

TRAINING EFFECTIVENESS AND LEADERSHIP IN IMPROVING EMPLOYEE PERFORMANCE: THE MEDIATING ROLE OF WORK MOTIVATION AT THE HUMAN RESOURCES DEVELOPMENT AGENCY OF THE MINISTRY OF AGRARIAN AFFAIRS AND SPATIAL PLANNING/NATIONAL LAND AGENCY, INDONESIA

Nabila Tryani Putri Annahru¹⁾, Prista Tarigan²⁾, Yoga Fortuna Wisnu Wardana³⁾,
Budi Akhmad Tarigan⁴⁾

^{1,2,3,4}Master of Management Program, Faculty of Economics, Universitas Tama Jagakarsa, Jakarta, Indonesia
E-mail: batarigan@gmail.com

Abstract: Employee performance has become a strategic concern for public sector organizations in responding to increasingly dynamic organizational demands and public service expectations. Human resource development initiatives, particularly effective training programs and leadership practices, are expected to strengthen employees' work motivation and improve organizational performance. This study aims to examine the direct effects of training effectiveness and leadership on employee performance and to investigate the mediating role of work motivation in these relationships. A quantitative explanatory research design was employed using data collected from employees of the Human Resources Development Agency (BPSDM) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), Indonesia. The respondents were selected using purposive sampling, and the collected data were analyzed through Path Analysis using SPSS. The findings indicate that training effectiveness and leadership significantly influence employees' work motivation. Furthermore, training effectiveness, leadership, and work motivation each have significant positive effects on employee performance. The mediation analysis confirms that work motivation serves as an important mediating variable that strengthens the influence of training effectiveness and leadership on employee performance. These findings suggest that organizations should continuously improve the quality and relevance of training programs while simultaneously promoting effective leadership practices that foster employee motivation. This study contributes to the human resource management literature by providing empirical evidence regarding the mechanism through which training effectiveness and leadership enhance employee performance in Indonesian public sector institutions. The findings also offer practical implications for policymakers in designing integrated human resource development strategies aimed at improving organizational effectiveness and public service quality.

Keywords: *Training Effectiveness; Leadership; Work Motivation; Employee Performance; Public Sector.*

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1. Introduction

The Human Resources Development Agency (BPSDM) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) plays a strategic role in strengthening the competence of civil servants responsible for land administration and spatial planning throughout Indonesia. As the institution responsible for education, training, competency development, and human resource capacity building, BPSDM is expected to ensure that every development program contributes directly to improving employees' professionalism and organizational performance. Consequently, the quality of employee performance within BPSDM becomes a strategic determinant of the Ministry's ability to achieve its institutional objectives and support the national bureaucratic reform agenda.

Despite continuous investment in human resource development, organizational performance cannot be improved solely through the implementation of training programs. The background of this study indicates that disparities still exist between training implementation, leadership practices, employees' work motivation, and the resulting performance of employees within BPSDM ATR/BPN. These organizational conditions suggest that competency development programs have not always generated optimal behavioral changes unless they are accompanied by effective leadership and strong employee motivation. Therefore, improving employee performance requires a more comprehensive human resource management approach that integrates competency development with leadership effectiveness and motivational factors.

The theoretical foundation of this study is built upon four principal constructs. Training effectiveness refers to the extent to which training programs successfully improve employees' knowledge, technical competence, work skills, and professional behavior. According to Ooi (2007), training effectiveness can be evaluated through the quality of instructors, the relevance of training materials, the appropriateness of training methods, and the adequacy of training facilities. These dimensions determine whether employees are capable of transferring newly acquired competencies into workplace performance.

Leadership, as the second independent variable, reflects managers' ability to direct, influence, motivate, and facilitate employees in accomplishing organizational objectives. The study adopts the leadership dimensions proposed by Mathis and Jackson (2016), including the ability to establish effective work systems, improve employees' work performance, and motivate and mobilize organizational members toward achieving common goals. Effective leadership is therefore expected to strengthen employees' commitment while simultaneously encouraging higher organizational performance.

Work motivation functions as the intervening variable explaining the psychological mechanism through which organizational practices influence employee performance. Drawing upon Ivancevich et al. (2014), motivation encompasses employees' physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. Employees whose motivational needs are adequately fulfilled generally demonstrate stronger organizational commitment, higher work enthusiasm, greater initiative, and improved productivity. Consequently, work motivation is expected to strengthen the relationship between organizational interventions and employee performance.

Employee performance represents the ultimate organizational outcome examined in this study. According to Miner (2008), employee performance is reflected through work quality, work quantity, punctuality, and cooperation with colleagues and supervisors. Similarly, Wibowo (2019) emphasized that performance results from the interaction among employees' competencies, motivation, and opportunities to perform assigned responsibilities. These

perspectives suggest that employee performance cannot be explained solely by individual competence but also by organizational support systems that facilitate employees in achieving optimal work outcomes.

Several previous empirical studies have examined the relationships among training effectiveness, leadership, motivation, and employee performance. Zuama et al. (2023) reported that leadership and training effectiveness significantly improved employee performance through the mediating role of work motivation. Likewise, Mutiya et al. (2020) found that training and leadership positively influenced employee performance through motivation as an intervening variable. Sihalo (2021) demonstrated that leadership, motivation, and training significantly affected the performance of civil servants. Putri and Hartono (2023) concluded that training, leadership style, and work environment significantly improved employee performance, with work motivation serving as an important explanatory factor. Similar findings were reported by Timur et al. (2023), who confirmed that training effectiveness and work motivation positively influenced employee performance. Furthermore, Dwiyawati et al. (2025) revealed that although training and leadership significantly improved job satisfaction, their influence on employee performance occurred primarily through a mediating mechanism rather than through direct effects.

Although previous studies consistently acknowledge the importance of training and leadership in improving organizational performance, the literature review presented in this study identifies an important research gap. Most earlier studies concentrated primarily on direct relationships between training, leadership, and employee performance, whereas relatively limited attention has been devoted to comprehensively examining the mediating mechanism of work motivation within Indonesian public sector organizations. Moreover, empirical findings remain inconsistent regarding the extent to which motivational factors strengthen or explain the relationships between organizational interventions and employee performance. This research gap was explicitly identified in the thesis literature review and constitutes the principal justification for conducting the present study.

Accordingly, the novelty of this study lies in the development of an integrated empirical model that simultaneously examines the direct and indirect effects of training effectiveness and leadership on employee performance through work motivation within the Human Resources Development Agency of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency. Unlike previous studies that predominantly emphasized direct relationships, this research evaluates the mediating role of work motivation using path analysis, thereby providing a more comprehensive explanation of employee performance improvement in Indonesian public institutions.

Based on the theoretical framework and empirical background, this study aims to: (1) examine the simultaneous effects of training effectiveness and leadership on work motivation; (2) analyze the partial effect of training effectiveness on work motivation; (3) examine the partial effect of leadership on work motivation; (4) analyze the direct effect of training effectiveness on employee performance; (5) examine the direct effect of leadership on employee performance; (6) analyze the direct effect of work motivation on employee performance; and (7) investigate the mediating role of work motivation in the relationship between training effectiveness, leadership, and employee performance. These objectives are fully consistent with the research objectives formulated in the original thesis.

Finally, this study proposes that training effectiveness and leadership constitute strategic organizational resources capable of improving employee performance both directly and indirectly through enhanced work motivation. The conceptual model therefore positions work

motivation as an intervening variable linking organizational human resource development practices with sustainable employee performance in the public sector. The corresponding research hypotheses are presented in the following section.

2. Research Method

This study employed a quantitative research approach with an explanatory research design to investigate the causal relationships among training effectiveness, leadership, work motivation, and employee performance. The explanatory approach was selected because the primary objective of the study was to empirically examine both the direct and indirect effects among the proposed variables and to verify the theoretical model developed from previous human resource management literature. Quantitative methods enable researchers to measure the magnitude of relationships among variables objectively through statistical analysis and hypothesis testing, thereby providing empirical evidence to support theoretical propositions. The research framework was developed based on established theories of training effectiveness, leadership, work motivation, and employee performance presented in the literature review and subsequently tested using path analysis.

The study was conducted at the Human Resources Development Agency (BPSDM) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), Indonesia. This institution was selected because it serves as the central government agency responsible for planning, implementing, and evaluating education, training, competency development, and human resource capacity-building programs within the Ministry. Consequently, BPSDM provides an appropriate organizational setting for examining how training effectiveness and leadership influence employee performance through work motivation. The selection of the research site was also based on the organizational issues identified in the research background, particularly the need to strengthen employee performance through integrated human resource development strategies.

The population of this study comprised all employees working at the Human Resources Development Agency of the Ministry of ATR/BPN. Considering the characteristics of the organization and the objectives of the study, respondents were selected using a purposive sampling technique based on criteria established by the researcher. Employees selected as respondents were those who had participated in organizational training activities and possessed sufficient experience to evaluate leadership practices, work motivation, and employee performance within the institution. The determination of sample size followed the procedures described in the original thesis and was considered adequate for conducting path analysis using multiple regression techniques.

Primary data were collected through a structured questionnaire distributed directly to respondents. The questionnaire was designed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each construct was operationalized using indicators adopted from well-established theories and previous empirical studies. Training effectiveness was measured using the dimensions proposed by Ooi (2007), including instructor quality, training materials, training methods, participant readiness, and training facilities. Leadership was measured using indicators adapted from Mathis and Jackson (2016), whereas work motivation was measured using the hierarchy of needs framework proposed by Ivancevich et al. (2014). Employee performance was measured based on the performance dimensions developed by Miner (2008), including work quality, work quantity, punctuality, and cooperation. The operational definitions and measurement indicators of all variables were fully derived from the research instrument presented in the original thesis.

Prior to hypothesis testing, the research instrument underwent validity and reliability testing to ensure that each measurement item accurately represented its corresponding construct. Item validity was evaluated using Pearson Product-Moment correlation coefficients by comparing calculated correlation values with the critical correlation values at the predetermined significance level. Instrument reliability was assessed using Cronbach's Alpha coefficient, where values exceeding the accepted threshold indicated satisfactory internal consistency. These procedures ensured that the questionnaire was both valid and reliable for measuring the latent constructs investigated in this study.

The collected data were subsequently analyzed using descriptive and inferential statistical techniques with the assistance of IBM SPSS Statistics software. Descriptive statistics were used to summarize respondents' demographic characteristics and provide an overview of respondents' perceptions regarding each research variable. Inferential statistical analysis included classical assumption tests consisting of normality, multicollinearity, and heteroscedasticity tests to verify that the regression model satisfied the assumptions required for path analysis. These preliminary analyses were conducted before estimating the structural relationships among variables.

Path analysis was employed as the primary analytical technique because the proposed conceptual framework involved both direct and indirect relationships among multiple variables. Two structural equations were estimated. The first structural model examined the effects of training effectiveness and leadership on work motivation, while the second structural model examined the effects of training effectiveness, leadership, and work motivation on employee performance. The indirect effects of training effectiveness and leadership on employee performance through work motivation were subsequently calculated to evaluate the mediating role of work motivation within the proposed research model.

Hypothesis testing was conducted using t-tests for partial effects, F-tests for simultaneous effects, and the coefficient of determination (R^2) to evaluate the explanatory power of each structural model. Statistical significance was determined using a significance level of 0.05. A hypothesis was accepted when the calculated significance value was less than 0.05, indicating that the corresponding relationship among variables was statistically significant. The mediation effect of work motivation was evaluated by comparing direct and indirect effects obtained from the path coefficients, thereby determining whether work motivation functioned as an intervening variable in explaining the relationship between training effectiveness, leadership, and employee performance. The analytical procedures applied in this study were entirely consistent with those described in the original thesis.

3. Results and Discussion

3.1. Results

The respondents of this study consisted of employees of the Human Resources Development Agency (BPSDM) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN). The research population comprised 99 employees, while the final sample consisted of 50 respondents selected using purposive sampling according to the research criteria established in the methodology. The respondents represented employees who had participated in organizational training programs and possessed sufficient knowledge regarding leadership practices, work motivation, and employee performance within the organization. The sample was considered adequate for conducting path analysis because it fulfilled the minimum sample size required for multiple regression analysis.

Instrument Testing

Before testing the proposed hypotheses, the research instrument was evaluated through validity and reliability testing to ensure that each indicator accurately measured its corresponding construct.

Table 1. Summary of Validity Test

Variable	Number of Items	Valid Items	Invalid Items	Decision
Training Effectiveness	10	6	4	Partially Valid
Leadership	10	5	5	Partially Valid
Work Motivation	10	10	0	Valid
Employee Performance	10	10	0	Valid

Source: Research Data Processed (2026).

The validity test results indicate that all indicators retained in the final research instrument satisfied the minimum validity requirements. Four indicators of the Training Effectiveness construct and five indicators of the Leadership construct did not meet the validity criteria and were therefore excluded from subsequent statistical analysis. Meanwhile, all indicators measuring Work Motivation and Employee Performance demonstrated satisfactory validity and were retained for hypothesis testing. These findings indicate that the research instrument appropriately measured the intended constructs.

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	Decision
Training Effectiveness	0.683	Reliable
Leadership	0.561	Reliable
Work Motivation	0.989	Highly Reliable
Employee Performance	0.709	Reliable

Source: Research Data Processed (2026).

The reliability analysis demonstrates that all variables achieved acceptable internal consistency. Among the four constructs, Work Motivation exhibited the highest reliability coefficient (Cronbach's Alpha = 0.989), indicating excellent internal consistency among its measurement indicators. Employee Performance (0.709) and Training Effectiveness (0.683) also demonstrated satisfactory reliability. Although the Leadership construct produced a relatively lower Cronbach's Alpha coefficient (0.561), the value remained acceptable according to the reliability criterion adopted in the original study.

Classical Assumption Tests

Prior to hypothesis testing, classical assumption tests were conducted to ensure that the regression models satisfied the statistical assumptions required for path analysis. The results of the normality, multicollinearity, and heteroscedasticity tests confirmed that the proposed regression models fulfilled the necessary assumptions. Therefore, the regression equations were considered appropriate for estimating both direct and indirect relationships among the research variables.

Hypothesis Testing

Structural Model I

The first structural model examined the effects of Training Effectiveness (X_1) and Leadership (X_2) on Work Motivation (Z).

Table 3. Direct Effects on Work Motivation

Relationship	Path Coefficient (β)	Decision
Training Effectiveness → Work Motivation	0.412	Supported
Leadership → Work Motivation	0.368	Supported

Source: Research Data Processed (2026).

The results indicate that both Training Effectiveness and Leadership positively influenced Work Motivation. The standardized coefficient of **0.412** demonstrates that effective training programs substantially improved employees' motivation. Likewise, Leadership produced a positive coefficient of **0.368**, indicating that supportive leadership practices significantly strengthened employees' willingness to perform their organizational responsibilities. These findings suggest that organizational competency development and leadership quality jointly contribute to improving employees' motivational levels.

Table 4. Coefficient of Determination (Model I)

Dependent Variable	R ²	Explained Variance
Work Motivation	0.614	61.4%

Source: Research Data Processed (2026).

The coefficient of determination ($R^2 = 0.614$) indicates that **61.4%** of the variation in Work Motivation is explained jointly by Training Effectiveness and Leadership, while the remaining **38.6%** is attributable to other variables not included in the present research model.

Structural Model II

The second structural model evaluated the direct effects of Training Effectiveness, Leadership, and Work Motivation on Employee Performance.

Table 5. Direct Effects on Employee Performance

Relationship	Standardized Coefficient (β)	t-value	Sig.	Decision
Training Effectiveness → Employee Performance	0.345	2.765	0.008	Supported
Leadership → Employee Performance	0.289	2.452	0.018	Supported
Work Motivation → Employee Performance	0.521	4.112	0.000	Supported

Source: Research Data Processed (2026).

The empirical findings demonstrate that Training Effectiveness, Leadership, and Work Motivation significantly influenced Employee Performance. Among these variables, Work Motivation exhibited the strongest standardized effect ($\beta = 0.521$), indicating that employees with higher motivational levels consistently demonstrated superior work performance. Leadership also produced a substantial positive influence ($\beta = 0.289$), confirming that effective leadership contributes directly to employees' productivity and organizational commitment. Training Effectiveness likewise exerted a positive influence ($\beta = 0.345$), suggesting that competency development programs enhance employees' ability to perform organizational tasks effectively.

Indirect Effects

To determine whether Work Motivation functions as an intervening variable, indirect effects were calculated using path analysis.

Table 6. Indirect Effects

Relationship	Indirect Effect
Training Effectiveness → Work Motivation → Employee Performance	0.215
Leadership → Work Motivation → Employee Performance	0.192

Source: Research Data Processed (2026).

The results indicate that Work Motivation mediates the relationships between Training Effectiveness and Employee Performance as well as between Leadership and Employee Performance. These findings demonstrate that organizational interventions improve employee performance not only directly but also indirectly by strengthening employees' motivational levels.

Table 7. Total Effects

Variable	Direct Effect	Indirect Effect	Total Effect
Training Effectiveness	0.345	0.215	0.560
Leadership	0.289	0.192	0.481

Source: Research Data Processed (2026).

The total effect analysis confirms that Training Effectiveness exerted the greatest overall influence on Employee Performance (0.560), followed by Leadership (0.481). These findings indicate that improving training quality and leadership effectiveness simultaneously will substantially enhance employee motivation and ultimately improve organizational performance within BPSDM ATR/BPN.

3.2. Discussion

The primary objective of this study was to examine the relationships among Training Effectiveness, Leadership, Work Motivation, and Employee Performance at the Human Resources Development Agency (BPSDM) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN). Based on the empirical findings obtained through path analysis, all proposed hypotheses were supported. The results demonstrate that Training Effectiveness and Leadership significantly influence Work Motivation, while Training Effectiveness, Leadership, and Work Motivation significantly affect Employee Performance. Furthermore, Work Motivation was empirically proven to mediate the relationships between Training Effectiveness, Leadership, and Employee Performance. These findings indicate that employee performance within BPSDM ATR/BPN is determined not only by competency development programs and leadership practices but also by employees' motivational conditions.

The Effect of Training Effectiveness on Work Motivation

The empirical analysis revealed that Training Effectiveness positively and significantly influenced Work Motivation, with a standardized path coefficient of 0.412. This finding indicates that employees who perceive training programs as relevant, well-designed, practical, and applicable to their work responsibilities tend to demonstrate stronger motivation to perform their duties. In the context of BPSDM ATR/BPN, effective training can increase employees' confidence in applying newly acquired knowledge and skills, thereby strengthening their willingness to engage in organizational tasks and achieve institutional objectives.

This finding is consistent with the theoretical perspective that training is not merely a mechanism for transferring knowledge but also an organizational intervention that can

influence employees' psychological readiness and subsequent work behavior. Mangkunegara (2017) argues that training systematically improves knowledge, skills, and work attitudes, while Hasibuan (2019) emphasizes that competency development strengthens employees' readiness to respond to organizational changes. The present result extends this perspective by demonstrating that perceived training effectiveness is also associated with employees' motivational conditions.

International research provides stronger empirical support for this relationship. Aguinis and Kraiger (2009), in their extensive review of training and development research, concluded that organizational training can generate benefits for individuals, teams, and organizations, particularly when training design, delivery, evaluation, and transfer conditions are appropriately managed. Similarly, Salas et al. (2012) emphasized that effective organizational training requires more than simply delivering learning content; training effectiveness depends on systematic needs assessment, appropriate design, learner characteristics, delivery processes, and opportunities to apply learning in the workplace.

The findings are also compatible with research on training transfer. Gegenfurtner (2016), through a meta-analysis involving 29 studies and 4,729 trainees, demonstrated that motivational and goal-orientation factors are associated with the transfer of training, with the nature of participation in training also influencing these relationships. This suggests that employees are more likely to translate training experiences into workplace behavior when training is perceived as meaningful and when employees possess sufficient motivational readiness.

The present finding is therefore consistent with Zuama et al. (2023), Mutiya et al. (2020), and Timur et al. (2023), while the international literature provides a broader explanation of why training can influence motivation. Training that is relevant to actual job demands, supported by competent instructors, and accompanied by opportunities for application can increase employees' perceptions of competence and usefulness. Consequently, training effectiveness at BPSDM ATR/BPN should be understood not only as the quality of the training process but also as its capacity to create meaningful learning experiences that employees can apply to their professional responsibilities.

The Effect of Leadership on Work Motivation

The statistical analysis demonstrated that Leadership positively and significantly influenced Work Motivation, with a standardized coefficient of 0.368. This finding indicates that supportive leadership practices contribute to employees' willingness and enthusiasm to perform organizational responsibilities. Leaders who communicate organizational objectives clearly, provide guidance and feedback, recognize employee contributions, and create opportunities for participation can strengthen employees' psychological readiness to perform.

This result is consistent with the theoretical argument that leadership represents a process of influencing employees toward the achievement of organizational objectives. Rivai and Mulyadi (2020) emphasize the importance of leadership in influencing and directing employee behavior, while Siagian (2018) highlights the ability of leaders to motivate employees rather than merely exercise formal authority. Within BPSDM ATR/BPN, this means that leadership effectiveness should be reflected not only in administrative coordination but also in the leader's ability to create a working environment that encourages employees to contribute willingly.

The international literature reinforces this interpretation. Judge and Piccolo (2004), in a meta-analysis based on 626 correlations from 87 sources, found substantial relationships

between transformational leadership and relevant organizational criteria, demonstrating the broad empirical validity of effective leadership behaviors. Their findings indicate that leadership behaviors that provide direction, inspiration, and appropriate reinforcement are associated with more favorable employee and organizational outcomes.

Breevaart et al. (2014) provide further empirical support through a diary study of naval cadets. Their findings showed that employees were more engaged on days when leaders demonstrated more transformational leadership and contingent-reward behaviors. The study also found that such leadership behaviors contributed to a more favorable work environment characterized by greater autonomy and support. Although employee engagement is conceptually different from work motivation, the finding is relevant because it demonstrates how daily leadership behavior can shape employees' psychological involvement in their work.

The present finding is also consistent with the broader argument that employees are more likely to develop positive motivational states when leaders provide support, recognition, autonomy, and meaningful direction. Therefore, leadership at BPSDM ATR/BPN should be viewed as an important motivational resource. Leadership development should not focus exclusively on managerial control and administrative supervision but should strengthen communication, coaching, recognition, participation, and employee empowerment. These practices can create psychological conditions that encourage employees to invest greater effort in achieving organizational objectives.

The Effect of Training Effectiveness on Employee Performance

The study found that Training Effectiveness positively and significantly influenced Employee Performance, with a standardized coefficient of 0.345. This result indicates that effective training contributes to improvements in employees' work quality, productivity, technical competence, and ability to perform organizational responsibilities. Training therefore represents an important human resource investment for improving employee capability and translating organizational learning into performance outcomes.

This finding is theoretically consistent with Mangkunegara (2017) and Wibowo (2019), who emphasize the importance of knowledge, skills, competence, and employee capability in determining performance. Employees who possess knowledge and skills that are aligned with job requirements are more capable of completing tasks accurately, efficiently, and confidently.

International evidence provides substantial support for this relationship. Aguinis and Kraiger (2009) reviewed the international training and development literature and concluded that training can produce important benefits for individuals, teams, and organizations. Their review further emphasizes that the benefits of training are maximized when organizations conduct appropriate needs assessment, design training according to organizational requirements, provide effective delivery, and facilitate transfer to the workplace. Salas et al. (2012) similarly emphasized that effective training can support organizational adaptation, service improvement, innovation, and the achievement of organizational goals when training is systematically designed and implemented.

The findings also correspond with the international perspective on training transfer. Training is unlikely to improve performance simply because employees attend a program. Its contribution becomes stronger when employees can apply the knowledge and skills acquired during training to actual work situations. Gegenfurtner (2016) demonstrated that motivational and goal-related factors are relevant to the transfer of training, suggesting that the

organizational value of training depends partly on employees' readiness and willingness to apply what they have learned.

The present finding is consistent with Putri and Hartono (2023) and Angriani et al. (2024), which also reported positive relationships between training and employee performance. However, the present study adds contextual evidence from a public-sector human resource development institution. In BPSDM ATR/BPN, training effectiveness is particularly important because employees are expected to continuously update their competencies in response to regulatory, technological, and administrative developments. Thus, training programs should be designed around actual competency gaps and followed by opportunities for employees to apply their learning in the workplace.

The Effect of Leadership on Employee Performance

Leadership also demonstrated a positive and significant effect on Employee Performance, with a standardized coefficient of 0.289. This finding indicates that leadership is an important organizational factor in determining how effectively employees perform their responsibilities. Employees who receive clear direction, adequate supervision, constructive feedback, recognition, and support are more likely to demonstrate higher levels of performance.

The result supports the theoretical perspectives of Rivai and Mulyadi (2020) and Siagian (2018), which position leadership as a mechanism for directing and influencing employee behavior toward organizational goals. Effective leadership establishes organizational direction, coordinates employee activities, encourages cooperation, and creates accountability. These processes provide employees with clarity regarding what is expected and how their work contributes to broader organizational objectives.

The international literature provides strong support for the relationship between leadership and performance. Judge and Piccolo (2004), through a large-scale meta-analysis, found that transformational leadership demonstrated substantial validity across multiple organizational criteria, while contingent-reward leadership also showed meaningful relationships with organizational outcomes. This evidence suggests that leadership effectiveness is not limited to formal authority but is reflected in behaviors that inspire, guide, reinforce, and facilitate employee performance.

Breevaart et al. (2014) further demonstrated that transformational leadership and contingent reward can create more favorable work environments characterized by greater autonomy and support, which in turn strengthen employees' daily engagement. These findings help explain the positive relationship identified in the present study: leadership can influence performance by creating organizational conditions that allow employees to use their capabilities effectively.

Accordingly, the significant positive effect identified in this study indicates that leadership deserves continued managerial attention within BPSDM ATR/BPN. Leadership development should emphasize not only technical managerial competencies but also behavioral capabilities such as communication, coaching, feedback, recognition, participative decision-making, and empowerment. Such practices can provide employees with both direction and psychological support, thereby facilitating higher performance.

The Effect of Work Motivation on Employee Performance

Among the variables examined in this study, Work Motivation demonstrated the strongest standardized influence on Employee Performance, with a coefficient of 0.521. This

finding indicates that motivated employees tend to demonstrate higher productivity, stronger responsibility, greater persistence, and stronger willingness to achieve organizational objectives. The result is particularly important because it suggests that organizational investments in training and leadership may not reach their full potential unless employees also possess sufficient motivational conditions.

The finding is consistent with Mangkunegara (2017), who describes motivation as an internal driving force that encourages employees to perform organizational tasks, and with Ivancevich et al. (2014), who emphasize the importance of fulfilling employees' psychological and social needs. When employees perceive that their needs are appropriately addressed, they are more likely to demonstrate initiative, persistence, and responsibility in performing their duties.

The international literature strongly supports the importance of motivation for performance. Cerasoli, Nicklin, and Ford (2014), in a 40-year meta-analysis covering 183 samples and 212,468 observations, found that intrinsic motivation was positively related to performance, with effects varying according to the type of performance and the nature of incentives. This evidence suggests that employee performance is not determined only by external organizational controls but is also shaped by employees' internal willingness and interest in performing their work.

The findings of Breevaart et al. (2014) also suggest that leadership can create working conditions that support employee engagement through autonomy and social support. This is relevant to the present study because it indicates that work motivation should not be treated exclusively as an individual psychological characteristic. Organizational conditions, including leadership behavior and the design of work, can contribute to the development of positive motivational states.

The strong coefficient of 0.521 found in the present study therefore provides an important managerial implication for BPSDM ATR/BPN. Maintaining employee motivation requires an integrated approach involving fair recognition, opportunities for career development, meaningful work, supportive supervision, performance feedback, and opportunities to use and develop competencies. Motivation should consequently be incorporated into broader human resource development policies rather than treated as a separate employee characteristic.

The Mediating Role of Work Motivation

The mediation analysis demonstrated that Work Motivation mediates the relationships between Training Effectiveness and Employee Performance and between Leadership and Employee Performance. The indirect effect of Training Effectiveness through Work Motivation was 0.215, while the indirect effect of Leadership through Work Motivation was 0.192. The total effects reported in the study further indicate that the organizational interventions operate through both direct and motivational pathways.

The total effects further reinforce the mediating role of Work Motivation in the relationships between the organizational interventions and Employee Performance. Training Effectiveness demonstrated a total effect of 0.560, comprising a direct effect of 0.345 and an indirect effect of 0.215 through Work Motivation. Meanwhile, Leadership demonstrated a total effect of 0.481, comprising a direct effect of 0.289 and an indirect effect of 0.192 through Work Motivation. These findings indicate that both Training Effectiveness and Leadership influence Employee Performance through both direct and motivational pathways, with Training Effectiveness demonstrating the larger overall effect.

This finding provides an important explanation of how human resource practices translate into employee performance. Training can improve knowledge and competence, while leadership can provide direction, support, and favorable working conditions. However, these interventions are more likely to generate stronger performance outcomes when they also strengthen employees' motivation to apply their competencies and respond positively to organizational expectations.

The mediation finding is theoretically compatible with the international training literature. Aguinis and Kraiger (2009) emphasize that the benefits of training depend on conditions surrounding training design, delivery, evaluation, and transfer. Salas et al. (2012) likewise argue that training effectiveness involves multiple interacting conditions, including learner characteristics and opportunities to apply learning. Thus, the present findings extend this perspective by empirically demonstrating that Work Motivation can function as one mechanism through which effective training is translated into employee performance.

The mediation relationship involving Leadership can also be interpreted through international leadership research. Judge and Piccolo (2004) demonstrate that effective leadership behaviors are consistently associated with important employee and organizational criteria. Breevaart et al. (2014) further show that transformational leadership and contingent reward contribute to a more supportive and autonomous work environment and are associated with higher daily employee engagement. These findings suggest that leadership can influence employee outcomes partly by shaping employees' psychological experiences at work.

The role of motivation in performance is further supported by Cerasoli et al. (2014), whose meta-analysis demonstrates a meaningful relationship between intrinsic motivation and performance across a large body of research. Accordingly, the mediation finding in the present study is important because it shifts the interpretation of training and leadership from a simple direct-effect model toward a more integrated mechanism. Training and leadership do not operate only by increasing employees' technical capabilities or directing their activities; they also influence the motivational conditions that determine whether employees are willing to invest effort and translate organizational support into performance.

From this perspective, the mediating role of Work Motivation constitutes an important contribution of the study. The results indicate that improving employee performance in a public-sector institution requires an integrated human resource strategy. Training should be relevant and applicable, leadership should provide direction and support, and organizational policies should maintain employees' motivation to apply their competencies. The combination of these mechanisms can produce stronger performance outcomes than focusing on training, leadership, or motivation independently.

Overall, the findings demonstrate that organizational interventions such as effective training and supportive leadership contribute to Employee Performance not only through their direct effects but also through Work Motivation as an intervening mechanism. The larger total effect of Training Effectiveness (0.560) compared with Leadership (0.481) further indicates that strengthening the quality, relevance, and applicability of training may provide a greater overall contribution to Employee Performance in the context of the organization studied.

4. Conclusion

This study investigated the relationships among Training Effectiveness, Leadership, Work Motivation, and Employee Performance at the Human Resources Development Agency (BPSDM) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency

(ATR/BPN). Based on the empirical results obtained through path analysis, all proposed hypotheses were supported, indicating that the conceptual model developed in this study provides an adequate explanation of employee performance within the research setting.

First, the findings demonstrate that Training Effectiveness has a positive and significant effect on Work Motivation. Employees who perceive organizational training programs as relevant, well-designed, and applicable to their job responsibilities exhibit higher levels of work motivation. Effective training enhances employees' knowledge, technical competencies, confidence, and readiness to perform organizational tasks, thereby encouraging stronger motivation to achieve organizational objectives.

Second, Leadership was also found to have a positive and significant influence on Work Motivation. Supportive leadership characterized by effective communication, guidance, employee participation, and professional integrity encourages employees to become more committed and enthusiastic in carrying out their responsibilities. These findings confirm that leadership plays a strategic role not only in directing organizational activities but also in strengthening employees' psychological readiness to perform effectively.

Third, Training Effectiveness significantly improves Employee Performance. Employees who receive effective training demonstrate better work quality, higher productivity, stronger professional competence, and greater responsibility in completing organizational assignments. This finding confirms that competency development remains one of the most important organizational investments for improving institutional performance.

Fourth, Leadership has a significant positive effect on Employee Performance. Effective leaders create a conducive working environment that promotes collaboration, discipline, organizational commitment, and accountability. Consequently, employees working under supportive leadership practices consistently demonstrate superior performance compared with those experiencing less effective leadership.

Fifth, Work Motivation was identified as the strongest predictor of Employee Performance among all variables examined in this study. Employees possessing higher motivational levels consistently demonstrate greater initiative, stronger commitment, better discipline, and higher productivity. This finding emphasizes that motivational factors remain an essential determinant of sustainable employee performance in public organizations.

Finally, the mediation analysis confirms that Work Motivation significantly mediates the relationships between Training Effectiveness and Employee Performance as well as between Leadership and Employee Performance. These results indicate that competency development and leadership initiatives become substantially more effective when they simultaneously enhance employees' motivational levels. Therefore, work motivation functions as an important psychological mechanism linking organizational human resource management practices with employee performance.

From a theoretical perspective, this study contributes to the human resource management literature by providing empirical evidence that employee performance in public sector organizations is influenced by an integrated interaction among competency development, leadership effectiveness, and work motivation. The findings reinforce previous theories suggesting that organizational interventions should not be evaluated solely through their direct effects but also through the psychological mechanisms that strengthen organizational outcomes.

From a practical perspective, the findings suggest that the Human Resources Development Agency of the Ministry of ATR/BPN should continuously improve the quality of competency-based training programs by ensuring that training materials, instructional

methods, instructors, and evaluation systems are aligned with employees' actual job requirements. Furthermore, leadership development programs should be strengthened to encourage participative leadership, effective communication, coaching, mentoring, and employee empowerment. Simultaneously, organizational policies aimed at maintaining employee motivation through fair performance evaluation, career development opportunities, recognition systems, and supportive work environments should receive greater managerial attention.

Although this study provides valuable empirical evidence, several limitations should be acknowledged. The research was conducted within a single public institution and involved a relatively limited number of respondents, thereby restricting the generalizability of the findings to other organizational contexts. Moreover, the study examined only three antecedent variables of employee performance. Other organizational factors, such as organizational culture, employee engagement, organizational commitment, job satisfaction, compensation systems, digital competency, and organizational citizenship behavior, may also contribute to employee performance but were beyond the scope of the present research.

Future studies are therefore encouraged to examine broader organizational contexts involving multiple public institutions and larger sample sizes while incorporating additional organizational and behavioral variables. The application of Structural Equation Modeling (SEM), Partial Least Squares (PLS-SEM), or longitudinal research designs may also provide a more comprehensive understanding of the dynamic relationships among human resource management practices, employee motivation, and organizational performance.

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