

ANALYSIS OF ERP SAP S/4HANA IMPLEMENTATION DESIGN TO IMPROVE PROCESS EFFICIENCY AND FINANCIAL REPORTING ACCURACY AT PT IAS

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Abstract

PT IAS operates five business entities with four unintegrated ERP systems running in parallel — SAP ECC, SAP Business One, Acumatica, and Gamatechno. This condition has resulted in systemic inefficiencies, including a prolonged monthly financial close cycle, delayed group financial consolidation, manual intercompany reconciliation consuming 3–5 days per period, a data error rate of 2–5%, and 8–12 audit findings per year, with incomplete compliance with PSAK 110. This study aims to: (1) analyze the current state of PT IAS Group's financial reporting systems; (2) design an ERP SAP S/4HANA implementation to enhance process efficiency and reporting accuracy; (3) identify supporting factors and implementation challenges; and (4) develop an appropriate phased implementation roadmap. This study employs a qualitative descriptive approach using a case study method, with data collected through in-depth interviews, document analysis, and Root Cause Analysis (RCA) based on the Fishbone Diagram across five dimensions: People, Process, Technology, Data, and Governance. The findings indicate that SAP S/4HANA — encompassing the FI/CO, Group Reporting, MM, and SD modules, along with SAP BTP — is the optimal solution to address all identified gaps in the current state. The proposed implementation design is projected to reduce the monthly financial close to ≤ 3 working days (an 80% improvement), accelerate group consolidation to ≤ 2 days, improve reporting accuracy to $\geq 99.5\%$, and reduce audit findings to ≤ 2 per year. A three-year phased roadmap (2026–2028) is structured as follows: Phase 1: Finance Core (2026); Phase 2a: Source-to-Pay (2027); Phase 2b: Lead-to-Cash (2027); and Phase 2c: Technical & Governance (2027). The primary success factor is top management commitment and the IGH ecosystem, while critical risks — including poor master data quality and user resistance — are mitigated through a four-pillar change management strategy: People, Process, Technology, and Governance.

Keywords: ERP, SAP S/4HANA, consolidated financial reporting, process efficiency, PSAK 110, change management

INTRODUCTION

The acceleration of digital transformation in the global business environment has positioned integrated information systems as a strategic foundation for modern corporate management, particularly for organizations with complex multi-entity structures. Enterprise Resource Planning (ERP) has evolved into the backbone of business process digitization, enabling the integration of all organizational functions into a single, unified platform that provides real-time data visibility (Laudon & Laudon, 2018; Monk & Wagner, 2013).

PT IAS Group, established in December 2023 as part of the strategic restructuring of the IGH aviation holding company, concretely embodies this transformation imperative. As a provider of integrated aviation services encompassing Ground Handling, Cargo & Logistics, Hospitality, Operations Support, and Property Development at 43 domestic airports, PT IAS Group operates through five business entities—PT ABG, PT IASA, PT IASC, PT IASD, and PT DES—each of which has historically used disparate and unintegrated financial information systems.

PT IAS Group's consolidated financial reporting landscape is characterized by significant technological fragmentation: PT ABG uses SAP ECC, PT IASA and PT IASC operate with SAP Business One, PT IAS's logistics line uses Acumatica and SAP Business One, while PT DES relies on Gamatechno, an internally developed application without direct connectivity to the group's ERP system. This technological heterogeneity has created operational inefficiencies that materially compromise the quality of financial reporting and the effectiveness of

managerial decision-making. A Root Cause Analysis (RCA) using a Fishbone Diagram approach identified systemic weaknesses in five critical dimensions: People (dependence on key personnel, lack of SAP competency), Process (lack of standardized consolidation SOPs, elimination of ad-hoc intercompany processes), Technology (multi-ERP environment without middleware, manual ETL processes), Data (unstandardized COAs with a 2–5% error rate, duplicated master data), and Governance (lack of a centralized data governance policy and digital transformation steering committee). The accumulated operational impacts of these five dimensions manifested in a monthly book-closing cycle of 14–18 business days, group consolidation of 7–14 days, and 8–12 audit findings per year—performance metrics substantially out of step with the dynamic operational demands of an aviation holding company.

While the literature on the impact of ERP implementation on organizational performance continues to grow, there is a significant research gap related to SAP S/4HANA implementation, particularly regarding the integration of PSAK 110 compliance requirements into the SAP S/4HANA architecture. This research fills this gap by formulating a comprehensive SAP S/4HANA implementation design for PT IAS Group, which contributes both theoretically through the Resource-Based View framework (Barney, 1991) and the DeLone & McLean IS Success Model, and practically as an implementation guide for similar multi-entity holdings.

LITERATURE REVIEW

Enterprise Resource Planning is an integrated information system designed to manage and coordinate all organizational resources within a single, unified platform (O'Brien & Marakas, 2018). According to Monk and Wagner (2013), ERP systems exhibit four fundamental characteristics: business process integration, centralized database architecture, real-time data processing, and process standardization. In the financial reporting domain, ERP systems eliminate data silos through automated journal entry, cross-module transaction propagation, and centralized governance of the Chart of Accounts (COA).

According to Gelinas, Dull, and Wheeler (2012), accuracy is one of the key characteristics of information quality. Information is considered accurate if it is free from errors, complete, and reflects the actual conditions. Information accuracy is crucial in financial reporting because data errors can affect the validity of reports and management's confidence in the results of financial analysis.

According to Romney and Steinbart (2021), information accuracy is the degree to which information corresponds to actual conditions or events, and it serves as a basis for sound decision-making. Inaccurate information can lead to analytical errors, delays in decision-making, and increase the risk of operational and financial errors.

A good ERP implementation design cannot be based solely on a technical approach; a solid theoretical foundation must support it. Grand theory serves as a conceptual framework that provides a comprehensive perspective on how an information system can create value, establish competitive advantage, and measure its success. Two grand theories are relevant and complementary in this context, namely:

- a) Resource-Based View (RBV) — which examines how SAP S/4HANA, as a strategic resource and organizational capability, can create sustainable competitive advantage for PT IAS.

The Resource-Based View (RBV) is a grand theory in strategic management first systematically developed by Barney (1991) and Wernerfelt (1984). The RBV argues that an organization's sustainable competitive advantage stems from the ownership and utilization of resources and capabilities that are :

VRIO Criteria	Explanation and Implications for PT IAS
Valuable	Resources enable PT IAS to capitalize on opportunities. SAP S/4HANA provides real-time analytical capabilities that competitors still using legacy systems lack.
Rare	A resource not shared by many competitors. SAP S/4HANA integration with its specific depth of customization is unique and difficult to replicate.
Inimitable	The costs of imitating these resources are very high due to path dependencies, causal complexity, and PT IAS's unique historical circumstances. Investments, historical data, and accumulated organizational knowledge create an isolating mechanism.
Organized	Organizations have systems, policies, and processes in place to optimize resource use. Business process transformation, change management, and human resource capability development are required simultaneously.

- b) DeLone & McLean Information Systems (IS) Success Model — which provides a multi-dimensional

framework for measuring the success of information systems implementation from the aspects of system quality, information quality, service quality, usage, user satisfaction, and net benefits.

Dimensions	Conceptual Definition
1. System Quality	Technical and functional characteristics of the information system itself
2. Information Quality	The quality of the output produced by the system in the form of reports and data
3. Service Quality	The quality of support provided by the IT and SAP teams to users
4. System Use	Frequency and depth of system use by users
5. User Satisfaction	User affective evaluation of the experience of using the system
6. Net Benefits	The overall impact of the system on individuals, departments, and the organization

The implementation of SAP ERP by PT IAS helps integrate all operational and financial activities within the IAS Group, which operates in the airport environment. This integration makes the process of recording financial transactions more efficient, enabling real-time generation in financial reports without the need for manual recapitulation by each unit. Somers and Nelson (2001) identified top management support and a structured change management program as the two most dominant critical success factors throughout the ERP implementation cycle—findings consistently confirmed by subsequent empirical research (Umble *et al.*, 2003; Nwankpa, 2015). Gartner (2020) reports that large-scale ERP implementations have a failure rate of 55–75%, with organizational and human factors—not technical failures—as the primary determinants. Romney and Steinbart (2021) further emphasize that information accuracy, defined as the degree of correspondence between reported information and actual transaction reality, is a fundamental quality attribute in a financial reporting system.

A systematic review of ten previous studies revealed that although the positive impact of ERP on the efficiency and accuracy of financial reporting has been well documented (Widjaja & Safuan, 2025; Zurman & Jenita, 2023; Rahmawati *et al.*, 2024), there are critical gaps that remain unaddressed: (1) the limited research examining SAP S/4HANA implementation in the context of Indonesian state-owned enterprise mergers/holdings; (2) inadequate attention to the design of phased implementation roadmaps and change management strategies; and (3) limited analysis of PSAK 110 compliance automation through SAP Group Reporting configurations. This study directly addresses these three gaps.

METHOD

This research uses a descriptive qualitative approach with a case study method, which is appropriate for investigating complex, context-dependent phenomena in which in-depth contextual understanding is prioritized over statistical generalizations (Yin, 2018). The selection of PT IAS Group as the research subject is theoretically motivated by its representativeness in representing the challenges of holding transformation in Indonesia and the availability of comprehensive internal documentation.

Primary data collection involved three complementary techniques. First, in-depth semi-structured interviews were conducted with key organizational stakeholders, including the Accounting Group Head, the ERP Division Head, the Financial Reporting Division Head, an Analyst, and an external SAP consultant. These interviews yielded rich qualitative insights into existing system limitations, transformation aspirations, and implementation readiness. Second, field observations of financial reporting workflows provided direct evidence of inefficiencies in the processes. Secondary data included internal transformation blueprint documents, audit reports, financial consolidation working papers, and system landscape documentation.

Data analysis was conducted through thematic analysis integrating three methodological instruments: (1) Root Cause Analysis (RCA) using Fishbone Diagram, which systematically diagnoses the causality of problems across the five dimensions of People, Process, Technology, Data, and Governance; (2) Formal Gap Analysis comparing the current AS-IS condition with the targeted TO-BE condition for each business process domain; and (3) Data triangulation across interview, observation, and documentation sources to ensure the validity and reliability of the findings. The draft implementation roadmap was validated through iterative feedback sessions with organizational stakeholders.

RESULTS AND DISCUSSION

A diagnostic analysis of the financial information system landscape of PT IAS Group revealed five interrelated dimensions of systemic dysfunction, as summarized in Table 1 below.

Table 1. Root Cause Analysis – Inefficiency of PT IAS Group's Financial Reporting

RCA Dimensions	Root Cause	Operational Impact
People	Dependence on key persons; lack of SAP competency at the entity level; resistance to system changes	Weak knowledge transfer; slow adoption of new systems; process vulnerabilities
Process	There is no standardized consolidation SOP; intercompany elimination is done ad-hoc monthly; there is no automated validation.	Reconciliation 3–5 days/period; cross-entity procedural inconsistencies; high frequency of correction journal entries
Technology	Four non-integrated ERP systems (SAP ECC, SAP B1, Acumatica, Gamatechno); no middleware; manual ETL	Data silos; no single source of truth; 7–14 day consolidation; no backup procedures
Data	COAs are not standardized; master data is duplicated and not validated; historical data is in various formats.	Aggregation error rate 2–5%; data inconsistency; 8–12 audit findings per year
Governance	No centralized data governance policy; no digital transformation steering committee	Decision fragmentation; COA changes without coordination; inconsistent data governance across entities

The RCA results above confirm that a single factor does not cause PT IAS Group's financial reporting issues; rather, they result from systemic weaknesses across five dimensions simultaneously. This condition underscores the need for a solution that is not just procedural improvements but a comprehensive digital transformation that integrates People, Process, Technology, Data, and Governance in a single, unified platform. The cumulative impact of this fragmentation—a 14–18-day book-closing cycle, a 2–5% data error rate, and 8–12 annual audit findings—represents a strategic liability that materially compromises the speed of the Board of Directors' decision-making and the trust of external stakeholders.

SAP S/4HANA Implementation Plan

Based on a comprehensive gap analysis and cost-benefit evaluation, SAP S/4HANA was selected as the optimal ERP platform for IAS Group's transformation. The strategic rationale for this selection encompassed four key considerations: (1) cloud infrastructure scalability that enables elastic capacity aligned with business growth without significant on-premise infrastructure investment; (2) Clean Core Architecture that minimizes customization to maintain system upgrade continuity and operational stability; (3) SAP Best Practice configurations that have been proven across industries, reducing implementation risk; and (4) built-in analytics capabilities that eliminate the need to build a separate data warehouse infrastructure. In the solution mapping, several modules were selectively not recommended based on cost-benefit considerations: SAP Treasury and Risk Management (TRM) was not recommended because cash management needs could be met through the standard FICO module; SAP Analytics Cloud Planning was rejected because IAS Group already had an integrated financial planning system; and SAP RE-FX for property leasing was rejected because the costs outweighed the benefits. These decisions reflect the principle of selective best practice implementation—implementing only SAP solutions that truly deliver measurable business value.

The designed SAP S/4HANA architecture integrates five core modules, each addressing specific gaps identified in Table 2 below.

Table 2. Gap Analysis: Mapping AS-IS Problems to SAP S/4HANA TO-BE Solutions

Problems	AS-IS Condition	TO-BE Solution	SAP Module	Implementation Phase
Slow consolidation (7–14 days/cycle)	Manual consolidation via spreadsheet; 100% manual intercompany elimination	Automatic consolidation ≤2 days; real-time elimination; 100% audit trail	SAP Group Reporting ; FI/CO	Phase 1 (2026)
Data silo (4 non-integrated systems)	Legacy + SAP B1 + on-premises applications running separately; manual ETL	SAP S/4HANA single platform; real-time data; zero double entry	SAP S/4HANA; SAP BTP Integration Suite	Phase 1 + 2c
There is no COA standardization.	Local COA per entity; difficulty of aggregation and reconciliation	Harmonized group COA; uniform account codes; accurate automatic consolidation	SAP FI Group COA; SAP MDG	Phase 1 (2026)
Semi-manual procurement (cycle time 21 days)	No end-to-end digital flow; approval via email; no PO visibility	Digital procurement; cycle time <10 days; multi-level workflow; complete audit trail	SAP MM; SAP Fiori; SAP BTP	Phase 2a (2027)
PSAK 110 has not been fully fulfilled	No automatic identification of intercompany transactions; partial and manual elimination	Group uniform accounting policy; complete and automatic elimination in accordance with PSAK 110	SAP Group Reporting ; IC Matching Rules	Phase 1 (2026)

The SAP Group Reporting module deserves special attention as the core foundation of PSAK 110 compliance automation. It enables real-time extraction of consolidated data from SAP S/4HANA instances in each group entity, automated intercompany matching and elimination through configurable matching rules, currency translation for consolidated reporting, and the simultaneous production of PSAK-based reports, tax reporting, and internal managerial reports — capabilities that collectively eliminate the most critical structural source of reporting deficiencies in PT IAS Group. SAP Business Technology Platform (BTP) serves as integration middleware, connecting SAP S/4HANA with legacy systems, HRIS, and cargo management applications via standardized API-based integration flows. SAP BTP Integration Suite enables real-time data synchronization, and SAP Datasphere provides master data management and data quality governance. At the same time, SAP Analytics Cloud delivers near-real-time KPI dashboards that CFOs and Boards can access anytime.

Implementation Roadmap

The three-year implementation roadmap (January 2026 – December 2028) adopts a risk-managed sequential deployment strategy, prioritizing financial consolidation infrastructure before expanding to operational modules as presented in Table 3.

Table 3. Three-Year SAP S/4HANA Implementation Roadmap for PT IAS Group (2026–2028)

Phase	Period	Module/Component	Main Output
Phase 1: Finance Core	2026	SAP Group Reporting; SAP FI/CO; Harmonized Group COA; SAP MDG	Automatic group consolidation ≤ 2 days; harmonized COA across entities; real-time financial dashboard for CFO/Board; automated elimination of PSAK 110
Phase 2a: Source to Pay	Q1–Q3 2027	SAP MM; SAP Fiori; SAP BTP (initial integration)	Digital procurement cycle <10 days; automated multi-level approval workflow; real-time PO visibility and accounts payable integration
Phase 2b: Lead to Cash	Nov–Dec 2027	SAP SD; SAP FI/CO Integration	Integrated sales-collection process; revenue recognition aligned with PSAK; real-time accounts receivable management
Phase 2c: Technical & Governance	2027–2028	SAP BTP Complete; SAP Signavio; SAP LeanIX; SAP Analytics Cloud	Centralized integration platform; end-to-end process documentation; application landscape governance; continuous improvement framework

Performance Indicators

The implementation plan establishes measurable performance targets based on SAP Best Practice benchmarks and validated through stakeholder consultation. Table 4 presents a comprehensive KPI framework comparing baseline (AS-IS) metrics with post-implementation (TO-BE) targets.

Table 4. Key Performance Indicators: AS-IS Baseline vs. TO-BE Target

Code	KPI Indicators	Baseline (AS-IS)	Target (TO-BE)
A1	Monthly closing cycle	14–18 business days	≤ 3 working days ($\sim 80\%$)
A2	Duration of group financial statement consolidation	7–14 business days	≤ 2 working days
A3	Timing of inter-entity reconciliations	3–5 business days/period	≤ 1 working day
A4	Reduction of manual work	Unmeasured	$\geq 80\%$ reduction
B1	Financial transaction recording error rate	2–5% per period	$\leq 0.1\%$ per period
B2	Annual audit findings	8–12 findings/year	≤ 2 findings/year
B3	Cross-module data discrepancies	Not measured (manual)	0 discrepancies

Code	KPI Indicators	Baseline (AS-IS)	Target (TO-BE)
C1	Real-time data availability across entities	0% (all manual)	≥95% real-time
C2	Master data quality scores	Est. 60–70% validated	≥98% before go-live
D1	System Usability Score / System Usability Scale	Not applicable	SUS ≥75; active users ≥90%
D2	System availability and performance	Inheritance: undefined	Uptime ≥99.5%; response <3 seconds

Risk Analysis and Mitigation Strategy

In line with the findings of Umble, Haft, and Umble (2003), the risk analysis categorized data quality risks and user resistance as CRITICAL—the two most common causes of ERP implementation failure globally. The complete risk register includes seven risk categories with proportionate mitigation strategies:

1. Data Risk (CRITICAL): Degradation of master data quality from four legacy systems requires intensive data cleansing before go-live, the appointment of Data Stewards per entity, the implementation of SAP Master Data Governance (MDG), and User Acceptance Testing (UAT) based on actual company data.
2. User Risk (CRITICAL): Employee habituation to manual processes requires a structured four-pillar change management strategy, SAP Academy training for 300+ end users, a division-wide Key User network, and hypercare support for three months after go-live.
3. Process Risk (HIGH): A potential mismatch between the TO-BE process design and operational needs requires an intensive Business Process Reengineering workshop involving the Process Owner, UAT testing with real scenarios, and a parallel run one month before full go-live.
4. Budget and Schedule Risk (HIGH): Overruns caused by unanticipated complexity require fixed-price contract arrangements, milestone-based payments, an independent PMO, bi-weekly steering committee reviews, and a 15% contingency budget allocation.

Change Management Strategy: The Four Pillars Model

Based on Kotter's (1996) eight-step model and Prosci's ADKAR framework, the four-pillar change management strategy operationalizes organizational transformation synergistically across the dimensions of People, Process, Technology, and Governance:

1. People Pillar: SAP Academy training for 300 or more end users, including the use of role-specific modules; a Key User Development Program for 30–50 champion users as first-line support divisions; SAP Center of Excellence (CoE) certification for 5–8 IT staff; and an Executive Awareness Workshop for the Board of Directors and senior management.
2. Process Pillar: Business Process Reengineering, which redesigns manual AS-IS workflows to SAP best-practice TO-BE standards; cross-entity process harmonization that establishes uniform financial reporting procedures; and end-to-end documentation of all processes through SAP Signavio, accessible to all stakeholders.
3. Technology Pillar: Phased rollout, which enables gradual user adaptation; a 30-day hypercare period after each go-live phase; SAP Fiori as the primary, intuitive, and mobile-friendly user interface. and an active sandbox environment throughout the project lifecycle.
4. Governance Pillars: A Steering Committee chaired by the President Director for strategic direction and resource authorization; a Project Management Office that coordinates cross-workstream execution; a Business Process Owner who validates the TO-BE design; and an SAP CoE that ensures continuous improvement after go-live.

Managerial Implications

Implications for Boards and Top Management: The shift from financial reports available 14–18 days after period end to real-time financial dashboards represents a paradigm shift in decision-making quality—enabling strategic decisions based on actual data rather than intuitive responses to outdated historical information. Finance Directors can monitor the entire entity's cash position in seconds, while operational managers can access inventory

levels simultaneously across warehouses. For the Finance Function, an 80% reduction in the book-closing cycle directly increases analyst capacity for value-added activities—strategic financial planning, variance analysis, and business performance optimization—replacing administrative reconciliation tasks. PSAK 110 compliance automation eliminates a structural source of 8–12 annual audit findings, strengthening the credibility of external reporting and regulatory relationships. For the IT Function, the transition from reactive legacy system management to proactive digital ecosystem orchestration represents a strategic elevation of IT's role within the organization. Establishing the SAP CoE creates a sustainable knowledge hub that enables continuous system optimization and future digital innovation.

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the results of this study, it can be concluded that the design of the SAP ERP implementation on Process Efficiency and Accuracy of Financial Reporting at PT IAS can be formulated as follows:

1. PT IAS Group operated four different ERP systems in parallel without integration: SAP ECC (PT ABG), SAP Business One (PT IASA, IASC, IASD), Acumatica, and Gamatechno (PT DES), resulting in significant data fragmentation. Root cause analysis identified weaknesses in five dimensions: People (dependence on key personnel, lack of SAP competency), Process (no standard consolidation SOP, ad-hoc elimination), Technology (multi-ERP without middleware, manual ETL), Data (unstandardized COA, duplicate master data with a 2–5% error rate), and Governance (no centralized data governance). As a result, the monthly book-closing cycle was 14–18 business days, group consolidation was 7–14 days, and 8–12 audit findings per year, with PSAK 110 requirements not fully met.
2. The SAP S/4HANA ERP implementation design addressed all gaps in the existing situation. SAP S/4HANA Cloud Private Edition was selected based on cloud scalability, Clean Core architecture, built-in analytics, and regulatory compliance. Core modules include SAP FI/CO (primary bookkeeping), SAP Group Reporting (automated consolidation), SAP MM (Source to Pay), SAP SD (Lead to Cash), and SAP BTP (integration middleware). This architecture is designed for the monthly book closing of ≤ 3 days ($\sim 80\%$), group consolidation of ≤ 2 days, intercompany reconciliation of ≤ 1 day, accuracy of $\geq 99.5\%$, and audit findings of ≤ 2 per year. PSAK 110 compliance is achieved by configuring intercompany matching rules that automate the complete elimination of balances and transactions between entities.
3. Key supporting factors include the commitment to digital transformation from PT IAS's top management and support from the IGH ecosystem; the presence of experienced SAP consultants; the SAP Best Practice architecture, which reduces customization; and the PSAK 110 framework, which serves as the foundation for COA harmonization. Key challenges: risk of poor-quality master data (CRITICAL: high duplication of four legacy systems); user resistance and low adoption (CRITICAL); TO-BE process design that does not align with actual operational needs (HIGH); budget and schedule overruns (HIGH); and undocumented supporting system integration complexity (MEDIUM). Mitigation strategies have been designed for each risk, prioritizing data governance since Phase 0 and structured change management.
4. The implementation roadmap is designed using a three-year phased approach (January 2026–December 2028): Phase 1 – Finance Core (2026): SAP Group Reporting and FI/CO, group COA harmonization, single data foundation. Phase 2a – Source to Pay (2027): SAP MM for end-to-end procurement digitalization. Phase 2b – Lead to Cash (Nov–Dec 2027): SAP SD for sales and billing integration. Phase 2c – Technical & Governance (2027): SAP BTP, Signavio, LeanIX for long-term digital governance. Each phase is equipped with a Steering Committee, a PMO, a BPO, a Key User Network, and measurable success indicators. The success of the transformation depends on strengthening change management: early user engagement, tiered training, the appointment of champions per entity, and consistent top management support.

Suggestions

Suggestions for the IAS Group

The IAS Group is advised to consistently complete the COA harmonization and master data structuring agenda before entering the SAP S/4HANA configuration and go-live phase, as the quality of the account structure and data is a key determinant of the success of automatic consolidation and compliance with PSAK 110. Furthermore, governance needs to be strengthened by updating financial and reporting SOPs, establishing guidelines for the use of group COAs, and implementing a mechanism to regularly monitor data integrity and changes to account structures across entities.

On the human resources side, companies need to prepare tiered training programs and appoint champions or change agents in each entity to ensure faster and more targeted adoption of new processes. Regular coordination forums, such as weekly meetings with the PMO and ERP Special Delivery Unit, as well as monthly Steering Committee meetings, can be utilized more systematically to monitor risks, make decisions, and adjust ERP implementation priorities in line with the group's strategic objectives.

Suggestions for practitioners

For other group companies planning a similar transformation, COA harmonization and master data structuring should be prioritized before ERP migration to optimally maximize the benefits of the new system for financial consolidation, accounting standards compliance, and managerial reporting needs. A phased implementation approach with pilots and shadow runs in selected entities is preferred over a big-bang approach, as it provides space to test designs, identify risks, and make improvements before a broader rollout.

Beyond technical aspects, attention to change management, including transparent communication, adequate training, and a platform for user feedback, is a critical factor in the success of financial digitalization projects in multi-entity environments. Practitioners are also advised to utilize case studies and lessons learned from similar projects as references in designing solution architectures, data governance, and more robust risk mitigation strategies.

Advice for Academics and Researchers

For academics and researchers, this project demonstrates the importance of developing empirical studies on the impact of COA harmonization and integrated ERP implementation on the quality of consolidated financial statements, governance, and audit effectiveness in group companies. Further research could measure, among other things, changes in book-closing time, consolidation error rates, compliance with PSAK 110, and stakeholder perceptions of transparency and audit trails following an ERP transformation.

Student involvement in digital transformation projects like this should also be expanded, as it provides contextual learning about the interrelationships between accounting, information systems, and change management in large organizations operating in emerging markets. Collaboration between universities, companies, and consultants can serve as a model for developing professional competencies in accounting and information systems that are more relevant to industry needs.

REFERENCES

- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- Gartner Research. (2020). ERP implementation best practices: Why projects fail. Gartner, Inc.
- Gelinas, U. J., Dull, R. B., & Wheeler, P. (2012). *Accounting information systems* (9th ed.). South-Western Cengage Learning.
- Kotter, J. P. (1996). *Leading change*. Harvard Business Review Press.
- Laudon, K. C., & Laudon, J. P. (2018). *Management information systems: Managing the digital firm* (15th ed.). Pearson Education.
- Monk, E. F., & Wagner, B. J. (2013). *Concepts in enterprise resource planning* (4th ed.). Course Technology, Cengage Learning.
- Nwankpa, J. K. (2015). ERP system usage and benefit: A model of antecedents and outcomes. *Computers in Human Behavior*, 45, 335–344.
- O'Brien, J. A., & Marakas, G. M. (2018). *Management information systems* (10th ed.). McGraw-Hill Education.
- Rahmawati, et al. (2024). Peran Software Akuntansi terhadap Akurasi dan Efisiensi Laporan Keuangan. *Jurnal Akuntansi dan Keuangan Indonesia*, Vol. 21, No. 1.
- Romney, M. B., & Steinbart, P. J. (2021). *Accounting information systems* (15th ed.). Pearson Education.
- Somers, T. M., & Nelson, K. (2001). The impact of critical success factors across the stages of enterprise resource planning implementations. *Proceedings of the 34th Hawaii International Conference on System Sciences*. IEEE.
- Umble, E. J., Haft, R. R., & Umble, M. M. (2003). Enterprise resource planning: Implementation procedures and critical success factors. *European Journal of Operational Research*, 146(2), 241–257.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180.

Widjaja, R., & Safuan, S. (2025). Penerapan sistem ERP SAP dalam proses pencatatan accounting. *Jurnal Manajemen dan Akuntansi*, 12(1).

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

Zurman, Z., & Jenita, J. (2023). Pengaruh sistem informasi akuntansi terintegrasi terhadap efisiensi pelaporan. *Jurnal Riset Akuntansi*, 10(2).