

## Development on Employee Performance with Motivation as a Moderating Variable

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### Article Info

#### Article history:

Received September 25, 2025

Revised September 28, 2025

Accepted November 2, 2025

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#### Keywords:

Job satisfaction,  
Human resource development,  
Motivation,  
Employee,  
Performance

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### ABSTRACT

This research aims to analyze the influence of job satisfaction and human resource development on employee performance with motivation as a moderating variable. The research method used was quantitative with a survey approach involving 125 employees PT. Laut Makmur Sentosa as a sample. Data analysis using Smart PLS (Partial Least Square) software. The research results show that job satisfaction has a significant effect on employee performance, human resource development has a significant effect on employee performance, motivation has a significant effect on employee performance. Furthermore, motivational moderation can strengthen the influence Job satisfaction and vice versa weaken motivation moderation the influence of job satisfaction on employee performance. The implications of this research provide valuable insight for companies in designing effective strategies to improve employee performance.

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### 1. INTRODUCTION

The era of globalization is characterized by increasingly intense competition across all sectors, requiring organizations to continuously improve the quality of their human resources in order to maintain competitiveness and sustainability. Organizations must ensure that employees possess specialized skills and competencies that can support the achievement of organizational goals and enhance competitive advantage [1]. Human resource management plays a strategic role in optimizing employee potential through various managerial and developmental efforts aimed at improving performance and organizational effectiveness [2]. Employee performance refers to the level of work achievement demonstrated by employees in terms of quality and quantity in accordance with predetermined standards. Optimal performance not only reflects individual achievement but also contributes significantly to the realization of organizational objectives. Therefore, improving employee performance is a central concern for organizations seeking to remain competitive in a rapidly changing environment.

Employee performance is influenced by various organizational and psychological factors, including job satisfaction, human resource development, and motivation. One of the key functions of human resource management is integration, which includes maintaining employee motivation and

job satisfaction to ensure alignment between individual and organizational goals [3]. Job satisfaction represents employees' perceptions and emotional responses to their work, including how far their expectations are met through work experiences. Organizations must recognize that their long-term sustainability depends heavily on the quality and competitiveness of their human resources. Consequently, organizations need to implement structured and continuous development programs, including career development and training initiatives, as part of integrated human resource management practices.

Job satisfaction is widely acknowledged as an important determinant of employee performance and productivity. Previous studies have shown that employees who experience higher levels of job satisfaction tend to demonstrate improved performance, creativity, and commitment to their organization [4]. However, some studies indicate that the relationship between job satisfaction and performance is not always consistent, as it depends on organizational conditions and how well work environments align with employee needs [5]. This suggests that while job satisfaction is important, its impact on performance may be influenced by other supporting factors.

Human resource development also plays a crucial role in improving employee performance. Development programs such as training, formal education, and competency enhancement can strengthen employee capabilities and enable them to perform tasks more effectively [6]. Well-designed development initiatives can increase both competence and motivation, thereby improving performance outcomes. On the other hand, development programs that are not aligned with employee needs or organizational goals may reduce motivation and lead to dissatisfaction and stress [7]. Therefore, organizations must carefully design and implement development programs that are relevant and sustainable.

Motivation is another key factor that significantly influences employee performance. Motivation can be understood as the internal and external drive that encourages employees to act, persist, and perform tasks effectively. Employees with high levels of motivation are more likely to work with enthusiasm and dedication, leading to improved productivity and performance outcomes [8]. However, some studies have found that while motivation can enhance job satisfaction, its direct effect on performance may vary depending on contextual and organizational factors [9]. These inconsistencies highlight the need for further investigation into how motivation interacts with other variables to influence employee performance.

Based on these considerations, this study examines the influence of job satisfaction and human resource development on employee performance, as well as the role of motivation as both a direct predictor and a moderating variable. Human resources are considered strategic assets that include knowledge, skills, and abilities required to achieve organizational goals effectively [10]. Employee performance is closely linked to human resource empowerment and productivity, making it essential for organizations to develop effective strategies for enhancing performance [11]. Several factors can improve performance, including competitive compensation, safe and supportive working conditions, positive relationships with colleagues, career development opportunities, and effective leadership [12].

Job satisfaction reflects employees' attitudes toward their work, encompassing their thoughts, feelings, and behavioral tendencies [13]. Employees who are satisfied with their jobs tend to demonstrate higher levels of commitment, responsibility, and performance. Previous research indicates that job satisfaction positively influences employee performance and organizational outcomes [14], [15]. Human resource development, which includes training, education, and work experience, prepares employees for future roles and enhances their competence and performance [16], [17]. Motivation, defined as the internal and external drive that directs behavior toward

achieving goals, also plays a central role in improving employee performance [18], [19]. Expectancy theory suggests that employees are more likely to perform well when they believe that their efforts will lead to desirable outcomes and rewards [20].

Furthermore, motivation can function as a moderating variable that strengthens or weakens the relationship between organizational factors and performance. Intrinsic motivation, such as recognition and achievement, can strengthen the positive effect of job satisfaction on employee performance [21], [22]. Employees who are both satisfied and motivated tend to demonstrate higher performance compared to those who are satisfied but lack motivation. Motivation can also influence the effectiveness of human resource development programs, as motivated employees are more likely to engage in training and apply newly acquired skills in their work [23], [24]. However, the interaction between motivation and development programs may vary depending on employee characteristics and organizational context.

Given the mixed findings in previous studies, this research aims to provide a more comprehensive understanding of how job satisfaction, human resource development, and motivation interact to influence employee performance. By examining these relationships simultaneously, this study seeks to contribute to the existing literature and provide practical insights for organizations in developing effective human resource strategies that enhance employee performance and organizational effectiveness. According to Sutrisno et al. (2022), job satisfaction as a person's thoughts, feelings, and action tendencies, which is a person's attitude towards their work [13]. Employee expectations and the experiences they receive from their work are also represented by job satisfaction. Dissatisfaction continues to be large and there continues to be a large gap between expectations and experience, in this case, expectations are not met [14]. Five indicators that support job satisfaction are competitive salaries, good working conditions, harmonious relationships with colleagues, career development opportunities, and effective leadership [15].

According to Gustiana et al. (2022) development refers to training, formal education, work experience, relationships, and assessments of personality, skills, and abilities that help employees prepare themselves to face future jobs or positions. Furthermore, according to Apriliana & Nawangsari (2021) human resources are an ability that exists in every human being which is determined by their thinking and physical abilities [17]. According to Ramadhani & Tahier (2024) there are five key indicators that support human resource development, namely structured training, relevant formal education, diverse work experience, fostering strong interpersonal relationships, as well as assessing individual personality, skills and abilities.

According to Adinda et al. (2023) motivation is defined as a drive or encouragement within humans that can give rise to, direct and organize behavior, so it can be concluded that motivation is a condition that encourages or is the cause of someone doing something or an activity that takes place consciously which aims to improve work performance [19]. According to Muna & Isnawati, (2022) motivation is a series of encouragement formulated deliberately by company leaders directed at employees so that they are willing to sincerely carry out certain behaviors that have an impact on improving performance in the series of achieving previously determined company goals [20]. According to Apriani et al., (2024) five indicators that support motivation are: Recognition of work achievements, Opportunities for learning and self-development, Supportive work environment, Balance between work and personal life, Supportive and inspirational leadership [21].

According to Muktamar et al. (2024) emphasizes that job satisfaction influences work behavior [57]. They found that employees who were satisfied with their working conditions tended to be more productive, more creative, and more likely to stay with their organization, thereby reducing turnover. Furthermore, according to Badrianto & Astuti (2023), job satisfaction is an important factor that influences employee performance [23]. Then according to Nurhasanah et al.

(2022) explains that job satisfaction is positively related to employee performance [24]. According to him, employees who are satisfied with their work will be more committed to their duties and will try harder to achieve organizational goals. From several previous research statements, the first hypothesis (H1) can be established: Job satisfaction influences employee performance

Job satisfaction plays an important role in determining employee performance in an organization. According to Sangrila & Mahargiono (2024), employees who are satisfied with their work tend to show better performance, have high motivation, and experience less work stress [25]. Apart from that, according to Kuruway (2021), job satisfaction is positively related to employee performance, employees who feel satisfied with their work will be more committed to their tasks and will try harder to achieve organizational goals [26]. Chaerunissa & Pancasasti (2021) further emphasized that job satisfaction influences work behavior, where employees who are satisfied with their working conditions tend to be more productive, more creative, and more likely to stay in their organization, thereby reducing turnover [27]. From several previous research statements, the second hypothesis (H2) can be established: Human resource development influences employee performance.

Motivation is a key factor that influences employee performance in an organization. According to Mardiana & Saleh (2021) high work motivation will encourage employees to work harder and more efficiently, which ultimately increases their productivity. Apart from that, Syahputra et al. (2020) in their expectancy theory states that employee performance is determined by how much they believe that their efforts will result in good performance, and how much they believe that good performance will be rewarded. Furthermore, according to Arsyad et al. (2024) in their research on goal setting found that clear and challenging goals can increase employee motivation and performance, because they provide direction and standards that can be achieved [30]. From several previous research statements, the third hypothesis (H3) can be established: Motivation influences employee performance.

According to Wibowo & Wajdi (2024) intrinsic motivation such as achievement and recognition can increase the positive effect of job satisfaction on employee performance [31]. This shows that motivation that comes from within employees can strengthen the relationship between job satisfaction and performance. Then according to Prabowo et al. (2024) stated that motivation can strengthen the relationship between job satisfaction and performance; Employees who are satisfied and motivated tend to show higher performance than those who are only satisfied without sufficient motivation [32]. Furthermore, according to Nanda & Jatmiko (2024) also emphasized that motivation functions as a driving force that strengthens the positive effect of job satisfaction on employee performance, employees who feel satisfied and have high motivation will be more enthusiastic in carrying out their duties and strive to achieve better results. better. From several previous research statements, the fourth hypothesis (H4) can be established: Motivational moderation of the influence of job satisfaction on employee performance.

According to Jumani & Rianto, (2023) states that motivation can increase the effectiveness of HR development programs [34]. Motivated employees will be more enthusiastic in participating in training and applying the new skills they learn, which ultimately improves their performance. According to Suharto (2023) also emphasizes that motivation functions as the main driver that can maximize the impact of human resource development on employee performance, training programs that are accompanied by motivational encouragement tend to be more successful in increasing employee competence and productivity [35]. Furthermore, according to Saputro, (2021) high motivation has been proven to influence HR development to be more effective in producing high-performing employees [36]. Employees who are motivated to develop and contribute optimally will maximize the positive impact of the HR development program. From several previous research

statements, the fifth hypothesis (H5) can be established: Motivational moderation of the influence of human resources on employee performance.

By examining these relationships simultaneously, this study seeks to contribute to the existing literature and provide practical insights for organizations in developing effective human resource strategies that enhance employee performance and organizational effectiveness. Job satisfaction can be understood as a set of thoughts, feelings, and behavioral tendencies that reflect an individual's attitude toward their work and the extent to which their expectations are fulfilled through work experiences [25]. When there is a large gap between expectations and actual experiences, dissatisfaction may arise, which can negatively affect performance and commitment [26]. Job satisfaction is commonly supported by several indicators, including competitive compensation, conducive working conditions, harmonious relationships with colleagues, opportunities for career advancement, and effective leadership [27]. These elements shape employees' perceptions of their work environment and influence their willingness to perform at optimal levels.

Human resource development refers to a series of efforts such as training, formal education, work experience, interpersonal relationships, and the assessment of personality, skills, and abilities that prepare employees to face future job responsibilities and organizational challenges [28]. Human resources themselves represent the capabilities inherent in individuals, including intellectual and physical abilities that can be developed to support organizational goals [29]. Effective human resource development is typically characterized by structured training programs, relevant educational opportunities, diverse work experiences, strong interpersonal interactions, and continuous evaluation of employee competencies [30]. Through these efforts, organizations can enhance employee competence, adaptability, and performance.

Motivation is defined as the internal and external drive that encourages individuals to act, directs their behavior, and sustains effort toward achieving specific goals [31]. It represents a conscious condition that stimulates individuals to perform activities aimed at improving work outcomes. Organizational leaders often design motivational strategies to encourage employees to carry out their tasks sincerely and effectively, thereby supporting the achievement of organizational objectives [32]. Several indicators of motivation include recognition of achievements, opportunities for learning and self-development, supportive working environments, work-life balance, and inspirational leadership [33]. These factors help foster a work atmosphere that encourages employees to perform optimally.

Previous studies have emphasized the importance of job satisfaction in influencing employee behavior and performance. Employees who are satisfied with their working conditions tend to be more productive, creative, and committed to their organizations, thereby reducing turnover rates [34]. Job satisfaction has also been identified as a significant factor influencing employee performance, as satisfied employees are more likely to demonstrate commitment to their tasks and strive to achieve organizational goals [35], [36]. Based on these findings, the first hypothesis can be formulated as follows: job satisfaction has a significant effect on employee performance

Human resource development also plays an important role in determining employee performance. Employees who receive adequate training and development opportunities tend to demonstrate higher levels of competence, motivation, and performance [37]. Furthermore, job satisfaction and human resource development are closely related to employee performance, as employees who feel supported in their development are more likely to be committed to their work and achieve better outcomes [38], [39]. Based on these theoretical and empirical findings, the second hypothesis is proposed: human resource development has a significant effect on employee performance.

Motivation is another critical factor influencing employee performance. High levels of work motivation encourage employees to work more efficiently and productively, ultimately improving performance outcomes [40]. Expectancy theory suggests that employee performance is influenced by their belief that effort will lead to good performance and that good performance will result in rewards [41]. Goal-setting theory also emphasizes that clear and challenging goals can increase motivation and performance by providing direction and measurable standards [42]. Therefore, the third hypothesis can be formulated as follows: motivation has a significant effect on employee performance.

Motivation can also function as a moderating variable that strengthens the relationship between job satisfaction and employee performance. Intrinsic motivation, such as recognition and achievement, can enhance the positive effect of job satisfaction on performance, as employees who are both satisfied and motivated tend to demonstrate higher performance levels [43]. Employees who experience satisfaction and high motivation are more enthusiastic in carrying out their responsibilities and strive to achieve better results [44], [45]. Based on these findings, the fourth hypothesis is proposed: motivation moderates the relationship between job satisfaction and employee performance.

In addition, motivation may influence the effectiveness of human resource development programs. Motivated employees are more likely to actively participate in training and apply newly acquired skills in their work, thereby improving performance [46]. Motivation can serve as a driving force that maximizes the impact of development programs on employee competence and productivity [47]. Employees who are motivated to grow and contribute to organizational success tend to benefit more from development initiatives [48]. Therefore, the fifth hypothesis can be formulated as follows: motivation moderates the relationship between human resource development and employee performance.

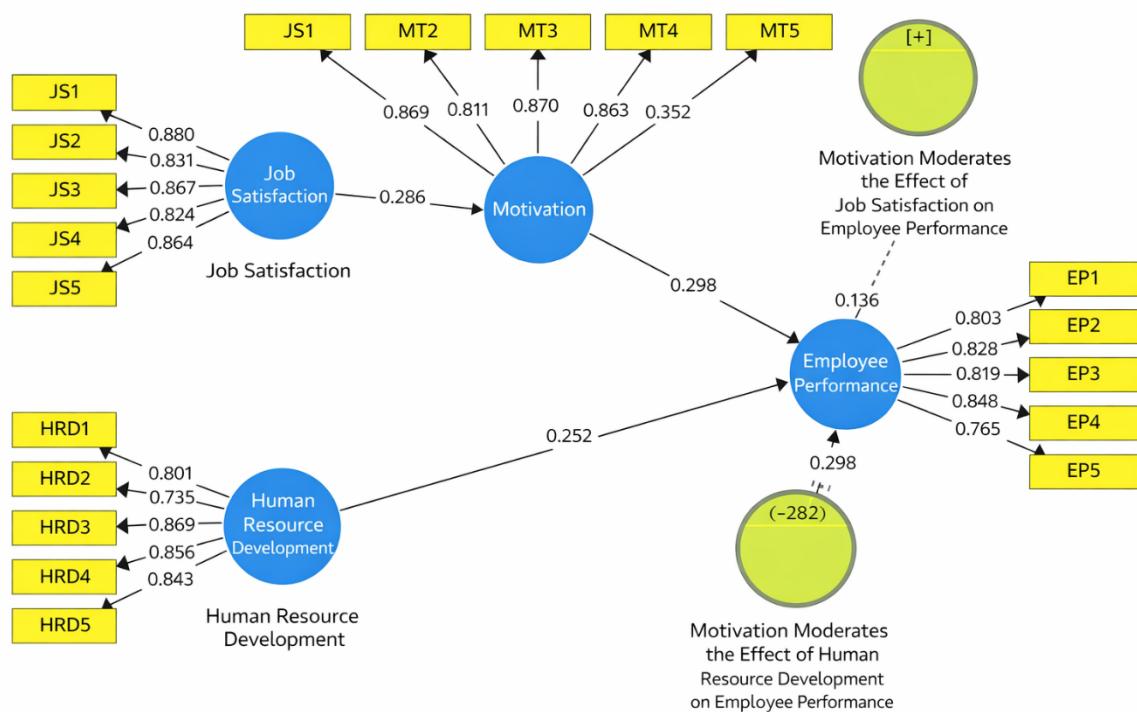
## 2. METHOD

The population of this study consisted of employees of PT Lautan Makmur Sentosa, a company operating in the fish auction sector. The sample was selected to represent the population and to obtain responses related to the research variables. This study employed a quantitative research design using a survey approach involving 125 employees of PT Lautan Makmur Sentosa. The sample selection was conducted using a convenience sampling technique to facilitate access and communication with respondents [49]. The analytical method applied in this study was regression analysis with a moderation test, commonly referred to as path analysis using the Partial Least Squares (PLS) approach [50]. Data were processed using SmartPLS software to analyze the measurement and structural models [51].

This study included four variables. Employee performance was treated as the dependent variable (Y), job satisfaction and human resource development were treated as independent variables (X1 and X2), and motivation was treated as the moderating variable (Z). The data analysis stages included respondent demographic analysis, descriptive statistical analysis, validity testing, reliability testing, hypothesis testing, and analysis of the coefficient of determination [52]. Respondent demographic analysis covered characteristics such as gender and age. Descriptive statistics provided information on the mean, minimum, and maximum values of the variables. The validity test was conducted to ensure that the questionnaire items accurately measured the intended constructs, while the reliability test assessed the consistency of respondents' answers. Hypothesis testing was performed to examine the proposed relationships among variables, and the coefficient of determination ( $R^2$ ) was used to measure the extent to which the independent variables explained variations in the dependent variable [53].

## 2.1 Validity and Reliability Testing

Before testing the hypothesis, the first step taken is to test the validity and reliability using several methods such as loading factor, AVE, Composite Reliability, and Cronbach's Alpha. Based on the results of the analysis, each variable meets the validity criteria with an outer factor loading value exceeding 0.50 for all statement items. Apart from that, the AVE value for each variable is also adequate, with values above 0.50, indicating good validity. Therefore, it can be concluded that the data used in this research is valid to proceed to the hypothesis testing stage. The loading factor results are as follows:



**Figure 1. Loading Factor Results**

Source : The author processed the data using SmartPLS (2024)

From the Outer Loading results above, it shows that the loading factor value is  $> 0.5$ , so it can be concluded that the data is valid. Apart from the outer loading results, data validity can also be determined based on the validity and reliability test table below :

**Table 1. Validity & Reliability Test**

Construct	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)	Decision
Job Satisfaction	0.907	0.909	0.931	0.728	Valid & Reliable
Human Resource Development	0.879	0.884	0.912	0.676	Valid & Reliable
Employee Performance	0.874	0.878	0.908	0.665	Valid & Reliable
Motivation	0.817	0.870	0.878	0.607	Valid & Reliable

Construct	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)	Decision
Motivation × Job Satisfaction → Employee Performance	1.000	1.000	1.000	1.000	Valid & Reliable
Motivation × HR Development → Employee Performance	1.000	1.000	1.000	1.000	Valid & Reliable

Source: Author processed data using Smart-PLS (2024)

Based on the results of the reliability test, it is known that the Cronbach's alpha value and composite reliability show a figure of more than 0.7. This indicates that the reliability test can be trusted and meets the specified criteria.

### 3. RESULTS AND DISCUSSION

#### 3.1 Structural Model

The structural model was evaluated to examine the relationships between job satisfaction, human resource development, motivation, and employee performance, as well as the moderating role of motivation. The assessment focused on the coefficient of determination ( $R^2$ ) to determine the model's explanatory power in predicting employee performance. The results indicate that the model demonstrates strong predictive capability, suggesting that the proposed variables collectively provide substantial contributions to explaining variations in employee performance. This evaluation provides an initial overview of how well the structural model fits the data before proceeding to hypothesis testing and effect size analysis.

**Table 2 Coefficient of Determination ( $R^2$ )**

Endogenous Construct	$R^2$	Adjusted $R^2$
Employee Performance	0.819	0.811

Source: Author processed data using Smart-PLS (2024)

The  $R^2$  value for Employee Performance is 0.819, indicating that job satisfaction, human resource development, motivation, and the interaction effects explain 81.9% of the variance in employee performance. The adjusted  $R^2$  of 0.811 confirms that the model maintains strong explanatory power even after accounting for the number of predictors. According to Hair et al. (2022) guidelines for PLS-SEM:

- 0.75 = substantial
- 0.50 = moderate
- 0.25 = weak

Thus, the model demonstrates substantial explanatory power.

#### 3.2 Hypothesis Testing

Analysis of the five hypotheses in this research, referring to the applied data analysis, shows that the values can be used to answer the proposed hypothesis. This hypothesis testing is carried out by examining the T-statistics and P-values. The hypothesis is considered accepted if the T-statistics value is  $> 1.96$  and the P-value is  $< 0.05$ . The following are the results of hypothesis testing obtained in this research.

**Table 3. Hypothesis Testing Results (PLS-SEM)**

Hypothesis	Original Sample (O)	Sample Mean (M)	Std. Dev.	T-Statistic	p-Value	Decision
Job Satisfaction → Employee Performance	0.226	0.233	0.091	2.480	0.013	Accepted
Human Resource Development → Employee Performance	0.252	0.246	0.123	2.043	0.042	Accepted
Motivation → Employee Performance	0.298	0.309	0.071	4.183	0.000	Accepted
Motivation × Job Satisfaction → Employee Performance	0.194	0.182	0.083	2.341	0.020	Accepted
Motivation × HR Development → Employee Performance	-0.282	-0.266	0.087	3.225	0.001	Accepted

Source: Author processed data using SmartPLS (2024)

The hypothesis testing results indicate that all proposed relationships in the model are statistically significant. Job satisfaction has a positive and significant effect on employee performance ( $\beta = 0.226$ ,  $p = 0.013$ ), indicating that employees who experience higher levels of satisfaction with their work tend to demonstrate better performance outcomes. Human resource development also shows a significant positive effect on employee performance ( $\beta = 0.252$ ,  $p = 0.042$ ), suggesting that training, learning opportunities, and competency development programs contribute to improved employee performance. Motivation is found to have the strongest direct effect on employee performance ( $\beta = 0.298$ ,  $p < 0.001$ ), confirming that motivated employees are more likely to perform effectively and achieve organizational targets.

Furthermore, the moderating analysis reveals that motivation significantly strengthens the relationship between job satisfaction and employee performance ( $\beta = 0.194$ ,  $p = 0.020$ ). This means that the positive impact of job satisfaction on performance becomes stronger when employees are highly motivated. However, motivation negatively moderates the relationship between human resource development and employee performance ( $\beta = -0.282$ ,  $p = 0.001$ ), indicating that when employee motivation is already high, the additional contribution of human resource development to performance tends to decrease. Overall, these findings demonstrate that job satisfaction, human resource development, and motivation play important roles in influencing employee performance, both directly and through interaction effects.

The results of this study provide important theoretical support for the relationships among job satisfaction, human resource development, motivation, and employee performance. The positive and significant effect of job satisfaction on employee performance supports social exchange theory, which explains that employees who experience satisfaction in their work environment tend to reciprocate with higher levels of performance and commitment [54], [55]. Employees who feel valued, fairly treated, and supported by the organization are more likely to demonstrate improved productivity and work quality. This finding is also consistent with Herzberg's motivation-hygiene theory, which states that satisfaction derived from intrinsic and extrinsic job factors can enhance employee performance [56]. Empirical studies have similarly shown that job satisfaction plays a crucial role in shaping employee performance and organizational outcomes [57], [58].

The significant positive influence of human resource development on employee performance supports human capital theory, which posits that employee knowledge, skills, and competencies are strategic assets that contribute to organizational performance [59]. Training, development, and learning opportunities enhance employees' abilities and enable them to perform tasks more effectively. This finding aligns with prior studies indicating that effective human resource

development programs improve employee competence and performance [60], [61]. Therefore, investment in employee development remains a key strategy for organizations aiming to sustain performance and competitiveness.

Motivation was found to have the strongest direct effect on employee performance, which is consistent with self-determination theory and expectancy theory. Self-determination theory explains that individuals who are intrinsically and extrinsically motivated tend to exhibit greater persistence, effort, and performance in their work [62]. Expectancy theory further suggests that employees will perform better when they believe their efforts will lead to desirable outcomes [63]. The findings confirm that motivated employees are more likely to achieve higher performance levels, supporting previous research highlighting the central role of motivation in improving employee outcomes [64], [58].

The moderation analysis reveals that motivation strengthens the relationship between job satisfaction and employee performance. This result supports the interactionist perspective in organizational behavior, which emphasizes that the effect of one variable on performance may depend on the presence of another variable [65]. When employees are both satisfied and highly motivated, they are more likely to translate positive attitudes into improved performance. However, motivation was found to weaken the relationship between human resource development and employee performance. This negative moderating effect may indicate that employees with already high levels of motivation rely less on formal development programs to achieve high performance. From a theoretical standpoint, this finding suggests that the effectiveness of human resource development initiatives may vary depending on employees' motivational levels. Although this result differs from some prior studies [66], it highlights the complex interplay between psychological and organizational factors in shaping performance outcomes.

Overall, these findings confirm that job satisfaction, human resource development, and motivation are key determinants of employee performance, both directly and through moderating mechanisms. By integrating perspectives from social exchange theory, human capital theory, and motivation theories, this study contributes to a more comprehensive understanding of how organizational and psychological factors interact to influence employee performance in contemporary workplaces [59], [62], [58].

## CONCLUSION

The results of this study demonstrate that job satisfaction and human resource development play crucial and statistically significant roles in improving employee performance. Employees who feel satisfied with their work environment, compensation, recognition, and organizational support tend to exhibit higher levels of productivity, responsibility, and work quality. Similarly, human resource development initiatives such as training, career development, and skill enhancement programs contribute positively to employee performance by improving competence and job-related capabilities. These findings reinforce the view that organizations must simultaneously focus on both psychological and developmental aspects of employees to achieve optimal performance outcomes.

In addition, motivation was found to have a strong and significant positive effect on employee performance, making it one of the most influential variables in the model. Motivated employees are more likely to exert greater effort, show persistence in completing tasks, and achieve higher levels of performance. Motivation also plays a dual role in this study. Besides its direct influence on performance, motivation significantly strengthens the relationship between job satisfaction and employee performance. This suggests that when employees are satisfied with their jobs and also possess high motivation, the positive effects of job satisfaction on performance become

even more pronounced. In other words, satisfaction alone may not be sufficient to maximize performance unless it is accompanied by strong motivation.

However, the moderating effect of motivation on the relationship between human resource development and employee performance was found to be negative and significant. This indicates that when employee motivation is already high, the additional contribution of human resource development to performance becomes less substantial. One possible explanation is that highly motivated employees may already have strong internal drives and competencies, making them less dependent on formal development programs to achieve high performance. Conversely, development programs may have a stronger impact on employees with lower initial motivation levels. This finding highlights the complexity of the interaction between psychological factors and organizational interventions, suggesting that the effectiveness of human resource development programs may vary depending on employees' motivational conditions.

Despite the valuable insights provided by this study, several limitations should be acknowledged. First, the sample size used in this research is relatively limited and may not fully represent the broader population of employees in different organizational contexts. This limitation may affect the generalizability of the findings to other sectors, industries, or cultural settings. Second, the study focuses on a limited number of variables, namely job satisfaction, human resource development, motivation, and employee performance. Other potentially important factors such as leadership style, organizational culture, work environment, compensation systems, and employee engagement—were not included in the model. These variables may also play significant roles in shaping employee performance and could interact with the variables examined in this study.

Therefore, future research is recommended to involve larger and more diverse samples to enhance the generalizability and robustness of the findings. Researchers are also encouraged to incorporate additional variables and consider different organizational contexts, such as public versus private sectors or different industry types. Longitudinal studies could further provide deeper insights into how job satisfaction, motivation, and development programs influence performance over time. By expanding the research scope and refining the model, future studies can offer a more comprehensive understanding of the factors that drive employee performance and provide stronger empirical support for organizational decision-making and human resource management strategies.

## ACKNOWLEDGEMENTS

The authors also acknowledge the support and guidance provided by colleagues and academic mentors who offered constructive feedback and insights throughout the research process. Appreciation is further conveyed to the affiliated institution for providing academic resources, facilities, and an environment conducive to research and scholarly writing. Finally, the authors would like to thank all parties who have provided encouragement and assistance, both directly and indirectly, in the completion of this research. Any remaining errors or limitations in this study are solely the responsibility of the authors.

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