ABNUS JOURNAL
Your Research Partner

Jurnal Transportasi, Logistik, dan Aviasi (JTLA)
E-ISSN: 2807-145X | Vol. 3, No. 2 (2024) | pp. 65–77

Human Resource Information Systems in Air Cargo: A Case Study of PT Lintas Dewata Cargo

Muhammad Thareq Faiz[1], Ryan Firdiansyah Suryawan[2*], Abdul Samad Latuconsina[3]

[1,2]*Aviation College, Jakarta, Indonesia*
[3]*University of Jakarta, Indonesia*

***Corresponding author:** ryan.firdiansyah.1979@gmail.com |

Received: 2 November 2023 | Revised: 13 December 2023 | Published: 30 January 2024

Abstract

Purpose: This study examines the role and operational benefits of Human Resource Information Systems (HRIS) at PT Lintas Dewata Cargo, an Indonesian air cargo freight-forwarding company. As logistics operations become increasingly data-driven, HRIS plays an important role in improving workforce management, employee data accuracy, and inter-departmental coordination.
Research Methodology: A qualitative descriptive case study approach was employed. Data were collected through structured field observations conducted during an internship program and semi-structured interviews with key informants. The analysis focused on facilities and infrastructure, workforce management, work procedures, and implementation of the inter-line cooperation system.
Results: The findings indicate that HRIS integrates three subsystems—the Accounting Information System, HR Research Subsystem, and HR Intelligence Subsystem—within a centralized database that supports administrative, operational, and strategic HR functions. Supporting infrastructure includes computer units, a connected e-cargo system, and document-processing facilities. HRIS also facilitates coordination among the warehouse, packing house, and regulated agent through integrated data flows.
Conclusions: HRIS implementation improved the speed and accuracy of HR administrative processes, strengthened compliance with aviation cargo security requirements, and enhanced workforce coordination across operational units.
Limitations: The study was limited to a single company and observation period, restricting the generalizability of the findings. The qualitative approach also did not allow quantitative measurement of HRIS performance impacts.
Contributions: This study provides empirical evidence on HRIS implementation in Indonesian air cargo logistics and offers practical insights for logistics organizations pursuing HR digitalization initiatives.

Keywords: *Air Cargo, Cargo Management, E-Cargo, Freight Forwarding, Human Resource Information System (HRIS)*

How to Cite: Faiz, M. T., Suryawan, R. F., & Latuconsina, A. S. (2024). Human Resource Information Systems in Air Cargo: A Case Study of PT Lintas Dewata Cargo. *Jurnal Transportasi, Logistik, dan Aviasi (JTLA)*, *3*(2), 64–77.
https://doi.org/10.52909/jtla.v2i1.96

1. Introduction

The air cargo and freight forwarding industries occupy a strategically critical position in Indonesia's national logistics ecosystem. As an archipelagic nation spanning over 17,000 islands, Indonesia is

uniquely dependent on air freight for the rapid and reliable movement of time-sensitive, high-value, and specialty commodities, including perishable goods, live animals, pharmaceutical products, and express parcels, across its geographically fragmented economic geography (Firdiansyah & Soekarsono, 2016). The growth of e-commerce, cross-border trade liberalization, and the progressive expansion of Indonesia's air transport network have collectively intensified both the volume and operational complexity of domestic and international air cargo, creating mounting pressure on freight forwarding companies to achieve higher levels of operational efficiency, regulatory compliance, and workforce productivity (International Air Transport Association, 2020).

Human resource management (HRM) is recognized as a foundational determinant of organizational performance in service industries, particularly in air cargo operations, where human judgment, procedural compliance, and inter-team coordination are critical for safe and efficient service delivery. According to Ichdan and Maryani (2024), the transition from manual to computerized human resource management, embodied in the Human Resource Information System (HRIS), represents a transformative development in the organizational management of freight forwarding companies. HRIS, defined as a computer-based information system that integrates HR data collection, storage, processing, and dissemination to support HR decision-making and operational management, enables companies to streamline administrative processes, maintain accurate employee records, monitor workforce performance, and coordinate HR activities across multiple operational departments (Menant et al., 2021; Sanfelici & Silvana, 2020).

PT Lintas Dewata Cargo is a representative air cargo freight-forwarding company operating in the Indonesian aviation logistics sector. As an intermediary agent coordinating cargo acceptance, documentation, security inspection, and delivery between shippers and airlines, PT Lintas Dewata Cargo manages a complex operational environment that requires tight coordination among its warehouse, packing, and regulatory compliance functions. The company's HRIS is the informational backbone of this coordination, enabling HR records to be linked with e-cargo systems, supporting compliance documentation, and facilitating interline communication (Bangura, 2024; Singh et al., 2021). Despite this operational significance, no published study has documented the HRIS architecture, supporting infrastructure, or operational workflow of this or comparable Indonesian air cargo companies (Afifah & Sary, 2020).

This study addresses this gap through three specific research objectives: (1) to document and assess the role and benefits of HRIS implementation at PT Lintas Dewata Cargo; (2) to describe and evaluate the facilities and infrastructure supporting database management; and (3) to document the structure and functioning of the inter-line cooperation system enabled by HRIS data flow. By pursuing these objectives through systematic field observations and informant interviews, this study generates practical documentation for aviation logistics management practitioners and contributes to the emerging literature on information systems in Indonesian air cargo operations.

The remainder of this paper is organized as follows. Section 2 presents a theoretical and regulatory literature review. Section 3 describes the proposed methodology. Section 4 presents and discusses the findings across three analytical dimensions. Section 5 concludes with a summary of the findings, limitations, and future research directions.

2. Literature Review

2.1 Human Resource Management in Cargo Organizations

Human Resource Management (HRM) is the organizational function responsible for recruiting, selecting, developing, motivating, evaluating, and retaining people whose capabilities and commitment determine organizational effectiveness (Hasibuan, 2014; Sutrisno, 2016). In cargo and logistics organizations, HRM is complicated by the operational intensity of round-the-clock operations, the safety-critical nature of

cargo handling procedures, the regulatory demands of aviation security compliance, and the need to coordinate diverse workforce roles—including warehouse operators, documentation specialists, security-cleared cargo handlers, and regulated agents—across a continuous and time-sensitive operational cycle (Chowdhury et al., 2023; Drljača et al., 2020; Zhang & Chen, 2024). Busro (2018) and Srinivasan et al. (2023) emphasized that in logistics contexts, individual and collective labor productivity—defined as the capacity to produce goods or services within planned time parameters—is the primary HR performance metric, and its determinants include workforce capability, motivational environment, and the quality of supporting facilities and information systems.

Effective workforce management in air cargo requires not only competent employees but also precise, timely, and accessible information about these employees, including their certifications, training records, shift assignments, performance history, and authorization levels for handling different cargo categories (Budhwar et al., 2023; Cooke et al., 2022; International Air Transport Association, 2020). The absence of reliable, centralized HR data creates operational risks such as cargo mishandled by under-certified personnel, regulatory non-compliance due to expired training documentation, and coordination failures between inter-departmental workflows (Diaz-Carrion et al., 2021; Garg et al., 2022; Hamouche, 2023). HRIS addresses these risks by creating a single, authoritative source of workforce data that is accessible to authorized managers and operational supervisors (Khan, 2020; Menant et al., 2021).

2.2 Human Resource Information Systems: Concept and Architecture

A Human Resource Information System (HRIS) is a computer-based system designed to acquire, store, maintain, retrieve, and validate data about an organization's human resources, personnel activities, and organizational unit characteristics (Ichdan & Maryani, 2024; Panjaitan, 2023). Kavanagh et al. (2021) define HRIS as the integration of HRM and information technology through HR software, enabling HR professionals to perform transactional, relational, and transformational activities more efficiently. The architecture of a comprehensive HRIS typically encompasses three primary subsystems: the HR administrative subsystem (personnel records, payroll, and leave management), HR operational subsystem (training records, performance management, and workforce scheduling), and HR intelligence subsystem (labor market data, regulatory compliance monitoring, and workforce analytics) (Setiawan, Wakhyuni, & Azianda, 2024). Within this architecture, the system maintains data integrity through access control mechanisms that ensure the confidentiality of personal employee records while enabling authorized cross-functional data retrieval (Adula et al., 2022; Akter, 2021).

The concept of a Computer-Based Information System (CBIS) underpins HRIS implementation: all data processing, storage, and retrieval functions are automated, reducing manual processing time, minimizing transcription errors, and enabling real-time data access by authorized system users (Santoso & Septiani, 2020; Setiawan, Nuraeni, & Supratikta, 2024; Utami et al., 2024). A key operational benefit of CBIS-based HRIS is the Internet connectivity function, which enables remote data access, digital document exchange, and real-time communication between geographically distributed operational units (Huang, 2021; Porra et al., 2020). In the air cargo context, HRIS connectivity is further extended through integration with industry-specific operational platforms, including e-cargo systems, airline cargo management platforms, and regulated agent security databases, creating a digitally integrated operational environment that supports both HR management and cargo operations simultaneously (Khan, 2020).

2.3 Regulatory Framework for Air Cargo Operations in Indonesia

Air cargo operations in Indonesia are governed by a multilayered regulatory framework encompassing international aviation standards, national aviation law, and ministerial implementation regulations. At the international level, the ICAO Annex 17 (Amendment 11) establishes the security requirements for air cargo transportation, including the regulated agent system that mandates background security screening of cargo at approved inspection points. These requirements are transposed into Indonesian national law

through Law No. 1 of 2009 on Aviation and Law No. 13 of 2003 on Manpower, and operationalized through Ministerial Regulation No. 53 of 2017 on Cargo and Mail Security and the Supply Chain of Cargo and Mail Transported by Aircraft, and the DGCA Regulation No. 255/IV/2011 on Technical Guidelines for Security Inspection of Cargo (Firdiansyah & Soekarsono, 2016).

Within this regulatory environment, freight forwarding companies must maintain precise and verifiable records of employee security clearances, cargo handling certifications, and regulated agent authorizations, which is a documentation management burden that is substantially reduced by effective HRIS implementation (Odimarha et al., 2024; Sharma et al., 2024). Compliance failures, including the handling of cargo by employees without current security clearances or documentation errors in cargo manifests, expose companies to regulatory sanctions, cargo rejection, and reputational damage. Thus, HRIS functions as both an operational efficiency tool and a regulatory compliance management system in the Indonesian air cargo context (Widiastuti & Partiwi, 2021).

3. Methodology

3.1 Research Design

This study employed a qualitative descriptive case study methodology (Creswell & Poth, 2018; Yin, 2018). The case study design was selected because (1) the study seeks to understand 'how' and 'how' what and 'what' regarding HRIS implementation and inter-line cooperation in a bounded organizational context; (2) the phenomena under investigation are operationally complex and context-specific, requiring direct observation rather than survey or experimental methods; and (3) the limited prior literature on this topic in Indonesian air cargo companies necessitates inductive, discovery-oriented inquiry. The descriptive orientation is appropriate because the primary goal is comprehensive operational documentation and critical assessment, rather than hypothesis testing.

3.2 Research Site and Data Collection

The research site was PT Lintas Dewata Cargo, an air cargo freight forwarding company operating in Indonesia. Access was facilitated through a structured internship that enabled sustained naturalistic observation of HRIS operations, warehouse workflows, packing house procedures, and regulated agent activities. Data were collected through three complementary methods: (1) systematic field observation using a structured protocol organized around the four analytical dimensions (facilities and infrastructure, workforce management, work procedures, and inter-line cooperation); (2) semi-structured interviews with key informants including HR administrators, warehouse supervisors, packing house coordinators, and regulated agent officers; and (3) document analysis of operational manuals, cargo handling procedures, HRIS user interfaces, and e-cargo system outputs.

3.3 Data Analysis

Data were analyzed using qualitative content analysis (Schreier, 2012), and the findings were organized according to the three research objectives. Triangulation across observations, interviews, and documentary data sources enhanced the credibility of the findings. Member checking was conducted with two senior operational staff members to confirm the accuracy of the procedural descriptions.

4. Results and Discussion

4.1 The Role and Benefits of HRIS at PT Lintas Dewata Cargo

4.1.1 HRIS Architecture and Data Subsystems

The HRIS implemented at PT Lintas Dewata Cargo integrates three primary data subsystems into a centralized database accessible to authorized HR and operations personnel. The first subsystem is

the Accounting Information System (AIS), which transfers financial HR data, including wage records, income tax documentation, and payroll processing outputs, into the HRIS database. This integration eliminates the need for manual data re-entry between financial and HR systems, thereby reducing processing time and transcription error risk. The second subsystem is the HR Research Subsystem, which collects data from candidate screening processes, job analyses, and position evaluations, supporting workforce planning and talent acquisition for specific operational roles, including warehouse operators, cargo handlers, and regulated agent personnel. The third subsystem is the HR Intelligence Subsystem, which aggregates employment-related external information, including government labor market data, supplier workforce conditions, and competitive intelligence on industry HR practices, to support strategic workforce planning and regulatory compliance monitoring.

Together, these three subsystems populate a centralized database that supports the full lifecycle of HR management at PT Lintas Dewata Cargo, from employee recruitment and placement through performance management, training records, and eventual separation of employees. The database architecture prioritizes data confidentiality and access control, ensuring that personal employee records are accessible only to authorized HR personnel while allowing operational supervisors to query relevant workforce data, such as shift assignments and certification status, needed for day-to-day cargo operations management (Agusinta et al., 2021; Keke et al., 2021).

4.1.2 Operational Benefits of HRIS Implementation

Field observations and informant interviews identified four primary operational benefits of HRIS implementation at PT Lintas Dewata Cargo. First, administrative efficiency: Before HRIS implementation, HR staff performed employment history searches and record updates manually through paper-based filing systems, which was time-consuming, error-prone, and operationally disruptive during peak cargo handling periods. HRIS digitalization reduces document retrieval time from hours to minutes, freeing HR personnel for higher-value activities, such as workforce development and compliance monitoring. Second, data integrity: the centralized digital database eliminates duplicate and inconsistent records that characterized the previous paper-based system, ensuring that employee certification status, training completion records, and authorization levels are consistently and accurately reflected across all operational departments that query the system. Third, regulatory compliance support: The HRIS maintains automated records of employee security clearance validity, training certification expiry dates, and regulated agent authorization status, enabling proactive renewal management and reducing the risk of compliance violations under Ministerial Regulation No. 53/2017 and related aviation security standards. Fourth, Internet-enabled information management: The integration of HRIS with corporate Internet infrastructure enables real-time data access by authorized personnel across operational locations, supporting the digital coordination of HR activities and cargo documentation processes that are central to PT Lintas Dewata Cargo's multisite operations (Setiawan, Wakhyuni, & Azianda, 2024; Setyawati & Aristiyanto, 2021).

A critical supporting element of HRIS effectiveness identified through observation is the e-cargo system—a dedicated cargo management software platform connected to warehouse operations and synchronized with all computer workstations—which integrates cargo tracking and documentation data with HR operational data (Heriyanto, 2021; Kuncoro & Harahap, 2021). This integration enables cargo handling assignments to be matched with employee certification records in real time, ensuring that specific cargo categories (live animals, dangerous goods, valuable cargo) are handled only by personnel with appropriate training and authorization, which is a compliance requirement under IATA cargo handling standards (International Air Transport Association, 2020).

4.2 Facilities and Infrastructure Supporting Database Management

The facilities and infrastructure inventory observed at PT Lintas Dewata Cargo provides the physical and technological foundation for effective HRIS operations.

Table 1. Facilities and Infrastructure for HRIS and Database Management

Facility / Equipment	Qty.	Function	Adequacy Assessment
Computer workstations	10 total (7 operational)	HR data entry, employee record access, e-cargo system interface, administrative processing	Adequate; 3 non-operational units require maintenance or replacement
Office telephone	1 per division	Inter-divisional communication, coordination with external parties, shipper/airline contact	Adequate
Printer units	4	Printing airway bills, cargo labels, live animal documentation, and regulatory compliance documents	Adequate for current document volume
E-cargo system (connected)	1 network	Real-time cargo data management, warehouse-to-administration data synchronization, cargo tracking	Adequate; continuously updated on all operational workstations
Office stationery and checklists	Complete	Manual recording of special cargo checklists; backup documentation support	Adequate
Workstations (desks and chairs)	Complete	Clean, functional workspace for HRIS operations and administrative processing	Adequate

Source: Field Observation, PT Lintas Dewata Cargo, 2022

Table 1 presents a systematic assessment of these key facilities. The overall infrastructure assessment indicates that PT Lintas Dewata Cargo possesses a functionally adequate technological foundation for the HRIS operation. The real-time synchronization of the e-cargo system across all operational workstations is a particularly noteworthy capability that enables seamless integration between HR data management and cargo operational workflows. However, the presence of three non-operational computer workstations, representing 30% of the total workstation inventory, constitutes an infrastructure risk, particularly during peak cargo handling periods when simultaneous multi-user HRIS access is required. The replacement or repair of non-operational units should be prioritized to ensure consistent HRIS accessibility across all operational shifts.

4.3 Inter-Line Cooperation System and HRIS Integration

The operational structure of PT Lintas Dewata Cargo's cargo processing workflow is organized as a three-line cooperation system, within which HRIS data flows enable coordinated HR management and operational compliance. Figure 1 illustrates the inter-line cooperation flow.

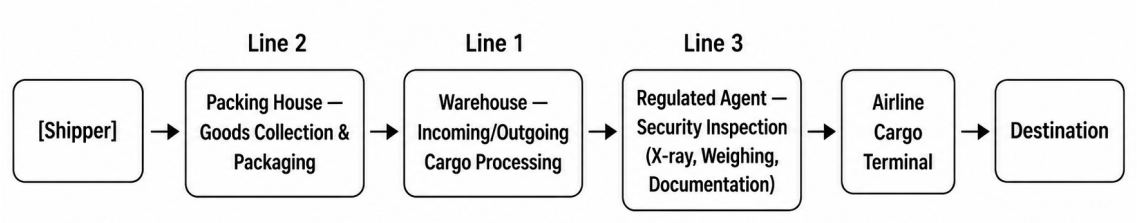

Figure 1. Inter-Line Cooperation System at PT Lintas Dewata Cargo

Figure 1 illustrates the step-by-step shipping process, starting from the shipper, proceeding through the Packing House, Warehouse, and Regulated Agent for security inspection, passing the Airline Cargo Terminal, and ending at the final destination. Each step is connected with arrows to show the sequence clearly.

4.3.1 Line 1: Warehouse Operations

The warehouse is the primary operational facility within PT Lintas Dewata Cargo's cargo processing system, serving as the receiving, temporary storage, and outbound dispatch point for all cargo consignments. Warehouse operations encompass two primary process cycles: inbound cargo processing (receiving goods from the packing house or directly from shippers, verifying documentation, and storing goods in designated areas by cargo type and destination) and outbound cargo loading (dispatching goods to aircraft for loading and prioritizing cargo categories according to the established loading priority schedule). HRIS data support is integral to warehouse operations through the tracking of operator certifications, particularly for handling special cargo categories, including live animals (AVI), dangerous goods (DG), perishable commodities (PER), and valuable cargo (VAL), and through real-time workforce scheduling that ensures adequate staffing levels across incoming and outgoing process cycles.

The loading priority sequence observed at PT Lintas Dewata Cargo, consistent with the IATA cargo handling manual (Chapter 7.5.2) standards, is documented in Table 2. Adherence to this priority sequence requires coordinated information sharing between warehouse staff, load masters, and HRIS-supported scheduling systems to ensure that high-priority cargo categories are loaded first and transit cargo is appropriately segregated and documented.

Table 2. Cargo Loading Priority Sequence at PT Lintas Dewata Cargo

Priority	Cargo Category	Code / Description
1	Aircraft on Ground Equipment	AOG – Urgently required aircraft maintenance parts
2	Human Remains	HUM – Human remains requiring priority handling
3	Live Animals	AVI – Require controlled temperature and welfare conditions
4	Perishable Goods	PER – Time-sensitive foodstuffs, flowers, pharmaceuticals
5	Valuable Cargo	VAL – High-value goods requiring secure handling
6	Sky Premium	Priority express service cargo
7	Transshipments	Connecting flight cargo requiring priority transit processing
8	Ex-Offload	Cargo removed from previous flight for re-routing
9	Mail	Postal and courier mail consignments
10	General Cargo	Standard commercial cargo with no special handling requirements

Source: PT Lintas Dewata Cargo Cargo Handling Manual, Chapter 7.5.2; Field Observation, 2022

Based on Table 2, the special handling procedures for certain cargo categories are particularly noteworthy. Live animals (AVI) and marine products (wet cargo) must be stored in designated temperature-controlled areas and not stacked with other cargo types. Cold rooms and storage facilities are required for commodities with temperature maintenance requirements. Transit cargo must be segregated from other cargo and promptly transferred to the relevant transit officers, along with the accompanying documentation. These procedural requirements generate substantial HR coordination demands—including specialized certified personnel, precise shift scheduling, and real-time communication between handlers, load masters, and documentation staff— which the HRIS-e-cargo integration is specifically designed to support.

4.3.2 Line 2: Packing House Operations

The packing house (Line 2) is responsible for collecting goods from shippers and preparing them for entry into the cargo-processing pipeline. The collection of goods from shipper premises is scheduled approximately 7–8 hours before the scheduled aircraft departure time, providing an adequate buffer for documentation, security inspection, and loading processes downstream. Goods collected from shippers are transported to the packing house for verification, re-packaging (where required), and initial documentation preparation. HRIS support in this function includes tracking courier and collection personnel certifications and authorization levels, which is particularly relevant when collecting specialized cargo categories from shipper premises. The packing house team's performance—in terms of on-time collection and documentation accuracy—is a critical upstream determinant of the efficiency of the entire cargo processing pipeline, making workforce management in this function an important HRIS application domain.

4.3.3 Line 3: Regulated Agent Operations

The regulated agent (Line 3) performs the mandatory security inspection functions prescribed by ICAO Annex 17, PM No. 53/2017, and DGCA Regulation No. 255/IV/2011. Upon receipt of cargo documentation—including the Air Waybill (AWB), commercial invoice and packing list, Notification About Contents (PTI), and phytosanitary/veterinary certificates where applicable—the regulated agent subjects all cargo to X-ray screening, physical measurement, and weighing. The X-ray process serves dual

compliance functions: confirming that the cargo contents match the declared documentation and ensuring that no prohibited or undeclared items are present in the shipment. The measurement and weighing processes determine the chargeable weight (either volumetric weight or actual gross weight, whichever is greater) for freight billing purposes. Upon completion of inspection and verification, the regulated agent issues a Weighing Certificate (*Bukti Timbang Barang*/BTB) and delivers the security-cleared cargo to the airline's cargo warehouse at the airport.

The HRIS's role in regulated agent operations is primarily focused on personnel authorization management: all staff performing security inspection functions, including X-ray operators, cargo verification officers, and security-cleared handlers, must hold current regulated agent authorizations validated under national aviation security regulations. HRIS automates the tracking of these authorizations, alerting HR managers to upcoming expiry dates and documenting completed revalidation training sessions. This automation is essential for compliance assurance, as the manual tracking of multiple personnel authorization records across varying expiry schedules is both time-consuming and error-prone.

5. Conclusions

This qualitative case study documented the role and operational benefits of HRIS implementation at PT Lintas Dewata Cargo, an air cargo freight forwarding company in Indonesia, across three analytical dimensions: HRIS architecture and benefits, supporting infrastructure, and an inter-line cooperation system. Three principal conclusions were drawn. First, the HRIS at PT Lintas Dewata Cargo integrates three subsystems—the Accounting Information System, HR Research Subsystem, and HR Intelligence Subsystem—into a centralized database that supports administrative efficiency, data integrity, regulatory compliance monitoring, and Internet-enabled HR coordination. The integration of HRIS with the e-cargo system is a particularly valuable capability that bridges HR workforce and cargo operational data in real time, enabling compliance-verified cargo handling and informed workforce scheduling. Second, the supporting infrastructure is broadly adequate for current HRIS operational demands, with the e-cargo system providing real-time synchronization across all workstations. However, the three non-operational computer units represent an infrastructure gap that requires prompt maintenance investment to ensure HRIS accessibility resilience during peak operations. Third, the inter-line cooperation system, comprising the warehouse, packing house, and regulated agent, relies on HRIS data flows for workforce authorization management, shift coordination, and regulatory compliance documentation, with each line performing distinct but interdependent operational functions that collectively enable compliant and efficient cargo delivery from shipper to aircraft. Operational coordination across the three lines is the primary practical value of HRIS in the context of this company.

Acknowledgements

The authors express gratitude to the management and staff of PT Lintas Dewata Cargo for facilitating access and cooperating during the study. The authors also acknowledge the guidance of the academic supervisors at Sekolah Tinggi Penerbangan, Jakarta.

Author Contributions

MTF was responsible for the conceptualization of the study and interpretation of the research data. RFS was responsible for data collection, field observations, and analysis of cargo handling processes in airline operations. ASL contributed to the literature review, research methodology design, manuscript preparation, participated in reviewing and finalizing the manuscript.

 DOI: 10.52909/jtla.v2i1.96

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this study. This research was conducted independently, and no financial or personal relationships influenced the results or interpretation of the findings.

References

Adula, M., Kant, S., & Ayenew Birbirsa, Z. (2022). Systematic literature review on human resource management effect on organization performance. *Annals of Human Resource Management Research*, *2*(2), 131–146. https://doi.org/10.35912/ahrmr.v2i2.1418

Afifah, I. N., & Sary, F. P. (2020). The influence of human resource information system (hris) effectiveness on employees' performance at brankas. *Journal of Educational Management and Leadership*, *1*(2), 61–67. https://doi.org/10.33369/jeml.1.2.61-67

Agusinta, L., Nugroho, A. E., Fachrial, P., & Suryawan, R. F. (2021). Assessment model of employee competence, ground support equipment effectiveness, and satisfaction on service quality. *Jurnal Transportasi, Logistik, dan Aviasi*, *1*(1), 55–69. https://doi.org/10.52909/jtla.v1i1.37

Akter, S. (2021). Companies' vision, mission, and core values focus on human resource management. *International Journal of Financial, Accounting, and Management*, *2*(4), 343–355. https://doi.org/10.35912/ijfam.v2i4.412

Bangura, S. (2024). Human resource information system (hris): Navigating the implementation, challenges, and benefits. *International Journal of Business & Management Studies*, *5*(10), 25–32. https://doi.org/10.56734/ijbms.v5n10a3

Budhwar, P., Chowdhury, S., Wood, G., Aguinis, H., Bamber, G. J., Beltran, J. R., & Varma, A. (2023). Human resource management in the age of generative artificial intelligence: Perspectives and research directions on chatgpt. *Human Resource Management Journal*, *33*(3), 606–659. https://doi.org/10.1111/1748-8583.12524

Busro, M. (2018). *Teori-teori manajemen sumber daya manusia*. Prenada Media Group.

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

Cooke, F. L., Dickmann, M., & Parry, E. (2022). Building sustainable societies through human-centred human resource management: Emerging issues and research opportunities. *The International Journal of Human Resource Management*, *33*(1), 1–15. https://doi.org/10.1080/09585192.2021.2021732

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

Diaz-Carrion, R., Lopez-Fernandez, M., & Romero-Fernandez, P. M. (2021). Constructing an index for comparing human resources management sustainability in europe. *Human Resource Management Journal*, *31*(1), 120–142. https://doi.org/10.1111/1748-8583.12286

Drljača, M., Štimac, I., Vidović, A., & Petar, S. (2020). Sustainability of the air cargo handling process in the context of safety and environmental aspects. *Journal of Advanced Transportation*, *2020*(1), 1232846. https://doi.org/10.1155/2020/1232846

Firdiansyah, R. S., & Soekarsono, B. (2016). *Pengantar bea cukai, imigrasi, dan karantina*. Mitra Wacana Media.

Garg, S., Sinha, S., Kar, A. K., & Mani, M. (2022). A review of machine learning applications in human resource management. *International Journal of Productivity and Performance Management*, *71*(5), 1590–1610. https://doi.org/10.1108/IJPPM-08-2020-0427

Hamouche, S. (2023). Human resource management and the covid-19 crisis: Implications, challenges, opportunities, and future organizational directions. *Journal of Management & Organization*, *29*(5), 799–814. https://doi.org/10.1017/jmo.2021.15

Hasibuan, M. S. P. (2014). *Manajemen sumber daya manusia* (14th ed.). Bumi Aksara.

Heriyanto, D. (2021). The impact of service quality and compensation on crew satisfaction in manning companies. *Jurnal Transportasi, Logistik, dan Aviasi*, *1*(1), 31–41. https://doi.org/10.52909/jtla.v1i1.35

Huang, J. (2021). An internet of things evaluation algorithm for quality assessment of computer-based teaching. *Mobile Information Systems*, *2021*(1), 9919399. https://doi.org/10.1155/2021/9919399

Ichdan, D. A., & Maryani, M. (2024). Green human resource management practices in the manufacturing industry: A sustainable approach. *Annals of Human Resource Management Research*, *4*(1), 29–42. https://doi.org/10.35912/ahrmr.v4i1.2140

International Air Transport Association. (2020). *Live animal regulations* (47th ed.).

Kavanagh, M. J., Johnson, R. D., & Thite, M. (2021). *Human resource information systems: Basics, applications, and future directions* (4th ed.). SAGE Publications.

Keke, Y., Tobing, N. G. L., & Tanjung, I. (2021). The effect of occupational safety and health on employee performance at pt. angkasa kargo. *Jurnal Transportasi, Logistik, dan Aviasi*, *1*(1), 42–54. https://doi.org/10.52909/jtla.v1i1.36

Khan, M. M. R. (2020). Strategic human resource management in facilitating the organizational performance: Birds-eye view from bangladesh. *Annals of Management and Organization Research*, *2*(1), 13–24. https://doi.org/10.35912/amor.v2i1.575

Kuncoro, H., & Harahap, V. (2021). Effect of electronic flight bag usage and safety culture on flight safety performance at pt. garuda indonesia. *Jurnal Transportasi, Logistik, dan Aviasi*, *1*(1), 18–30. https://doi.org/10.52909/jtla.v1i1.34

Menant, L., Gilibert, D., & Sauvezon, C. (2021). The application of acceptance models to human resource information systems: A literature review. *Frontiers in Psychology*, *12*, 659421. https://doi.org/10.3389/fpsyg.2021.659421

Odimarha, A. C., Ayodeji, S. A., & Abaku, E. A. (2024). Securing the digital supply chain: Cybersecurity best practices for logistics and shipping companies. *World Journal of Advanced Science and Technology*, *5*(1), 026–030. https://doi.org/10.53346/wjast.2024.5.1.0030

Panjaitan, E. H. H. (2023). Implementing human resource information system (hris) for efficient human resource management. *International Journal of Science and Society*, *5*(2), 128–139. https://doi.org/10.54783/ijsoc.v5i2.676

Porra, J., Lacity, M., & Parks, M. S. (2020). Can computer based human-likeness endanger humanness? a philosophical and ethical perspective on digital assistants expressing feelings they can't have. *Information Systems Frontiers*, *22*(3), 533–547. https://doi.org/10.1007/s10796-019-09969-z

Sanfelici, M., & Silvana, M. (2020). The development of a computer-based information system to inform social work interventions with unaccompanied minors. *Relational Social Work*, *4*(1), 30–44. https://doi.org/10.14605/RSW412003

Santoso, B., & Septiani, E. (2020). Success and failure factors of the implementation of computer based information systems in the government institutions of mataram city: Information system resource perspective. *Distribusi-Journal of Management and Business*, *8*(1), 79–92. https://doi.org/10.29303/distribusi.v8i1.97

Schreier, M. (2012). *Qualitative content analysis in practice*. SAGE Publications.

Setiawan, A., Nuraeni, N., & Supratikta, H. (2024). Information system optimization computer based: Analyzing the role of the operating system, server infrastructure, and programmers. *Multidisciplinary Indonesian Center Journal*, *1*(3), 1120–1128. https://doi.org/10.62567/micjo.v1i3.132

Setiawan, N., Wakhyuni, E., & Azianda, M. S. (2024). The role of hris (human resources information system) technology implementation in managing human resources in pt. pegadaian medan. *Multifinance*, *2*(1), 1–9. https://doi.org/10.61397/mfc.v2i1.106

Setyawati, A., & Aristiyanto, F. K. (2021). Improving discipline through apron movement control (amc) at pt angkasa pura i adi soemarmo airport. *Jurnal Transportasi, Logistik, dan Aviasi*, *1*(1), 1–17. https://doi.org/10.52909/jtla.v1i1.33

Sharma, A. M., Batra, D., & Sharma, S. (2024). Documentation in logistics sustainability–challenges and opportunities. In *Supply chain management* (pp. 231–250). https://doi.org/10.1201/9781003509561-12

Singh, B. P., Pandey, Y., & Singh, S. K. (2021). Role of hris in indian companies: A study of current scenario. In *Industry 4.0: Overview, components, and initiatives of indian government* (pp. 49–62). https://doi.org/10.1007/s10639-021-10585-1

Srinivasan, D., Amit, R. K., & Chiang, W. C. (2023). Air cargo revenue management: A state-of-the-art review. *International Journal of Revenue Management*, *13*(3), 144–165. https://doi.org/10.1504/IJRM.2023.130752

Sutrisno, E. (2016). *Manajemen sumber daya manusia*. Prenada Media Group.

Utami, B. Y., Sabandi, A., & Irsyad, I. (2024). Analysis of computer based management information systems in the decision making process. *International Journal of Educational Dynamics*, *6*(2), 500–505. https://doi.org/10.24036/ijeds.v6i2.490

Widiastuti, N. A., & Partiwi, S. G. (2021). Evaluation of human resource information system by using hot-fit model. *IPTEK Journal of Proceedings Series*, (3), 31–37. https://doi.org/10.12962/j23546026.y2020i3.11073

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.

Zhang, J., & Chen, Z. (2024). Exploring human resource management digital transformation in the digital age. *Journal of the Knowledge Economy*, *15*(1), 1482–1498. https://doi.org/10.1007/s13132-023-01214-y

