Research Article

Improving The Effectiveness Of Performance Management System Through Adkar-Based Change Management Analysis: A Case Study Of PT Transportasi Angkutan Darat

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Abstract: This study aims to evaluate the effectiveness of change management in the Key Performance Indicator (KPI) Planning process at PT Transportasi Angkutan Darat (TAD) using the ADKAR framework. The main problems identified include insufficiently challenging KPI targets, insufficiently specific indicators, and suboptimal cascading processes. A mixed methods approach was used, combining quantitative survey data from managerial-level employees at the head office of PT TAD and in-depth interviews to gain a more comprehensive understanding. The results indicate that the Desire and Ability dimensions are in the strong category, driven by managerial motivation and established operational routines. However, the Awareness, Knowledge, and Reinforcement dimensions are at a lower level of effectiveness due to a lack of clarity regarding the reasons for KPI changes, inconsistencies in knowledge transfer during role transitions, and the absence of a structured feedback mechanism. Based on these findings, this study proposes improvement strategies through strengthening leadership-led communication, systematic integration of knowledge transfer into the managerial work cycle, and institutionalization of performance feedback into evaluation routines. Theoretically, this study contributes to the development of change management literature by demonstrating the application of ADKAR in diagnosing performance management system challenges in the context of a large transportation services company in the railway sector. Practically, the research results provide guidance for strengthening the KPI Planning process to make it more consistent, measurable, and aligned with the organization's strategic objectives.

Keywords: ADKAR; Change Management; KPI Planning; Organizational Development; Performance Management.

1. Introduction

A Performance Management System (PMS) plays a central role in translating an organization's strategic objectives into operational metrics that can be continuously monitored, evaluated, and improved. Mangipudi et al. (2020) state that a PMS is a strategic mechanism for planning, tracking, and assessing performance achievement in line with the organization's vision and strategy. Within it, Key Performance Indicators (KPIs) serve as the primary instrument for setting targets, measuring achievements, and directing work behaviors to align with company objectives. KPIs ensure that all operational activities are aligned with strategic goals, thereby supporting the organization's transformation agenda (Al-Mutaz, 2022). To achieve this effectiveness, KPI development ideally follows the SMART (Specific, Measurable, Achievable, Relevant, Time-bound) principle. SMART KPIs enable organizations to identify areas for improvement and establish appropriate corrective actions (Lindberg et al., 2015).

In the context of PT Transportasi Angkutan Darat (TAD), a large-scale public transportation company that plays a vital role in improving interregional connectivity in Indonesia, the quality of KPI Planning is a critical factor in maintaining the effectiveness of its PMS. In the context of this research, the term KPI planning refers to the process of developing annual KPIs carried out by each official or employee together with their superiors. This process includes selecting and adjusting indicators, agreeing on targets, and aligning them with cascading results from higher organizational levels. Therefore, KPI planning in this research does not refer to the design of new indicators, but rather to the process of formulating individual KPIs used for the annual performance period. Initial survey findings indicate several problems at the KPI Planning stage, including: targets that are not fully SMART, indicators that are not specific and prone to formulation errors, and inconsistent cascading processes that result in bottom-up practices that are not systematically validated. These problems have resulted in a decline in the quality of performance measurement and weakened the function of KPIs as drivers of organizational strategy. These technical constraints indicate the presence of non-technical issues, particularly related to individual and organizational readiness to face change. Therefore, technical analysis alone is insufficient to explain the root causes of KPI Planning problems. A change management approach is needed that can identify obstacles at the level of individual behavior, knowledge, and motivation.

To that end, this study uses the ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) model as a diagnostic framework to evaluate change readiness at the KPI Planning stage. The ADKAR model allows for the identification of weak components of change, whether they are problems with awareness (Awareness), willingness to support change (Desire), technical understanding (Knowledge), the ability to operationally implement KPIs (Ability), or ongoing reinforcement mechanisms (Reinforcement). Argüello and Prida (2024) demonstrated that ADKAR can be integrated into an asset and knowledge management framework, making this model useful not only at the individual level but also supporting broader organizational capability strengthening. Using a mixed-methods approach, this study combines quantitative survey data and in-depth interviews to gain a comprehensive understanding of the effectiveness of change management in the KPI Planning process at PT TAD. The objectives of this study were (1) to evaluate the effectiveness of each ADKAR dimension in the KPI Planning process, (2) to identify critical gaps that hinder PMS optimization, and (3) to formulate evidence-based improvement strategies to strengthen organizational performance management practices.

2. Literature Review
Change Management and ADKAR Model
Change management in an organizational context is understood as a systematic and structured process involving the design and implementation of strategies to help an organization move from its current state to a desired state (Wang & Sun, 2012). The primary goal is to enhance the organization's ability to respond to internal and external changes while ensuring that these changes result in sustained performance improvements. The change management process generally includes three main stages: preparation (analysis, planning, and strategy development), implementation and change management, and consolidation through institutionalization, evaluation, feedback, and corrective action (Mukhlis & Prasetyoning Tyas, 2024). Kotter (1996) emphasized that organizational transformation is not a single event, but rather a continuous, gradual process. Attempting to accelerate change by skipping certain stages is a critical error that often results in implementation failure.

One widely used framework for managing change at the individual level is the ADKAR model. The ADKAR model, developed by Jeff Hiatt (Prosci), is a framework that focuses on change at the individual level and serves as a diagnostic tool for change management (Hiatt, 2006). Hiatt emphasized that the success of organizational change depends on the success of each individual's transition; therefore, ADKAR is designed to identify employees' positions in the change process and identify gaps that need to be addressed to achieve change. ADKAR consists of five sequential elements that must be met for effective change: Awareness, Desire, Knowledge, Ability, and Empowerment (Hiatt, 2006). Research by Paramitha et al. (2020) shows that ADKAR is useful for identifying employee barriers at each stage of change.

Performance Management System and KPI Planning
Performance Management System (PMS) is a systematic approach used to manage employee and organizational performance by linking individual efforts to company strategy through the creation of relevant, measurable performance metrics aligned with organizational

goals (Shaaban & Badway, 2022). A PMS has several key components, including goal setting and alignment, performance monitoring and feedback, and performance assessment and evaluation. These components ensure that each employee understands expectations, continuously develops competencies, and is motivated to achieve established targets, thereby consistently achieving business strategy and organizational goals (Siraj & Hagen, 2023).

Key Performance Indicator (KPI) is a measurable value used to demonstrate the effectiveness of achieving an organization's strategic objectives. KPIs serve as key indicators that highlight the most critical performance aspects for organizational success and provide information on the extent to which strategies, programs, and objectives have been achieved (Al-Mutaz, 2022). To ensure quality indicators, KPIs need to be formulated based on the SMART principles of Specific, Measurable, Attainable, Relevant, and Time-bound, which help produce KPIs that are clear, measurable, realistic, relevant, and have a defined time limit (Selvik et al., 2020). Furthermore, cascading is a crucial process in translating high-level strategic objectives into indicators at various organizational levels, from business units and departments to individuals. The KPI cascading process ensures that all parts of the organization are moving toward the same goals with metrics relevant to their respective functions, while also helping each employee understand the organization's vision, mission, values, and goals. Thus, cascading improves overall organizational alignment and performance (Al Barwany, 2024).

ADKAR Model in KPI Planning

The successful implementation of a Performance Management System (PMS) is heavily influenced by human factors, particularly the quality of communication, employee engagement, and support in the change process. Mabasa and Flotman (2022) emphasize that effective communication and active participation are fundamental to successful change, as they help ensure employees understand the objectives of the change and are able to adjust their work behaviors appropriately. In this context, the ADKAR model, developed by Hiatt (2006), is a relevant framework due to its diagnostic nature, enabling organizations to identify individual barriers at each stage of change. The advantage of ADKAR is its diagnostic nature, allowing it to identify specific barriers and making it suitable for more targeted interventions." (Samosir & Jayadi, 2021). Argüello and Prida (2024) even integrates ADKAR into an intangible asset management and knowledge management framework, demonstrating that this model serves not only as a tool for individual change but also as a means to strengthen organizational capabilities.

In this study, ADKAR was used to analyze the implementation of Key Performance Indicators (KPI) Planning at PT Transportasi Angkutan Darat (TAD). Formulating and implementing a new mission and vision helps the organization remain relevant to environmental dynamics and creates goals aligned with sustainable competitive advantage (Helmold, 2022). By examining the components of Awareness, Desire, Knowledge, Ability, and Reinforcement, this model helps identify which dimensions are working effectively and which are still weak in the KPI Planning process, for example related to understanding the formula, motivation in developing indicators, technical ability in ensuring SMART indicators, or consistency in reinforcing behavior. The results of this analysis serve as the basis for developing more targeted recommendations to improve the effectiveness of the KPI Planning process while strengthening the overall implementation of PMS at PT TAD.

Summary

A literature review demonstrates that change management is necessary to ensure the effectiveness of organizational transformation processes, with ADKAR as a model that serves to understand how individuals progress through the stages of change. In the context of performance management, the Performance Management System (PMS) and Key Performance Indicators (KPIs) play a crucial role in translating strategic objectives into measurable indicators through a formulation and cascading process. The literature also emphasizes that the quality of KPI Planning is influenced by technical aspects such as the SMART principle and cascading mechanisms, as well as human aspects such as understanding, motivation, ability, and behavioral consistency.

Based on this foundation, this study uses the ADKAR model as a framework to analyze how individual-level change elements relate to the KPI Planning process at PT Transportasi Angkutan Darat (TAD). This approach allows the study to assess the relative status of each element and explore factors influencing the KPI Planning process through a combination of

quantitative and qualitative data. This literature summary serves as the basis for the analysis in the following section, which discusses the research methods and results.

3. Methodology
Research Design

This study uses a mixed-method approach, combining quantitative and qualitative methods to gain a more comprehensive understanding of the implementation of Key Performance Indicators (KPI) Planning at PT Transportasi Angkutan Darat (TAD). In the initial stage, a quantitative survey was used to measure the average value of the five ADKAR elements (Awareness, Desire, Knowledge, Ability, Reinforcement) to identify which elements had relatively lower values. The next stage was semi-structured interviews, which were conducted to explore the factors causing low scores on certain elements. The use of ADKAR in this design aims to diagnose aspects of change at the individual level that influence the quality of the KPI Planning process. This mixed approach was chosen because it is able to combine the strength of numerical data with in-depth explanations from the field context.

Research Site and Participants

This research was conducted at PT Transportasi Angkutan Darat (TAD), a large-scale public transportation company that plays a key role in improving interregional connectivity in Indonesia. The study population consisted of 424 employees at the managerial level (BOD-3) at PT TAD's head office who were involved in the formulation and implementation of Key Performance Indicators (KPIs). The number of survey respondents was determined using the Slovin formula, resulting in a minimum of 206 respondents participating in the questionnaire.

To complement the quantitative data, this study also involved interview informants selected through purposive sampling. These individuals were directly involved in the KPI development process or had a deep understanding of Performance Management System (PMS) implementation. Interviews were conducted to deepen and confirm the quantitative findings, particularly on the ADKAR elements that received relatively lower scores.

Data Collection
Instruments and Primary Data

a. **Quantitative Survey**

Quantitative data was collected through a questionnaire using a Likert scale of 1–5 to measure the five elements of ADKAR. This survey was used to identify the average value for each element and determine which elements require further qualitative analysis.

b. **Qualitative Survey**

Semi-structured interviews were conducted based on the survey results, focusing on the ADKAR elements that received the lowest scores. The goal was to identify the causes, context, and organizational conditions that influence the KPI Planning process. Interviews were conducted in person or online, depending on the availability of informants.

Secondary Data

Secondary data was obtained from various official organizational documents, including the Annual Report of PT Transportasi Angkutan Darat (TAD), the 2025 KPI Teaching Materials, and other internal documents related to the implementation of the Performance Management System (PMS) and the KPI Planning process. These documents were used to understand the formal provisions, workflows, and policies that form the basis for the development and cascading of KPIs at TAD. This secondary information supports the analysis by providing a more comprehensive organizational context and ensuring that the interpretation of the research findings aligns with the company's existing structures and practices.

Data Analysis Strategy

Survey data were analyzed using descriptive statistics (mean and standard deviation) to see the value pattern of each ADKAR element and to identify the elements with the lowest relative values. Interview data was analyzed using thematic analysis through coding, grouping, and theme extraction to identify factors explaining the low scores on specific ADKAR

elements. The qualitative analysis results were then integrated with the quantitative data to generate a more comprehensive understanding.

4. Results and Discussion

The minimum sample size required for this study was calculated using the Slovin formula with a 5% margin of error. From a total population of 424 managerial employees involved in the Key Performance Indicator (KPI) Planning process at PT Transportasi Angkutan Darat (TAD), a minimum of 206 respondents was obtained. Data collection was conducted online via Google Forms, and the study successfully obtained 220 respondents, thus meeting and exceeding the minimum requirement for analysis.The collected respondent data represents managerial employees directly and indirectly involved in the KPI Planning process. Because this study focuses on evaluating the ADKAR elements within the context of KPI Planning, demographic information is used only to ensure that respondents come from various organizational areas relevant to the process. Therefore, further analysis in the following section focuses on the ADKAR measurement results and supporting interviews, without focusing on the detailed distribution of demographic characteristics.

The following section presents the results of the quantitative analysis of the five ADKAR elements as well as qualitative findings used to deepen the interpretation of the survey results, thus providing a comprehensive picture of the implementation of the KPI Planning process at PT TAD.

Quantitative Results: ADKAR Dimension Scores

Quantitative analysis was conducted to obtain an overview of the condition of the five ADKAR elements in the Key Performance Indicator (KPI) Planning process at PT Transportasi Angkutan Darat (TAD). The average (mean) value for each element was calculated to identify which elements obtained relatively higher scores and which elements showed lower scores. These results served as the basis for determining areas that needed further exploration through qualitative analysis. The following graph presents the average value for each ADKAR element based on 220 respondents.
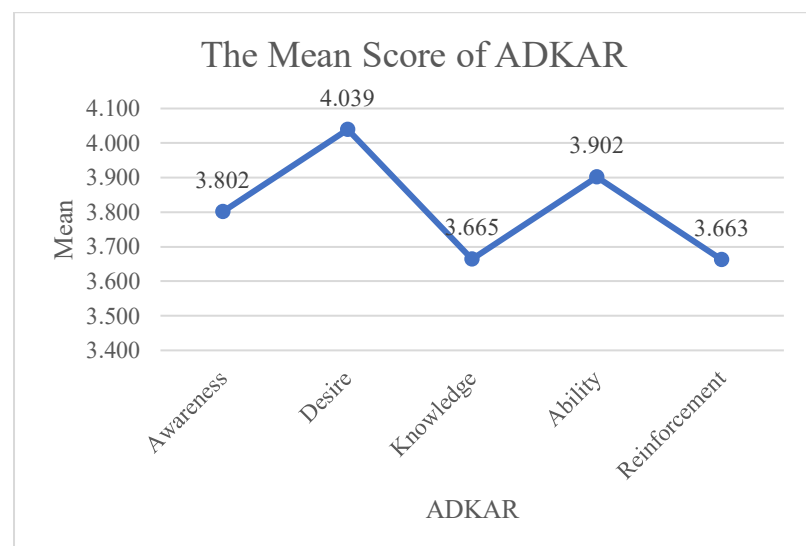

Figure 1. ADKAR Mean Score.

Based on the graph above, the Desire dimension had the highest average score, at 4.039, indicating that employee motivation to support KPI achievement is at a relatively good level. The Ability dimension also showed a relatively high score (3.902), indicating that most respondents felt capable of implementing KPI achievement strategies according their roles.

Meanwhile, the other three dimensions showed relatively lower average scores. Awareness had a score of 3.802, indicating room for improvement in employee understanding of the purpose and rationale for KPI changes. Knowledge and Reinforcement were the two dimensions with the lowest scores, at 3.665 and 3.663, respectively. The low score for Knowledge indicates that technical understanding of KPI Planning and consistency of knowledge transfer still need to be strengthened. The low score for Reinforcement indicates

that reinforcement mechanisms, such as continuous feedback and follow-up, are not functioning optimally in supporting KPI-related behaviors.

These findings provide a clear basis for the qualitative analysis phase, which explores the factors that contribute to low scores on the Awareness, Knowledge, and Reinforcement dimensions. By combining these two types of findings, the research can provide a more comprehensive picture of the condition of ADKAR in the KPI Planning process at PT TAD.

Qualitative Results: Thematic Analysis

To complement the quantitative analysis, this study conducted semi-structured interviews. Respondents were purposively selected, including individuals at the BOD-3 (manager) level who were directly involved in the KPI Planning process. This study involved six interviewees. This number was chosen because the focus group was relatively homogeneous and because the purpose of the interviews was to obtain in-depth information; this approach is consistent with qualitative guidelines that emphasize data saturation over numerical sample size (Saunders et al., 2019).These interviews aimed to explore in more depth the factors that caused low scores on the Awareness, Knowledge, and Reinforcement dimensions, while also exploring the real context of KPI Planning implementation at PT TAD. The analysis was conducted using thematic analysis to identify key patterns in the informants' perceptions and experiences, then grouping the findings according to the relevant ADKAR dimensions. The results of this qualitative analysis provide a comprehensive understanding of the root causes not apparent in the quantitative data and serve as a basis for formulating improvement recommendations.

Awareness

Interview results indicate that low awareness is primarily due to a lack of effective communication between superiors and subordinates, particularly when promotions or unit transfers occur. Many employees receive new KPIs without explanations of indicators, targets, or achievement expectations, resulting in a lack of a comprehensive understanding of the relationship between daily work and KPIs. Furthermore, the knowledge transfer process is not yet structured, so information related to KPI changes is often concentrated in specific units and does not flow throughout the management hierarchy.

Other findings indicate that some employees develop awareness solely for administrative reasons, such as document collection or linkages to the K3 (Inspection and Information Technology), rather than from a strategic understanding of the KPI's function. The lack of regular evaluations also leads employees to mechanically execute the KPI fulfillment process without understanding the necessary indicators and evidence. Overall, low awareness is more related to a lack of strategic understanding of the purpose and direction of KPI changes than to a lack of awareness of the KPIs themselves. This situation aligns with the quantitative results, confirming the need for awareness to be strengthened through leadership communication, clarification of KPI objectives, and a more systematic knowledge transfer mechanism.

Knowledge

Qualitative findings indicate that low Knowledge scores are primarily influenced by a lack of technical understanding of the KPI development and calculation process. Many employees do not yet understand the logic of indicators, how to design KPIs in accordance with SMART principles, or the function of the formulas used in calculations. A deeper understanding is generally only possessed by employees directly involved in the verification process or special training, while employees from other units tend to simply follow the provided format or template without understanding the rationale, calculations, or strategic objectives behind them. This situation indicates that technical materials such as indicator guides, calculation examples, and explanations of KPI logic have not been evenly distributed across all involved units.

In addition to limited technical understanding, operational workloads also hamper knowledge development. Busy daily activities prevent employees from having sufficient time to study KPI indicators in depth or optimally participate in training sessions. As a result, many important aspects, such as understanding formulas, cascading processes, and indicator interpretation, are not properly absorbed. Overall, these findings confirm the quantitative results that Knowledge is one of the dimensions with the lowest scores, and demonstrate that

strengthening technical capacity and a more systematic knowledge transfer mechanism are urgently needed to improve the effectiveness of the KPI Planning process at PT TAD.

Reinforcement

Qualitative analysis shows that the low Reinforcement score is primarily due to two main factors: the administrative nature of the KPI verification process and the inability of feedback to consistently reinforce performance behavior. Although the organization has formal mechanisms such as KPI verification and performance-based incentives (IK3), the reinforcement provided has not been effective in ensuring the quality of KPI development and the sustainability of expected behavior. The verification process, which ideally serves as strategic validation, focuses more on administrative completeness than on the substance of the indicators, such as formula suitability, indicator relevance, or cascading consistency. This situation prevents the verification process from providing the necessary reinforcement in the context of ADKAR-based change.

The second factor is the weak quality of feedback from superiors to subordinates during the KPI development process. The feedback provided tends to be formal and superficial, thus not helping employees understand the direction of improvement or enhancing strategic understanding of the indicators developed. Some units only provide corrective instructions without substantive explanations, so reinforcement does not function as a learning mechanism or behavioral reinforcement. This finding aligns with the quantitative results, which ranked Reinforcement as one of the dimensions with the lowest scores, indicating that mechanisms for reinforcing performance behavior have not had a significant impact. Thus, strengthening the aspects of substantive evaluation and quality feedback is a priority for improvement to increase the effectiveness of the KPI Planning process at PT TAD.

Discussion

The integration of quantitative and qualitative results reveals a consistent pattern of findings regarding the implementation of the KPI Planning process at PT TAD. The Desire and Ability dimensions are relatively high, indicating that employees possess the motivation and basic skills to achieve performance targets. However, the Awareness, Knowledge, and Reinforcement dimensions have the lowest average scores and are areas requiring special attention. The low scores on these three dimensions are primarily influenced by uneven strategic communication from superiors to subordinates, inconsistent technical knowledge transfer, and feedback mechanisms that tend to be administrative, thus failing to reinforce sustainable performance behavior.

These findings align with ADKAR theory, which emphasizes that each stage of change at the individual level must be activated for change to be effective and sustainable (Hiatt, 2006). The Awareness stage plays a crucial role in fostering open communication between management and employees, thereby enhancing understanding of the direction and rationale for change (Kim & Wang, 2025). The limited knowledge identified in this study also aligns with the findings of Al-Alawi et al. (2019), who stated that weak knowledge sharing and a lack of contextual training are major barriers to change implementation. Recent research also confirms that integration between change management and knowledge management is necessary to strengthen technical understanding through structured training, clear guidance, and consistent reinforcement mechanisms (Argüello & Prida, 2024). Furthermore, low reinforcement indicates that the behavioral reinforcement process is ineffective, even though this stage should emphasize continuous monitoring and meaningful feedback to ensure the change is truly embedded (Argüello & Prida, 2024).

These findings are consistent with studies by Palvalin (2017) and Ahmed et al. (2022), which show that effective access to information and knowledge transfer are key factors influencing work productivity, effective cross-unit coordination, and operational function success. Based on these findings, it can be concluded that although TAD has established KPI implementation mechanisms such as verification, socialization, and IK3 incentives, their implementation has not been consistent, comprehensive, or integrated into a sustainable system. Change-supporting activities remain reactive and not yet part of a systematic process. Therefore, a more structured approach to strategic communication, technical knowledge transfer, and feedback and reinforcement mechanisms is needed so that improvements in

understanding and implementation of KPIs can produce real and sustainable change in the long term.

5. Conclusion

The research results indicate that the effectiveness of the KPI Planning process at PT Transportasi Angkutan Darat (TAD) remains uneven across all ADKAR elements. The Desire and Ability dimensions are relatively strong, but Awareness, Knowledge, and Reinforcement show the lowest scores and are the main source of problems. Low Awareness is related to uneven strategic communication, particularly when there are transfers or role changes. Low Knowledge is caused by a lack of technical understanding of indicators, formulas, and cascading, which is exacerbated by an unsystematic knowledge transfer mechanism. Reinforcement is also not optimal because feedback is administrative in nature and not routine or two-way. Overall, the main obstacle lies not in individual willingness, but in the disorganization of the communication system, technical documentation, and evaluation mechanisms that should support a consistent KPI development process across all organizational units.

Based on these findings, this study recommends three main areas of improvement: strengthening structured leadership communication, integrating technical knowledge transfer into the managerial work cycle, and strengthening documented and ongoing evaluation and feedback mechanisms. Strategic communication needs to be delivered consistently with each role change, while practice-based training and technical documentation should be readily available and accessible to reduce gaps in understanding. Furthermore, companies should implement a scheduled, objective, and two-way KPI review mechanism to ensure ongoing performance behavior reinforcement. Future research could expand the study to other job levels, employ a longitudinal approach, or combine the ADKAR instrument with objective evaluation methods to further comprehensively understand the effectiveness of KPI Planning.

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