# Enhancing Organizational Performance at BPTJ Ministry of Transportation through Terminal Information System Training: A Post-Pandemic Digital Governance Perspective

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**Abstract.** The paper titled "Enhancing the Performance of Employees at the Jabodetabek Transportation Management Agency (BPTJ) of the Ministry of Transportation through Terminal Information System Training" employs a qualitative method to assess the impact of Terminal Information System training on BPTJ employees' performance. The study involves interviewing five respondents from the BPTJ's human resources and general affairs department, BPTJ's human resources analysts, and three training participants. The evaluation revealed that the training fell short of expectations, indicating the need for a comprehensive assessment of the training's effectiveness. The paper delves into the Kirkpatrick Four-Level Evaluation Model to measure the training's impact and utilizes indicators proposed by Afandi (2018) to gauge employee performance. The findings aim to shed light on the effectiveness of the Terminal Information System training in enhancing employee competence and addressing the challenges of digital governance in the post-pandemic era.

**Keywords:** Terminal Information System, Employee Performance, Digital Governance, Post-Pandemic Era, Training Evaluation, Organizational Performance

# 1 Introduction

In the aftermath of a global upheaval brought forth by the pandemic, the importance of a nation's Human Resources (HR) has become a paramount factor in its resurgence and sustained success within the digital era. Effective HR management, especially in governmental institutions, is now more crucial than ever for unlocking and maximizing the potential of these resources. Constitutional mandates, such as Number 5 Year 2014 on Civil State Apparatus [1], Law Number 20 of 2023 regarding Civil Apparatus Country[2], and Government Regulation Number 11 of the Year 2017 on the Management of Civil Servants[3], have underscored the urgent need for competence development in the government sector.

In the wake of these regulations, the Badan Pengelola Transportasi Jabodetabek (BPTJ), a cornerstone agency within the Ministry of Transportation, recognizes the urgency to elevate employee competency through a post-pandemic digital governance lens. This paper delves into the transformative impact of Terminal Information Systems training on enhancing the performance of BPTJ employees, aligning with the imperative of thriving in the digital governance landscape. The significance of this training reverberates in its potential to not only enhance efficiency, fortify security measures, and elevate service quality in transportation management, particularly within the bustling Jakarta metropolitan area, but also to navigate the nuances of digital governance in a post-pandemic world.

Acknowledging the paramount role of adept employees in organizational triumph, especially in the post-pandemic epoch, this study uniquely homes in on the augmentation of employee performance through the strategic implementation of Terminal Information Systems training, viewing it through the prism of post-pandemic digital governance challenges. While the BPTJ, as a stalwart in transportation management, is acutely aware of the indispensability of bolstering employee competency for optimal service delivery, the efficacy of the Terminal Information Systems training program beckons scrutiny in the context of a digitally transformed governance landscape.

In consonance with State Administration Institution Regulation No. 10 of 2018, the BPTJ has fervently championed competency development through the implementation of Terminal Information Systems training, aligning its efforts with the demands and intricacies of post-pandemic digital governance. The evident success of this initiative is underscored by its positive impact on BPTJ's overall performance, emblematic of a concerted commitment to compliance with regulatory frameworks in the digitized governance milieu.

This paper meticulously applies the Four-Level Evaluation Model by Kirkpatrick to gauge the effectiveness of the Terminal Information Systems training program, considering participant satisfaction, learning outcomes, behavioral changes, and the overarching organizational impact through the lens of post-pandemic digital governance. Additionally, the study aligns with Afandi's performance indicators, accentuating crucial facets such as quantity and quality of work, efficiency, discipline, initiative, accuracy, leadership, honesty, and creativity in the context of digital governance.

Subsequent sections delve into the theoretical framework, meticulously exploring key concepts in HR management, training, and performance within the context of a digitally transformed post-pandemic era. The theoretical overview seamlessly integrates insights gleaned from prior studies, underscoring the pivotal role of training in catalyzing enhanced employee performance amidst the challenges and opportunities presented by digital governance. Culminating in a robust conclusion, the paper articulates the research focus, problem formulation, study objectives, and anticipates multifaceted benefits for both academic discourse and pragmatic applications within the realm of transportation management in the post-pandemic digital governance landscape.

## 1.1 Human Resource Management

Human resources (HR) is one of the critical resources for the success of an organization, and management is the art and science of organizing how human resources and other resources are used effectively and efficiently to achieve specific goals.

According to Hasibuan [4], Human Resource Management (HRM) is the "science and art of organizing relationships and the role of the workforce to effectively and efficiently help achieve the goals of the company, employees, and society." Mangkunegara [5] describes Human Resource Management as involving planning, organizing, coordinating, implementing, and supervising the procurement, development, remuneration, integration, maintenance, and separation of the workforce to achieve organizational goals.

Considering the definitions above, it can be concluded that human resource management includes various management functions such as planning, organizing, directing, motivating, communicating, placing, controlling, and supervising. On the other hand, human resource implementation aims to achieve individual, organizational, or organizational goals.

Having the ability to perform human resource management functions accurately and comprehensively will ensure that human resource management activities run smoothly.

The functions of human resource management according to Hasibuan [4] include:

- a. Managerial Functions
  - 1. Planning: Planning human resources effectively and efficiently to meet the company's needs in achieving a goal. Planning is done by establishing staffing programs.
  - 2. Organizing: Organizing all employees by determining job distribution, work relationships, delegation of authority, integration, and coordination in the organizational chart.
  - 3. Directing: Directing all employees to work together effectively and efficiently to help achieve the goals of the company, employees, and society.
  - 4. Controlling: Controlling all employees to comply with company regulations and work according to the planned. If there are deviations or errors, corrective action is taken.

# 1.2 Human Resource Development

Human Resource Development plays an important role in increasing the productivity of human resources and has goals that must be achieved for the progress of the organization; human resource development is very necessary. According to Silalahi [6], human resource development is a continuous effort to improve the quality of human resources in the broadest sense through education, training, and coaching. According to Bangun [7], Human Resource Development is a process to improve the abilities of human resources to help achieve organizational goals.

Based on the understanding of the experts above, it can be concluded that an organization develops human resources to improve the skills of employees and meet changes and developments in the organization. The goal of human resource development according to Martoyo [8] is to improve the abilities, skills, and attitudes of employees/members of the organization so that they are more effective and efficient in achieving program targets or organizational objectives.

# 1.3 Training

Training can be defined as a short-term educational process using systematic and organized procedures, allowing participants to learn knowledge, work techniques, and skills for specific purposes. It is a process through which individuals acquire specific skills or abilities to contribute to the achievement of organizational goals. The quality of training methods is related to the accuracy of the delivery of material used during training. Training, inseparable from skill development, goal measurement, and attitude change, can be applied with various methods according to the training environment. These methods include teaching (lecture), guest facilitators, and the use of audiovisual devices. Trainers can be individuals or groups providing various training.

According to Kirkpatrick, the evaluation of a training program includes four levels: Level 1 (reaction), Level 2 (learning), Level 3 (behavior), and Level 4 (results). Level 1 evaluates participants' reactions to the training. It focuses on the quality of the training and measures participants' satisfaction with the training. Level 2 emphasizes instructional achievements obtained by participants after completing the training. It evaluates changes in knowledge, attitude, and skills. Level 3 evaluates behavior changes after participants receive training. This assessment is done in the workplace or society after participants complete the training program. Level 4 focuses on the ultimate achievement results, assessing the impact of the training/program on individuals, the environment, and the surrounding organization.

#### 1.4 Performance

According to Robbins and Judge [9], performance is the work results achieved by an employee in carrying out tasks and responsibilities according to established standards, within a specific period, influenced by individual and organizational factors. According to Luthans et al. [10], performance is the work results achieved by an employee in carrying out tasks and responsibilities according to established standards, within a specific period, influenced by personal and organizational factors. According to Afandi [11], performance is the work results that can be achieved by an individual or group in a company according to their authority and responsibilities in an effort to achieve organizational goals legally, without violating the law and not conflicting with morals and ethics. Afandi [11] outlines performance indicators as follows:

- a. Quantity of work results
  - Various forms of measurement units related to the amount of work results expressed in numerical terms or other numerical equivalents.
- b. Efficiency in performing tasks
  - Using various resources wisely and cost-effectively.
- c. Work discipline
  - Adherence to laws and regulations.
- d. Initiative
  - The ability to decide and do something right without being told, being able to find what should be done towards something around, striving to keep moving to do several things even when the situation feels increasingly difficult.

- e. Accuracy
  - The level of conformity of work measurement results, whether the work has achieved its goals or not.
- f. Leadership

The process of influencing or setting an example by a leader to their followers to achieve organizational goals.

- g. Honesty
  - One of the human traits that is quite difficult to apply.
- h. Creativity

A mental process involving the emergence of ideas or involving the emergence of ideas.

## 1.5 Terminal Information System

The Terminal Information System (Terminal Information System) is a system used to manage, control, and monitor various operations and data related to transportation terminals, such as airports, or train stations. Experts in this field provide the following definitions:

- a. Transportation Hub
  - According to Roger J. Bowes, a terminal information system is a transportation hub that integrates various modes of transportation, such as air, sea, land, and rail transportation. This system functions to facilitate terminal operations, information management, and decision-making.
- b. Information Management
  - Information system expert David M. Kroenke describes the terminal information system as a system used to manage information related to transportation terminals, including scheduling, cargo movement, facility usage, and various operational aspects.
- c. Transportation Coordination
  - Dr. Prabir K. Bagchi refers to the terminal information system as a tool to coordinate the operations and supervision of various transportation modes operating in the terminal. This includes schedule management, passenger information, maintenance planning, and more.
- d. Technology Integration
  - According to information technology experts, the terminal information system is a platform that integrates information technology such as hardware, software, networks, and sensors to manage various processes within the transportation terminal.
- e. Process Management
  - In a management context, the terminal information system can be understood as a system that helps manage operational processes within the terminal more efficiently. This includes monitoring, reporting, and decision-making.

The terminal information system can help improve the efficiency and safety of operations in transportation terminals, providing real-time information to authorities and transportation service users. This is crucial in managing complex and high-risk terminals such as airports, ports, and train stations.

The conceptual framework developed in this research is based on the enhancement of BPTJ Ministry of Transportation employees' performance through SIT Training.

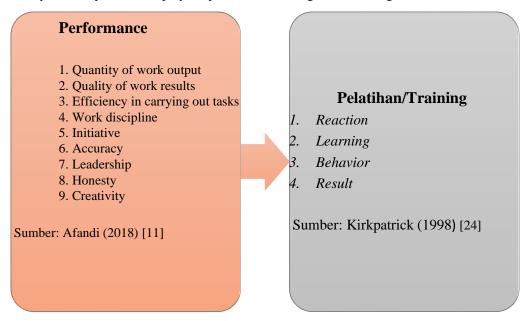


Fig. 1. Research Framework

# 2 Method

This research utilizes a qualitative approach and employs a descriptive method, which is a term for research aimed at describing a condition or phenomenon. Sugiyono [12] states that qualitative research is a descriptive type of research and typically employs analysis. Moleong [13] states that qualitative methodology is a research method that produces descriptive data from the behaviors and written or oral words of individuals.

Irawan [14] asserts that because qualitative research seeks to understand something comprehensively, it is also referred to as Verstehen (deep understanding). Qualitative research, which involves direct observation of the researched object, is also often called Participant Observation. Qualitative research is also known as naturalistic research due to its natural, non-artificial context, or interpretative questions (due to the influence of informant subjectivity, research subject, and the researcher himself).

Kirk and Miler in Moloeng [13] state that research procedures yield descriptive data in the form of written or spoken words from individuals or observable behaviors. Qualitative research is fundamentally rooted in the tradition of social science, relying on direct observation of human behavior and engaging with people in their language and terminology.

This research is used to thoroughly examine the Improvement of BPTJ Ministry of Transportation Employees' Performance through Terminal Information System Training.

# 2.1 Data Collection Techniques

Data collection methods are used by researchers to reveal or gather qualitative information and information from respondents for their research purposes. In this study, data collection methods consist of several approaches aimed at obtaining accurate, precise, and relevant data for research needs. Some data collection methods used in this study are as follows:

#### 2.1.1 Observation

This data collection method is carried out by immersing into the field to directly observe the researched object. In the observational study, "Improvement of BPTJ Employee Performance through Terminal Information System Training" is observed directly.

#### 2.1.2 Interview

To collect data, interviews are conducted by asking questions directly to the research subjects or to others who are familiar with the issue. Structured and face-to-face interviews are used for data collection if the researcher or data collector is confident in the information they will obtain. Therefore, the data collector has prepared research instruments in the form of written questions to be used during the interview. According to Moloeng [13], an interview is a conversation with a specific purpose. The conversation is conducted by two parties, namely the interviewer who asks questions and the interviewee who answers the questions. Sugiyono [15] states that interviews are divided into three (3) groups: structured interviews, semi-structured interviews, and unstructured interviews.

This research relies on in-depth interviews that are more open than structured interviews. The purpose of this semi-structured interview is to explore issues more openly by seeking the opinions and thoughts of respondents. The researcher uses an interview guide during the interview to facilitate and focus their questions on selected informants, who are significant subjects of this research. This is done to obtain information from qualified parties to answer the research questions. The researcher will ask several open-ended questions to delve deeper into the research topic. According to Powell in Susanto [16], there is no exact guideline in qualitative research to determine the number of research informants. In this study, the author attempts to determine the number of informants purposively with several criteria, determined by the following criteria: a) Their expertise and relevant experience regarding the object of this research; b) The subject is still fully/actively involved in the environment or activities of concern to the researcher; c) Ease of access for the researcher.

Based on the explanation above, some key informants selected in this study are:

- a. Head of Human Resources and General Affairs is the direct supervisor with the authority and responsibility in the implementation of tasks and functions of the Terminal Information System throughout BPTJ Ministry of Transportation activities;
- b. BPTJ Employee Analysis is responsible for the implementation of training planning tasks and functions
- c. Mr. Bobby Leo Agustinus Simanjuntak, S.Kom., An employee who participated in the Terminal Information System Training activity;
- d. Ms. Dikara Kirana, S.Sos An employee who participated in the Terminal Information System Training activity;
- e. Mr. Reno Surya Rindiatama, S.H. An employee who participated in the Terminal Information System Training activity.

Table 1. Key Informant Study

No	Key informant	Amount Employee
1	Head Part Staffing And General	1
2	Analysis Staffing BPTJ	1
3	Employee who follows Training System	1
	Information Terminal	
4	Employee who follows Training System	1
	Information Terminal	
5	Employee who follows Training System	1
	Information Terminal	
Amount		5

Source: Author, 2023

Documentary studies, or literature reviews, are used alongside observation and interviews in this qualitative research. Literature and websites are referred to for obtaining the theoretical framework that serves as the foundation for the research. The objective of document analysis is to identify theories, concepts, or generalizations applicable as the research's theoretical framework. The data obtained through this document review are considered secondary data, including photos, images, and information related to BPTJ employees' performance and documentation of the Terminal Information System Training activities.

#### 3 Result and Discussion

#### 3.1 Evaluation at the Reaction Level

Evaluation at the reaction level, also known as the reaction level, is the first step in the training evaluation process. At this level, the primary focus is on measuring participants' responses and reactions to the training they have undergone. This assessment provides initial insights into how participants respond, the extent of their engagement, and whether they perceive the value of the

training as beneficial. Reaction level in the training context is a critical indicator reflecting the extent to which participants evaluate various aspects of the training they undergo [17].

An essential aspect of reaction level assessment involves participants' satisfaction with various training components. This includes assessments of the quality of training materials, the comfort of training facilities, and the instructor's ability to deliver content clearly and responsively to participants' questions [18]. Evaluation also encompasses the extent to which participants' expectations are met during training, including the achievement of expected goals. Overall, the reaction level provides a comprehensive overview of the training's success in meeting participants' needs and expectations, laying the foundation for improvement and continuous enhancement in training program design.

Success indicators of training materials can be seen in how much participants feel assisted and satisfied with the content [19]. Positive responses to materials reflect relevance, clarity, and relevance to participants' tasks or work. Training success is measured not only in the understanding of specific concepts but also in participants' ability to apply that knowledge in everyday work contexts. Participants who feel highly assisted indicate that the training material is beneficial and significant to them.

It is also important to add broader and more in-depth content and topics in the context of education or training, as this can enhance the quality of learning and address recent developments [20]. Deeper content encourages participants to critically analyze information, question concepts, and develop critical thinking skills.

In the reaction level evaluation process, crucial factors assessed involve training facilities. This includes assessments of room comfort, equipment availability, technological support, venue arrangement, and break schedule distribution. Evaluation provides a holistic picture of participants' satisfaction with training facilities, offering valuable guidance to improve infrastructure quality and training venue management.

Evaluation of reaction level toward instructor factors is also important for measuring learning effectiveness. The instructor's mastery of the material has a direct impact on participants' learning experiences. Good question-and-answer sessions and interactions can enhance participant satisfaction, while a lack of interactivity can hinder a deep understanding of the material [21]. Participant expectations, including the desire for a deeper understanding and constructive feedback, also become the focus of evaluation.

To overcome participants' constraints in expressing opinions or seeking clarification, active approaches such as creating an inclusive class environment and providing extra opportunities for discussion can be implemented. Increasing interaction between participants and instructors can support the exchange of ideas and understanding. This approach can also be integrated into the training program design, emphasizing the practical application of knowledge, providing additional resources, and using continuous formative evaluation methods.

Evaluation at the Learning Level:

Evaluation at the learning level is a systematic method for measuring changes and improvements in participants' knowledge in the BPTJ employee terminal information system training. This approach involves pre-tests and post-tests as evaluation tools that provide an objective overview of how successful participants have been in achieving the learning objectives set in the context of the BPTJ employee terminal information system. Through the comparison of pre-test and

post-test scores, this evaluation provides clear information about the effectiveness of training materials in enhancing participants' understanding of the information system.

Changes in pre-test and post-test scores reflect the success of individual participants in mastering the knowledge conveyed during training. Improvement in scores can be quantitative, indicating an increase in the number of correct answers, or qualitative, reflecting a deeper understanding of specific concepts. Factors such as the delivery of materials, interaction between participants and instructors, and the learning methods used can influence the results of this evaluation.

Positive outcomes from the learning level evaluation not only reflect the success of individual participants but also indicate the overall effectiveness of the training program in achieving the set learning objectives. Therefore, improvements in pre-test and post-test scores are positive achievements indicating success in delivering materials and achieving learning objectives overall.

The importance of careful and detailed evaluation of factors influencing score improvement forms the basis for continually improving the effectiveness of training programs in the future. Thus, learning level evaluation not only provides an overview of individual participants' achievements but also offers valuable insights for the development and improvement of better training programs in the future.

#### 3.2 Evaluation at the Behavior Level

Based on the interview results, it can be concluded that the majority of training participants show positive behavioral changes after undergoing the terminal information system training. This success reflects the effectiveness of the training in achieving the desired behavioral changes. Several factors influence these positive behavioral changes, and in-depth analysis is required to understand their impact on individuals and organizations.

Firstly, the interviews indicate that the terminal information system training successfully enhances participants' understanding and knowledge. They describe an improved understanding of the functions and applications of the terminal information system, potentially enhancing performance and productivity in the workplace. Better understanding also helps participants overcome technical challenges and facilitates better integration into work routines.

Furthermore, support from management, a supportive work environment, and opportunities to apply new skills directly in day-to-day work become key supporting factors. Identifying these factors is essential to understanding their contribution to positive behavioral changes [22].

Interview results also highlight the level of commitment participants have in applying the skills gained from training to the work environment. Some participants show high commitment, while others still express hesitation. Barriers such as uncertainty about personal abilities, concerns about colleagues' responses, or lack of support from superiors may be factors affecting implementation.

Positive and optimistic attitudes toward the application of training skills can enhance implementation success and create a work environment that supports learning transfer [23]. Overall, interview results reflecting positive behavioral changes in most participants provide a positive overview of the training program's effectiveness and improve the efficiency of implementing the terminal information system in the organizational context.

#### 3.3 Evaluation at the Result Level

Performance evaluation of BPTJ employee terminal information system training participants is a crucial aspect of measuring the impact of training on their abilities and competencies. Several performance indicators involve the quantity and quality of work results, efficiency, work discipline, initiative, accuracy, leadership, honesty, and creativity.

The first indicator, quantity of work results, reflects participants' ability to achieve quantitative targets in their work. Effective training is evident in increased efficiency in completing tasks, as seen in participants who are more skilled in using the terminal information system after training.

The second indicator, quality of work results, reflects the level of excellence in the outcomes produced. Training can enhance participants' competencies, positively impacting departmental productivity and efficiency, and contributing to the achievement of organizational goals.

The third indicator, efficiency, indicates participants' ability to complete tasks effectively. Improved work efficiency is recorded after training, with participants able to finish tasks more quickly and become more skilled in using the system.

The fourth indicator, work discipline, describes participants' regularity and consistency in performing tasks. Positive changes in work discipline, where participants become more organized and disciplined, create a collective impact on the organizational work culture.

The fifth indicator, initiative, reflects the level of proactivity participants exhibit in completing tasks. Although responses are not uniform, most participants show increased initiative, influencing positive contributions to teamwork.

The sixth indicator, accuracy, indicates a change in how participants handle tasks, especially those involving the terminal information system. Training creates awareness of details and increases accuracy, contributing positively to job precision.

The seventh indicator, leadership, highlights the improvement in participants' ability to lead teams. Although variable, leadership training can stimulate positive changes in how employees lead and guide teams.

The eighth indicator, honesty, is reflected in positive changes in participants' communication behavior. Training enhances honesty, creating a foundation for an honest and responsible work culture.

The last indicator, creativity, shows participants' efforts in applying creative elements in their work. Responses to creativity training vary, indicating the need for more focused and tailored training programs.

Through this holistic evaluation, the success of BPTJ employee terminal information system training participants can be measured more comprehensively, creating a holistic picture of the positive impact of training on improving participants' competencies and skills.

# 4 Conclusion

In conclusion, this research on "Enhancing the Performance of Employees at the Jabodetabek Transportation Management Agency (BPTJ) of the Ministry of Transportation through Terminal Information System Training" provides a thorough exploration of the impact of specialized training

on organizational performance. Leveraging a qualitative approach and employing the Kirkpatrick Four-Level Evaluation Model alongside Afandi's performance indicators, the study scrutinized the Terminal Information System training's effectiveness and its implications for employee performance within the post-pandemic digital governance landscape.

In summary, the evaluation of the employee terminal information system training at BPTJ reveals valuable insights. Firstly, the Reaction Level indicates a positive response from participants, signifying their high satisfaction with the training content, facilities, and instructors. This suggests the effectiveness of the training in meeting participant expectations. Secondly, the Learning Level reflects a significant improvement in participants' knowledge and skills related to the terminal information system, demonstrating the training's success in enhancing understanding and capabilities. Thirdly, the Behavioral Level showcases positive changes in employees' workplace behavior, including increased efficiency and precision in using the information system terminal for daily tasks. Lastly, at the Results Level, there are long-term impacts on organizational performance, with substantial improvements in the quantity and quality of employees' work.

Consequently, the terminal information system training emerges as a commendable initiative in enhancing the performance of BPTJ Ministry of Transportation employees. Recommendations for training organizers include tailoring material depth to specific needs, ensuring adequate facility availability and accessibility, and considering the integration of the latest technology for enhanced training efficiency. For BPTJ, conducting case studies to evaluate the practical implementation of terminal information system knowledge and implementing a continuous Kirkpatrick evaluation model are advisable. Future researchers are encouraged to establish research goals for obtaining the latest insights related to training evaluation using the Kirkpatrick Model.

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