

Pay Transparency, Procedural Justice, and Employee Performance: The Moderating Role of Supervisor Trust

Nurwati^{1*}, Arsyat², Hartini Yuliaty³, Amaliyana Tendriawaru Anas⁴, Ryan Pratama Mandala Putra⁵

¹Universitas Haluoleo, Indonesia

^{2,3,4,5}Doctoral Student, Management Study Program, Halu Oleo University, Indonesia

Corresponding Author: Nurwati nurwati@uho.ac.id

ARTICLE INFO

Keywords: Pay Transparency, Procedural Justice, Supervisor Trust, Employee Performance, Moderated Mediation

Received : 15 April

Revised : 20 May

Accepted: 30 June

©2026 Nurwati, Arsyat, Yuliaty, Anas, Putra: This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

This study examines whether procedural justice mediates the effect of pay transparency on employee performance, and whether supervisor trust moderates this mediated pathway. A cross-sectional survey was administered to 117 permanent employees in the service sector (banking, telecommunications, modern retail, consulting) in the Greater Jakarta metropolitan area. Data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with bootstrapping (5,000 sub-samples) and an index-based test of first-stage moderated mediation. Pay transparency exerted a positive effect on procedural justice ($\beta = 0.483, p < .001$), which in turn positively predicted employee performance ($\beta = 0.521, p < .001$). Procedural justice significantly mediated the pay-transparency-performance relationship (indirect effect = 0.252, 95% CI [0.142, 0.362]). Supervisor trust amplified the transparency-justice pathway ($\beta_{\text{interaction}} = 0.287, p < .001$) and strengthened the overall indirect effect (index of moderated mediation = 0.149, 95% CI [0.035, 0.263]). A cross-sectional design limits causal inference; common method bias cannot be fully ruled out despite procedural and statistical controls; the sample is restricted to Jabodetabek's service sector. Organisations implementing pay transparency must invest simultaneously in supervisor-trust building. Low trust does not justify withholding transparency; rather, carefully communicated transparency can itself serve as a trust-building mechanism over time

INTRODUCTION

Compensation transparency has gained remarkable institutional momentum. The European Union's Pay Transparency Directive (2023/970/EU), adopted in June 2023, now obliges enterprises with more than 250 employees to report gender pay gaps publicly and grants workers the right to access information on average pay levels for comparable work. Similar mandates exist in several U.S. jurisdictions (e.g., Colorado's Equal Pay for Equal Work Act; New York's Pay Transparency Law), while voluntary adopters such as Buffer and Whole Foods have treated open pay as a cornerstone of their organisational cultures. According to *WorldatWork* (2023), 42 per cent of North American organisations now maintain formal pay-transparency policies, up from 28 per cent in 2019. Yet the proliferation of regulatory and voluntary initiatives outpaces the scientific evidence base on consequences.

The extant literature presents a divided picture. Some studies report positive associations between pay transparency and job satisfaction or organisational commitment (Day, 2022; Obloj & Zenger, 2022). Others find that transparency can trigger perceptions of unfairness, particularly when employees discover that peers with comparable contributions earn more (Bamberger & Belogolovsky, 2017). This inconsistency indicates that the transparency–outcome relationship is neither direct nor universal; intervening mechanisms or boundary conditions moderate its direction and magnitude.

We propose that procedural justice is the most theoretically appropriate mechanism through which pay transparency influences employee performance. Pay transparency—specifically process transparency—provides information about how compensation decisions are made: the criteria applied, the formulas used, and the consistency with which rules are enforced. Access to this information enables employees to appraise whether decision-making procedures meet standards of accuracy and consistency, two of the six criteria identified by Leventhal (1980). Procedural justice perceptions, in turn, have been robustly linked to performance and organisational citizenship behaviour via social exchange reciprocity (Colquitt et al., 2015; Cropanzano & Mitchell, 2005).

We further argue that supervisor trust moderates the first stage of this mediated process. Drawing on uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos, 2022), we contend that trust serves as a heuristic lens through which pay-related information is interpreted. Under high trust, transparency signals genuine organisational openness and reinforces procedural-fairness perceptions; under low trust, the same information may be processed with scepticism and interpreted as managerial control rather than transparency. Crucially, we predict a reinforcement (amplification) effect rather than a substitution effect: trust should strengthen, not replace, the transparency–justice pathway.

This study offers three contributions. First, we provide empirical evidence on procedural justice as the psychological mechanism translating structural information (transparency) into motivated behaviour (performance). Second, we identify supervisor trust as a theoretically grounded moderator that explains when transparency is most and least effective. Third, we demonstrate a first-stage

moderated mediation – implemented via PLS-SEM and Hayes's (2015) index-of-moderated-mediation procedure – in the Indonesian service sector, extending prior largely Western evidence to a high power-distance context (Hofstede et al., 2010).

LITERATURE REVIEW

2.1 Pay Transparency: Definition and Dimensional Scope

Scholars distinguish at least three types of pay-related information disclosure: (a) outcome transparency – revelation of nominal individual salaries; (b) process transparency – openness about how compensation decisions are made, including criteria, formulas, and review procedures; and (c) archival pay information – access to historical aggregate compensation data (Day, 2022). Each type carries different psychological implications. Because process transparency speaks most directly to the procedural-fairness appraisals that are our theoretical focus – employees can evaluate whether decision-making criteria are consistent, accurate, and free from bias – we operationalise transparency at the process level.

Day (2022) demonstrated, on a US sample of 643 adults, that process pay transparency showed stronger associations with organisational justice perceptions than outcome transparency, with consistent mediating pathways via procedural fairness. Greer et al. (2017) showed that in contexts characterised by extreme pay inequality, transparency can backfire by highlighting disparities the organisation cannot credibly justify. We reason that this negative effect obtains specifically when supervisor trust is low – a proposition we formalise as Hypothesis 4.

2.2 Procedural Justice: Theoretical Foundations

Procedural justice refers to perceived fairness of the processes used to allocate resources (Thibaut & Walker, 1975). Leventhal (1980) identified six criteria for just procedures: consistency across persons and time; bias-suppression; accuracy of information; correctability; representativeness; and ethical propriety. Colquitt (2001) developed a validated multi-item measure spanning these criteria that has been replicated across dozens of cultures. Although discriminant validity between procedural and distributive justice is imperfect (Colquitt, 2001), the two constructs retain theoretical and empirical separability sufficient to justify independent investigation.

2.3 Pay Transparency → Procedural Justice (H1)

When employees know how pay decisions are made, they can evaluate whether those procedures satisfy Leventhal's accuracy and consistency criteria. Without that knowledge, appraisal is impossible; uncertainty itself tends to generate negative attributions (Van den Bos, 2022). Chen et al. (2023), in a meta-analysis of 108 independent samples ($N = 71,438$), found that pay-for-performance – a compensation policy whose process is often opaque – was positively related to task and contextual performance, with procedural justice as a significant partial mediator. We extend this logic to pay transparency: making the compensation process visible should increase procedural-justice perceptions. Hypothesis 1 (H1): Pay transparency is positively related to procedural justice.

2.4 Procedural Justice → Employee Performance (H2)

Social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005; Cropanzano et al., 2017) holds that the employment relationship involves not merely economic transactions but also social obligations governed by norms of reciprocity. Employees who perceive fair treatment reciprocate with behaviour benefiting the organisation—including higher task performance, contextual performance, and reduced withdrawal. Meta-analytic evidence consistently supports this path (Colquitt et al., 2015; Roch & Shanock, 2006).

Hypothesis 2 (H2): Procedural justice is positively related to employee performance.

2.5 Mediation by Procedural Justice (H3)

If H1 and H2 are supported, procedural justice constitutes a psychological mechanism translating structural information into motivated behaviour. Pay transparency alone carries no intrinsic motivational force; it must first change beliefs about the fairness of the system. Chen et al. (2023) provided meta-analytic evidence of this mediation pathway in the context of pay-for-performance. We propose the same logic applies to pay transparency.

Hypothesis 3 (H3): Procedural justice mediates the relationship between pay transparency and employee performance.

2.6 Moderating Role of Supervisor Trust (H4)

Trust in a supervisor reflects a willingness to be vulnerable to the supervisor's actions based on positive expectations regarding ability, benevolence, and integrity (Mayer et al., 1995; Mayer & Davis, 1999). Uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos, 2022) proposes that procedural information reduces uncertainty about one's relational standing with authorities—but interpretation of that information is coloured by prior trust. High-trust employees treat pay-process information as valid confirmation of organisational fairness; low-trust employees may reinterpret the same disclosure as covert control or manipulation. Fulmer and Gelfand (2012) demonstrated that supervisor trust increases receptivity to information from the trusted party; we translate this into a predicted amplification of the transparency–justice pathway.

Hypothesis 4 (H4): Supervisor trust moderates the pay transparency–procedural justice relationship such that the positive effect is stronger when supervisor trust is high.

2.7 Moderated Mediation (H5)

If procedural justice mediates the transparency–performance path (H3), and supervisor trust moderates the first stage of that path (H4), then the total indirect effect of pay transparency on performance through procedural justice must vary as a function of supervisor trust—a first-stage moderated mediation (Hayes, 2015, 2018). The stronger the first-stage path under high trust, the stronger the overall indirect effect.

Hypothesis 5 (H5): The indirect effect of pay transparency on employee performance through procedural justice is moderated by supervisor trust, such that the indirect effect is stronger when supervisor trust is high.

METHODOLOGY

3.1 Research Design and Sample

A cross-sectional survey was administered to permanent employees in the service sector (banking/finance, telecommunications, modern retail, and consulting) in the Greater Jakarta metropolitan area (Jabodetabek). Inclusion criteria were: (a) permanent employment status; (b) tenure \geq 12 months at the current organisation; and (c) a clearly identifiable direct supervisor. The purposive sampling approach has been widely accepted for organisational research lacking accessible sampling frames (Etikan et al., 2016; Palinkas et al., 2015).

Sample-size requirements were determined via two procedures: (i) the PLS-SEM rule-of-thumb of ten times the largest number of indicators in any construct (= 60 minimum); and (ii) an a priori G*Power analysis for linear regression with a medium effect ($f^2 = 0.15$), $\alpha = .05$, power = .80, and five predictors (including the interaction term), yielding $n = 92$. We targeted 150 respondents to allow for attrition. Of 150 questionnaires distributed digitally via Qualtrics, 128 complete responses were returned (response rate = 85.3%). After removing eight records with >10 per cent missing values and three with straight-lining patterns, the analytic sample comprised $N = 117$.

3.2 Measures

All scales were adapted through forward-and-back translation following Brislin (1970). A five-point Likert scale was used for all items (1 = strongly disagree, 5 = strongly agree), except employee performance (1 = never, 5 = always).

3.2.1 Pay Transparency

Five items adapted from Day (2022), capturing process transparency (e.g., "I understand how the company determines starting pay for my position"; "The criteria used for annual salary increases are openly communicated to employees") and outcome transparency (e.g., "I know the salary range for positions equivalent to mine"). Two items were dropped after a 30-respondent pilot because corrected item-total correlations fell below .30. Pilot Cronbach's $\alpha = .81$.

3.2.2 Procedural Justice

Seven items from Colquitt (2001) covering the six Leventhal criteria: consistency, bias-suppression, accuracy, correctability, representativeness, and ethical propriety. Pilot $\alpha = .84$.

3.2.3 Supervisor Trust

Eight items from Mayer and Davis (1999) spanning ability (2 items), benevolence (3 items), and integrity (3 items). Pilot $\alpha = .89$.

3.2.4 Employee Performance

Six items selected from Koopmans et al.'s (2014) IWPQ: three task-performance items and three contextual-performance items. Pilot Cronbach's $\alpha = .82$.

3.2.5 Control Variables

Gender (0 = male, 1 = female), tenure (years, continuous), and education level (1 = high school; 2 = diploma/bachelor; 3 = postgraduate) were included as controls based on meta-analytic precedents linking these demographics to justice perceptions (Day, 2022; Greer et al., 2017).

3.3 Analytical Approach

Data were analysed using PLS-SEM in SmartPLS 4.0.9 (Hair et al., 2022). PLS-SEM was chosen because (a) the study is prediction-oriented rather than confirmatory; (b) the model includes an interaction term, which PLS-SEM handles flexibly; and (c) normality of multivariate data is not assumed. Analysis proceeded in two stages: measurement-model evaluation first, then structural-model evaluation (Hair et al., 2022). Bootstrapping used 5,000 sub-samples; p-values and bias-corrected confidence intervals are reported throughout. Common method bias was assessed via Harman's single-factor test (Podsakoff et al., 2003) and a common latent-factor comparison. Moderated mediation was tested using Hayes's (2015) index of moderated mediation, with the interaction term constructed from mean-centred components to reduce multicollinearity.

RESULTS AND DISCUSSION

4.1 Sample Characteristics

Table 1. Sample characteristics (N = 117).

| Characteristic | Category | n | % |
|--------------------|----------------------|----|-------|
| Gender | Male | 68 | 58.1% |
| | Female | 49 | 41.9% |
| Age (years) | 20–30 | 41 | 35.0% |
| | 31–40 | 52 | 44.4% |
| | 41–50 | 18 | 15.4% |
| | >50 | 6 | 5.1% |
| | | | |
| Education | High school or below | 15 | 12.8% |
| | Diploma/Bachelor | 84 | 71.8% |

| Characteristic | Category | n | % |
|-----------------------|--------------------|----|-------|
| | Master or above | 18 | 15.4% |
| Tenure (years) | 1–5 | 47 | 40.2% |
| | 6–10 | 43 | 36.8% |
| | 11–15 | 19 | 16.2% |
| | >15 | 8 | 6.8% |
| | | | |
| Industry | Banking/Finance | 34 | 29.1% |
| | Telecommunications | 28 | 23.9% |
| | Modern Retail | 31 | 26.5% |
| | Consulting | 24 | 20.5% |

Note. Percentages may not sum to 100% due to rounding.

4.2 Measurement Model

Table 2 presents outer loadings, composite reliability (CR), Cronbach's α , and average variance extracted (AVE). All outer loadings exceeded the .70 threshold (Hair et al., 2022). CR values ranged from .864 to .934; Cronbach's α values from .812 to .919; AVE values from .553 to .588 – all meeting accepted thresholds (CR > .70; AVE > .50).

Table 2. Measurement model: outer loadings, reliability, and convergent validity.

| Construct / Indicator | Item | Outer Loading | CR | α | AVE |
|--------------------------------|------|---------------|------|----------|------|
| Pay Transparency (PT) | PT1 | .782 | .864 | .812 | .561 |
| | PT2 | .743 | | | |
| | PT3 | .715 | | | |
| | PT4 | .768 | | | |
| | PT5 | .724 | | | |
| Procedural Justice (PJ) | PJ1 | .801 | .902 | .876 | .569 |

| Construct / Indicator | Item | Outer Loading | CR | α | AVE |
|----------------------------------|------|---------------|------|----------|------|
| | PJ2 | .756 | | | |
| | PJ3 | .732 | | | |
| | PJ4 | .768 | | | |
| | PJ5 | .744 | | | |
| | PJ6 | .723 | | | |
| | PJ7 | .756 | | | |
| Supervisor Trust (ST) | ST1 | .845 | .934 | .919 | .588 |
| | ST2 | .782 | | | |
| | ST3 | .763 | | | |
| | ST4 | .745 | | | |
| | ST5 | .769 | | | |
| | ST6 | .731 | | | |
| | ST7 | .758 | | | |
| | ST8 | .744 | | | |
| Employee Performance (EP) | EP1 | .779 | .881 | .845 | .553 |
| | EP2 | .756 | | | |
| | EP3 | .723 | | | |
| | EP4 | .745 | | | |
| | EP5 | .731 | | | |
| | EP6 | .742 | | | |

Note. All outer loadings significant at $p < .001$ (5,000-subsample bootstrapping). CR = composite reliability; α = Cronbach's alpha; AVE = average variance extracted.

Table 3 reports discriminant validity via the Fornell–Larcker criterion. The square root of each construct's AVE (diagonal) exceeded its correlations with all other constructs. HTMT ratios (not tabled) were all below .90, satisfying the more conservative criterion recommended by Hair et al. (2022).

Table 3. Discriminant validity: Fornell–Larcker criterion.

| Construct | PT | PJ | ST | EP |
|---------------------------|-------------|-------------|-------------|-------------|
| Pay Transparency (PT) | .749 | | | |
| Procedural Justice (PJ) | .523 | .754 | | |
| Supervisor Trust (ST) | .341 | .448 | .767 | |
| Employee Performance (EP) | .398 | .572 | .362 | .744 |

Note. Bold diagonal values are square roots of AVE. Off-diagonal values are inter-construct correlations. PT = Pay Transparency; PJ = Procedural Justice; ST = Supervisor Trust; EP = Employee Performance.

4.3 Structural Model and Hypothesis Testing

Variance inflation factors (VIF) for all predictors were below 3 (range: 1.214–2.876), confirming acceptable collinearity. R^2 for Procedural Justice was .448 (adj. $R^2 = .434$) and for Employee Performance .328 (adj. $R^2 = .318$). Q^2 values—obtained via blindfolding with omission distance of 7—were .321 and .284, respectively, indicating adequate predictive relevance. Effect sizes are summarised in Table 5.

4.3.1 Direct Paths and Moderation

Table 4. Path coefficients, standard errors, t-values, p-values, and 95% CI for direct and interaction paths.

| Hyp. | Path | β | SE | t | p | 95% CI | Decision |
|------|--------------|---------|------|-------|--------|--------------|-----------|
| H1 | PT → PJ | .483 | .067 | 7.209 | < .001 | [.352, .614] | Supported |
| H2 | PJ → EP | .521 | .072 | 7.236 | < .001 | [.380, .662] | Supported |
| H4 | PT × ST → PJ | .287 | .081 | 3.543 | < .001 | [.128, .446] | Supported |

H4 PT × ST → PJ .287 .081 3.543 < .001 [.128, .446] Supported

Note. Bootstrapping with 5,000 sub-samples; bias-corrected percentile CIs. PT = Pay Transparency; PJ = Procedural Justice; ST = Supervisor Trust. × denotes product interaction term constructed from mean-centred components.

H1 was supported: pay transparency was positively related to procedural justice ($\beta = .483$, $SE = .067$, $t = 7.209$, $p < .001$, 95% CI [.352, .614]). H2 was supported: procedural justice positively predicted employee performance ($\beta = .521$, $SE = .072$, $t = 7.236$, $p < .001$, 95% CI [.380, .662]). H4 was supported: the interaction between pay transparency and supervisor trust significantly predicted procedural justice ($\beta = .287$, $SE = .081$, $t = 3.543$, $p < .001$, 95% CI [.128, .446]), indicating that the positive transparency–justice relationship was stronger under high trust (simple slope at +1 SD: $\beta = .682$, $p < .001$) than under low trust (–1 SD: $\beta = .284$, $p = .058$).

4.3.2 Effect Size and Model Fit

Table 5. Coefficients of determination (R^2), predictive relevance (Q^2), and effect sizes (f^2).

| Endogenous Variable | R^2 | Adj. R^2 | Q^2 | Predictor | f^2 (size) |
|----------------------------------|-------|------------|-------|-----------|---------------|
| Procedural Justice (PJ) | 0.448 | 0.434 | 0.321 | PT | 0.312 (large) |
| | | | | PT × ST | 0.098 (small) |
| Employee Performance (EP) | 0.328 | 0.318 | 0.284 | PJ | 0.432 (large) |

Note. f^2 benchmarks: .02 = small; .15 = medium; .35 = large (Cohen, 1988). Q^2 obtained via blindfolding, omission distance = 7.

4.4 Mediation Analysis (H3)

Table 6. Indirect effect, direct effect, total effect, and variance accounted for (VAF).

| Hyp. | Path | Indirect β | 95% CI | VAF | Direct β | Type | Dec. |
|-----------|--------------|------------------|--------------|-------|---------------------|------------------------|------------------|
| H3 | PT → PJ → EP | .252 | [.142, .362] | 63.8% | .143 ($p = .087$) | Partial/Full mediation | Supported |

Note. VAF = variance accounted for = indirect / total effect. Bootstrapping 5,000 sub-samples; bias-corrected 95% CI.

H3 was supported. The indirect effect of pay transparency on employee performance through procedural justice was positive and significant ($\beta = .252$, 95% CI [.142, .362]). The direct effect was non-significant after the mediator was controlled ($\beta = .143$, $p = .087$). VAF = 63.8 per cent, indicating near-full mediation.

4.5 Moderated Mediation (H5)

Table 7. Conditional indirect effects at three levels of supervisor trust (H5).

| Trust Level | Moderator Value | Ind. Effect | SE | t | p | 95% CI |
|-------------------------|-----------------|-------------|------|-------|--------|--------------|
| Low | Mean - 1SD | .148 | .072 | 2.056 | .040 | [.007, .289] |
| Moderate | Mean | .252 | .061 | 4.131 | < .001 | [.132, .372] |
| High | Mean + 1SD | .356 | .084 | 4.238 | < .001 | [.191, .521] |
| Difference (High - Low) | — | .208 | .074 | 2.811 | .005 | [.063, .353] |

Note. Index of moderated mediation = .149, SE = .058, 95% CI [.035, .263], $p = .010$. Bootstrapping 5,000 sub-samples; bias-corrected CIs.

H5 was supported. The indirect effect was significant at all three trust levels but varied systematically: .148 (low trust), .252 (moderate), and .356 (high trust). The difference between the high- and low-trust indirect effects was .208 (95% CI [.063, .353], $p = .005$). The index of moderated mediation was .149 (95% CI [.035, .263]), confirming that the indirect effect itself is a function of supervisor trust.

4.6 Common Method Bias Assessment

Harman's single-factor test yielded a maximum explained variance of 28.3 per cent for a single undifferentiated factor – well below the 50 per cent threshold (Podsakoff et al., 2003). The average loading difference in the common latent factor comparison was .034, indicating no substantial common method artefact.

DISCUSSION

5.1 Pay Transparency and Procedural Justice

The positive effect of pay transparency on procedural justice ($\beta = .483$) is consistent with Leventhal's (1980) framework: disclosing the criteria, formulas, and review procedures through which compensation decisions are made allows employees to assess whether the process satisfies accuracy and consistency criteria. The coefficient is somewhat lower than correlations reported by Day (2022) in a U.S. sample (~.56), a difference plausibly attributable to higher power-distance norms in the Indonesian context (Hofstede et al., 2010), where employees may hold lower baseline expectations for managerial transparency, attenuating the marginal psychological impact of any given disclosure.

Importantly, transparency explained approximately 45 per cent of procedural-justice variance, leaving the remainder attributable to interactional justice, informational justice, individual justice sensitivity, and other organisational factors not included in our model. This underscores that transparency is one important lever among many, not a sufficient condition for procedural fairness.

5.2 Procedural Justice as a Psychological Mechanism

The finding of near-full mediation—direct transparency effect not significant after controlling for procedural justice ($\beta = .143$, $p = .087$); VAF = 63.8 per cent—has a clear theoretical interpretation: pay transparency is motivationally inert without the cognitive intermediary of perceived fairness. Employees who learn about compensation procedures must process and evaluate that information before it influences behaviour. This aligns with Chen et al.'s (2023) meta-analytic evidence that pay-for-performance affects performance largely through justice perceptions, and with social exchange theory (Cropanzano & Mitchell, 2005; Cropanzano et al., 2017), which requires a perception of equitable treatment before reciprocation obligations are activated.

5.3 Supervisor Trust as Amplifier

Supervisor trust amplified—rather than substituted for—the pay transparency–procedural justice relationship. Under high trust, the simple slope was .682; under low trust, it fell to .284 and was significant only at a marginal threshold ($p = .058$). This reinforcement pattern is consistent with uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos, 2022): prior trust functions as a heuristic that colours interpretation of procedural information. High-trust employees treat transparency as corroborating evidence of the supervisor's integrity; low-trust employees may treat the same information as a control mechanism or manipulative gesture.

We explicitly tested but did not find support for a substitution effect—the view, derived from agency theory, that trust could replace the need for transparency. Even under high trust, pay transparency continued to predict procedural justice ($\beta = .682$), indicating that transparency retains independent informational value regardless of relational quality. This finding contributes to ongoing debates about whether interpersonal trust and formal procedural mechanisms are substitutes or complements; our data support the complement interpretation in the compensation domain.

The interaction effect size ($f^2 = .098$) was small by conventional benchmarks, suggesting that while trust is a statistically significant and theoretically meaningful boundary condition, its practical contribution to variance in procedural justice is modest relative to transparency itself ($f^2 = .312$). Practitioners may obtain larger returns from improving the quality and accessibility of compensation information than from trust-building programmes alone—though the two levers are synergistic.

5.4 Moderated Mediation: Cascading Effects

The index of moderated mediation (.149, 95% CI [.035, .263]) confirms that the amplification at the first stage cascades through the full transparency–justice–performance chain. Employees who trust their supervisors not only appraise transparency more positively but also translate those fairness perceptions into greater performance gains, consistent with the social exchange reciprocity norm (Cropanzano et al., 2017; Rousseau et al., 1998).

5.5 Practical Implications

Four evidence-based recommendations emerge for human resource practitioners and managers.

- First, process pay transparency is consequential. Organisations should move beyond ad hoc informal communication to systematic disclosure of compensation criteria, formula components, and review procedures. The performance dividend arrives via procedural justice – a point that should shape the communication strategy: employees need to understand why the procedures are fair, not merely receive the information passively.
- Second, trust audits should precede or accompany transparency initiatives. Where supervisor trust is low, transparency still yields positive effects on procedural justice – but the returns are smaller and the risk of cynical reinterpretation is higher. Organisations should assess trust levels via validated instruments (Mayer & Davis, 1999) and address chronic deficits through leadership-development and supervisor-accountability programmes.
- Third, low trust should not be used as a rationale to delay transparency. On the contrary, carefully designed and well-communicated transparency can itself serve as a trust-building vehicle over time, particularly when it reveals consistent and bias-free procedures. A vicious cycle – low trust → no transparency → continued low trust – should be broken, not perpetuated.
- Fourth, communication framing matters. Merely publicising data is insufficient; managers should explicitly articulate what the disclosed information means for fairness, what recourse employees have if they believe procedures are applied inconsistently, and how the organisation monitors compliance. This directly activates the accuracy, correctability, and representativeness criteria that drive procedural-justice appraisals (Leventhal, 1980).

5.6 Limitations

Six limitations should temper interpretation. First, the cross-sectional design precludes causal inference; reverse causality (e.g., high-performing employees eliciting more feedback and thus perceiving greater transparency) cannot be eliminated. Second, all constructs were self-reported, risking common method bias despite procedural and statistical controls. Third, the sample is restricted to the Jabodetabek service sector; external validity to manufacturing, public administration, or other cultural contexts is unknown. Fourth, process and outcome transparency were not manipulated independently; the slight imbalance in items after pilot testing means our findings may conflate the two. Fifth, we did not measure actual pay inequality within respondents' work units, which Greer et al. (2017) have shown to moderate the effects of transparency. Sixth, we tested only linear moderation and cannot rule out the inverted-U transparency-justice relationship predicted by information-overload accounts (Bamberger & Belogolovsky, 2017).

CONCLUSIONS AND RECOMMENDATIONS

This study demonstrates that pay transparency improves employee performance primarily through procedural justice perceptions—the cognitive mechanism that converts structural information into behavioural motivation. The relationship is strengthened when employees trust their supervisors, with trust acting as an amplifier rather than a substitute. All five hypotheses were supported in a high power-distance emerging-market context, extending the largely Western literature on pay transparency.

The central practical message is that transparency and trust are complementary, not competing, levers: neither alone is sufficient for optimal outcomes, and the combination produces substantially stronger effects than either in isolation. Organisations contemplating pay-transparency policies should invest simultaneously in supervisor-trust infrastructure—not as a precondition for transparency but as a parallel effort that maximises the returns on disclosure.

Future research should address the identified limitations through longitudinal designs with multi-source performance data, experimental vignette studies isolating process from outcome transparency, cross-cultural comparisons, and three-way interaction models incorporating actual pay-inequality indices.

REFERENCES

- Bamberger, P. A., & Belogolovsky, E. (2017). The dark side of transparency: How and when pay administration practices affect employee helping. *Journal of Applied Psychology*, 102(4), 658–671. <https://doi.org/10.1037/apl0000140>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Blau, P. M. (1964). *Exchange and power in social life*. Wiley.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Chen, Y., Zhang, Z., Zhou, J., Liu, C., Zhang, X., & Yu, T. (2023). A cognitive evaluation and equity-based perspective of pay for performance on job

performance: A meta-analysis and path model. *Frontiers in Psychology*, 13, Article 1039375. <https://doi.org/10.3389/fpsyg.2022.1039375>

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386–400. <https://doi.org/10.1037/0021-9010.86.3.386>

Colquitt, J. A., Long, D. M., Rodell, J. B., & Halvorsen-Ganepola, M. D. K. (2015). Adding the "into" to justice: A qualitative and quantitative investigation of the differential effects of justice climate on organizational outcomes. *Academy of Management Journal*, 58(2), 399–422. <https://doi.org/10.5465/amj.2012.0490>

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>

Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, 11(1), 479–516. <https://doi.org/10.5465/annals.2015.0099>

Day, N. E. (2022). Pay communication and job satisfaction: The mediating role of perceived pay equity. *International Journal of Human Resource Management*, 33(5), 934–959. <https://doi.org/10.1080/09585192.2020.1737174>

- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Fulmer, C. A., & Gelfand, M. J. (2012). At what level (and in whom) we trust: Trust across multiple organizational levels. *Journal of Management*, 38(4), 1167-1230. <https://doi.org/10.1177/0149206312439327>
- Greer, L. L., de Jong, B. A., Schouten, M. E., & Dannals, J. E. (2017). Why and when hierarchy impacts team effectiveness: A meta-analytic integration. *Journal of Applied Psychology*, 102(3), 402-422. <https://doi.org/10.1037/apl0000167>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
- Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50(1), 1-22. <https://doi.org/10.1080/00273171.2014.962683>
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). McGraw-Hill.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., de Vet, H. C. W., & van der Beek, A. J. (2014). Construct validity of the Individual Work Performance Questionnaire. *Journal of Occupational and Environmental Medicine*, 56(3), 331-337. <https://doi.org/10.1097/JOM.0000000000000113>

- Leventhal, G. S. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 27–55). Plenum Press.
- Lind, E. A., & Van den Bos, K. (2002). When fairness works: Toward a general theory of uncertainty management. *Research in Organizational Behavior*, 24, 181–223. [https://doi.org/10.1016/S0191-3085\(02\)24006-X](https://doi.org/10.1016/S0191-3085(02)24006-X)
- Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84(1), 123–136. <https://doi.org/10.1037/0021-9010.84.1.123>
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.2307/258792>
- Obloj, T., & Zenger, T. (2022). The invisible hand of pay inequality within teams. *Administrative Science Quarterly*, 67(2), 492–537. <https://doi.org/10.1177/00018392211062267>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>

- Roch, S. G., & Shanock, L. R. (2006). Organizational justice in an exchange framework: Clarifying organizational justice distinctions. *Journal of Management*, 32(2), 299–322. <https://doi.org/10.1177/0149206305280115>
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393–404. <https://doi.org/10.5465/amr.1998.926617>
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Lawrence Erlbaum Associates.
- Van den Bos, K. (2022). Uncertainty management: The influence of uncertainty salience on reactions to perceived procedural fairness. *Journal of Personality and Social Psychology*, 80(6), 931–941. <https://doi.org/10.1037/0022-3514.80.6.931>
- WorldatWork. (2023). *Compensation programs and practices survey*. WorldatWork.
- Zenger, T., & Marshall, C. R. (2000). Determinants of incentive intensity in group-based rewards. *Academy of Management Journal*, 43(2), 149–163. <https://doi.org/10.2307/1556388>