

Dynamics of Improving The Performance of Engineering Service Employees Through Competence and Motivation: A Qualitative Study At ULP Perbaungan

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Abstract-This research aims to explore the dynamics of improving the performance of technical service employees at PT. PLN (Persero) ULP Perbaungan through the perspective of competence and work motivation. With a qualitative case study approach, this study delves deeply into employees' work experiences, perceptions, and realities related to internal factors that drive work productivity. Data was obtained through in-depth interviews, direct observations, and documentation of relevant technical and managerial employees. The results of the study show that the improvement of employee performance is not only influenced by technical abilities and knowledge (competence), but also highly determined by intrinsic motivations such as responsibility, reward, and work morale (motivation). In addition, the quality of human resources which includes aspects of coaching, training, and leadership is also a supporting factor in creating a work environment that supports performance. This study concludes that the synergy between competence, motivation, and efforts to improve the quality of human resources is the strategic key in optimizing the performance of technical service employees in the electricity sector.

Keywords: *employee performance, competence, work motivation, quality of human resources*

I. INTRODUCTION

A. Background of the Problem

Improving employee performance is a strategic issue in human resource management, especially in the public service sector such as electricity supply companies. In the context of the Perbaungan Customer Service Unit (ULP) of PT PLN (Persero), the performance of engineering service employees has direct implications for customer satisfaction and the sustainability of electrical energy services. Therefore, a deep understanding of the factors that drive this performance is needed, especially in terms of competence and work motivation.

Employee competencies that include knowledge, skills, and professional attitudes are key elements in supporting the success

of technical tasks in the field (Rivai & Sagala, 2020). Without adequate competence, the quality of technical services can decline and have an impact on public perception of company performance. In addition, work motivation, both intrinsic and extrinsic, also plays a big role in determining how optimally employees perform their duties (Robbins & Judge, 2021). High motivation will encourage employees to work harder, tougher, and more results-oriented.

According to Rahayu (2023), in the context of public organizations, the integration of competence and motivation is an important prerequisite in creating superior and sustainable performance. Previous studies conducted by lecturers at Panca Budi Development University also show that competence and motivation contribute positively to service efficiency and employee responsiveness (Nasution, 2022; Siregar & Rahayu, 2023). However, the dynamics that occur in the field show that there is a gap between expectations and reality, especially in terms of the implementation of technical tasks, handling customer complaints, and the use of work technology.

This qualitative study aims to delve deeper into how competence and motivation play a role in improving the performance of engineering service employees at ULP Perbaungan. Using a phenomenological approach, this study will interpret the direct experiences of employees and managers regarding the factors that affect their performance, as well as the obstacles and strategies they implement to remain productive in the midst of operational challenges.

The State Electricity Company (PLN) has a strategic role in supporting national development through the provision of reliable and sustainable electrical energy. The Customer Service Unit (ULP) as the spearhead of public services at the regional level, bears a great responsibility in maintaining the quality of service to the community. One of the main challenges faced by ULP Perbaungan is maintaining and improving the performance of technical service employees who are directly dealing with customers and handling field disturbances quickly and appropriately.



In practice, improving employee performance cannot be separated from the competencies they have and the work motivation that drives them to carry out their duties. Employee competence is a combination of technical knowledge, operational skills, and professional attitudes that must always be improved along with the complexity of customer needs (Rivai & Sagala, 2020). Without appropriate competencies, the implementation of technical service tasks can become ineffective and cause customer complaints.

On the other hand, work motivation, both in the form of financial rewards and intrinsic motivations such as recognition and job responsibilities, is the main driver for employees to work optimally (Robbins & Judge, 2021). High motivation will create a productive, innovative, and responsive work environment to operational challenges, especially in technical working conditions that demand speed and precision.

However, various local studies show that there is still an imbalance between the potential competence and motivation of employees and the realization of service performance. The results of initial observations and internal reports show delays in handling disruptions, lack of responsiveness in technical services, and gaps between performance targets and real achievements. This indicates that the improvement of employee performance does not only depend on technical aspects, but is also influenced by psychological conditions and work environment.

Rahayu (2023) emphasized that in the public sector work environment, motivation and competence have a synergistic relationship in shaping optimal performance. Meanwhile, research by Siregar and Rahayu (2023) in government agencies states that improving performance requires a holistic approach, including coaching, continuous training, and the creation of a supportive work culture. In the context of ULP Perbaungan, these dynamics need to be studied more deeply through a qualitative approach, in order to obtain a complete understanding of the challenges and strategies faced by technical service employees in carrying out their duties.

Therefore, this research is important to explore in depth how competence and motivation play a role in encouraging the performance of engineering service employees, as well as understanding other factors that also affect it in the context of field operations at ULP Perbaungan.

II. LITERATURE REVIEW

A. Employee Performance

1) Employee Performance Discussion

Employee performance is the result of work achieved by individuals in accordance with the standards and goals set by the organization. According to Wibowo (2022), performance is "the result of work achieved by individuals or groups in an organization, in accordance with their respective authority and responsibilities, in an effort to realize the organization's goals legally and not unlawfully."

Employee performance is the level of achievement of the employee's work in carrying out the tasks for which he is

responsible, which reflects his contribution to the organization's goals" (Rahayu, 2018).

2) Factors Affecting Employee Performance

According to Wibowo (2022), there are several main factors that affect employee performance, including:

Abilities and Expertise: An employee's abilities and expertise are the foundation of good performance. Employees who have competencies that are in accordance with their work will find it easier to achieve optimal performance.

Motivation: Employee work motivation, both internal and external, greatly affects performance. External factors such as employee well-being, rewards, and a conducive work environment can increase motivation.

Work Environment: A comfortable and safe work environment creates a conducive atmosphere, which can ultimately improve employee performance, while an uncomfortable environment can decrease productivity.

HR personality/quality: Employee personality can also affect performance. Some personality types may be better suited to certain types of work, so they can have a positive impact on performance.

Commitment: An employee's commitment to work and the company also plays an important role in performance. Committed employees tend to be more responsible and dedicated to their work.

Organizational Culture: A positive organizational culture can create a supportive and motivating work environment for employees, which in turn can improve performance.

Leadership: A good leadership style can motivate and empower employees, thus improving overall performance.

Compensation: Fair and competitive compensation can improve employee motivation and performance.

These factors influence each other in shaping individual performance as a whole.

3. Employee Performance Indicators

Based on Wibowo (2022), performance indicators include:

Quality of work; Degree of rigor and accuracy of work

Quantity of work; volume of work completed

Punctuality; speed in completing tasks

Responsibility; commitment to the implementation of the task

Work initiatives; Self-Directed Efforts to Solve Problems

B. Quality of Human Resources (HR)

1) Discussion of HR Quality

According to Sedarmayanti (2022), the quality of human resources is "the overall characteristics of the knowledge, skills, and attitudes possessed by employees that allow them

to make maximum contributions to the achievement of organizational goals." 10) *Problem solving skills; Dexterity in resolving technical glitches/issues*

2) *Factors Affecting the Quality of Human Resources*

According to Sedarmayanti (2022), the main factors that affect the quality of human resources include:

Competencies: Knowledge and skills relevant to the job.

Employee Motivation: An incentive that makes employees behave proactively and contribute optimally.

Organizational environment: Work culture, organizational structure, and performance management.

These three greatly determine the extent to which the quality of human resources can play a role in achieving optimal performance.

3) *HR Quality Indicators*

Based on Sedarmayanti (2022), HR quality indicators include:

- a) *Education and training; Academic qualifications and technical competence*
- b) *Work productivity; Ability to produce work output*
- c) *Work ethics and discipline; Attitudes and behaviors at work*
- d) *Innovation capabilities; creating new solutions to problems*
- e) *Collaboration skills; Work together effectively in a team*

C. *Employee Competence*

Definition:

Competency is a combination of knowledge, skills, and attitudes that a person needs to carry out their job duties effectively (Spencer, 2021).

Factors that affect Employee Competence according to Spencer (2021) are:

- 1) *Motives: inner drives that direct work behaviors such as achievement orientation, desire to improve oneself, and Long-term commitment*
- 2) *Traits: stable psychological and physical characteristics such as emotional resilience, flexibility, and confidence.*
- 3) *Self-Concept: attitudes, values, self-identity, and self-perception that affect the way we view work.*
- 4) *Knowledge: job-specific technical and theoretical knowledge, easy to see and train.*
- 5) *Skills: practical skills such as problem solving, communication, and analysis that can be measured through action.*

Indicators (Spencer, 2021):

- 6) *Work knowledge; Understanding of technical duties and responsibilities*
- 7) *Job skills; Field technical skills & use of work tools*
- 8) *Professional attitude; Discipline, responsibility, and work ethic*
- 9) *Adaptability; Speed of learning and adaptation to new technologies*

D. *Employee Motivation*

1) *Discussion of Employee Motivation*

Work motivation is a psychological condition that encourages a person to perform work actions actively and productively. According to Robbins & Judge (2021), motivation is "a force that comes from within and outside the individual that directs behavior toward the achievement of goals."

2) *Factors That Affect Employee Motivation*

According to Robbins & Judge (2021), employee motivation is influenced by several factors, including:

- a) *Competence: Employees who feel competent tend to be more motivated because they are confident in getting the job done.*
- b) *Work environment (including the quality of human resources around them): Professional and qualified colleagues can drive motivation through social influence.*
- c) *Personal factors: such as life values, needs, and drive to excel.*

3) *Employee Motivation Indicators*

According to Robbins & Judge (2021), indicators of work motivation include:

- a) *Intrinsic motivation; satisfaction and meaning of the work itself*
- b) *Extrinsic motivation; incentives in the form of salaries, benefits, promotions*
- c) *Work commitments; loyalty and willingness to work above the standard*
- d) *Enthusiasm for work; Positive enthusiasm and energy at work*
- e) *An incentive to achieve; A strong desire to achieve the best results*

III. RESEARCH METHODS

This research uses a qualitative approach with a case study type. This approach was chosen to gain an in-depth understanding of the dynamics of improving the performance of technical service employees through aspects of competence and motivation in the real work context at the Perbaungan Customer Service Unit (ULP). A qualitative approach allows researchers to explore the meaning, experience, and perception of the subject contextually and comprehensively (Creswell & Poth, 2018).

A. *Research Location and Time*

This research was carried out at PT. PLN (Persero) ULP Perbaungan, North Sumatra, during the period from May to July 2025. This location was chosen purposively because it is one of the engineering service units that faces operational dynamics and employee performance challenges directly.

B. *Research Subject*

The research subjects consisted of engineering service employees, field supervisors, and managers of ULP Perbaungan. The purposive sampling technique is used to select informants

who are considered to have experience, understanding, and direct involvement in the process of engineering services and human resource management.

C. The criteria for informants include:

Employees who have worked for at least 2 years in the engineering service department,

Technical supervisors responsible for team performance,

ULP leaders who understand performance improvement policies and strategies.

D. Data Collection Techniques

Data is collected through the following techniques:

- 1) *The in-depth interview is semi-structured to explore the experiences and views of informants related to competence, motivation, and performance.*
- 2) *Non-participatory observation of fieldwork activities to see firsthand how employees carry out their duties.*
- 3) *Documentation, including performance reports, service SOPs, and personnel data to support data triangulation.*

E. Research Instruments

The main instrument in this study is the researcher himself (human instrument) which is equipped with interview guidelines. This guide contains a list of open-ended questions organized by research focus, namely:

- 1) *Employee perception of competencies and job training,*
- 2) *Factors that motivate or inhibit performance,*
- 3) *Performance improvement strategies from the perspective of employees and management.*

F. Data Analysis Techniques

Data analysis was carried out using the model of Miles and Huberman (2014) which consists of three main stages:

- 1) *Data reduction, which is summarizing, sorting, and focusing relevant data;*
- 2) *Presentation of data in the form of narratives and thematic matrices;*
- 3) *Drawing conclusions and verification, by constantly reflecting on the patterns that emerge.*

G. Data Validity Test

To ensure the validity of the data, triangulation techniques of sources and methods are used. In addition, member checks are carried out by asking for confirmation from the informant on the findings to ensure the suitability of meaning and interpretation. Trail audits are also prepared to document the research process transparently.

IV. RESEARCH RESULTS

The results of this study were compiled based on field findings through in-depth interviews with eight key informants consisting of technical service employees, technical supervisors, and managers of ULP Perbaungan. From the data analysis carried out thematically, three main themes were obtained that describe the dynamics of improving employee performance,

namely: (1) the role of technical and non-technical competencies, (2) work motivation as a driver of performance, and (3) obstacles and strategies in improving performance.

A. The Role of Competence in Supporting Performance

Most of the informants stated that technical competencies, such as the ability to handle power outages, network maintenance, and understanding of work safety SOPs, are the main basis in the implementation of daily tasks. In addition, non-technical competencies such as communication skills, teamwork, and discipline are also highly influential in interactions with customers and colleagues.

"If we are not in the field, it is not enough, only technical. We also have to be quick to respond, know the SOPs, and be able to communicate well with customers" (*Informant 2 – Senior Field Technician*)

Some employees mentioned that technical training has been provided periodically by PLN, but soft skills training is still limited. The difference in competencies between employees also affects the equal distribution of service quality in the field.

B. Work Motivation as a Performance Driver

Work motivation arises from two main sides: intrinsic motivation, such as a sense of responsibility and pride in being part of PLN, and extrinsic motivation, in the form of performance allowances, overtime incentives, and rewards from superiors.

"I am motivated because I feel that my work has a direct impact on the community. But honestly, if there is no incentive, sometimes enthusiasm also decreases" (*Informant 5 – Junior Technician*)

ULP managers state that employee performance is greatly influenced by the reward and recognition system, but not all units or individuals receive equal attention. Motivation is also influenced by family factors and work schedule stability.

C. Barriers and Performance Improvement Strategies

Some of the main challenges faced by employees in carrying out technical service tasks include: limited number of personnel in the field, difficult work fields (access to disturbances at night or remote areas), and the availability of work equipment that is not always adequate.

"If there is a lack of night disturbances and personnel, they are forced to wait their turn. This makes customers complain and we are also depressed" (*Informant 3 – Field Technician*)

To address these challenges, several strategies have been implemented, such as scheduling task rotations, improved coordination between units, and faster digital reporting. However, most employees stated that their involvement in decision-making was still minimal, so some strategies felt top-down and less effective in the field.

Summary of Key Findings

Main Themes	Sub-theme	Implications for Performance
Competence	Technical & Non-technical, Uneven training	Has a direct effect on the quality of technical services

Main Themes	Sub-theme	Implications for Performance
Work Motivation	Intrinsic & Extrinsic, reward system	Encourage work morale and loyalty
Obstacles & Strategies	Lack of human resources, difficult terrain, limited work tools	Hindering productivity, need a bottom-up strategy

V. RESULTS AND DISCUSSION

A. Competence as the Foundation of Engineering Service Performance

The results of the study show that technical and non-technical competencies are important foundations in carrying out the duties of engineering service employees. Technical competencies, such as the ability to handle network disruptions, installation maintenance, and mastery of safety SOPs, have been proven to support the effectiveness of fieldwork. Meanwhile, non-technical competencies such as interpersonal communication and adaptability are also proving crucial, especially when interacting with customers in emergency situations.

This finding is in line with the opinion of Rivai and Sagala (2020) who stated that competence is a combination of knowledge, skills, and work behavior that must be possessed by every individual in an organization in order to be able to carry out their roles optimally. In addition, according to Rahayu (2023), strengthening competencies even can increase service consistency across all work units.

However, the results of the interviews indicate that the training received by employees is not evenly distributed. Some employees admitted that they had not received the latest training related to technology or new service standards. This has an impact on performance inequality between individuals.

"We need regular training, especially when there are new systems or new tools. Sometimes only seniors know." (*Informant 4 – Implementing Technician*)

B. Work Motivation as a Driver of Performance Spirit

The work motivation of employees arises from **intrinsic factors**, such as pride in being part of PLN and personal satisfaction in helping the community, as well as **extrinsic**, such as incentives, benefits, and forms of appreciation from superiors. Employees with high motivation show more proactive performance and have a desire to continue learning.

This supports the theory of **Robbins and Judge (2021)** which explains that motivation is a psychological force that drives individuals to achieve certain work goals. Strong motivation is positively correlated with work ethic, discipline, and resistance to stress.

However, the uneven reward system and limited recognition of the hard work of field workers are a source of dissatisfaction.

"If the work is good but there is no appreciation or recognition, over time the enthusiasm will also drop" (*Informant 6 – Junior Technician*)

This condition shows the need for a fair and transparent reward system to keep motivation stable, especially in a physically challenging work environment.

C. Obstacles and Strategies in Performance Improvement

Some of the main challenges faced are limited human resources, difficult terrain conditions, erratic working hours, and incomplete technical equipment. This condition causes high work pressure and has an impact on employee stress levels.

"Sometimes only two people work, but the disturbance occurs at the same time in different locations. It overwhelmed us." (*Informant 1 – Technical Supervisor*)

Performance improvement strategies include work rotation, digital reporting, and improved coordination between units. However, most policies are still considered top-down and do not involve input from implementing employees.

These findings indicate that employee involvement in the decision-making process is very important so that performance improvement strategies are more contextual and have a direct impact. This is in line with the results of a study by Siregar and Rahayu (2023) which states that a participatory approach in HR management can increase employees' sense of ownership and responsibility for organizational achievements.

D. Critical Interpretation

Overall, the results of the study show that the performance of engineering service employees at ULP Perbaungan is greatly influenced by the quality of competence and motivation level. However, both aspects must be supported by organizational support in the form of fair training, recognition of work achievements, and improvement of the work system in the field. The imbalance between management's expectations and the real conditions on the ground will continue to be an obstacle if not addressed in a systemic and inclusive manner.

VI. CONCLUSION

Based on the results of the qualitative research that has been carried out, several important points can be concluded as follows:

Technical and non-technical competencies are the main foundation in improving the performance of engineering service employees at ULP Perbaungan. Technical competencies such as the ability to handle network disruptions and understand work safety SOPs, as well as non-technical competencies such as communication and teamwork, greatly affect the effectiveness of employees' work in the field. However, uneven training and competency development cause performance inequality between employees.

Work motivation, both intrinsic and extrinsic, is the main driver in maintaining employee enthusiasm and productivity. Motivated employees exhibit more disciplined work behavior, high initiative, and loyalty to the organization. However, motivation can decrease if the system of rewards, incentives, and recognition of performance is not implemented fairly and consistently.

Employees face various obstacles in the implementation of technical service tasks, such as personnel shortages, difficult work fields, and limited work tools. Performance improvement

strategies have been implemented, such as work rotation and digitization of reporting, but they are still top-down and do not involve the aspirations of field employees.

Improving the performance of technical service employees cannot only rely on individual competence and motivation, but requires the support of a participatory and sustainable managerial system. The involvement of employees in the planning, evaluation, and decision-making processes will strengthen the sense of ownership and increase the effectiveness of the implementation of performance strategies.

VII. SUGGESTION

Based on the findings and conclusions of the research, the researcher gave the following suggestions:

Improvement and Equitable Competency Training; ULP Perbaungan management is advised to periodically organize training that not only focuses on technical aspects, but also includes *soft skills* such as communication, stress management, and customer service. This training also needs to be designed equally for all levels of employees to avoid competency gaps.

Strengthening the Motivation System and Fair Rewards; It is necessary to implement a performance-based reward system that is more transparent, objective, and measurable. Recognition of employees' hard work, both financially and non-financially, will increase motivation and job loyalty. Adjustments to overtime incentives and rewards for excellent service in the field are also important to consider.

Optimization of Resources and Work Facilities; Management needs to review the needs of technical personnel and the feasibility of work equipment in the field. The addition of personnel and regular maintenance of technical aids will support the smooth running of employee tasks and reduce excessive work pressure.

Officers' involvement in decision-making; It is necessary to build a more participatory organizational culture, where input from field employees is considered in the formulation of policies and performance improvement strategies. Regular evaluation forums and open discussions between levels of positions can be an aspirational forum to bridge the gap between policy and operational reality.

Strengthening Performance Monitoring and Evaluation; A more structured and data-based monitoring and evaluation system is needed. The use of digital technology for work reporting and feedback from customers in real time can be a management tool in assessing the effectiveness of employee performance objectively.

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