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Organizational Readiness Analysis Of ERP Transition In PTBA With ADKAR Method

Analisis Kesiapan Organisasi Dalam Transisi ERP Di PTBA Menggunakan Metode ADKAR

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ABSTRACT
PT Bukit Asam (PTBA), a state-owned mining company under MIND ID, is preparing to transition from its Ellipse EAM system to an SAP-based ERP platform. This study assesses PTBA's organizational readiness for the shift, focusing on both technological and human factors using the ADKAR framework (Awareness, Desire, Knowledge, Ability, and Reinforcement). A mixed-methods approach was used, combining quantitative surveys (47 respondents) and qualitative interviews (6 participants). Results show moderate to strong awareness and desire among employees, reflecting alignment with MIND ID's strategy. However, gaps in knowledge and ability reveal uneven technical understanding and limited preparedness, especially across generations and departments. Key themes include resistance due to comfort with legacy systems, insufficient training, and weak performance reinforcement. To address these, three business solutions are proposed: (1) a Functional Readiness Task Force (FRTF), (2) a targeted ERP communication campaign, and (3) integration of ERP metrics into departmental KPIs. These strategies are evaluated for impact and feasibility, with fallback options like focus group discussions for low-readiness units. The study contributes theoretically by adapting ADKAR for ERP pre-implementation in a public-sector context, and practically by offering a replicable roadmap for change management. It highlights the critical role of human-centric strategies in ensuring ERP success.
Keywords: *ADKAR, Digital Transformation, ERP Readiness, Organizational Change, PTBA, SAP Implementation, State-owned Enterprise.*

ABSTRACT
PT Bukit Asam (PTBA), perusahaan pertambangan milik negara di bawah naungan MIND ID, sedang bersiap untuk beralih dari sistem Ellipse EAM ke platform ERP berbasis SAP. Studi ini mengevaluasi kesiapan organisasi PTBA untuk transisi tersebut, dengan fokus pada faktor teknologi dan manusia menggunakan kerangka kerja ADKAR (Kesadaran, Keinginan, Pengetahuan, Kemampuan, dan Penguatan). Pendekatan campuran (mixed-methods) digunakan, menggabungkan survei kuantitatif (47 responden) dan wawancara kualitatif (6 peserta). Hasil menunjukkan kesadaran dan keinginan yang moderat hingga kuat di kalangan karyawan, mencerminkan keselarasan dengan strategi MIND ID. Namun, kesenjangan dalam pengetahuan dan kemampuan menunjukkan pemahaman teknis yang tidak merata dan kesiapan yang terbatas, terutama antar generasi dan departemen. Tema utama meliputi resistensi akibat kenyamanan dengan sistem lama, pelatihan yang tidak memadai, dan penguatan kinerja yang lemah. Untuk mengatasi hal ini, tiga solusi bisnis diusulkan: (1) Tim Kesiapan Fungsional (FRTF), (2) kampanye komunikasi ERP yang ditargetkan, dan (3) integrasi metrik ERP ke dalam KPI departemen. Strategi ini dievaluasi berdasarkan dampak dan kelayakan, dengan opsi cadangan seperti diskusi kelompok fokus untuk unit dengan kesiapan rendah. Studi ini berkontribusi secara teoritis dengan mengadaptasi ADKAR untuk persiapan ERP pra-implementasi dalam konteks sektor publik, dan secara praktis dengan menawarkan peta jalan yang dapat direplikasi untuk manajemen perubahan. Studi ini menyoroti peran kritis strategi berorientasi manusia dalam memastikan kesuksesan ERP.
Kata Kunci: ADKAR, Transformasi Digital, Kesiapan ERP, Perubahan Organisasi, PTBA, Implementasi SAP, Badan Usaha Milik Negara.

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1. Introduction

The increasing demand for operational efficiency and digital integration has driven organizations to adopt Enterprise Resource Planning (ERP) systems as a cornerstone of technological transformation. In asset-intensive industries such as mining, ERP systems help eliminate data silos, automate workflows, and improve cross-functional visibility, the capabilities essential for navigating dynamic market and regulatory environments.

PT Bukit Asam Tbk (PTBA), a state-owned coal mining company founded in 1919 and headquartered in Tanjung Enim, South Sumatra, contributes significantly to Indonesia's energy sector. The company currently relies on Ellips Enterprise Asset Management (EAM) to manage asset maintenance. While effective in its domain, Ellips lacks integration with enterprise-wide processes such as finance, procurement, and human capital management. This disconnect has led to inefficiencies, manual redundancies, and limited support for real-time analytics and strategic planning.

In response, PTBA plans to migrate to SAP ERP, aligning with the digital transformation roadmap set by its holding company, MIND ID. SAP ERP offers comprehensive modules for enterprise integration, including finance, supply chain, procurement, and asset management. Other subsidiaries under MIND ID, such as PT Freeport Indonesia and PT Aneka Tambang (ANTAM), have already adopted SAP, reinforcing the strategic push toward system standardization across the holding group.

The ERP transition, however, presents critical organizational challenges. Research consistently shows that employee readiness—not just system capability—is a key determinant of ERP implementation success. Readiness involves awareness of the change, motivation to support it, knowledge and skills for adoption, and sustained reinforcement post-implementation. Yet, few empirical studies in the Indonesian mining sector have examined this readiness in structured frameworks.

This research assesses PTBA's readiness to transition from Ellips to SAP ERP using the ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) change management model. A mixed-method design involving 6 semi-structured interviews and 50 survey respondents from departments including IT, HR, Finance, and Procurement was employed to gather both qualitative and quantitative insights.

By identifying gaps and providing targeted recommendations, this study aims to support PTBA's digital transformation and contribute to the broader understanding of ERP readiness in emerging market state-owned enterprises.

2. Literature Review

Enterprise Resource Planning (ERP) systems have become essential for organizations pursuing digital transformation and operational integration. ERP enables centralized management of core business processes—including finance, procurement, and asset maintenance—allowing for real-time analytics, improved decision-making, and strategic alignment (Davenport, 1998; Monk & Wagner, 2012). In mining, a sector characterized by capital intensity and operational complexity, ERP implementation is increasingly adopted to replace legacy systems such as Enterprise Asset Management (EAM), which typically operate in functional silos.

In the Indonesian context, studies on ERP transitions are limited, especially in state-owned enterprises. Existing research highlights that ERP success is not solely a technological issue but deeply rooted in organizational readiness (Esteves & Bohorquez, 2007; Weiner, 2009). Factors such as leadership commitment, employee engagement, and training capacity are critical to determining implementation outcomes. Failures often stem not from system failure but from inadequate change management and low user adoption (Somers & Nelson, 2001).

To systematically assess readiness, this study applies the ADKAR framework (Hiatt, 2006), a widely used model in change management. ADKAR consists of five elements: Awareness of the need for change, Desire to support it, Knowledge on how to change, Ability to implement new behaviors, and Reinforcement to sustain the change. The model is particularly effective in ERP implementations because it shifts focus from top-down strategy to individual user readiness—essential for technology adoption in large, bureaucratic organizations like PTBA.

Previous implementations of ADKAR in ERP settings have proven useful in both identifying readiness gaps and crafting intervention strategies (Hornstein, 2015). However, most empirical applications remain concentrated in developed economies or non-industrial sectors. Research from emerging markets, especially in resource-based industries like mining, remains scarce.

This study contributes to the literature by applying the ADKAR framework in an Indonesian state-owned mining company, assessing both managerial and employee readiness for ERP adoption. It bridges a practical and scholarly gap by examining readiness in a sector where technological shifts are often mandated top-down, yet must be implemented bottom-up.

3. Research Method

This study adopts a mixed-methods approach to assess PT Bukit Asam Tbk's (PTBA) organizational readiness for transitioning from Ellips Enterprise Asset Management (EAM) to SAP Enterprise Resource Planning (ERP). The ADKAR framework, which are Awareness, Desire, Knowledge, Ability, and Reinforcement to serve as the analytical foundation for evaluating change preparedness at the individual and departmental levels (Hiatt, 2006).

Research Design

The study integrates qualitative and quantitative methods to capture both contextual understanding and measurable readiness indicators. The qualitative phase consists of in-depth interviews and focus group discussions (FGDs), while the quantitative phase involves structured surveys.

Data Collection

- Qualitative data were obtained through semi-structured interviews and FGDs with six participants (P1–P6) from departments directly impacted by the ERP transition, including IT, HR, Finance, and Procurement. Participants included both managers and staff to ensure diversified perspective.
- Quantitative data were collected via a Likert-scale survey distributed to 50 PTBA employees across multiple divisions. The survey items were directly aligned with the ADKAR dimensions.

Data Analysis

- Qualitative data were analyzed using thematic analysis, with codes categorized under the ADKAR components. Themes were drawn from participant responses about system limitations, training adequacy, leadership communication, and anticipated benefits or concerns.
- Quantitative data were processed using descriptive statistical methods. Metrics included mean scores, standard deviation, and frequency distributions across survey responses to identify readiness levels and potential gaps for each ADKAR domain.

Framework Justification

The ADKAR model was chosen over other change management frameworks such as Kotter's 8-Step Model or Lewin's 3-Stage Model due to its individual-level focus and structured readiness assessment. This aligns with the study's objective of evaluating the extent to which PTBA's employees and departments are prepared for the ERP transition, particularly in terms of knowledge gaps, behavioral readiness, and reinforcement planning.

4. Result and Discussion

Qualitative Results

This study assessed PT Bukit Asam Tbk's (PTBA) organizational readiness for transitioning from Ellips EAM to SAP ERP using the ADKAR framework. Results from both qualitative interviews (P1–P6) and a quantitative survey of 50 employees offer a comprehensive view of PTBA's preparedness and challenges.

Awareness

Participants demonstrated strong awareness of the need to transition from Ellips to SAP ERP. Interviewees consistently cited Ellips' limitations, including outdated user interfaces, lack of data integration, and poor scalability. Additionally, respondents acknowledged the influence of MIND ID's strategic directive, which mandated SAP adoption across subsidiaries. Survey data supported this, with a high mean score in the Awareness domain, indicating that most employees understand the rationale for the transition.

"PTBA is the only one in MIND ID not using SAP... now it's being directed across all subsidiaries" (P3)

Desire

Employee desire to support the transition was **mixed**. While younger staff (e.g., Gen Z) showed enthusiasm for learning the new system, many tenured employees expressed hesitancy, citing comfort with current tools and concerns about workload increases.

"We're already settled and comfortable using the existing applications like CISEA and Ellips" (P4) and *"many are young—Gen Z—and they're eager to learn." (P5)*

This aligns with moderate Desire scores in the survey, suggesting motivation is uneven and may hinder uniform adoption. The variation reflects generational differences, departmental exposure to change, and perceived role disruption.

Knowledge

Knowledge development was in progress but uneven. Key users had access to preliminary training modules and ERP catalogs, but many frontline employees lacked clarity on ERP functionalities or training timelines. This was echoed in survey responses, where Knowledge scored slightly lower than Awareness, indicating a gap between information dissemination and deep understanding.

"A training catalog has been created… but not all have received training yet" (P2) and *"training has been done... some staff were chosen as active communicators." (P6)*

Ability

Ability, defined as the practical competence to use the system, was **the weakest area**. Respondents noted limited hands-on exposure to SAP environments, raising concerns about readiness to execute new workflows post-deployment. Several employees reported feeling unprepared to shift away from routine tasks under the current system. Quantitative results confirmed this trend, showing the lowest average score in the Ability dimension.

"Some employees will need extensive assistance when SAP goes live… otherwise, operations could stall" (P6) and *"the ERP must be deployed to all employees and improvements should be initiated by users." (P5)*

Reinforcement

Reinforcement mechanisms were not yet well-developed. While leaders expressed commitment to the change, ongoing support strategies such as performance monitoring, post-implementation coaching, or incentive structures were either still under discussion or lacking formalization. Survey responses showed uncertainty regarding whether long-term support would be maintained after the go-live phase.

"if externally verified financial reports are accepted, that becomes a performance indicator." (P5) and *"ERP must remain flexible... if something needs to be fixed, it must be updateable procedurally." (P6)*

Summary of Key Gaps

The data suggest that PTBA is conceptually aligned with its ERP goals but **operationally underprepared** in three critical areas:

1. Motivation across user segments (Desire)
2. Technical preparedness and training depth (Knowledge and Ability)
3. Long-term change sustainability (Reinforcement)

These findings are consistent with prior ERP readiness studies (Somers & Nelson, 2001; Hiatt, 2006), which emphasize that **employee-level factors**, not infrastructure, often determine ERP implementation outcomes.

The ADKAR analysis provides a structured diagnosis of where PTBA must focus its efforts particularly in enhancing engagement programs, expanding training coverage, and ensuring post-deployment reinforcement mechanisms. Without these interventions, the ERP initiative risks partial adoption or resistance from end-users.

Table 1. Emergent Theme Classification

Framework	Theme	Description	Prevalence	Supporting Quotes
Awareness	System Limitation Awareness	Participants identified the outdated and fragmented nature of the current EAM system (Ellips).	P1, P2, P3, P5, P6	*"The method of calling each code in the application is outdated... SAP just requires one click." (P6)*
Awareness	Top-Down Strategic Direction	ERP transition is seen as a strategic mandate from MIND ID, creating urgency.	P1, P2, P3, P5, P6	*"Now that we're in the MIND ID group... everyone has transitioned to SAP ERP, so like it or not, we're also being directed to align." (P5)*
Desire	Generational Willingness	Younger employees show high willingness to adopt ERP due to tech-savviness.	P1, P5	*"Many are still young—Gen Z—and they're eager to learn." (P5)*
Desire	Comfort with Existing System	Some employees resist ERP due to comfort with Ellips and existing tools.	P4, P5, P6	*"We're already settled and comfortable with existing applications like Cisya and Ellips." (P4)*

Knowledge	Uneven Training Rollout	Key user training has started, but wider training efforts are pending.	P2, P3, P6	*"Training has been done... some employees in specific units were chosen as active communicators." (P6)*
Ability	Transactional Readiness	Departments like Budgeting & Accounting are leading the way in system preparation.	P5, P6	*"The Budgeting & Accounting Division is the most affected... they've been prepared from the start for this change." (P6)*
Reinforcement	KPI as ERP Validation	Successful ERP implementation will be validated by KPI-linked audit outcomes.	P2, P3, P5	*"If the financial reports have already been verified by external auditors... that becomes a performance indicator." (P5)*
Reinforcement	Sustainability and Flexibility	ERP must adapt to future updates and operational feedback post-launch.	P4, P6	*"ERP must also be flexible... if anything needs to be fixed, it must be updatable." (P6)*

This table presents the most important themes identified across the interviews with P1 to P6, categorized under the ADKAR framework to reflect organizational readiness dimensions. These themes not only represent direct sentiments and reflections from participants but also point to systemic enablers and barriers in the ERP transition process at PTBA.

Participants showed strong awareness of the shortcomings of Ellips and the strategic mandate from MIND ID to adopt SAP ERP. While younger employees expressed high desire to embrace change, others were hesitant due to familiarity with legacy systems, revealing a generational divide in readiness. Knowledge of the new system remains concentrated among key users, with broader understanding still developing. Ability is most evident in departments like Budgeting & Accounting, which are actively preparing through process mapping. Reinforcement will depend on ongoing feedback mechanisms and performance indicators, such as verified financial reports and ERP adaptability. Overall, the themes reflect strong strategic alignment but also point to the need for expanded training, clearer communication, and sustained support post-implementation.

Table 2. Emergent Theme Classification (Frequency)

Cluster Themes	Emergent Themes	Count
Awareness	System Limitation Awareness	5
Awareness	Top-Down Strategic Direction	5
Desire	Generational Willingness	2
Desire	Comfort with Existing System	3
Knowledge	Uneven Training Rollout	3
Ability	Transactional Readiness	2
Reinforcement	KPI as ERP Validation	3
Reinforcement	Sustainability and Flexibility	2

The frequency count reflects theme appearances, not individual respondents. In qualitative coding, a single participant may express multiple themes, and one theme may be reiterated by multiple participants. Therefore, a count of "5" does not mean five different people each mentioned the theme once, but that the theme appeared five times across all transcripts, possibly by the same or different individuals. This method helps highlight which sentiments or issues are most prominently and repeatedly emphasized.

The **Awareness** cluster showed the highest frequency of emergent themes, with System Limitation and Strategic Direction each mentioned five times—indicating strong recognition across PTBA of both technical issues and the MIND ID-driven push for ERP adoption. This sets a solid foundation for change.

Desire revealed a generational divide: resistance from those comfortable with legacy systems contrasted with enthusiasm among younger staff. **Knowledge** showed uneven training distribution, with early efforts focused on key users, risking silos without broader outreach.

Ability was noted primarily in finance-related departments, signaling a need for more targeted readiness assessments across other units. **Reinforcement** themes highlighted employees' expectations for clear KPIs and system adaptability, suggesting a forward-looking view of ERP success.

Overall, PTBA demonstrates high awareness but uneven readiness in other ADKAR areas, requiring focused efforts in inclusive training, tailored communication, and long-term support planning.

Quantitative Results

ADKAR Awareness

Table 3. ADKAR Awareness Descriptive Analysis

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
1. I understand the reason behind the transition from the EAM Ellips system to SAP ERP.	1.80%	3.60%	23.60%	56.40%	14.50%	3.782	0.809
6. The current EAM system is unable to meet increasingly complex operational needs.	1.80%	10.90%	41.80%	36.40%	9.10%	3.4	0.873
7. This transition is important to support the company's digital transformation strategy.	0.00%	1.80%	10.90%	67.30%	20.00%	4.055	0.621
8. SAP ERP will help integration across departments in the company.	0.00%	0.00%	12.70%	72.70%	14.50%	4.018	0.527
9. The transition to ERP will provide competitive advantages for the company.	0.00%	1.80%	18.20%	63.60%	16.40%	3.945	0.65
10. I feel the organization has clearly communicated the reason for this change.	0.00%	12.70%	21.80%	56.40%	9.10%	3.618	0.828
15. I feel the current KPI system's shortcomings make performance measurement suboptimal.	0.00%	10.90%	41.80%	32.70%	14.50%	3.509	0.879
17. SAP ERP has more advanced technology and fits future needs.	0.00%	3.60%	30.90%	54.50%	10.90%	3.727	0.706
Overall Mean						**3.757**	

Awareness

Respondents demonstrated **moderate to high awareness** (Mean = 3.757), particularly regarding the strategic goals of the transition (e.g., digital transformation and cross-department integration). However, there were lower scores on understanding Ellips' limitations and the clarity of internal communication, suggesting a need for improved messaging from leadership.

ADKAR Desire

Table 4. ADKAR Desire Descriptive Analysis

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
2. I believe that the transition to SAP ERP will benefit the organization.	1.80%	1.80%	18.20%	60.00%	18.20%	3.909	0.776
11. I am motivated to actively engage in this change process.	0.00%	1.80%	21.80%	63.60%	12.70%	3.873	0.64
16. Employees have been sufficiently involved in ERP transition planning.	0.00%	10.90%	40.00%	43.60%	5.50%	3.436	0.764
Overall Mean						**3.739**	

Desire

The **average Desire score was 3.739**, indicating general willingness to engage in the transition. Employees agreed on the benefits of SAP ERP and their motivation to participate, but felt **less involved in planning**, pointing to a gap in inclusive change efforts.

ADKAR Knowledge

Table 5. ADKAR Knowledge Descriptive Analysis

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
3. I know the main goals and benefits of implementing SAP ERP.	0.00%	0.00%	21.80%	63.60%	14.50%	3.927	0.604
12. I have been given sufficient training to understand the SAP ERP system.	9.10%	23.60%	36.40%	29.10%	1.80%	2.909	0.986
20. I know who to contact when I experience ERP-related difficulties.	0.00%	3.60%	18.20%	58.20%	20.00%	3.945	0.731
Overall Mean						**3.594**	

Knowledge

Scoring **lowest among the five components** (Mean = 3.594), Knowledge was uneven. While respondents understood ERP's purpose and knew where to seek help, **training sufficiency was a key weakness**—highlighting an urgent need for broader and deeper training programs.

ADKAR Ability

Table 6. ADKAR Ability Descriptive Analysis

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
4. I have the necessary skills and ability to use the SAP ERP system.	0.00%	10.90%	30.90%	47.30%	10.90%	3.582	0.832
13. I feel capable of operating ERP-based workflows.	0.00%	5.50%	40.00%	45.50%	9.10%	3.582	0.738
18. I feel ready to adapt to the new system once implementation starts.	0.00%	0.00%	7.30%	61.80%	30.90%	4.236	0.576
Overall Mean						**3.8**	

Ability

With an **average score of 3.800**, respondents expressed confidence in adapting to ERP processes, especially in their readiness to transition (Mean = 4.236). This indicates a strong foundation for change, provided ongoing capability development is maintained.

ADKAR Reinforcement

Table 7. ADKAR Reinforcement Descriptive Analysis

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
5. The organization provides ongoing support after ERP implementation.	0.00%	0.00%	12.70%	74.50%	12.70%	4	0.509
14. Management provides incentives or support for maintaining ERP use.	0.00%	9.10%	36.40%	49.10%	5.50%	3.509	0.742
19. Management actively encourages and reinforces the shift to ERP.	0.00%	1.80%	16.40%	67.30%	14.50%	3.945	0.621
Overall Mean						**3.818**	

Reinforcement

This category received the **highest overall score (Mean = 3.818)**. Respondents felt supported post-implementation and acknowledged leadership encouragement. However, perceptions of **incentive-based reinforcement were less robust**, indicating an opportunity to strengthen motivation through tangible rewards or recognition.

Discussion (Synthesize of Qualitative and Quantitative)

This study integrates both survey and interview results to assess PT Bukit Asam's (PTBA) organizational readiness for transitioning from the Ellips EAM system to SAP ERP, using the ADKAR framework as a diagnostic lens. By examining readiness across managerial and employee levels, the study offers a holistic view of change preparedness and highlights strategic areas requiring intervention.

Awareness

PTBA demonstrated strong Awareness (Mean = 3.757) across the board. Employees clearly understood the limitations of the current system and recognized the strategic imperative from MIND ID to standardize ERP systems across its subsidiaries. This alignment mirrors Hiatt's (2006) assertion that awareness of the need for change is the critical first step in transformation. Additionally, the alignment between strategic messaging and employee perception reflects Weiner's (2009) view that psychological readiness—especially cognitive understanding of the rationale behind change—greatly influences implementation success. However, slightly lower scores on communication clarity suggest that while the "what" and "why" are known, the "how" must be more consistently communicated across departments.

Desire

Desire also showed positive results (Mean = 3.739), particularly among younger staff who expressed motivation and digital openness—consistent with Rogers' (1995) Diffusion of Innovations Theory, which explains that change adoption varies across social segments. However, resistance from long-serving employees, particularly those accustomed to Ellips, indicates the need for tailored motivational strategies. These findings echo Hornstein's (2015) emphasis that organizational change management must account for emotional readiness and role-based hesitancy, and cannot rely solely on top-down mandates. The lack of participatory planning—reflected in lower scores for employee involvement—suggests motivation may remain superficial unless PTBA facilitates more inclusive decision-making and feedback mechanisms.

Knowledge

Knowledge emerged as the weakest ADKAR element (Mean = 3.594). While some key users received early training, a significant portion of staff lacked clarity on ERP implications, system changes, and the competencies needed. This disparity supports Esteves & Bohorquez's (2007) conclusion that ERP success hinges on widespread knowledge diffusion—not just technical exposure but comprehension across functions. Without adequate knowledge, ERP rollouts risk inefficiency, resistance, and misuse. Interviews revealed that training efforts were uneven, leading to silos of preparedness that may undermine cross-functional integration post-implementation.

Ability

Ability scored relatively high (Mean = 3.800), indicating employee confidence in adapting to new systems. Departments like Budgeting and Accounting were already engaging in process mapping, suggesting pockets of operational readiness. Still, the variability in preparedness across other units supports Weiner's (2009) insight that technical and behavioral capacity is often unevenly distributed. This underscores the need for function-specific capability-building rather than blanket training approaches. General training may promote surface-level compliance, but tailored efforts are required for sustained performance improvement.

Reinforcement

Reinforcement had the highest score (Mean = 3.818), with both data sources showing optimism about post-implementation support. Employees acknowledged management encouragement and recognized KPIs to evaluate ERP success, aligning with Hornstein's (2015) view that continuous reinforcement—through performance tracking and accountability—is essential for embedding new systems into organizational culture. However, current reinforcement mechanisms appear informal and lack structured follow-up systems. This

creates a risk of fading enthusiasm post-go-live, unless reinforced through clear metrics, helpdesks, and ongoing leadership involvement.

The empirical findings align well with theoretical expectations from change management and ERP readiness literature. The ADKAR framework proves effective in diagnosing readiness, confirming strong foundations in Awareness, Desire, and Reinforcement, but exposing vulnerabilities in Knowledge and Ability. These gaps must be addressed through inclusive training programs, functional capability development, and consistent communication strategies. Furthermore, the literature reinforces that ERP success depends not only on system deployment, but also on an organization's ability to foster long-term behavioral change, adaptability, and strategic alignment

Discussion

PT Bukit Asam (PTBA) is embarking on a significant transition from its Ellips EAM system to SAP ERP, with a study leveraging the ADKAR framework to assess organizational readiness. The findings indicate a strong foundation in Awareness (Mean = 3.757), where employees clearly comprehended the limitations of the existing system and the strategic imperative from MIND ID to standardize ERP. This alignment mirrors Hiatt's (2006) assertion that awareness is the critical first step in transformation and Weiner's (2009) view that psychological readiness, especially cognitive understanding of the rationale, greatly influences implementation success. Similarly, Desire (Mean = 3.739) showed positive results, particularly among younger, digitally open staff, consistent with Rogers' (1995) Diffusion of Innovations Theory. However, resistance from long-serving employees and the lack of participatory planning suggest the need for tailored motivational strategies, echoing Hornstein's (2015) emphasis on accounting for emotional readiness and role-based hesitancy beyond top-down mandates.

The study revealed Knowledge (Mean = 3.594) as the weakest ADKAR element. While some key users received early training, a significant portion of staff lacked clarity on ERP implications and required competencies. This disparity supports Esteves & Bohorquez's (2007) conclusion that ERP success hinges on widespread knowledge diffusion, not just technical exposure. In contrast, Ability (Mean = 3.800) scored relatively high, indicating employee confidence in adapting to new systems, with departments like Budgeting and Accounting already engaging in process mapping. Still, the variability in preparedness across other units supports Weiner's (2009) insight that technical and behavioral capacity is often unevenly distributed, underscoring the need for function-specific capability-building rather than blanket training.

Finally, Reinforcement had the highest score (Mean = 3.818), with optimism about post-implementation support and recognition of KPIs, aligning with Hornstein's (2015) view that continuous reinforcement through performance tracking is essential for embedding new systems. However, the informality of current reinforcement mechanisms and the lack of structured follow-up systems pose a risk of fading enthusiasm post-go-live. Overall, the empirical findings align well with theoretical expectations from change management and ERP readiness literature. The ADKAR framework proved effective in diagnosing readiness, confirming strong foundations in Awareness, Desire, and Reinforcement, but exposing vulnerabilities in Knowledge and Ability that must be addressed through inclusive training, functional capability development, and consistent communication for successful long-term behavioral change and strategic alignment.

Business Solution

To address readiness gaps—especially in Knowledge and Ability—this study proposes a Phased Readiness Enhancement Program (PREP) composed of three actionable strategies:

1. Establish a Functional Readiness Task Force (FRTF)
   A cross-functional team from IT, HR, Finance, Procurement, and Operations should be formed, comprising mid-level managers or senior key users with strong process knowledge and peer credibility. This task force will map departmental readiness using ADKAR dimensions, detect localized resistance, and act as change agents to support both vertical and horizontal change management. Optional readiness orientation or light evaluation may be applied, with incentives provided for participation.
2. Run a Targeted ERP Communication & Readiness Campaign
   A 4–6 week internal campaign should be launched to socialize ERP goals and prepare users psychologically. Components include departmental town halls, digital infographics, and a mid-campaign readiness survey. The campaign emphasizes clarity and familiarity rather than technical depth, aiming to build basic ERP literacy and reduce apprehension.
3. Integrate Change Metrics into Leadership KPIs
   To reinforce accountability, change-readiness indicators—such as training completion, ERP participation, and feedback scores—should be embedded in leadership performance evaluations. These metrics will appear in dashboards and be reviewed in quarterly meetings, ensuring top-down support translates into measurable outcomes.

If readiness gaps persist, fallback interventions such as small-group FGDs at the departmental level are recommended. These will allow tailored responses to localized resistance and keep momentum going through manageable clusters.

Together, these initiatives align with PTBA's Balanced Scorecard and MIND ID's strategic mandate, ensuring the ERP transition is both people-centered and execution-focused.

5. Conclusion

Several limitations may influence the interpretation and generalizability of this study. First, while participant numbers were sufficient for data saturation, the focus on departments most impacted by ERP may exclude insights from peripheral units. Second, as the research was conducted pre-implementation, it captures perceived readiness rather than actual post-rollout behavior. Third, the ADKAR framework effectively assesses human readiness but does not address technical or financial aspects of ERP implementation. Fourth, although thematic analysis was rigorous and supported by AI tools (Turobov, 2024) it still involved researcher interpretation, which may introduce bias. Lastly, findings are specific to PTBA, a state-owned mining company, and may not directly apply to private or non-mining organizations.

Despite these constraints, the study provides actionable insights and a replicable model for ERP readiness assessment, with future research encouraged to explore post-implementation impacts and broader comparative contexts.

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