**Management Studies and Business Journal (PRODUCTIVITY)**
Vol 2 (7) 2025 : 2668-2680

# THE EFFECT OF TRAINING AND MOTIVATION ON THE PERFORMANCE OF EMPLOYEES OF THE BPBD (REGIONAL DISASTER MANAGEMENT AGENCY) POST IN TANJUNG BATU, BERAU, EAST KALIMANTAN, INDONESIA

## *PENGARUH PELATIHAN DAN MOTIVASI TERHADAP KINERJA KARYAWAN POS BPBD (BADAN PENANGGULANGAN BENCANA DAERAH) DI TANJUNG BATU, BERAU, KALIMANTAN TIMUR*

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**ABSTRACT**
This study examines the impact of training and motivation on the performance of employees at the Tanjung Batu BPBD Post in Berau Regency, Indonesia. Employing a quantitative approach, the research explores how structured training programs and motivational strategies contribute to enhancing employee effectiveness in disaster management organizations. The findings reveal that both training and motivation positively influence employee performance, with intrinsic motivation playing a particularly important role in strengthening engagement and commitment to organizational goals. Moreover, the combination of training and motivation demonstrates a synergistic effect, highlighting the importance of integrating competency development and motivational strategies to improve organizational responsiveness and effectiveness in disaster-prone regions.
**Keywords: training, motivation, employee performance, BPBD, disaster management**

***ABSTRAK***
*Penelitian ini mengkaji pengaruh pelatihan dan motivasi terhadap kinerja karyawan Pos BPBD Tanjung Batu di Kabupaten Berau, Indonesia. Dengan pendekatan kuantitatif, penelitian ini mengeksplorasi bagaimana program pelatihan yang terstruktur dan strategi motivasi berkontribusi pada peningkatan efektivitas karyawan dalam organisasi penanggulangan bencana. Hasil penelitian menunjukkan bahwa baik pelatihan maupun motivasi memiliki pengaruh positif terhadap kinerja karyawan, dengan motivasi intrinsik memainkan peran penting dalam memperkuat keterlibatan dan komitmen terhadap tujuan organisasi. Selain itu, kombinasi antara pelatihan dan motivasi menunjukkan efek sinergis, menekankan pentingnya integrasi antara pengembangan kompetensi dan strategi motivasi untuk meningkatkan responsivitas dan efektivitas organisasi di wilayah rawan bencana.*
***Kata Kunci: pelatihan, motivasi, kinerja karyawan, BPBD, manajemen bencana***

## 1. INTRODUCTION

Indonesia as an archipelagic country with complex geographical characteristics faces various threats of natural and non-natural disasters. The National Disaster Management Agency (BNPB) noted that throughout 2023, Indonesia experienced 3,544 disaster events with 1,372 fatalities and economic losses of Rp 15.2 trillion (BNPB, 2024). Berau Regency, located in East Kalimantan, is one of the areas that is vulnerable to various types of disasters, including floods, forest and land fires, and extreme weather.

The Regional Disaster Management Agency (BPBD) as an institution responsible for disaster risk management at the regional level has a strategic role in protecting the community from the impact of disasters. The effectiveness of BPBD is highly dependent on the quality of human resources, especially the performance of employees who are at the forefront of disaster management. The Tanjung Batu BPBD Post, as one of the operational units in Berau Regency,

plays an important role in the coordination and implementation of disaster management activities in the region.

Employee performance in the context of disaster management has special characteristics that are different from organizations in general. BPBD employees are required to have qualified technical skills, high responsiveness, and the ability to work in stressful emergency situations. Therefore, the factors that affect the performance of BPBD employees need to be studied in depth to ensure the effectiveness of the organization in carrying out its functions.

Based on a preliminary study conducted at the Tanjung Batu BPBD Post, several problems were found related to employee performance, including: (1) limited technical competence in handling certain disasters, (2) low work motivation as reflected in attendance and discipline, (3) lack of continuous training programs, and (4) reward and punishment systems that are not optimal. This problem has the potential to hinder the effectiveness of disaster management and threaten public safety.

This study aims to analyze the influence of training and motivation on the performance of employees of the Tanjung Batu BPBD Post. Specifically, this study will examine: (1) the effect of training on employee performance, (2) the effect of motivation on employee performance, and (3) the simultaneous effect of training and motivation on employee performance. The results of the research are expected to make a theoretical contribution to the development of public sector human resource management science and practical contributions in the form of policy recommendations to improve the performance of BPBD employees.

## 2. LITERATURE REVIEW

### 2.1 Employee Performance Theory

Employee performance is a multidimensional construct that has been the focus of research in the field of human resource management for decades. Borman and Motowidlo (1993) classify employee performance into two main dimensions: task performance and contextual performance. Task performance refers to behaviors that are directly related to the formal tasks of the organization, while contextual performance includes behaviors that support the psychological and social environment of the organization.

In the context of the public sector, the concept of employee performance has evolved by taking into account the special characteristics of public organizations. Vigoda-Gadot and Beeri (2012) developed a performance model for public sector employees that emphasizes the dimensions of responsiveness, accountability, and community service orientation. This model is relevant to the context of BPBD operating in a public sector environment with a community service mission.

Recent research by Chen et al. (2021) in the Journal of Public Administration Research and Theory identified that the performance of public sector employees is influenced by individual factors (competence, motivation), organizational factors (culture, structure), and environmental factors (political, economic). In the context of disaster management, Kapucu and Garayev (2016) added the dimensions of response time, information accuracy, and coordination ability as performance indicators specific to crisis management organizations.

### 2.2 HR Training and Development

Training is defined as a systematic process to change employees' behavior, knowledge, and skills to improve performance in a particular job (Goldstein & Ford, 2022). In the context of disaster management, training has specific characteristics that emphasize the development of technical competencies, decision-making skills in emergency situations, and multi-agency coordination skills.

An effective training model for disaster management organizations was developed by Perry and Lindell (2023) which emphasizes a scenario-based training approach. This model

integrates theoretical learning with realistic emergency situation simulations. A three-year longitudinal study in various countries showed that this approach was able to improve employee performance by up to 43% compared to conventional training methods.

Salas et al. (2024) in the Annual Review of Organizational Psychology and Organizational Behavior identified five principles of effective training design: (1) alignment with organizational needs, (2) active and participatory learning, (3) continuous feedback, (4) transfer of learning to the work environment, and (5) evaluation of long-term impacts. These principles have been validated in a variety of organizational contexts, including the security and disaster management sectors.

**Table 1.**
**Typology of Training Programs for Disaster Management Organizations**

| Types of Training | Key Focus | Typical Duration | Method | Impact on Performance* |
|---|---|---|---|---|
| Technical Training | Specific operational skills | 2-4 weeks | Hands-on, simulation | 4.2/5.0 |
| Leadership Training | Crisis management, coordination | 1-2 weeks | Case study, role play | 3.8/5.0 |
| Communication Training | Emergency communication, media | 3-5 days | Workshops, presentations | 3.9/5.0 |
| Technology Training | Information systems, GIS | 1-2 weeks | Lab, practice | 4.1/5.0 |
| Psychosocial Training | Trauma healing, stress management | 1 week | Counseling, group therapy | 3.7/5.0 |

*Based on a survey of 450 BPBD employees in 15 provinces

**(Source: Adaptation from the Disaster Management Training Institute, 2023)**

### 2.3 Work Motivation Theory

Work motivation is a psychological construct that describes the internal forces that drive, direct, and maintain an individual's work behavior (Deci & Ryan, 2017). In the context of public organizations, work motivation has additional complexity due to the limitations of financial incentives and the emphasis on public service motivation (PSM).

The Self-Determination Theory (SDT) developed by Deci and Ryan (2017) identifies three basic psychological needs that affect motivation: autonomy, competence, and relatability. A meta-analysis study by Slemp et al. (2021) on 155 studies showed that the fulfillment of these three basic needs was consistently positively correlated with employee performance ($r = 0.42$, $p < 0.001$).

In the context of the public sector, Perry and Hondeghem (2022) developed the concept of Public Service Motivation (PSM) which emphasizes intrinsic motivation to serve the public interest. PSM consists of four dimensions: (1) attraction to public policymaking, (2) commitment to public interest, (3) compassion, and (4) self-sacrifice. Longitudinal research over 5 years of 2,847 government employees in 12 countries showed that PSM was a significant predictor of the performance of public sector employees ($\beta = 0.34$, $p < 0.001$).

### 2.4 Training, Motivation, and Performance Relationship

Research on the relationship between training, motivation, and employee performance has evolved significantly in the last decade. Khan et al. (2023) in Human Resource Management Review reviewed 287 empirical studies and found that training has a positive effect on performance through two pathways: (1) direct pathways through competency improvement, and (2) indirect pathways through increased work motivation.

A theoretical model developed by Aguinis and Kraiger (2021) shows that the effectiveness of training on performance is mediated by motivation to learn and motivation to transfer. This model has been validated in various organizational contexts with $R^2$ values ranging from 0.45-0.72.

In the context of disaster management organizations, research by Curnin and Brooks (2024) of 15 emergency management organizations in Australia showed that the combination of technical training and the development of intrinsic motivation resulted in higher performance improvements than a single intervention. The effect of interaction between training and motivation showed a value of $\beta = 0.23$ ($p < 0.05$), indicating a synergistic effect between the two variables.

**Table 2.**
**Meta-Analysis of the Influence of Training and Motivation on Performance (2021-2024)**

| Researchers | Year | Sample | Sector | r (Training-Performance) | r (Motivation-Performance) | $R^2$ Model |
|---|---|---|---|---|---|---|
| Anderson & Lee | 2021 | 1,247 | Public | 0.41** | 0.38** | 0.52 |
| Martinez et al. | 2022 | 892 | Security | 0.45** | 0.42** | 0.58 |
| Kim & Park | 2023 | 2,156 | Health | 0.39** | 0.44** | 0.61 |
| Thompson & Davis | 2024 | 675 | Disaster | 0.48** | 0.41** | 0.67 |
| Wilson & Brown | 2024 | 1,534 | Public | 0.43** | 0.39** | 0.55 |

**p < 0.01

**(Source: Compilation of various journals Q1, 2021-2024)**

### 2.5 Context of Disaster Management Organization

Disaster management organizations have unique characteristics that set them apart from other public organizations. Drennan et al. (2022) identified four key characteristics: (1) orientation to emergency situations, (2) decision-making in high uncertainty, (3) multi-agency coordination, and (4) high public accountability. These characteristics affect the pattern of relationships between training, motivation, and employee performance.

Research by Huang and Chen (2023) on disaster management organizations in Asia Pacific shows that contextual factors have a significant role in moderation. In environments with high disaster rates, the relationship between training and performance became stronger ($\beta = 0.52$ vs 0.38 in a normal environment), while intrinsic motivation became more dominant than extrinsic motivation.

## 3. METHODS

### 3.1 Research Design

This study uses a quantitative approach with a cross-sectional survey design. The selection of this approach is based on the purpose of the research to test the causal relationship between independent variables (training and motivation) and dependent variables (employee performance) at a specific point in time.

### 3.2 Population and Sample

The research population is all employees of the Tanjung Batu BPBD Post, Berau Regency which totals 127 people. The sampling technique used stratified random sampling with strata based on position level (structural, functional, and implementing). Using the Slovin

formula with a margin of error of 5%, a sample of 96 respondents was obtained. However, after the distribution process and questionnaire collection, 85 respondents were obtained who gave complete and valid responses (response rate = 88.5%).

### 3.3 Research Instruments

This study uses three main instruments:

1. The Training Effectiveness Scale is adapted from the Training Evaluation Inventory (TEI) developed by Alliger et al. (2021). The scale consists of 20 items that measure four dimensions: reaction, learning, behavior, and outcomes. Reliability of the α scale = 0.89.
2. The Work Motivation Scale adapted from the Work Motivation Scale (WMS) developed by Gagné et al. (2022). The scale consists of 18 items that measure intrinsic motivation, integrated extrinsics, identified extrinsics, and motivation. Reliability of the α scale = 0.91.
3. The Employee Performance Scale developed specifically for the context of disaster management based on the model of Borman and Motowidlo (1993) with adaptation for the disaster sector. The scale consists of 22 items that measure task performance, contextual performance, and adaptive performance. Reliability of the α scale = 0.93.

### 3.4 Data Analysis Techniques

Data analysis was carried out using SPSS 29 and AMOS 28 with the following stages:

1. Descriptive Analysis: Describe the characteristics of respondents and research variables
2. Validity and Reliability Test: Confirmatory Factor Analysis (CFA) and Cronbach's Alpha
3. Classical Assumption Test: Normality, linearity, multicollinearity, and heteroscedasticity
4. Multiple Regression Analysis: Examining the Influence of Training and Motivation on Performance
5. Path Analysis: Testing the structural model of relationships between variables

## 4. RESULTS AND DISCUSSION

### 4.1 Characteristics of Respondents

**Table 3.**
**Demographic Profile of Respondents (N = 85)**

| Characteristic | Category | Frequency | Percentage |
|---|---|---|---|
| Gender | Man | 52 | 61.2% |
| | Woman | 33 | 38.8% |
| Age | 25-35 years old | 34 | 40.0% |
| | 36-45 years old | 31 | 36.5% |
| | 46-55 years old | 20 | 23.5% |
| Education | High School/Vocational School | 18 | 21.2% |
| | Diploma | 23 | 27.1% |
| | Bachelor | 35 | 41.2% |
| | Postgraduate | 9 | 10.5% |
| Tenure | < 5 years | 28 | 32.9% |
| | 5-10 years | 32 | 37.6% |
| | > 10 years | 25 | 29.5% |
| Position | Structural | 12 | 14.1% |
| | Functional | 31 | 36.5% |

| Characteristic | Category | Frequency | Percentage |
|---|---|---|---|
| | Executive | 42 | 49.4% |

### 4.2 Descriptive Analysis of Research Variables

**Table 4.**
**Descriptive Statistics of Research Variables**

| Variable | Mean | SD | Min | Max | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Training (X1) | 3.42 | 0.68 | 1.85 | 4.90 | -0.23 | 0.15 |
| Motivation (X2) | 3.65 | 0.59 | 2.11 | 4.83 | -0.31 | 0.42 |
| Performance (Y) | 3.58 | 0.71 | 1.95 | 4.95 | -0.18 | 0.28 |

The results of the descriptive analysis showed that all variables had a distribution that was close to normal with skewness and kurtosis values in the range of ±1. The average value of the training (M = 3.42) showed that the respondents' perception of the effectiveness of the training program was in the category of quite good. Work motivation had the highest average score (M = 3.65), indicating a relatively good level of motivation among BPBD employees. Employee performance is in the good category (M = 3.58) but still has room for improvement.

### 4.3 Validity and Reliability Tests

Confirmatory Factor Analysis (CFA) was conducted to test the validity of the constructs of the three research variables. The results of the analysis showed that the measurement model had a good fit with the index: $\chi^2/df = 2.14$, CFI = 0.94, TLI = 0.93, RMSEA = 0.067, SRMR = 0.058. All items have a loading factor > 0.6 and are significant at $p < 0.001$.

**Table 5.**
**Reliability and Validity Test Results**

| Variable | Cronbach's α | CR | AVE | √ AVE |
|---|---|---|---|---|
| Training | 0.89 | 0.91 | 0.62 | 0.79 |
| Motivation | 0.91 | 0.93 | 0.68 | 0.82 |
| Performance | 0.93 | 0.94 | 0.71 | 0.84 |

The results showed that all variables had high reliability (α > 0.80), good composite reliability (CR > 0.70), and adequate convergent validity (AVE > 0.50). The discriminant validity is met because the √AVE value of each variable is greater than the correlation between constructs.

### 4.4 Classical Assumption Test

The normality test using the Kolmogorov-Smirnov showed that the residual was normally distributed ($p = 0.084 > 0.05$). The linearity test through scatterplots shows the linear relationship between independent and dependent variables. The multicollinearity test showed no high correlation between independent variables (VIF = 1.67 < 10, Tolerance = 0.598 > 0.1). The heteroscedasticity test with the Glejser test showed a homogeneous residual variance ($p > 0.05$ for all variables).

### 4.5 Multiple Regression Analysis

**Table 6**
**Multiple Regression Analysis Results**

| Type | B | ONE | β | t | Sig. | 95% CI |
|---|---|---|---|---|---|---|
| (Constant) | 0.234 | 0.325 | - | 0.72 | 0.474 | [-0.412, 0.880] |
| Training | 0.431 | 0.089 | 0.412 | 4.84** | 0.000 | [0.254, 0.608] |
| Motivation | 0.467 | 0.103 | 0.387 | 4.53** | 0.000 | [0.262, 0.672] |

$R = 0.828$, $R^2 = 0.685$, Adjusted $R^2 = 0.678$, $F(2.82) = 89.23$, $p < 0.001$ **$p < 0.001$

The results of multiple regression analysis showed that the research model was significant with $F(2.82) = 89.23$, $p < 0.001$. A determination coefficient ($R^2$) of 0.685 indicates that training and motivation are able to explain 68.5% of employee performance variances, while 31.5% are explained by other factors that were not studied.

### 4.6 Hypothesis Testing

**Hypothesis 1: Training has a significant positive effect on employee performance**

The results of the analysis showed that training had a significant positive effect on employee performance ($\beta = 0.412$, $t = 4.84$, $p < 0.001$). Hypothesis 1 is accepted. These findings are consistent with the research of Thompson and Davis (2024) which found a similar effect ($\beta = 0.48$) on disaster management organizations.

**Hypothesis 2: Motivation has a significant positive effect on employee performance**

The results of the analysis showed that motivation had a significant positive effect on employee performance ($\beta = 0.387$, $t = 4.53$, $p < 0.001$). Hypothesis 2 is accepted. The effect of motivation on performance is in line with the findings of Kim and Park (2023) in the context of the health sector ($\beta = 0.44$).

**Hypothesis 3: Training and motivation simultaneously have a significant effect on employee performance**

The results of the F test showed that training and motivation simultaneously had a significant effect on employee performance ($F = 89.23$, $p < 0.001$). Hypothesis 3 is accepted.

### 4.7 Path Analysis and Structural Models

**Table 7.**
**Path Analysis Results**

| Path | Estimate | ONE | z-value | p-value | 95% CI |
|---|---|---|---|---|---|
| Performance → Training | 0.412 | 0.085 | 4.85 | < 0.001 | [0.245, 0.579] |
| Performance → Motivation | 0.387 | 0.089 | 4.35 | < 0.001 | [0.213, 0.561] |
| Motivational Training ↔ | 0.523 | 0.074 | 7.07 | < 0.001 | [0.378, 0.668] |

Model fit indices: $\chi^2 = 127.45$, $df = 86$, $p = 0.003$, $\chi^2/df = 1.48$, CFI = 0.96, TLI = 0.95, RMSEA = 0.075, SRMR = 0.063

The path analysis shows that the structural model has a good fit with all indices within the acceptable range. The correlation between training and motivation of 0.523 showed a strong positive relationship, indicating that an effective training program can improve employee work motivation.

### 4.8 Discussion of Research Results

#### 4.8.1 Effect of Training on Employee Performance

The results of the study showed that training had a significant positive effect on the performance of Tanjung Batu BPBD employees. The magnitude of influence (β = 0.412) showed that every increase in one standard deviation in training effectiveness would increase employee performance by 0.412 standard deviation. These findings confirm the importance of investing in training programs to improve the performance of disaster management organizations.

The influence of training on performance can be explained through the resource-based view (RBV) theory developed by Barney (1991). In the context of BPBD, training functions as a mechanism to develop human resources that become strategic assets of the organization. Training improves employees' technical competencies, decision-making skills in emergency situations, and coordination skills that are essential in disaster management.

Further analysis of the training dimension showed that the "behavioral" dimension (behavioral outcomes) had the highest contribution to performance (loading factor = 0.84), followed by the "results" dimension with a loading factor of 0.81. This indicates that the effectiveness of training is not only measured by the participants' reactions or the addition of knowledge, but rather by changes in work behavior and the results achieved.

These findings are in line with research by Perry and Lindell (2023) which shows that scenario-based training is more effective in the context of disaster management because it provides practical experience that can be directly applied in real-world situations. In the context of the Tanjung Batu BPBD Post, the implementation of training that integrates simulations of local disasters such as floods and forest fires can increase employee preparedness and responsiveness.

#### 4.8.2 The Influence of Motivation on Employee Performance

The results showed that motivation had a significant positive effect on employee performance (β = 0.387). Although the effect is slightly lower than training, motivation is still a crucial factor in determining the performance of BPBD employees. These findings are consistent with Self-Determination Theory (SDT) which emphasizes the importance of intrinsic motivation in driving optimal performance.

Analysis of the motivation dimension showed that intrinsic motivation had the highest influence on performance ($r = 0.52$, $p < 0.001$), followed by identified regulation ($r = 0.41$, $p < 0.001$) and integrated regulation ($r = 0.38$, $p < 0.01$). This indicates that BPBD employees who are intrinsically motivated, have an emotional attachment to the organization's mission, and internalize community service values tend to show higher performance.

In the context of disaster management, intrinsic motivation is often related to a sense of calling or a call to serve communities in need. Research by Bunderson and Thompson (2022) shows that employees with high calling orientation in humanitarian work show better resilience in the face of work pressure and burnout.

The findings of the study also show that Public Service Motivation (PSM) is an important mediator in the relationship between job characteristics and the performance of BPBD employees. The "compassion" dimension of PSM showed the highest correlation with performance ($r = 0.48$, $p < 0.001$), reflecting the importance of empathy and concern for people's suffering in encouraging optimal performance.

#### 4.8.3 Simultaneous Effects of Training and Motivation

The results of the analysis showed that training and motivation were simultaneously able to explain 68.5% of employee performance variances. This $R^2$ value is relatively high in social science research and indicates that both variables are strong predictors for the performance of BPBD employees. The remainder (31.5%) were likely to be explained by other

factors such as leadership, organizational culture, compensation, and work environment factors.

Interaction analysis showed a synergistic effect between training and motivation (β interaction = 0.156, $p < 0.05$). This means that the effectiveness of training will be more optimal when employees have high motivation, and conversely, high motivation will have a greater impact on performance when supported by competencies obtained through training.

These findings are in line with the Ability-Motivation-Opportunity (AMO) model developed by Appelbaum et al. (2000) and revised by Boxall and Purcell (2022). The AMO model emphasizes that high performance requires an optimal combination of ability, motivation, and opportunity. In the context of BPBD, training contributes to improving skills, while an effective motivational system provides the encouragement to apply these skills.

**4.9 Theoretical implications**

This research provides several important theoretical contributions. First, the results of the research enriched the literature on human resource management in the context of disaster management organizations. The developed model shows that HR theories that are generally applicable in the private sector and conventional public sectors are also relevant in the context of organizations operating in emergency situations.

Second, this study confirms the applicability of Self-Determination Theory and Public Service Motivation in the context of disaster organizations in Indonesia. The finding that intrinsic motivation has a dominant influence on performance supports the universality of SDT across cultures and organizational contexts.

Third, this study develops an integrative model that shows that training and motivation do not work independently, but have mutually reinforcing interaction effects. This model can be the basis for the development of a more comprehensive theory of the factors that affect performance in high-reliability organizations (HROs).

**4.10. Practical Implications**

The results of the study provide several practical implications that can be applied by the management of the Berau Regency BPBD:

1. Development of Comprehensive Training Programs: Given the significant influence of training on performance, BPBD needs to develop a comprehensive training program with a focus on improving technical competencies, leadership, and coordination. Training programs should use a blended learning approach that combines face-to-face learning, simulation, and e-learning.
2. Implementation of a Holistic Motivation System: The motivation system focuses not only on financial incentives, but also on the development of intrinsic motivation through job enrichment, the granting of autonomy, and the strengthening of work meaning. Recognition programs and reward systems need to be developed to appreciate employees' contributions in humanitarian missions.
3. Integration of Training and Motivation: The design of the training program needs to consider the motivational aspects by involving the active participation of participants, providing appropriate challenges, and connecting the training materials to the organization's mission.

**Table 8.**
**Program Recommendations Based on Research Results**

| Aspects | Recommended Programs | Improvement Targets | Timeline |
|---|---|---|---|
| Technical Training | SAR, GIS, Emergency Communication Certification | 25% | 6-12 months |
| Leadership Training | Leadership in Crisis, Decision Making | 20% | 3-6 months |
| Intrinsic Motivation | Job Rotation, Mentoring Program | 30% | Sustainable |
| Extrinsic Motivation | Performance-based Incentive | 15% | 6 months |
| Team Building | Outbound, Disaster Simulation | 20% | 3 months |

### 4.11. LIMITATIONS OF RESEARCH

This study has several limitations that need to be considered in the interpretation of the results:

1. Cross-sectional Design: This study uses a cross-sectional design that cannot definitively establish causal relationships. Longitudinal research is needed to understand the dynamics of relationships between variables over a longer period of time.
2. Generalizability: The research sample was limited to one BPBD post in Berau Regency, so generalization of results to other BPBDs needs to be done carefully. Different geographical, socio-economic, and disaster types can influence the pattern of relationships between variables.
3. Common Method Bias: The use of self-report questionnaires for all variables has the potential to cause common method bias. Although Harman's single-factor test has been performed which shows no significant bias (variance explained as a single factor = 34.2% < 50%), the use of multiple sources and objective measures can improve the validity of the results.
4. Variables Not Studied: The research model only explained 68.5% of employee performance variances. Other variables such as leadership, organizational culture, technology, and external environmental factors are likely to have a significant influence.

## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1. CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that training has a significant positive effect on the performance of employees at the Tanjung Batu BPBD Post. This indicates that investment in training programs is an effective strategy to improve the performance of disaster management organizations. Motivation also has a positive impact on employee performance, with intrinsic motivation showing a more dominant influence than extrinsic motivation. This emphasizes the importance of developing work meaning and emotional attachment to the organization’s mission.

Training and motivation together have a significant effect on employee performance, demonstrating that these two variables have synergistic effects that reinforce each other in enhancing performance. The research model indicates that an integrative approach between competency development through training and increased work motivation is the optimal strategy to improve the effectiveness of disaster management organizations.

### 6.2. Recommendations

#### 6.2.1. Recommendations for the Berau Regency BPBD

1. Development of Training Centers: Establish regional training centers that can meet the human resource development needs of BPBD across East Kalimantan, equipped with realistic disaster simulation facilities.
2. Implementation of Individual Development Plan (IDP): Develop an individual development plan for each employee based on competency gap analysis and a clear career path.
3. Competency-Based Performance Management System: Implement a performance appraisal system that integrates training outcomes, motivation levels, and the achievement of performance targets.
4. Employee Engagement Program: Launch programs to enhance employee engagement through two-way communication, feedback mechanisms, and participation in decision-making.

#### 6.2.2. Recommendations for Further Research

1. Longitudinal Research: Conduct long-term studies to understand the dynamics of changes in employee performance following the implementation of training and motivation programs.
2. Comparative Study: Compare the effectiveness of models between BPBDs with different geographic characteristics and disaster risk levels to improve the generalizability of findings.
3. Mediation-Moderation Analysis: Examine the role of mediator variables (such as self-efficacy, job satisfaction) and moderators (such as leadership, organizational culture) in the relationship between training, motivation, and performance.
4. Mixed-Methods Research: Combine quantitative and qualitative approaches to gain a deeper understanding of the psychological mechanisms underlying the relationships between variables.

#### 6.2.3. Policy Recommendations

1. Competency Standards Regulation: Encourage the central government to establish national competency standards for BPBD employees as the basis for developing training curricula.
2. Human Resource Development Budget: Allocate a minimum of 10% of the BPBD budget for human resource development, following best practices of international organizations.
3. Inter-Institutional Cooperation: Build cooperation with universities, research institutions, and international organizations for the development of training programs and ongoing research.
4. National Incentive System: Develop a national incentive system that rewards BPBD employees for their performance in humanitarian missions, including risk allowances and scholarship programs.

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