great example of how national data infrastructure can break down data silos and facilitate the responsible use of AI for operational and decision-making applications.

4.3 AI in learning & development (L&D) and competency management

AI is fundamentally changing L&D from traditional one-size-fits-all training to more personalized and data-based training. In HEIs, intelligent systems such as the Holistic Employee Capability Analyzer (HECA) create personalized learning proposals for faculty and staff depending on their role, their career goals, and their need for developing competencies based on resumes, student feedback, and departmental assessments (HECA, 2025). This creates a culture of constant and on-demand learning.

This is certainly the case in the maritime industry, where AI-driven analytics are being deployed for competency assurance. Predictive models can be used to address fleet-wide skills gaps and allow companies to proactively create training programs to address those gaps. Moreover, Virtual Reality (VR) and Augmented Reality (AR) based Artificial Intelligence (AI) driven simulation incubators are supporting new immersive learning for critical tasks such as emergency operations and complex vessel execution (MDPI, 2024).

4.4 AI in Performance Management and People Analytics - From Descriptive to Predictive

The results suggest that there is a shift in the Philippines from analytics of description (reporting what happened) towards analytics of prediction (forecasting what will happen). And within this context, the BPO sector, which suffers from high employee attrition, is also a leader. Using predictive models to forecast attrition risks, identifying contributing factors, and understanding programs or training opportunities resulting in high potential personnel for leadership development (ResearchGate, 2025) This makes it possible to apply specific retention strategies to ensure greater operational stability.

A new frontier is unfolding in the maritime industry where AI is fusing operational ship data (such as fuel consumption, engine performance) with HR data (such as work shifts, rest intervals). This integration also helps align data across systems, reducing silos and enabling performance to be viewed from a Big Picture perspective. For example, AI can link human factors to operational results to drive high-stakes decisions in the areas of fatigue risk management and crew performance assessment (Orca AI, n.d.).

4.5 The Developing Policy and Governance Framework

The Philippines is creating a progressive legal and ethical framework for governing the use of AI. This exceptional foundation for responsible innovation is founded in the principles of informed consent and proportionality of data processing, as laid out by the NPS in the Data Privacy Act 2012 and 2013 (National Privacy Principles: Guidance, National Privacy Commission NPC, 2024).

More recently, proposed legislation reflects an unequivocal legislative intent to balance technological innovation with worker protection. House Bill No. 9448 (Protection of Labor Against AI Automation Act, 2023) aims to prevent AI as the only deciding factor for hiring and firing with the need for human intervention. In addition, House Bill No. 7913 (Artificial Intelligence Regulation Act, 2023) also lays out a holistic regulatory regime for ensuring the robustness, reliability, and non-discrimination of artificial intelligence systems in relation to algorithmic discrimination: By taking proactive measures towards governance, organizations can build public trust and ensure that the benefits of AI are distributed fairly.

Conclusions

AI Adoption is Sectoral and Goal-Oriented: The adoption of AI in Philippine HRM is not uniform. It is extremely contextual, with efficiency, and automation being key drivers of adoption in high volume sectors like BPO, whereas objectives of fairness, compliance and improved safety are central in the HEI and maritime sectors.

Human Augmentation is the Dominant Narrative: AI across the board is overwhelmingly seen as a tool for human augmentation rather than replacement. The emphasis is on automating the routine tasks to free up HR professionals and employees to focus on high-value, strategic, and human-centric work. This creates the need for a new imperative for reskilling and upskilling the workforce.

Data Integration: Data Integration is one of the critical bottlenecks and enablers: The one major challenge standing in the way of realizing the strategic potential of AI is the multitude of siloed data systems. Conversely, the creation of centralised data infrastructures (such as the PMWP) is an important enabling factor for unlocking higher level analytical and predictive capabilities.

Regulatory Framework: The Philippines is taking proactive steps to establish policies and regulations that promote responsible and ethical AI development. Achieving an appropriate balance between technological innovation and the protection of worker rights and data privacy should therefore be a critical element present in any future framework that seeks to prevent these emerging risks before they occur.

Recommendations

For Organizations (Bi-sector, HEIs, Maritime & other sectors):

Build Integrated Data Infrastructure: For organizations to look beyond simple automating techniques, a strong investment in breaking down siloization of data is necessary. This involves the development of HR data warehouses to support advanced analytics by transforming disparate units and related information into one "source of truth".

Reskilling and Change Management: Prioritise L&D efforts centered around reskilling people in human-AI collaboration skills, critical thinking, and data literacy. Instituted change management principles to correct these by relying on trust and eliminating the fear of being pushed out of jobs.

Form Internal AI Ethics Committees:

Create cross-functional groups to audit and guide the use of AI tools (especially predictive models as they pertain to hire and human capital management) to ensure fairness, transparency, and regulatory compliance.

For Bureaucrats,Government Officials & Others:

Ghostsuch: Support Urgent Legislationof AI: Democratise Aiusingproposed AIA cts: Cosmically deliver twin House Bills 9448 and 7913 for the country to have sensible and complete legislation regarding the ethical use of AI in the workplace.

Incentives for Public-Private Partnerships for Data Infrastructure: Support the building of PMWP-like channels at the national level across key sectors as a foundation for AI-enabled policymaking and innovation at the national scale.

For Future Research:

Conduct Longitudinal Impact Studies: There is a need for studies to track the longer-term impacts of AI adoption on job displacement, job creation, and skill requirements in the Philippine labor market.

Assess for Local AI Algorithmic Bias: Future research should include the local context to easily test AI hiring and management tools for any bias embedded within demographic characteristics, including school of origin, geography, for dialect, and forgender.

Quantify Successof AI-Empowered L&D Behavior: Inthe Westernworld, there's proof that AI-powered adaptive learning and VR/AR-based training simulators can significantly improve employee competency and performance metrics-can these methods be triggered in the Philippine context too?

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