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## The Influence of Forced Distribution Rating System (FDRS) on Job Performance : The Mediation Role of Effort , Stress , Procedural Justice, and Distributive Justice Empirical Study on Employees at Bank Indonesia Head Office

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**Abstract:** Job performance considered important for organizational effectiveness and can be optimized through well-designed and implemented performance appraisals to motivate employees. One of the measurement models is Forced Distribution Rating System (FDRS). The main objective of this study was to assess the effect of FDRS on job performance mediated by effort , stress , procedural justice , and distributive justice. The research data were obtained from 380 respondents through online and offline questionnaires that had undergone initial cleansing and filtering, analyzed using Covariance-Based Structural Equation Modeling (CBSEM) with the Confirmatory Factor Analysis (CFA) method using the LISREL 8.8 application . The test results showed that the Forced Distribution Rating System (FDRS) had a significant positive effect on effort (H1), procedural justice (H3), and distributive justice (H4). Effort was shown to have a significant effect on job performance (H5), while procedural justice (H7) and distributive justice (H8) also had a strong positive relationship with job performance . Effort significantly mediated the relationship between FDRS and job performance (H9), while procedural justice (H11) and distributive justice (H12) were also important mediators. In contrast, FDRS has no significant effect on stress (H2), and stress does not mediate the relationship between FDRS and job performance (H10). These findings underscore the importance of a justice-based approach in implementing an evaluation system such as FDRS to support optimal employee performance.

**Keyword:** Forced Distribution Rating System, Job Performance , Effort , Stress , Procedural Justice , Distributive Justice.

## INTRODUCTION

Job performance is an important measure used to assess an individual's contribution to the success of an organization. In other words, job performance reflects not only how individuals achieve their work targets, but also how they provide support to organizational functions, such as planning, coordination, and supervision (Motowidlo et al., 2018). Therefore,

job performance has a strategic role in determining the overall effectiveness of the organization (Kahya, 2019).

Job performance has long been recognized by researchers as the most important aspect of work behavior and is sometimes considered synonymous with overall job performance (Kahya, 2019). Organizations periodically conduct job performance evaluations to make administrative decisions, such as salary increases, terminations, or promotions in a fair and legally defensible manner and to improve employee job performance through developmental feedback (Gerhart & Parks, 2019). Organizational performance ultimately depends on the contribution of each individual who carries out their duties effectively. Therefore, measuring individual performance becomes an important need to ensure that organizational goals can be achieved optimally (Gerhart & Parks, 2019).

Accurate and fair measurement of individual performance is essential to support organizational performance. Various methods are used in performance evaluation, one of which is the Forced Distribution Rating System (FDRS). The FDRS divides employees into performance categories based on a specific distribution, similar to a normal curve, and is designed to evaluate employees relative to their peers, in order to encourage healthy competition and increase productivity (Moon et al., 2019).

Teams are central to getting work done in modern businesses (Kozlowski, 2021). In teams, individual contributions are often combined non-additively due to interdependence in collaboration (Loberg et al., 2021). Because contributions are difficult to measure, they are often subjectively assessed by supervisors (Angelovski et al., 2020), which risks bias, such as over-evaluation or centrality bias (Machegiani et al., 2019). Therefore, companies are advised to use the Forced Distribution Rating System (FDRS).

FDRS is a performance appraisal system that requires supervisors to rate employees based on a specific distribution, compare their performance with that of other employees, and categorize employees based on the ratings (Moon et al., 2019; Loberg et al., 2021). Although effective in motivating employees and increasing productivity, its implementation can be difficult because middle managers often lack information about the employees being assessed and must identify the worst performers (Schleicher et al., 2009). Despite its controversy, FDRS is still used by many large organizations (Kantor & Streitfeld, 2015). Proper performance appraisal and appropriate feedback, whether financial or non-financial, can improve employee motivation, job satisfaction, and productivity, with FDRS shown to increase productivity and help attract and retain high-performing employees (Badriyah, 2015; Berger et al., 2013; Moon et al., 2015).

FDRS is an individual performance appraisal method that aims to improve accuracy, motivate employees, and ensure fair distribution of rewards or penalties. However, its implementation often faces challenges, such as relative assessments that do not always reflect real performance differences. The implementation of FDRS at Bank Indonesia revealed challenges and different perceptions among employees, including gaps in assessment due to forced distribution. Low-performing employees in high groups often outperform high performers in average groups, creating dissatisfaction especially for those who feel their extraordinary contributions are not being fairly rewarded. This inequality is also exacerbated by differences in work culture between departments and interpretations of systems at various levels of the organization. Factors such as effort, stress, procedural justice, and distributive justice influence the relationship between FDRS and job performance.

FDRS is designed to encourage employee effort to achieve higher performance categories, making effort an indicator of the system's success in increasing productivity (Deci & Ryan, 2017; Locke & Latham, 2019). However, this success is highly dependent on the perception of system fairness and organizational support. On the other hand, FDRS can also trigger stress due to excessive pressure to compete, which has the potential to cause burnout if not managed properly, thus reducing employee productivity (Maslach & Leiter, 2016).

Perceptions of justice, particularly procedural justice and distributive justice, play an important role in employee responses to FDRS. Procedural justice refers to the fairness of the evaluation process that is carried out transparently, consistently, and without bias, while distributive justice focuses on the fairness of the results, namely whether the rewards received reflect the employee's efforts and contributions (Colquitt et al., 2019; Judge et al., 2018). When these two aspects of justice are met, employees tend to be more motivated to contribute optimally, increasing the effectiveness of FDRS in driving job performance.

FDRS is claimed to improve the accuracy of performance appraisals by preventing biases such as overly lenient or undifferentiated appraisals (Guralnik et al., 2004; Stewart et al., 2010). This accuracy is expected to increase employees' perceptions of fairness, motivate them, and support organizational performance (Scullen et al., 2005; Croson et al., 2015; Adsit et al., 2018). In addition, FDS effectively supports performance-based reward systems and can increase employee satisfaction, thereby reducing turnover intentions (McKinney et al., 2013; Phuong, 2018). This system also appeals to individuals with high cognitive abilities who seek recognition for their performance, increasing the company's chances of recruiting quality talent (Blume et al., 2009, 2013). However, FDS has also been criticized as the most unfair performance evaluation system compared to other methods (Roch et al., 2007).

FDRS has faced different responses based on cultural context. In India, the system was rejected due to high perceptions of unfairness, especially by older respondents, despite its recognition of performance improvement. Some IT companies even discontinued its use due to employee dissatisfaction (Malhotra & Mukherjee, 2013; Agrawal, 2022). In contrast, in Vietnam, the FDS was well received and perceived as fair, reducing employee turnover intentions (Phuong, 2018). Another study showed that individuals with low social comparison orientation were more satisfied with absolute ratings (Luffarelli et al., 2016).

In US public sector organizations, the three-rank FDS format is more acceptable than the five-rank format because of the insignificant performance gaps between employees (McKinney et al., 2013). However, the implementation of the FDRS often poses challenges, such as perceptions of unfairness and employee dissatisfaction (Chattopadhyay & Ghosh, 2012). In the context of Bank Indonesia, the gap in work culture between units adds to the complexity of implementing FDRS, creating a perception of unfairness in reward distribution. Research recommends examining the acceptability of FDS across cultural contexts to understand preferences for these systems (Blume et al., 2009; Cardinaels & Feichter, 2021).

Most previous studies have focused more on the private sector (Moon et al., 2015), while studies in the public sector, such as in Indonesia, are still limited (Phuong, 2018). Existing literature generally highlights the direct effects of FDRS on performance, without taking into account contextual factors such as organizational support, work culture, and perceptions of fairness (Colquitt et al., 2019). Therefore, in-depth research is needed to explore the influence of these mediating factors on the effectiveness of FDRS in the public sector.

Studies at Bank Indonesia have strategic significance because this institution plays an important role in the national economy. This research can provide insights into the adaptation of FDRS in the complex public sector, as well as practical and theoretical contributions to the development of performance management systems in similar institutions. The implementation of FDRS in Bank Indonesia not only affects individual performance, but is also influenced by complex mediating factors, so it is important to support evidence-based policies in human resource management in the public sector.

## METHOD

The type of research that will be used is associative research, which aims to determine the relationship between two or more variables, using quantitative analysis methods. Associative research has a higher level compared to descriptive and comparative research.

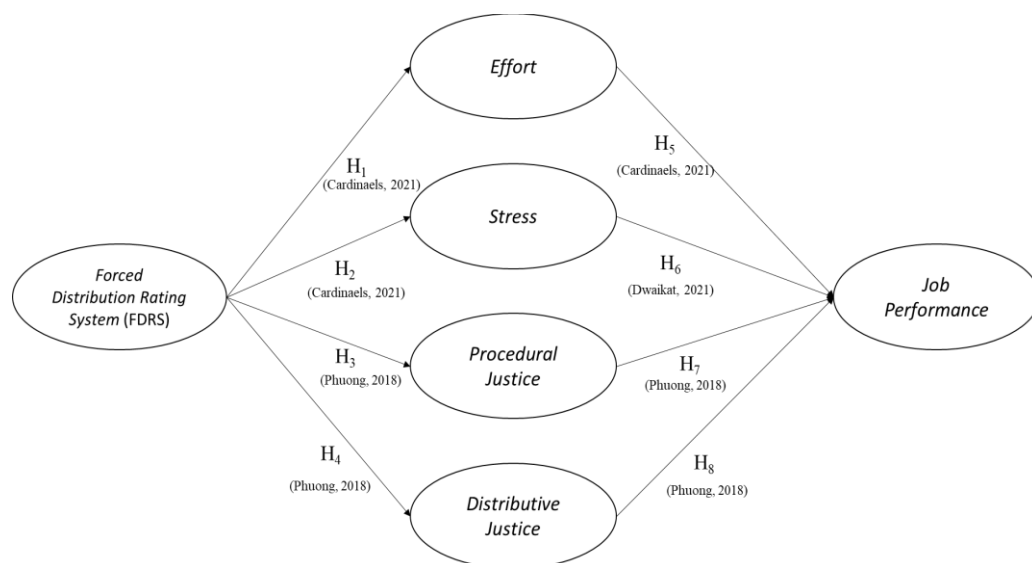
The population used in this study was all employees of Bank Indonesia Pusat in Jakarta, totaling 2,726 employees.

In this study, the sampling technique used probability sampling with stratified non-random sampling technique, namely a sampling technique that divides the population into several strata or small groups based on certain characteristics that are relevant to the research because by dividing the population into strata based on certain characteristics (for example, position, division, or work experience), this technique ensures that each group in the population is represented in the sample proportionally.

The data collection technique in this study is the observation technique, namely conducting direct research using a questionnaire. Apart from that, it also uses Library Research. is a method of data collection used to obtain secondary data sourced from books, journals, scientific papers, documents and the internet.

Data analysis was conducted after collecting the questionnaires (Sekaran & Bougie, 2016). Data were summarized into a Microsoft Excel file, observed to ensure completeness and validity, and discarded if data was found to be unsuitable or invalid. Of the 500 questionnaires collected, only 380 samples were used after the cleansing and filtering process. Data were processed using Covariance-Based Structural Equation Modeling (CBSEM) with the Confirmatory Factor Analysis (CFA) method using LISREL 8.8. CBSEM allows the identification of independent variables that influence dependent variables based on previous theory or research (Hair et al., 2019).

The following is the framework for this research :



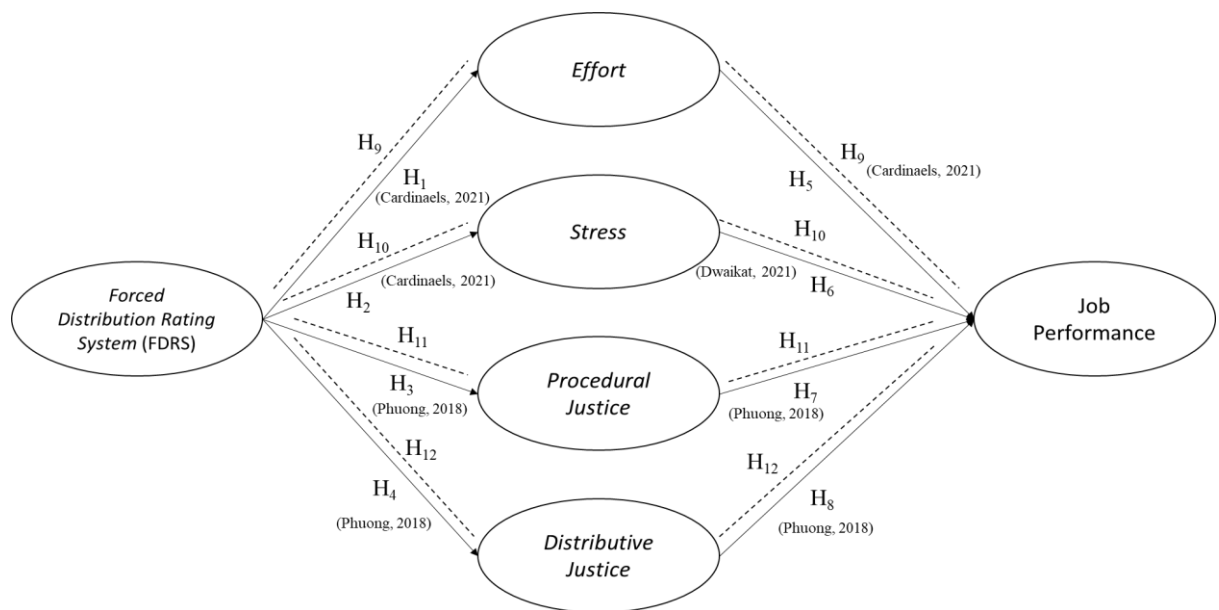
**Figure 1 Research Framework**

## RESULTS AND DISCUSSION

This study aims to determine and analyze the effect of Forced Distribution Rating System (FDRS) on effort, stress, procedural justice, and distributive justice. The effect of effort, stress, procedural justice, and distributive justice on job performance. The mediating role of effort, stress, procedural justice, and distributive justice on the influence of the Forced Distribution Rating System (FDRS) on job performance.

Referring to the t-value obtained from the LISREL data processing results, the indirect effect will be considered significant if it has a t-value  $\geq 1.96$ . This study focuses on testing indirect effects that are indirect-only. According to Zhao et al. (2010), indirect-only mediation testing does not need to test the relationship between independent and dependent variables.

Therefore, if a  $t\text{-value} \geq 1.96$  is obtained on the indirect effect value from the LISREL output results, the mediation effect can be considered significant.



**Figure 2. Path diagram (path coefficient )**  
Source: Processed by researchers (2024)

The summary of the results of hypothesis testing with its direct and indirect effects is presented in Table 4.36. The output of the structural model can be seen in the Appendix.

**Table 1. Hypothesis Testing Results**

H	Variable relationship	Coefficient Value	t-value	Results
H1	<i>Forced Distribution Rating System (FDRS) influences effort</i>	0.830	15,610	Data supports the hypothesis
H2	<i>Forced Distribution Rating System (FDRS) influences stress</i>	-0.270	-4,960	Data does not support the hypothesis
H3	<i>Forced Distribution Rating System (FDRS) influences procedural justice</i>	0.720	13,130	Data supports the hypothesis
H4	<i>Forced Distribution Rating System (FDRS) influences distributive justice</i>	0.770	13,720	Data supports the hypothesis
H5	<i>Efforts affect job performance</i>	0.260	3,490	Data supports the hypothesis
H6	<i>Stress affects job performance</i>	-0.051	-1,430	Data does not support the hypothesis
H7	<i>Procedural justice influences job performance</i>	0.270	4,780	Data supports the hypothesis
H8	<i>Distributive justice influences job performance</i>	0.260	4,000	Data supports the hypothesis
H9	<i>Effort mediates the influence of Forced Distribution Rating System (FDRS) on job performance</i>	0.216	3,405	Data supports the hypothesis



H10	<i>Stress mediates the influence of Forced Distribution Rating System (FDRS) on job performance</i>	0.014	1,374	Data does not support the hypothesis
H11	<i>Procedural justice mediates the influence of the Forced Distribution Rating System (FDRS) on job performance</i>	0.194	4,492	Data supports the hypothesis
H12	<i>Distributive justice mediates the influence of the Forced Distribution Rating System (FDRS) on job performance</i>	0.200	3,840	Data supports the hypothesis

Source: Researcher Processed Results (2024)

Based on Table 1 regarding Hypothesis Testing Results , the following are the results of the hypothesis testing that has been carried out :

### **Hypothesis 1 : Forced Distribution Rating System (FDRS) has an effect on effort**

Forced Distribution Rating System (FDRS) has a positive and significant effect on Effort (EFR), with an original sample value of 0.830, a t-value of 15.610, and a p-value of 0.000, indicating a strong and statistically significant relationship. These results are in line with previous studies, such as those found by Loberg et al. (2021), which showed that FDRS can increase the speed of individual task completion. In addition, Cardinaels and Feichter (2019) found that FDRS affects employee effort in the context of creative tasks even though it can increase stress. Research by Moon et al. (2012) also showed that FDRS motivates employees to work harder in the short term to improve task performance. Meanwhile, Chattopadhyay (2019) found that FDRS can motivate managers to improve their performance through increased effort, although its effect on OCB requires further caution.

### **Hypothesis 2 : Forced Distribution Rating System (FDRS) has an effect on stress**

The coefficient value of -0.270 and t-value of -4.960 indicate that the data do not support this hypothesis. This finding is contrary to previous research indicating that competitive performance evaluation systems such as FDRS tend to increase employee stress levels (Maslach & Leiter, 2016). The explanation for this result may be related to the research context, where the implementation of FDRS in the related organization may be carried out with a more collaborative approach or the presence of effective managerial support, thereby reducing the impact of stress. Research by Tremblay and Roussel (2017) also shows that employee stress levels in FDRS are highly dependent on the perception of fairness and transparency of the evaluation process.

### **Hypothesis 3 : Forced Distribution Rating System (FDRS) has an effect on procedural justice**

This hypothesis shows that the Forced Distribution Rating System (FDRS) has a significant effect on Procedural justice (PRJ) with a coefficient of 0.720 and a t-value of 13.310, indicating a positive impact of FDRS on perceptions of procedural justice. The implementation of FDRS can improve employee perceptions of transparency and fairness of the performance appraisal process, in accordance with previous studies that highlight the importance of clear and transparent procedures. Research by Greenberg (2010) and Colquitt et al. (2001) supports these findings, showing that perceptions of procedural justice are related to job satisfaction, organizational commitment, and motivation. FDRS that is perceived as fair can improve these positive elements, in line with research results that emphasize the importance of transparency and fairness in performance appraisal.

**Hypothesis 4 : Forced Distribution Rating System (FDRS) has an effect on distributive justice.**

Forced Distribution Rating System (FDRS) has a significant effect on Distributive Justice (DBJ), with a coefficient of 0.770 and a t-value of 13.720, indicating a positive relationship. Research by Greenberg (2010) revealed that transparency in the assessment system increases the perception of justice, which also applies to FDRS. A clear and structured FDRS can strengthen distributive justice by clarifying the assessment criteria. In addition, research by Colquitt et al. (2001) showed that high distributive and procedural justice increases job satisfaction. FDRS can strengthen the relationship between effort and reward, in accordance with the principle of distributive justice. Leventhal (1980) stated that FDRS that provides rewards based on actual performance increases the perception of distributive justice. Although FDRS can create counterproductive competition, this finding indicates that the implementation of a fair FDRS strengthens the perception of distributive justice in the workplace.

**Hypothesis 5 : Efforts have an effect on job performance**

Effort (EFR) has a significant effect on Job performance (JPF), with a coefficient of 0.260 and a t-value of 3.490, indicating that employee effort plays an important role in determining their performance. This finding is in line with Meyer et al.'s (2002) research which shows that commitment strengthens the relationship between effort and performance. Judge and Ilies (2002) also found that effort is an important predictor of achievement in the workplace. In addition, Locke and Latham (2002) in their goal-setting theory also showed that intense and focused effort directed by clear and specific goals can significantly improve employee performance.

**Hypothesis 6 : Stress affects job performance**

The coefficient value of -0.051 and t-value of -1.430 indicate that the data do not support this hypothesis. This finding is inconsistent with many previous studies that show that stress has a negative effect on job performance. For example, Khamisa et al. (2015) showed that chronic stress tends to decrease productivity and work quality. However, in the context of this study, the insignificance of the results may be due to other factors such as strong organizational support or effective stress management strategies, which can mitigate the impact of stress on performance.

**Hypothesis 7 : Procedural justice has an effect on job performance.**

Procedural justice has an effect on job performance, with a coefficient value of 0.270 and a t-value of 4.780 supporting this hypothesis. This finding is consistent with the research of Colquitt et al. (2019) which shows that perceptions of procedural justice increase employee motivation and performance. Trust in management and employee involvement created by procedural justice contribute to increased job performance.

**Hypothesis 8 : Distributive justice has an effect on job performance.**

Distributive justice has an effect on job performance, with a coefficient value of 0.260 and a t-value of 4.000 supporting this hypothesis. This finding is consistent with Adams' (1963) equity theory which states that employees who feel that rewards are in accordance with their contributions are more motivated to improve performance. Research by Judge et al. (2018) also supports this, showing that perceptions of fairness in reward distribution are positively correlated with job performance. However, a study by Ha and Lee (2022) showed that although distributive justice increases satisfaction and commitment, its impact on job performance may be limited. Therefore, organizations need to pay attention to other aspects such as working conditions and organizational support to improve job performance more effectively.

**Hypothesis 9 : Effort mediates the influence of the Forced Distribution Rating System (FDRS) on job performance.**

Effort mediates the effect of Forced Distribution Rating System (FDRS) on job performance, with a coefficient value of 0.216 and a t-value of 3.405. This finding suggests that FDRS can motivate employees to increase their effort, which contributes to improved performance. Research by Rynes et al. (2017) and Gupta and Shaw (2018) supports this, stating that a rigorous appraisal system can encourage employees to try harder. However, Jiang et al. (2019) remind the importance of transparency and support in the implementation of FDRS to maximize positive potential and manage negative impacts such as stress and unhealthy competition.

**Hypothesis 10 : Stress mediates the effect of Forced Distribution Rating System (FDRS) on job performance.**

Stress did not significantly mediate the effect of Forced Distribution Rating System (FDRS) on job performance, with a coefficient value of 0.014 and a t-value of 1.374. This finding is contrary to previous studies that associate FDRS with increased stress and decreased performance. However, contextual factors such as managerial support, strong organizational culture, and intrinsic motivation may explain this insignificance. This study underscores the importance of a holistic approach in understanding the relationship between FDRS, stress, and job performance, as well as the need for employee support and involvement in the appraisal system to mitigate stress and improve performance.

**Hypothesis 11 : Procedural justice mediates the effect of the Forced Distribution Rating System (FDRS) on job performance.**

procedural justice significantly mediates the relationship between Forced Distribution Rating System (FDRS) and job performance, with a coefficient value of 0.194 and a t-value of 4.492. This finding supports the literature showing that perceptions of procedural justice increase employee trust in the appraisal system, which leads to increased effort and performance. Procedural justice creates an environment that supports openness and trust, reduces conflict or stress, and strengthens the relationship between FDRS and job performance. This study emphasizes the importance of procedural justice in the implementation of FDRS, so organizations need to ensure a transparent, ethical, and fair appraisal process to improve employee performance.

**Hypothesis 12 : Distributive justice mediates the effect of the Forced Distribution Rating System (FDRS) on job performance.**

Distributive justice significantly mediates the relationship between Forced Distribution Rating System (FDRS) and job performance, with a coefficient value of 0.200 and a t-value of 3.840. This finding supports previous research stating that perceptions of fairness in reward distribution affect employee motivation to work harder. When rewards reflect employee efforts proportionally, they feel appreciated, motivated, and more involved in improving performance. To maximize the effectiveness of FDRS, organizations need to ensure fair and proportional reward distribution according to employee contributions, in order to improve job performance and build employee trust and engagement.

**CONCLUSION**

This study shows that the Forced Distribution Rating System (FDRS) has a significant influence on various aspects of the work environment, with the results of 12 hypotheses tested, 8 accepted and 4 rejected. The results of the study indicate that FDRS has a significant positive impact on effort (H1), procedural justice (H3), and distributive justice (H4), all of which contribute to improving employee performance (job performance). Effort (H5), procedural



justice (H7), and distributive justice (H8) also directly increase performance, while effort (H9), procedural justice (H11), and distributive justice (H12) are shown to mediate the relationship between FDRS and performance. In contrast, FDRS does not significantly affect stress (H2), and stress also does not affect employee performance (H6) nor mediate the relationship between FDRS and performance (H10). This study emphasizes the importance of implementing transparent and fair FDRS to improve employee effort, fairness, and performance, as well as the importance of organizational support in mitigating negative impacts such as stress. These findings emphasize the importance of implementing fairness-based FDRS to improve effort and procedural and distributive justice, which ultimately support job performance. This study supports the theory of procedural and distributive justice which shows that transparency, fairness in evaluation, and reward distribution encourage motivation and improve employee performance.

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