The Role of Artificial Intelligence in Human Capital Management: A Review at PT. Pos Indonesia

Sora Baltasar[1*], Tonggo Marbun[2]
[1]Master of Management, Universitas Pamulang, Indonesia
[2]Doctor of Management, Universitas Pendidikan Indonesia, Indonesia
[1]soramedia321@gmail.com, [2]tonggomarbun@upi.edu
*Corresponding Author

Article Info

ABSTRACT

PT. Pos Indonesia is committed to overcoming digital era challenges by implementing strategic transformations, particularly through the adoption of Artificial Intelligence (AI). **AI plays a key role** in enhancing operational efficiency, service quality, and revenue growth. It optimizes logistics, accelerates courier services, and personalizes customer interactions, contributing to an 18.64% increase in business revenue in 2023, reaching Rp 5,479,12 billion. **This growth** is driven by AI based automation in supply chain management and customer data analysis. **The goal** of this research is to explore how PT. Pos Indonesia can address AI implementation gaps and optimize its use to gain sustainable competitive advantages in operations and Human Capital Management (HCM). It also aims to provide strategies for developing human resource management and enhancing efficiency through AI. In HCM, AI improves recruitment, training, and employee development, supporting skill analysis, personalized training, and performance evaluation. **This transformation** aligns with AKHLAK values, fostering collaboration and adaptability while supporting remote work models for O-Rangers and postal agents via realtime monitoring. AI also helps PT. Pos Indonesia adapt to the evolving e-commerce industry by optimizing delivery routes, predicting demand, and empowering digital platforms like Pospay. Automation improves cost efficiency and customer service, strengthening PT. Pos Indonesia position in the digital logistics and courier services market. **Through AI integration** in HCM and operations, PT. Pos Indonesia enhances profitability and establishes sustainable competitive advantages, positioning itself as a model for technology driven business innovation in Indonesia logistics and financial sectors.

1.   INTRODUCTION

AI began in the 1950s when Alan Turing introduced the concept of the "Turing Machine" and the idea of machines that can think. In 1956, the term "Artificial Intelligence" was used at a conference at Dartmouth College, USA. However, the development of AI was very limited due to technological and computational power constraints [1]. Machine Learning began to emerge in the 1980s, but saw rapid advancements in the early 2000s with the increase in computational capabilities and the availability of large amounts of data [2]. AI continues to evolve towards what is called General AI or artificial general intelligence, where AI is expected to be able to mimic human intelligence in a broader context. AI technology is currently widely used in daily life, such

as virtual assistants for cars, climate predictions, medical diagnoses, and even drug development [3, 4]. In the future, AI is expected to become an increasingly integral part of human life, helping to solve global issues such as company operations, climate change, and health.

AI not only includes robot technology or facial recognition, but also data analysis, machine learning, and NLP [5]. AI is divided into three main categories:

- **Robotic Process Automation (RPA):**
  Used to complete repetitive tasks that usually require simple human interaction. Davenport and Ronanki explain how AI, especially through RPA, can automate repetitive manual tasks that typically require significant human time and effort [6, 7]. In operational management, this automation increases efficiency, reduces operational costs, and allows the workforce to focus on more complex and value added tasks. AI driven process automation can help organizations design more effective workflows, reduce reliance on human intervention, and minimize errors in business processes.

- **Machine Learning:**
  Used to detect patterns in data and help predict or make decisions based on historical data. According to them, machine learning and big data analytics are described as technologies that enable companies to collect and analyze large amounts of data to make accurate predictions or recommendations [8]. This is directly related to operational management, where quick and accurate decision making is crucial to respond to market needs and optimize inventory, production, and distribution. For example, AI can predict product demand based on historical data and market trends, allowing companies to adjust production with greater precision.

- **Cognitive:**
  Using Natural Language Processing (NLP) and other interaction technologies to handle more complex interactions. AI that uses NLP helps improve customer interactions, such as through chatbots and virtual assistants, which can be integrated into operational processes. In the context of operational management, this means improvements in customer service processes, where AI can help handle complaints or questions more quickly and efficiently [9, 10]. This reduces the workload on customer service teams and enables more consistent and higher quality customer service.

AI three main categories RPA, Machine Learning, and Cognitive AI boost efficiency and decision making. RPA automates tasks, Machine Learning predicts trends, and Cognitive AI enhances customer interactions. Together, they optimize operations and improve productivity.

1.1. Indonesian Logistics Industry

The logistics sector in Indonesia has experienced significant growth due to the rise of e-commerce and transportation infrastructure modernization. E-commerce transactions in Indonesia reached Rp 474 trillion in 2023, with projections of continued growth in the coming years. The transportation and warehousing sector, contributing 4.24% of the economy in 2021, is expected to increase to 6.00% by 2024. The sector plays a critical role in accelerating economic development, particularly through technological advancements and collaboration between service providers and goods owners [11–13].

PT. Pos Indonesia, originally a postal service provider, has evolved into an integrated logistics company, focusing on e-commerce and MSMEs. The company invests in digital transformation to improve efficiency, service quality, and competitiveness in the logistics market. Its extensive network enables it to reach remote areas effectively. The company is exploring the role of AI in HCM to enhance HR performance, reduce operational costs, and maintain competitive advantage without compromising cultural values such as AKHLAK. AI has the potential to support PT. Pos Indonesia cultural values by improving transparency, competence, and collaboration [14, 15].

This research aims to explore the role of artificial intelligence in HCM at PT. Pos Indonesia by reviewing relevant recent studies; To understand the main benefits and potential challenges associated with the implementation of artificial intelligence in Human Capital strategies that can reduce operational costs and improve efficiency [16]. This research is important to understand how AI can be integrated into HCM without sacrificing the company cultural values, so that PT. Pos Indonesia can enhance HR performance while maintaining a competitive advantage in the logistics industry. Unlike other logistics companies that focus solely on

operational efficiency, PT. Pos Indonesia emphasizes a work culture based on the values of AKHLAK (Amanah, Kompeten, Harmonis, Loyal, Adaptif, Kolaboratif). AI can strengthen these values by enhancing transparency, competence, and teamwork [17].

2. METHODOLOGY

This research adopts a qualitative descriptive approach using literature review as the data collection technique. The choice of a qualitative descriptive approach is due to the research objectives mentioned above [18, 19]. A comprehensive literature review has been conducted from various relevant sources for this research.

3. DISCUSSION

AI in HCM at PT. Pos Indonesia enhances HR functions by streamlining recruitment, performance management, and employee engagement [20]. AI automates candidate screening, analyzes employee data for productivity trends, and provides personalized feedback, supporting data driven decision making and aligning talent with organizational goals.

3.1. Artificial Intelligence

Artificial Intelligence is defined as the science and engineering of creating intelligent machines that can perform tasks that typically require human intelligence [21, 22]. AI focuses on the development of algorithms and models that enable systems to learn from data, make decisions, and adapt to specific environments.
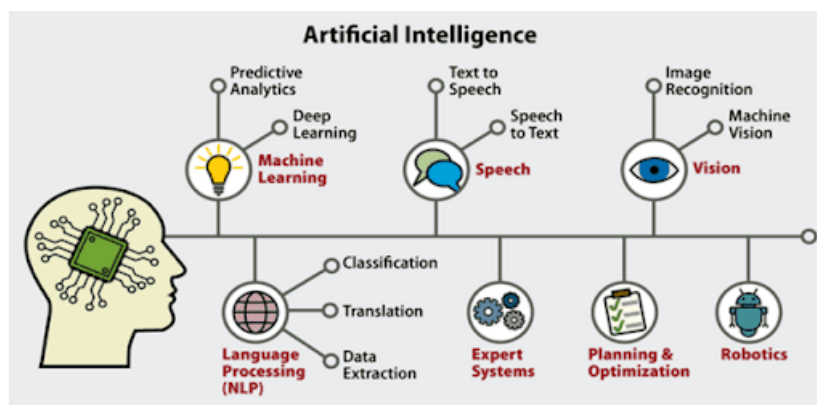

Figure 1. Artificial intelligence

This Figure 1 shows the key areas of AI that mimic human cognitive abilities. AI, defined as creating intelligent machines for tasks requiring human intelligence, includes branches like Machine Learning, Deep Learning, NLP for language processing, and applications such as Speech-to-Text, Text-to-Speech, Image Recognition, and Machine Vision. Additionally, Expert Systems and Robotics are part of AI's contribution to replicating human functions.

- **Machine Learning**
  Enables systems to learn from data without explicit programming, including Predictive Analytics for predictions based on historical data and Deep Learning for identifying complex patterns [23]. PT. Pos Indonesia implements AI in supply chain management, optimizing deliveries, and enhancing data security through anomaly detection and deep learning models, which reduce delivery times by up to 15% and increase logistics efficiency by 25%.

- **Speech Recognition & Processing**
  Allows AI to understand and generate speech through Text to Speech and Speech to Text features. Currently, PT. Pos Indonesia has not yet implemented this technology, but remains committed to adopting AI for automation and service enhancement [24].

- **Computer Vision**
  Focuses on image processing and visual recognition, such as Image Recognition and Machine Vision. PT. Pos Indonesia has adopted this technology in robotic sorting machines, increasing sorting efficiency by up to 700%, and monitoring the performance of O-Ranger in real time using IoT and streaming analytics to ensure operational effectiveness in the field.

- **Natural Language Processing (NLP)**
  Allows AI to understand, translate, and extract information from text. PT. Pos Indonesia uses NLP to filter CVs, manage chatbots on the Pospay platform, and analyze customer sentiment to improve services [25].

- **Expert Systems**
  leverage AI to provide knowledge based advice or decisions. PT. Pos Indonesia implements predictive analytics with TensorFlow and PyTorch to understand customer behavior, personalize services, and develop digital platforms like Pospay.

- **Planning & Optimization**
  focuses on the planning and optimization of resources. AI helps PT. Pos Indonesia design optimal delivery routes based on traffic and geographical data, improving distribution efficiency, including to remote areas.

- **Robotics**
  uses AI for automation and interaction with the environment. PT. Pos Indonesia implements RPA to automate administration, shipment tracking, and claims management, reducing manual workload by up to 30% and improving operational efficiency.

AI integrates various fields to create adaptive systems in business, health, and technology, focusing on data analysis, prediction, and automated decision-making. In logistics, AI optimizes the supply chain using big data, machine learning, and automation to enhance planning, monitoring, and real-time management. PT. Pos Indonesia AI approach, tailored to its unique values of AKHLAK, inclusivity, and sustainability, differs from profit-driven companies and emphasizes efficiency, HR transformation, and corporate culture change [26, 27]. AI in HCM supports decision making in recruitment, skill development, and performance evaluation by using data analysis. It personalizes recruitment, training, and reduces bias in selection. At PT. Pos Indonesia, AI is applied in recruitment (using NLP to match competencies), training (using recommender systems for personalized training), and performance evaluation (with real-time feedback) [28]. This AI application increases efficiency, reduces subjectivity, and supports data-driven HR management. AI at PT. Pos Indonesia enhances operational efficiency and creates a data driven HR system, including sentiment analysis to measure employee engagement and satisfaction in real time [29, 30]. However, challenges include high costs, the need for accurate data, algorithmic bias, and employee data privacy concerns.

3.2. Cost Reduction and Revenue Increase

Figure 2, shows that AI in business impacts cost reduction and revenue increase. AI reduces operational costs by automating business processes, identifying inefficiencies, and optimizing supply chains, thereby reducing labor expenses [31]. On the other hand, AI increases revenue by enabling service personalization, market trend analysis, and more effective marketing strategies, which drive sales and new business opportunities. In the field of HR, AI automates resume screening and interviews, saving recruitment time, and reducing training costs through personalized AI-based programs. AI also helps analyze employee sentiment, improve satisfaction, and reduce turnover, thereby supporting the productivity and efficiency of the company [32, 33].

Cost decreas and revenue increase from AI adoption in 2021, by function, % of respondents[1]

Decreas by <10%	Decreas by 10-19%	Decreas by >20%	Decreas by >10%	Decreas by 6-10%	Decreas by <5%

Service operations	45 29 10 6	10 10 37 57
Manufacturing	42 32 7 3	10 18 33 61
Human Resources	29 25 3 1	14 13 31 58
Marketing and sales	28 21 4 3	9 20 41 70
Risk	43 30 8 5	10 11 27 48
Supply chain management	52 41 7 4	14 17 28 59
Produck and /or service development	30 20 4 6	13 24 33 70
Strategy and corporate finance	43 31 8 4	8 16 41 65
Average across all activities	32 23 6 3	8 19 36 63

*Question was asked only of respondents who said their organizations have adopted AI in a given function. Respondents who said "no charge", "cost increas", "not applicable", or "don't known" are not shown.
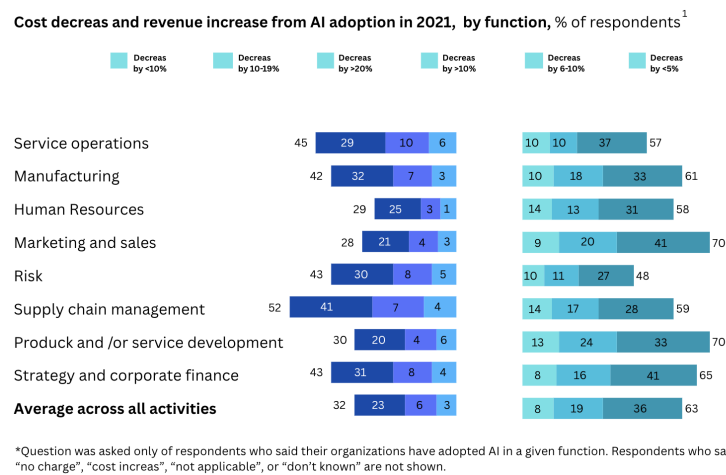
Figure 2. Cost Reduction and Revenue Increase from AI Adoption

The implementation of AI at PT. Pos Indonesia has significantly impacted operational efficiency and customer satisfaction, evidenced by an 18.64% increase in revenue in 2023 and a 30% reduction in operational costs through supply chain automation and customer demand analysis. On the service side, AI enhances customer satisfaction with NLP based chatbots and more accurate recommendation systems. Delivery route optimization also reduces delivery times by up to 15%, especially in remote areas. In HR management, AI accelerates recruitment, assists in workforce planning, and facilitates data driven career development and promotions [34]. AI also enables personalized training, enhancing employee skills and engagement. This success makes PT. Pos Indonesia a pioneer in the digital transformation of the logistics and financial sectors, demonstrating that AI is a key factor in enhancing competitiveness, effectiveness, and service quality.

4.   RESULTS

AI implementation in HCM at PT. Pos Indonesia has led to faster recruitment, more accurate performance assessments, and improved employee engagement [35]. Automated candidate screening reduced hiring time, while AI-driven performance tools provided tailored feedback, enhancing productivity. Additionally, AI insights helped improve retention strategies and overall job satisfaction.

4.1.   AI as the Key to Productivity Improvement

PT. Pos Indonesia, with 16,040 employees and 16,469 couriers, operates across 3,924 branches nationwide, supported by 12,819 courier agents and over 100,000 financial services agents. The company adopts the "Human + AI = Superhuman" concept, leveraging AI to enhance operational efficiency, data-driven decisions, customer service, and human resource transformation [36]. Key elements include:

- **Operational Efficiency:** AI automates tasks, optimizing logistics and delivery routes.

- **Data Driven Decision Making:** AI analyzes data for quick, accurate decisions.

- **Customer Service Improvement:** AI chat bots handle routine inquiries, while complex cases are escalated to human staff.

- **Human Resource Transformation:** Employees are reskilled to work alongside AI technology.

- **Superhuman Productivity:** AI human collaboration handles larger workloads with better quality and faster responses.

Through this concept, PT. Pos Indonesia enhances competitiveness, customer satisfaction, and fosters a more innovative work environment.
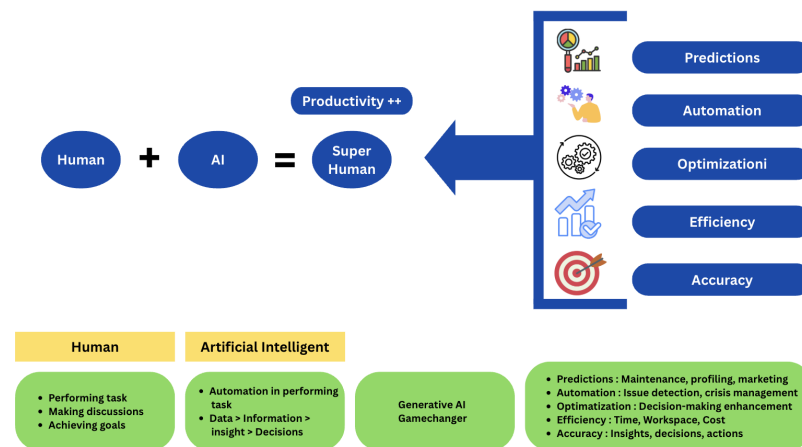
Figure 3. AI as The Key to Increasing Productivity

By implementing this concept, PT. Pos Indonesia not only increases efficiency and productivity but also adds value to customer experience and strengthens the company competitiveness.

PT. Pos Indonesia applies AI to support productivity and service quality through prediction, automation, optimization, efficiency, and accuracy. Detailed aspects of this implementation include:

- **Human Element in Digital Transformation:** AI assists employees in solving complex problems, while humans provide creativity and contextual understanding [37, 38].

- **Prediction:** AI forecasts demand and customer behavior to optimize logistics and inventory management.

- **Automation:** AI handles repetitive tasks like sorting and updating delivery statuses, enhancing efficiency.

- **Optimization:** AI optimizes delivery routes, reducing operational costs and ensuring timely deliveries.

- **Work Process Efficiency:** AI accelerates tasks such as letter and package processing, improving distribution speed and accuracy.

- **Accuracy:** AI ensures precise data analysis, enhancing decision making and resource allocation.

These AI driven improvements help PT. Pos Indonesia deliver faster, more accurate services, boosting customer satisfaction and operational performance.

4.2.   Role of AI in HCM of PT. Pos Indonesia

The logistics SOE is transforming its HR Directorate into HCM to boost competitiveness in the digital era. This shift focuses on talent development and competency based management, with an emphasis on aligning employee growth with company goals. HCM plays a strategic role in performance evaluation, talent management, and career planning, ensuring HR capabilities support company objectives [39]. Technology and data are used to make informed decisions, monitor performance, and foster a positive work culture.

PT. Pos Indonesia is integrating AI into its digital transformation, using AI-powered sorting machines and RFID to improve efficiency. The company also launched a Digital Talent Recruitment program targeting younger generations and prioritizes leadership and employee development through training and e-learning. AI-driven performance management systems help identify skill gaps and develop personalized growth plans. This technology-driven approach enhances employee engagement and aligns talent management with the company strategic goals, ensuring responsiveness to market changes and continuous improvement [40, 41].

The logistics SOE is transforming its HR Directorate into HCM to boost competitiveness in the digital age. This shift moves from a traditional administrative model to a strategic approach focused on talent development, treating employees as strategic assets. HCM emphasizes competency-based management, career planning, and training to align employee growth with company needs. It plays an active role in strategy formulation, ensuring that HR capabilities support the company goals. Performance evaluations in HCM focus on results, with an emphasis on actual contributions towards business targets [42].

4.3. Transformation & Inovation Program

PT. Pos Indonesia launched the "7 Transformation & Innovation Programs" to accelerate digital transformation and strengthen competitiveness in the era of Industry 5.0 figure 4. These programs include: business transformation through service diversification into logistics, digital finance, and e-commerce; development of digital-based products and distribution channels; digitization of operational processes to enhance efficiency; adoption of AI and big data technology in decision-making; HR transformation through the recruitment of digital talent and upskilling programs; organizational structure reform to be more adaptive; and a shift in work culture towards innovation and performance based on OKR. Objectives and Key Results (OKR) system for performance management and recruiting professional talent to fill strategic positions. These steps aim to increase productivity, empower the local economy, and expand logistics services effectively and efficiently [43, 44]. The company also recorded significant increases in revenue and profit from 2020 to 2023. As part of the organizational transformation, PT. Pos Indonesia revamped its structure to create a more dynamic and market responsive company. Since 2021, the organizational structure has been updated to accelerate decision-making, enhance collaboration, and reduce hierarchies that hinder innovation. The company also established special units in the fields of logistics, service digitalization, and finance, and implemented a work culture based on AKHLAK to strengthen ethical values and professionalism. Additionally, agility and adaptability are the main focus to ensure the company is ready to quickly face market and technological changes [45, 46].
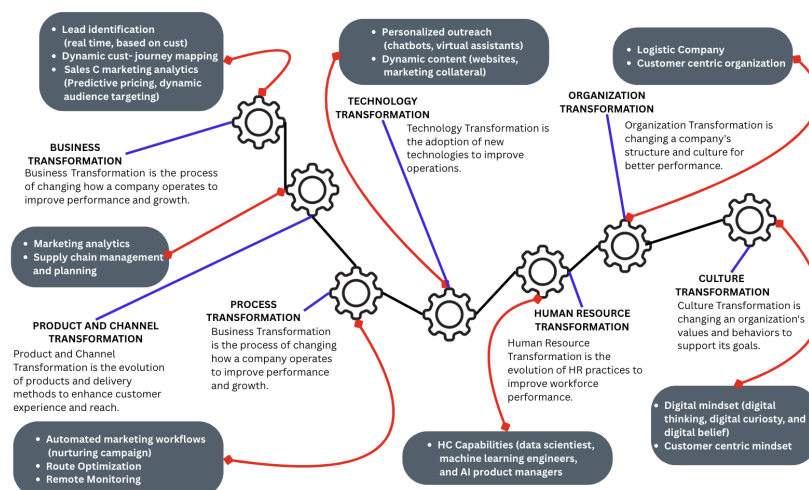

Figure 4. 7 Transformation & Inovation Program to connected AI

The image showcases a transformation and innovation program that incorporates connected AI into various aspects of a company. It highlights how businesses can evolve by integrating AI technologies into operations to improve performance and growth. The program covers areas like improving marketing strategies, optimizing product delivery methods, and enhancing customer experience through automation [47, 48]. Additionally, it emphasizes the importance of adapting organizational structures, developing digital skills in the workforce, and fostering a culture that supports digital transformation. By implementing these changes, companies can boost their efficiency and create a more customer-centric environment. Figure 4 illustrates how these transformations work together to drive innovation and business success.
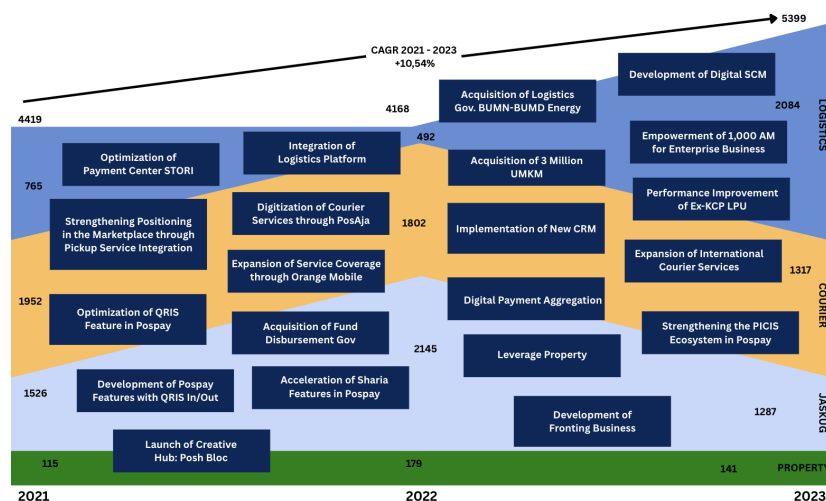
Figure 5. CAGR & Business Initiatives of PT. Pos Indonesia 2021-2023

Figure 5 shows the development and strategic initiatives of PT. Pos Indonesia from 2021 to 2023, leading to an increase in the compound annual growth rate (CAGR) of +10.54%. CAGR is important for PT. Pos Indonesia because it can assess Business Performance over a certain period, Strategic Planning, especially in developing rapidly growing segments, and Comparison with Competitors, which is to measure the competitiveness and relative growth of PT. Pos Indonesia in the industry. The use of AI has significant potential in supporting several initiatives displayed in the image, particularly in enhancing efficiency, strengthening services, driving innovation, and improving the company competitiveness in the digital era [49–51].
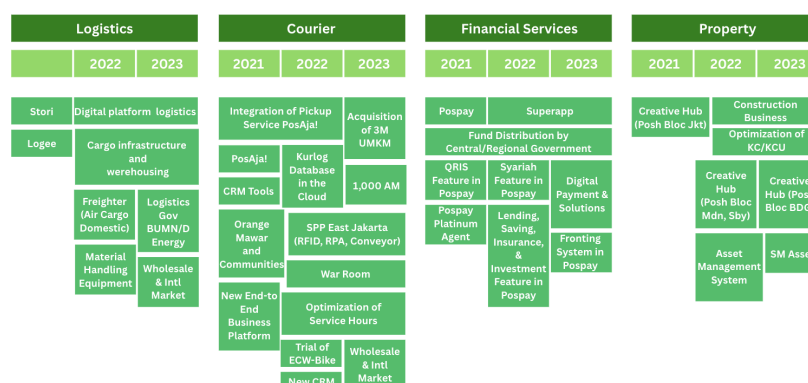

Figure 6. Milestone Portfolio of PT. Pos Indonesia. Highlights AI role in modernizing logistics, enhancing customer service, and driving financial growth

Figure 6 displays the strategic achievements of PT. Pos Indonesia across various business lines from 2021 to 2023. AI plays a crucial role in supporting this transformation by increasing efficiency, reducing operational costs, and accelerating services. In logistics, AI optimizes delivery routes, predicts demand, and manages inventory automatically, enabling more efficient and accurate warehouse management. In the courier sector, AI simplifies logistics data analysis, automates pickup services, and provides more accurate delivery time estimates to enhance customer satisfaction. In the financial services sector, AI enhances the security of digital transactions with automatic fraud detection systems and personalizes services in the Pospay application. In the field of real estate, AI supports predictive maintenance, enabling proactive asset maintenance to extend lifespan and operational efficiency.

In addition, AI plays a role in HCM at PT. Pos Indonesia, supporting digital transformation and business growth through:

- **Employee Competency Development:** AI identifies skill gaps and recommends training based on individual needs.

- **Recruitment & Talent Selection:** AI accelerates the selection process with automated analysis of candidates, including chatbots for initial communication.

- **Performance & Productivity Management:** AI monitors performance in realtime, provides automatic feedback, and analyzes employee job satisfaction.

- **Human Resource Planning:** AI predicts workforce needs based on business trends and allocates resources optimally.

- **Personalization of Employee Experience:** AI offers tailored career development, enhancing retention and job satisfaction.

- **HR Administration Automation:** AI assists in managing employee data, attendance, and HR self service through chatbots and RPA.

- **Employee Satisfaction Monitoring:** AI analyzes employee feedback in real-time to enhance well-being and work productivity.

Overall, AI plays a significant role in driving innovation and efficiency at PT. Pos Indonesia, both in operational aspects and human resource management. PT. Pos Indonesia has streamlined 3,817 employees over the past two and a half years as part of its efficiency and operational cost-saving strategy. The company replaced several roles with partnership systems and digitalization, increasing flexibility in human resource management and operational efficiency. Through the partnership program, PT. Pos Indonesia expands its service reach by involving the community in the Pos Agent and O-Ranger systems. Pos Agents allow individuals or local companies to become official postal service agents, while O Rangers serve as partners for package pickup and delivery based on digital applications, such as PosAja!, targeting the MSME market, online stores, and offices.

PT. Pos Indonesia experienced a significant increase in revenue and profit from 2020 to 2023. Here are the details of the company revenue and profit during that period:

Table 1. Revenue and Net Profit of PT. Pos Indonesia, In Billion Rupiah, Period 2020-2023

Description	2020	2021	2022	2023
Business Revenue	5,455.53	4,472.94	4,618.39	5,479.12
Courier Revenue	2,646.70	1,992.02	1,333.75	1,456.77
Logistics Revenue	648.61	785.61	491.30	2,176.04
Financial Services Revenue	2,090.88	1,507.78	2,128.33	1,252.96
Property Revenue	69.32	115.47	178.89	136.80
Net Profit	342.02	539.76	637.04	728.21
Net Profit Margin	6.27%	13.19%	13.79%	13.29%

The increase in sales of PT. Pos Indonesia in 2023 was driven by various strategies, including transformation and innovation, expansion of logistics and financial services, digitalization of services, and government assignments. The company runs 14 transformation programs and 13 innovation programs that enhance service quality, with a Delivery Time Standard (DTS) above 98% and customer complaint resolution reaching 99.76% within 24 hours. The expansion of the logistics business is carried out through collaboration with the government and state owned enterprises (SOEs), strengthening its network and capabilities.

PT. Pos is also enhancing asset value and digitalization, including the use of cloud computing, 24/7 War Room operational monitoring, and the launch of Pospay Super Apps for courier and financial services. In addition, the company obtained Rp1.33 trillion from government assignments, such as the distribution of BLT. This strategy contributed to the increase in net income of PT. Pos Indonesia in 2023.

Table 2. AI Implementation in HCM and Logistics Operations

Aspect	AI Implementation & Innovation	Benefits
AI in HCM	Efficient Recruitment: AI screens CVs, analyzes candidate data, and matches qualifications to job positions. AI-Based Training: Adaptive learning provides personalized training modules. Predictive Analytics for Retention: AI detects potential turnover based on work data and employee satisfaction.	Speeds up recruitment & reduces bias. Increases training efficiency by up to 25%. Reduces turnover through welfare programs & incentives.
AI in Logistics Operations	PosAja!: A mobile app for direct shipment booking and route optimization. I-POS (Integrated Postal Operations System): A real-time information system for shipment tracking. On-Time Delivery: 100% punctuality for regular shipments and 98% for next-day services in the past six months.	Saves fuel & improves delivery accuracy. Provides accurate information & enhances customer service. Boosts operational efficiency at PT. Pos Indonesia.
Eco-Friendly Initiatives & Cost Efficiency	Green Wall: Greening operational areas to absorb carbon dioxide. Electric Vehicles: Replacing fossil fuel-powered vehicles to reduce carbon emissions.	Supports SDG 13 (climate action). Reduces air pollution & operational costs. Lowers the company carbon footprint.

PT. Pos Indonesia faces challenges in fully integrating AI into its operations and human resource management, including limited technological infrastructure, a lack of digital skills among employees, and concerns over data privacy and high implementation costs. These barriers hinder AI adoption, especially with integration into existing systems in a long-established organization. However, AI tools like PosAja! and I-POS have proven essential in improving logistics efficiency, ensuring timely delivery, and enhancing customer satisfaction, as highlighted in Table 2. To overcome these challenges, PT. Pos Indonesia must focus on improving digital infrastructure, upskilling employees, and ensuring ethical AI use. By doing so, the company can continue to leverage AI for better operational efficiency, employee engagement, and business performance, positioning itself for sustained growth and success in the digital age.

5. MANAGERIAL IMPLICATION

Based on the findings, managers at PT. Pos Indonesia can adopt several strategies to enhance operational and workforce efficiency using AI. First, focusing on targeted reskilling and upskilling programs for employees, particularly senior staff, can address the digital skills gap. This aligns with the companys ongoing digital transformation initiatives. Second, investing in modular AI systems that integrate with existing logistics and HCM platforms can reduce deployment complexity and operational disruptions. Third, fostering a collaborative culture between AI systems and human employees ensures smoother transitions and minimizes resistance to change. Additionally, strengthening technology infrastructure, such as improving internet connectivity in remote areas, can enhance AI effectiveness across all regions. These strategies align with the AKHLAK values of integrity, collaboration, and adaptability, fostering sustainable innovation and operational excellence.

6. CONCLUSION

The collaboration between AI and human expertise at PT. Pos Indonesia has greatly improved operational efficiency, leading to a significant boost in revenue. By leveraging predictive analytics and AI-powered systems, the company has optimized critical logistics operations such as route planning, vehicle allocation,

and service demand forecasting. These improvements have resulted in lower operational costs, more accurate deliveries, and higher customer satisfaction. The integration of AI into these processes has enabled PT. Pos Indonesia to streamline operations, ensuring faster and more reliable services.

In addition to its impact on logistics, AI has played a key role in HCM at PT. Pos Indonesia. Through AI-driven insights, the company has been able to identify skill gaps, predict labor shortages, and personalize employee development strategies. This strategic approach has strengthened the company workforce and bolstered its leadership in the digital transformation of the logistics industry. AI has not only enhanced operational functions but has also provided valuable support in shaping a more agile and efficient workforce.

Furthermore, AI has proven instrumental in improving recruitment, training, and employee retention processes at PT. Pos Indonesia. By utilizing AI in recruitment, the company has increased hiring efficiency, reduced bias, and improved overall employee satisfaction. This has allowed PT. Pos Indonesia to adapt more quickly to market changes while fostering a more positive and productive work environment. The seamless integration of AI within the company has thus made it more adaptable to evolving industry demands and positioned it as a leading player in the logistics sector.

7.   DECLARATIONS

The author declares no conflict of interest. All data and findings presented in this study are original, properly cited, and have not been submitted for publication elsewhere. The research adheres to ethical standards and academic guidelines.

7.1.   About Authors

Sora Baltasar (SB) [iD] -

Tonggo Marbun (TM) [iD] -

7.2.   Author Contributions

Conceptualization: SB; Methodology: TM; Software: TM; Validation: SB and TM; Formal Analysis: TM and SB; Investigation: SB; Resources: TM and SB; Data Curation: SB; Writing Original Draft Preparation: SB and TM; Writing Review and Editing: TM and SB; Visualization: SB; All authors, SB and TM have read and agreed to the published version of the manuscript.

7.3.   Data Availability Statement

The data presented in this study are available on request from the corresponding author.

7.4.   Funding

7.5.   Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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