

Different Patterns of Work Discipline and Employee Performance: Evidence from Two Indonesian Public Service Organizations

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ABSTRACT

Purpose: This study compares two independently specified models from Indonesian public service organizations to examine whether the relationship between work discipline and employee performance is consistent across different organizational settings.

Research Method: A structured cross-study comparison was conducted using findings from two independent cross-sectional studies. The first examined employees of a regional public hospital, focusing on work environment and work discipline. The second examined a district land administration office, focusing on organizational culture, leadership, and work discipline. Results were interpreted within each model and compared descriptively without pooling individual-level data.

Results and Discussion: Work discipline showed a positive relationship with employee performance in the hospital study, whereas it did not demonstrate a distinct relationship in the land administration study after other organizational factors were considered. These contrasting patterns indicate that the discipline–performance relationship may depend on model specification and organizational conditions.

Implications: Differences in samples, measurement instruments, and predictor configurations limit direct comparison. Future studies should use harmonized multi-site designs and equivalent measures.

Originality: The study demonstrates that the relationship between work discipline and employee performance is not necessarily consistent across public service organizations and emphasizes context-sensitive interpretation of comparative findings.

Keywords: Work discipline; Employee performance; Work environment; Organizational culture; Leadership; Public sector.

1. Introduction

Employee performance remains a central concern in public service organizations because the quality, timeliness, reliability, and consistency of employee output are closely associated with the delivery of services to citizens. Public organizations are expected to maintain service continuity and procedural accountability while responding to diverse stakeholder expectations. These demands are particularly visible in healthcare and land administration. A regional public hospital must coordinate time-sensitive operational routines, whereas a land administration office must maintain procedural accuracy, legal compliance, and predictable public service. In both settings, employee performance occurs within



organizational systems that include working conditions, shared norms, leadership practices, formal procedures, and individual behavioral regulation.

The literature commonly examines work environment, organizational culture, leadership, and work discipline as predictors of employee performance. A supportive work environment may facilitate task completion by reducing operational barriers and providing employees with the conditions needed to perform their responsibilities. Organizational culture provides shared values and behavioral expectations that can guide day-to-day decisions, while leadership influences how priorities are communicated, work is coordinated, and organizational support is experienced. Work discipline, in turn, reflects employees' adherence to schedules, procedures, responsibilities, and organizational rules. Although these variables are frequently examined as antecedents of performance, their reported statistical contributions are necessarily conditional on the variables included in a given model, the measures used, and the characteristics of the sampled organization.

This distinction is important because a statistically significant predictor in one regression model cannot automatically be assumed to have an equivalent contribution in another. The estimated association of work discipline with employee performance, for example, may differ depending on whether the model controls for work environment, organizational culture, leadership, or other organizational characteristics. Such differences do not by themselves demonstrate that organizational context causes the coefficient to change. Rather, they indicate that the unique statistical contribution of a predictor is model-dependent and should be interpreted in relation to the covariate structure from which it is estimated. Comparative evidence is therefore useful not for establishing contextual causality, but for examining whether apparently similar constructs display consistent or divergent regression patterns across independently specified organizational studies.

Recent Indonesian research illustrates the relevance of this issue. Studies conducted in hospitals, health centers, and local government institutions have reported significant associations between work discipline, work environment, and employee performance (Aulia & Resawati, 2023; Shilma *et al.*, 2022; Syawaludin, 2022). Other public-sector studies have identified organizational culture and leadership as significant predictors of employee performance (Febrianti & Isnawati, 2023; Rahmawati & Nurhadian, 2023; Suryanto & Kapoor, 2023). Taken together, these findings suggest that several organizational and behavioral variables may be relevant to employee performance. However, they do not establish that the unique statistical contribution of any one predictor remains stable across independently specified models. A useful empirical question is therefore whether work discipline retains a similar model-specific association with employee performance when it is examined alongside different sets of organizational predictors.

This article addresses that question by comparing the reported regression results of two independent cross-sectional studies conducted in South Sulawesi, Indonesia. The first study examined 45 non-medical employees of a regional public hospital and estimated employee performance as a function of work environment and work discipline. The second examined employees of a district land administration office and estimated employee performance using organizational culture, leadership, and work discipline as predictors. The two studies were not designed as a coordinated multi-site investigation. They used different samples, measurement instruments, and predictor configurations, and the underlying raw data were not available for pooled estimation, measurement-equivalence testing, or formal coefficient-difference analysis. Accordingly, the present article does not treat the two coefficients as statistically equivalent estimates and does not attribute observed differences uniquely to

organizational context. Instead, it provides a structured comparison of the statistical results reported in the two independently specified regression models.

The comparison also identifies an important inferential inconsistency in the second source study. Its multiple-regression coefficient table reports work discipline as statistically non-significant ($B = -0.045$, $\beta = -0.042$, $p = .704$), whereas a subsequent one-sample t-test was interpreted as evidence that discipline significantly predicted employee performance. A one-sample t-test evaluates whether a sample mean differs from a specified test value; it does not estimate the conditional association between a predictor and an outcome while controlling for other predictors. For this reason, the multiple-regression coefficient table provides the appropriate inferential basis for evaluating the work-discipline hypothesis in the second study. Using that evidence produces two distinct model-specific patterns: work discipline has a strong positive association with employee performance in the hospital model, whereas it has no statistically detectable unique association in the land-administration model after organizational culture and leadership are included.

The study makes three contributions. First, it highlights the importance of interpreting employee-performance predictors as model-conditional rather than assuming that statistically significant relationships are universally stable across organizational studies. Second, it provides a structured cross-study comparison showing that the reported association between work discipline and employee performance differs substantially across two independently specified public-service regression models. This contrast should not be interpreted as a formal test of contextual moderation, but it raises an empirically relevant question regarding the conditions under which discipline retains unique explanatory value. Third, the study demonstrates the importance of aligning substantive conclusions with the statistical procedure that directly addresses the research hypothesis, particularly when several inferential tests are reported within the same study.

Accordingly, the article addresses two research questions. First, which organizational and behavioral predictors show statistically significant conditional associations with employee performance within each of the two regression models? Second, how does the model-specific association between work discipline and employee performance differ descriptively across the two studies? The objective is therefore not to identify a universal performance formula or to establish that organizational context causes differences in the discipline coefficient. Rather, the study examines whether the reported contribution of work discipline remains consistent across two differently specified public-service models and uses the observed contrast to identify questions that should be tested more rigorously in future harmonized multi-site research.

The remainder of the paper is organized as follows. Section 2 reviews the relevant literature and develops the hypotheses. Section 3 describes the comparative research design and analytical basis. Section 4 presents the results and discusses the model-specific and cross-study patterns. Section 5 concludes the paper, outlines its limitations, and identifies directions for future research.

2. Literature Review and Hypothesis Development

2.1 Employee Performance in Public Service Organizations

Employee performance refers to the extent to which employees accomplish work-related tasks and behaviors that contribute to organizational objectives. Contemporary performance research treats individual work performance as a multidimensional construct rather than a single measure of output.



Koopmans *et al.*, (2011), for example, identify task performance, contextual performance, adaptive performance, and counterproductive work behavior as recurring dimensions across occupational performance frameworks. In public service organizations, performance also has an institutional dimension because employees are expected to deliver accurate, timely, reliable, and procedurally compliant services while operating within formal rules and accountability requirements.

These characteristics make employee performance particularly sensitive to both individual behavior and the organizational conditions under which work is performed. Public employees do not perform in isolation; their activities are embedded within systems of work design, resources, leadership, shared norms, formal procedures, and interdependent routines. International work-design research similarly demonstrates that the characteristics and organization of work shape how employees experience and perform their roles (Parker *et al.*, 2017). Public-sector research further suggests that relationships between individual characteristics and performance can vary according to features of the work and organizational setting rather than remaining uniform across situations (van Loon *et al.*, 2018).

The present study therefore distinguishes analytically between organizational conditions and behavioral regulation. Work environment, organizational culture, and leadership represent different features of the setting within which employees perform their roles, whereas work discipline reflects employees' reported adherence to schedules, procedures, responsibilities, and organizational requirements. This distinction does not imply that these constructs operate independently or that one category causally determines another. Rather, it provides an analytical basis for examining their unique statistical associations with employee performance within each of the two regression models considered in this study.

2.2 Social Exchange as an Interpretive Lens

Social Exchange Theory (SET) provides a useful theoretical lens for understanding why favorable organizational experiences may be associated with constructive employee responses. At its core, SET proposes that workplace relationships can develop through reciprocal exchanges in which employees respond to valued resources, support, and favorable treatment with positive attitudes and behaviors (Cropanzano & Mitchell, 2005). Within organizational research, this logic has been applied to relationships involving organizational support, supervisory treatment, leadership, commitment, and employee behavior.

In the present study, SET is particularly relevant to the interpretation of work environment and leadership. Supportive working conditions may signal that the organization provides employees with resources necessary to perform their responsibilities, while constructive leadership may communicate support, direction, and recognition. Employees who perceive such conditions favorably may, in turn, exhibit stronger effort and work-related behavior. Evidence from public-sector research also indicates that supportive management practices are associated with favorable employee motivational states across different administrative settings (Honig, 2021). However, SET should not be treated as a complete causal explanation for all variables included in the two models. Organizational culture concerns shared norms and meanings, whereas work discipline reflects behavioral adherence to organizational requirements. These constructs may intersect with exchange processes, but they are not themselves equivalent to exchange resources. More importantly, the available cross-sectional regression outputs do not permit the present study to test whether work environment, leadership, culture, or discipline operate through reciprocal mechanisms, mediation pathways, or interaction effects. SET is therefore

used as an interpretive framework for theoretically plausible associations, rather than as evidence that a particular causal mechanism has been empirically established.

This distinction is especially important for the comparison undertaken in this article. The coefficient associated with a predictor in multiple regression represents its unique statistical association with the outcome conditional on the other predictors included in that model. Consequently, differences between the two studies may reflect their different predictor configurations, measurements, samples, or organizational settings. The present analysis does not attempt to isolate which of these sources accounts for the observed differences.

2.3 Work Environment and Employee Performance

The work environment encompasses the physical and non-physical conditions surrounding employees as they perform their responsibilities. These conditions may include workspace adequacy, equipment and facilities, safety, communication, interpersonal relationships, and other features that facilitate or constrain task completion. Research on work design has long emphasized that characteristics of the work setting influence employees' opportunities to apply their capabilities and organize task activity effectively (Parker *et al.*, 2017). A supportive work environment may therefore be positively associated with employee performance because employees face fewer operational barriers and have better access to the resources needed to perform assigned tasks. Conversely, inadequate facilities, communication problems, unsafe conditions, or dysfunctional interpersonal relationships may create additional demands that make effective task execution more difficult. These relationships may be particularly relevant in service organizations where work activities require coordination and continuity across employees and functional units.

Empirical evidence from Indonesian public-service settings is generally consistent with this expectation. Syawaludin (2022) reported positive relationships between work discipline, work environment, and employee performance in a hospital setting. Irwandy and Rahmawati (2022) likewise documented the relevance of the work environment among hospital employees, while Aulia and Resawati (2023) reported a significant relationship between the non-physical work environment and employee performance in a local government institution. Taken together, this evidence provides a basis for expecting a positive association between work environment and employee performance in the public-hospital model examined in Study 1.H1. Work environment is positively and significantly associated with employee performance in the public-hospital model.

2.4 Work Discipline and Employee Performance

Work discipline refers to employees' willingness and consistency in adhering to organizational rules, attendance requirements, procedures, schedules, and assigned responsibilities. From a behavioral perspective, discipline represents a form of work regulation that may support reliability and predictability in task execution. Its relevance may be particularly visible in settings where attendance, punctuality, procedural adherence, and coordination are important components of everyday work.

Indonesian empirical studies have frequently reported positive relationships between work discipline and employee performance. Rahmawati and Nurhadian (2023) found significant associations involving work discipline and organizational culture in a government agency. Sarwana and Wahyuningtyas (2023) reported a positive discipline–performance relationship in a municipal emergency-service organization, while Hartati *et al.*, (2023), Syawaludin (2022), and Shilma *et al.*, (2022)

reported similar findings across public-works and health-service settings. This body of evidence provides a reasonable empirical basis for hypothesizing a positive discipline–performance association in both studies examined here.

A separate issue, however, concerns the incremental statistical contribution of work discipline. In multiple regression, the coefficient for discipline represents the association remaining after the other predictors included in the model have been held constant. Study 1 estimates this association alongside work environment, whereas Study 2 estimates it alongside organizational culture and leadership. Consequently, the two discipline coefficients are conditional on different covariate structures and should not be interpreted as directly equivalent estimates. One theoretical possibility is that some aspects of behavioral order represented by discipline may overlap with organizational conditions such as leadership and shared norms. For example, clear leadership expectations or strongly internalized norms may be associated with orderly work behavior. However, the present data do not test whether leadership or culture mediates, moderates, suppresses, or otherwise changes the relationship between discipline and performance. Such mechanisms therefore remain propositions for future research rather than explanations established by the current analysis.

Accordingly, the study evaluates the discipline–performance association separately within each regression model:

H2a. Work discipline is positively and significantly associated with employee performance in the public-hospital model.

H2b. Work discipline is positively and significantly associated with employee performance in the land-administration model.

The cross-study comparison is addressed descriptively through the following research question:

RQ1. How does the model-specific association between work discipline and employee performance differ descriptively across the two independently specified regression models?

2.5 Organizational Culture and Employee Performance

Organizational culture comprises shared values, assumptions, norms, and recurring behavioral expectations that influence how organizational members interpret appropriate ways of working. Culture can provide employees with common reference points regarding priorities, acceptable behavior, cooperation, accountability, and organizational objectives. In public organizations, these shared expectations may be particularly relevant because formal rules cannot anticipate every operational decision or interpersonal interaction. International evidence supports an association between organizational culture and organizational effectiveness, while also demonstrating that different cultural configurations are not uniformly related to all organizational outcomes. Hartnell *et al.*, (2011), in a meta-analysis of 84 studies and 94 independent samples, found that different culture types showed differentiated relationships with employee attitudes and indicators of organizational effectiveness. This evidence cautions against treating culture as a universally homogeneous performance mechanism, but it supports the broader expectation that shared organizational norms are relevant to employee and organizational outcomes.

Evidence from Indonesian organizations is broadly consistent with this literature. Pangarso *et al.*, (2021) reported relationships involving organizational culture and leadership in an Indonesian public organization. Febrianti and Isnawati (2023) found organizational culture, leadership, and work discipline to be associated with employee performance in a provincial public-sector setting, while Suryanto and

Kapoor (2023) reported significant associations involving organizational culture among employees of a district land office. These findings provide a basis for expecting organizational culture to retain a positive unique association with employee performance when considered alongside leadership and work discipline in the land-administration model.

H3. Organizational culture is positively and significantly associated with employee performance in the land-administration model.

2.6 Leadership and Employee Performance

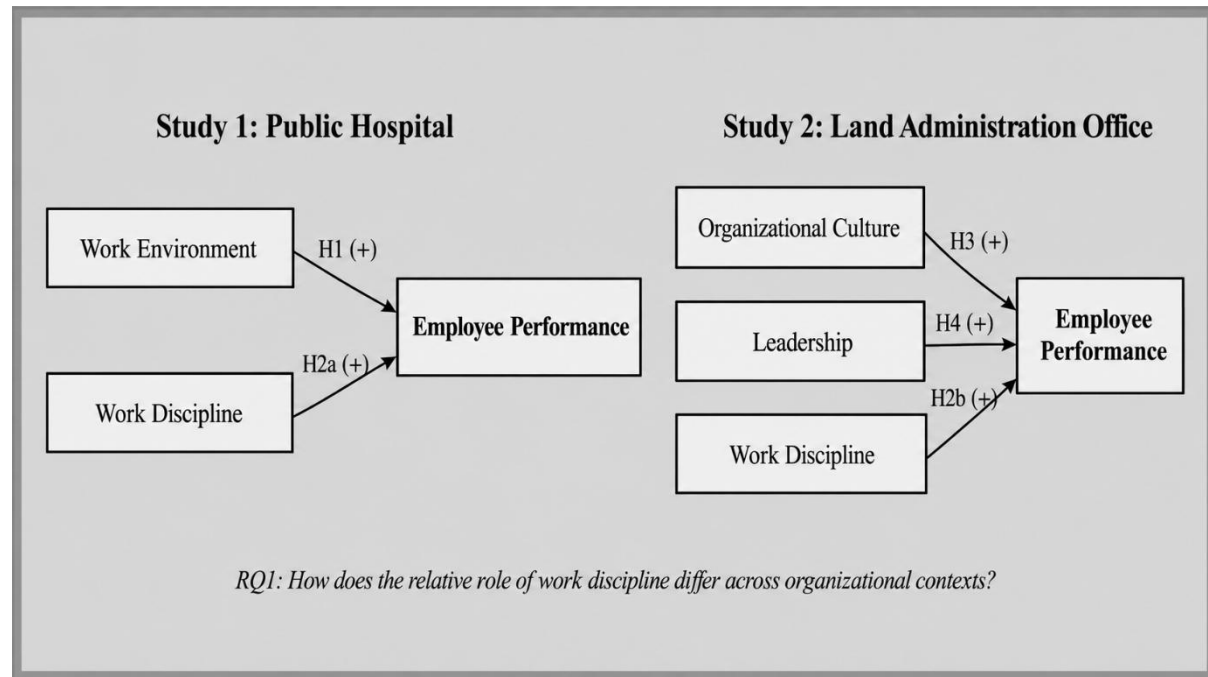
Leadership concerns the processes through which organizational members receive direction, priorities, support, feedback, and coordination. In public organizations, leadership may be particularly relevant because formal procedures frequently require managerial interpretation and coordination across roles and organizational units. Leaders may influence how employees understand organizational priorities, allocate attention, resolve work-related problems, and coordinate interdependent activities. A substantial international literature supports relationships between leadership and important employee and organizational outcomes. Judge and Piccolo's (2004) meta-analysis, based on 626 correlations from 87 sources, found meaningful relationships between several leadership forms and workplace criteria, while also demonstrating that the strength of these relationships differs across leadership dimensions and outcomes. Such evidence supports treating leadership as a potentially important organizational predictor without assuming that all leadership practices have identical consequences across settings.

Indonesian public-sector evidence points in a similar direction. Febrianti and Isnowati (2023) reported a significant relationship between leadership and employee performance, while Suryanto and Kapoor (2023) found leadership style to be significantly associated with employee performance in a district land office. These findings provide an empirical basis for expecting a positive leadership–performance association in Study 2. The inclusion of leadership alongside organizational culture and work discipline also has an important statistical implication. The leadership coefficient represents its unique association with performance after the other predictors are controlled, just as the discipline coefficient represents its own model-conditional association. The present study therefore does not assume that leadership substitutes for, reduces, or moderates the contribution of discipline. Establishing any such mechanism would require longitudinal data, mediation or moderation analysis, interaction terms, or a harmonized multi-group design that is unavailable in the current study.

H4. Leadership is positively and significantly associated with employee performance in the land-administration model.

2.7 Comparative Conceptual Framework

Figure 1 summarizes the two independent empirical models and the cross-context research question. The hospital model emphasizes an enabling work environment and behavioral discipline, whereas the land-administration model emphasizes culture, leadership, and discipline. The shared discipline construct provides the bridge for comparative interpretation, but no formal equality test is claimed because raw microdata were unavailable for a pooled multi-group analysis.

Figure 1. Comparative conceptual framework

3. Research Method

This article employs a structured cross-study comparison of statistical results reported in two independent cross-sectional studies. The analysis does not combine individual-level observations from the two studies, re-estimate the original regression models, or construct a pooled multi-site dataset. Instead, each study is treated as a separately specified empirical model, and the reported measurement information, regression coefficients, explanatory statistics, and diagnostic results are organized within a common comparative framework. Because the two studies differ in their samples, measurement instruments, and predictor configurations, the comparison is descriptive and model-specific rather than a formal test of whether regression coefficients differ across organizational contexts.

Study 1 was conducted among non-medical employees of a regional public hospital in Makassar. The source study reported a population of 45 non-medical employees and used a census approach, resulting in an analytical sample of 45 respondents. Data were collected using a Likert-scale questionnaire and analyzed through multiple linear regression. Work environment was measured using six items, work discipline using four items, and employee performance using four items. The reported corrected item correlations exceeded the stated critical value of .294. Cronbach's alpha coefficients were .754 for work environment, .640 for work discipline, and .813 for employee performance. The reliability of the work-discipline measure should be interpreted cautiously: although the coefficient exceeded the .60 criterion adopted in the source study, its value of .640 is below the conventional .70 benchmark and indicates comparatively modest internal consistency for a construct that is central to the present comparison.

Study 2 examined employees of a district land administration office in Bulukumba. The source document contains an unresolved inconsistency in the reported sample size. Its methodology narrative states that the population and sample consisted of 40 employees, whereas the respondent-profile tables and the principal statistical outputs—including the reliability analysis, normality test, regression ANOVA,

and coefficient table—are based on 63 observations. For example, the ANOVA table reports a total degree of freedom of 62, which is consistent with $N = 63$. The available statistical outputs therefore indicate that the reported regression model was estimated using 63 observations. However, because the underlying raw dataset is unavailable, the present study cannot independently determine the origin of the discrepancy or verify the provenance of the additional observations. Accordingly, $N = 63$ is reported only as the analytical N represented in the available statistical output, rather than as an independently verified sample size. This unresolved discrepancy is treated as a substantive limitation of Study 2 and of the cross-study comparison.

Study 2 measured organizational culture, leadership, work discipline, and employee performance using five items for each construct. The reported corrected item-total correlations exceeded the stated critical value of .205. Cronbach's alpha coefficients were .812 for organizational culture, .821 for leadership, .813 for work discipline, and .817 for employee performance. The reported variance inflation factors ranged from 1.744 to 2.258, indicating no apparent multicollinearity problem according to conventional diagnostic criteria. The source study also reported graphical residual diagnostics as approximately acceptable. However, its Kolmogorov–Smirnov test yielded $p = .006$, indicating a statistically detectable departure from normality under that test. Because the raw observations and residuals are unavailable, the present analysis cannot conduct alternative residual diagnostics or re-estimate the model using robust standard errors. The reported regression results are therefore retained as source-study evidence and interpreted with appropriate caution.

For both studies, the principal inferential evidence used in the present comparison is the multiple-regression coefficient table. Within each study, the regression coefficient estimates the conditional association between a predictor and employee performance while holding the other predictors included in that model constant. This distinction is particularly important because the covariate structures are not equivalent. Study 1 estimates the association of work discipline with employee performance while controlling for work environment, whereas Study 2 estimates the corresponding association while controlling for organizational culture and leadership. Consequently, the standardized coefficients from the two studies do not represent directly equivalent parameters.

Standardized beta coefficients are therefore interpreted primarily within each model to describe the relative magnitude of the reported conditional associations. Across the two studies, differences in coefficient sign, magnitude, and statistical significance are used only as descriptive evidence of different model-specific regression patterns. No statistical coefficient-difference test is conducted, and the article does not attribute the observed contrast uniquely to organizational context. Such an inference would require harmonized measurement instruments, comparable model specifications, access to respondent-level data, and an appropriate multi-group, interaction, or coefficient-equality analysis, none of which is available in the present study.

A further inferential inconsistency in Study 2 concerns the interpretation of work discipline. The multiple-regression coefficient table reports $B = -0.045$, $\beta = -0.042$, $t = -0.381$, and $p = .704$, indicating that work discipline does not have a statistically detectable unique association with employee performance after organizational culture and leadership are held constant. A later table in the source document reports one-sample t -tests in which each study variable is tested against a value of zero and subsequently interprets those results as evidence of predictor effects. This interpretation does not address the regression hypothesis. A one-sample t -test evaluates whether the mean of a variable differs from a specified test value; it does not estimate the conditional association between that variable and employee performance while controlling for other predictors. Therefore, H2b is evaluated using the

multiple-regression coefficient table, because that analysis corresponds directly to the hypothesized predictor–outcome relationship.

The methodological purpose of the comparison is thus limited but explicit. The study examines whether the reported conditional association between work discipline and employee performance appears consistent across two independently specified regression models. It does not test measurement invariance, contextual moderation, causal mechanisms, or statistical equality between the two coefficients. Any explanation for the observed contrast—including the possibility that organizational culture or leadership accounts for overlapping behavioral variance—should therefore be treated as a theoretical interpretation requiring direct empirical testing in future research.

Table 1. Comparative research design and analytical basis

Dimension	Study 1: Public hospital	Study 2: Land administration	Comparative treatment	Key caution
Analytical sample	45 non-medical employees	63 in all empirical output tables	Independent models; no pooling	Study 2 narrative also states 40; verify raw data
Sampling	Census	Reported as total sampling	Within-study inference only	No probability-based generalization
Predictors	Work environment; work discipline	Organizational culture; leadership; work discipline	Common discipline construct used for comparison	Different model specifications
Outcome	Employee performance	Employee performance	Conceptually harmonized	Measurement items differ
Analysis	Multiple linear regression	Multiple linear regression	Compare β , p , R^2 , diagnostics	No formal multi-group difference test

Source: *Harmonized from the two uploaded source studies.*

Table 2. Measurement quality reported in the two studies

Study	Construct	Items	Validity evidence	Cronbach's α
Study 1	Work environment	6	All item correlations > .294	.754
Study 1	Work discipline	4	All item correlations > .294	.640
Study 1	Employee performance	4	All item correlations > .294	.813
Study 2	Organizational culture	5	All item correlations > .205	.812
Study 2	Leadership	5	All item correlations > .205	.821
Study 2	Work discipline	5	All item correlations > .205	.813
Study 2	Employee performance	5	All item correlations > .205	.817

4. Results and Discussion

4.1 Analysis Results

The results are presented in three stages. First, descriptive statistics and reported model diagnostics are summarized for each study. Second, the multiple-regression results are presented separately for the



public-hospital and land-administration models. Third, the work-discipline coefficients are compared descriptively across the two independently specified models. Because the studies differ in their samples, measurement instruments, and predictor configurations, the cross-study comparison is not treated as a formal test of coefficient equality or contextual moderation.

Study 1 reported mean scores of 3.796 for work environment, 4.083 for work discipline, and 4.083 for employee performance on a five-point response scale. The corresponding standard deviations were .429, .436, and .420, respectively. The source study interpreted the residual P-P plot as approximately consistent with normality and reported no systematic pattern in the scatterplot. Variance inflation factor (VIF) values were 1.021 for both predictors, indicating no apparent multicollinearity problem within the model.

Study 2 reported respondent characteristics for the 63 observations represented in its empirical tables. Of these respondents, 52.4% were male and 47.6% were female. Most were between 21 and 40 years of age, and 36.5% had more than eight years of organizational tenure. The reported reliability coefficients for the four constructs exceeded .80, and VIF values ranged from 1.744 to 2.258. The graphical diagnostics were described in the source study as approximately acceptable. However, the reported Kolmogorov–Smirnov test yielded $p = .006$, indicating evidence against exact normality under that test. Because the respondent-level data are unavailable, no alternative distributional diagnostics or robust re-estimation can be conducted in the present study.

Table 3. Reported model diagnostics and explanatory statistics

Indicator	Study 1: Public hospital	Study 2: Land administration	Interpretation and caution
VIF	1.021 for both predictors	1.744–2.258	No apparent multicollinearity problem within either reported model
Normality evidence	P–P plot reported as approximately normal	Graphical diagnostics reported as approximately normal; K–S $p = .006$	Evidence for Study 2 is mixed and should be interpreted cautiously
Heteroskedasticity	Scatterplot showed no clear systematic pattern	Scatterplot showed no clear systematic pattern	Based on reported visual diagnostics only
R	.809	.780	Reported separately; not used for cross-model ranking
R ²	.654	.608	Model-specific explanatory statistics; not directly comparable because predictor sets and samples differ
Adjusted R ²	Not explicitly reported	.588	Reported only for Study 2; no cross-model comparison is made

Source: Comparative re-analysis of the two source studies.

4.1.1 Study 1: Public Hospital

The multiple-regression model for Study 1 was statistically significant, $F(2, 42) = 39.763$, $p < .001$, with $R^2 = .654$. The two predictors included in the model—work environment and work discipline—jointly accounted for 65.4% of the reported variance in employee performance. The regression equation reported in the source study was:

$$Y = 0.306 + 0.226 X_1 + 0.714 X_2$$



Work environment showed a positive and statistically significant conditional association with employee performance ($B = .226$, $SE = .090$, $\beta = .232$, $t = 2.527$, $p = .015$). H1 is therefore supported. The standardized coefficient indicates that work environment retained a positive unique association with employee performance after work discipline was held constant.

Work discipline also showed a positive and statistically significant conditional association with employee performance ($B = .714$, $SE = .088$, $\beta = .743$, $t = 8.103$, $p < .001$), supporting H2a. Among the two predictors included in Study 1, work discipline had the larger standardized coefficient. This result is interpreted only within the public-hospital regression model and should not be taken as evidence that discipline has the same relative importance in models containing different predictors.

Table 4. Study 1 multiple-regression results: Public hospital

Predictor	B	Std. Error	β	t	p
Constant	.306	.460	-	.665	.509
Work environment	.226	.090	.232	2.527	.015
Work discipline	.714	.088	.743	8.103	< .001

Source: Multiple-regression results reported in Study 1

4.1.2 Study 2: Land Administration Office

The multiple-regression model reported in Study 2 was statistically significant, $F(3, 59) = 30.482$, $p < .001$, with $R^2 = .608$ and adjusted $R^2 = .588$. Organizational culture, leadership, and work discipline jointly accounted for 60.8% of the reported variance in employee performance. Organizational culture showed a positive and statistically significant conditional association with employee performance ($B = .303$, $SE = .107$, $\beta = .304$, $t = 2.828$, $p = .006$), supporting H3. The coefficient represents the association between organizational culture and employee performance after leadership and work discipline are held constant.

Table 5. Study 2 multiple-regression results: Land administration office

Predictor	B	Std. Error	β	t	p
Constant	3.472	2.274	-	1.527	.132
Organizational culture	.303	.107	.304	2.828	.006
Leadership	.565	.120	.577	4.713	< .001
Work discipline	-.045	.118	-.042	-.381	.704

Leadership also showed a positive and statistically significant conditional association with employee performance ($B = .565$, $SE = .120$, $\beta = .577$, $t = 4.713$, $p < .001$), supporting H4. Leadership had the largest standardized coefficient among the three predictors included in the Study 2 regression model. This result describes its relative statistical contribution within that model and does not establish leadership as a causal mechanism of employee performance. Work discipline, in contrast, had $B = -.045$, $SE = .118$, $\beta = -.042$, $t = -.381$, and $p = .704$. H2b is therefore not supported. The reported coefficient is close to zero and statistically non-significant, indicating that work discipline did not retain a detectable

unique association with employee performance after organizational culture and leadership were held constant in Study 2.

This conclusion differs from the narrative interpretation contained in the source document, which relied on a subsequent one-sample t-test to infer a significant predictor relationship. For the present analysis, the multiple-regression coefficient is used because it corresponds directly to the hypothesis concerning the conditional association between work discipline and employee performance. A one-sample t-test of a variable against a fixed value does not estimate that relationship.

4.1.3 Cross-Study Comparison of Work-Discipline Associations

The two regression models show different model-specific patterns for work discipline. In Study 1, work discipline had a positive and statistically significant standardized coefficient ($\beta = .743$, $p < .001$) after work environment was held constant. In Study 2, the corresponding coefficient was small and statistically non-significant ($\beta = -.042$, $p = .704$) after organizational culture and leadership were held constant. This contrast is descriptively notable but should not be interpreted as evidence that the work-discipline coefficient differs statistically because of organizational context. The two coefficients were estimated from different samples, using different measurement instruments and different covariate structures. In particular, Study 1 conditions the discipline coefficient on work environment, whereas Study 2 conditions it on organizational culture and leadership. The standardized coefficients therefore do not represent directly equivalent parameters.

Accordingly, the cross-study evidence supports a limited conclusion: the reported conditional association between work discipline and employee performance was not consistent across the two independently specified regression models. The available evidence does not establish whether this difference arises from organizational context, measurement differences, sample characteristics, model specification, or some combination of these factors.

The results also do not establish that leadership or organizational culture reduces, substitutes for, mediates, or moderates the association between work discipline and employee performance. Such explanations remain theoretically plausible but require direct testing with harmonized measures and respondent-level data. They are therefore considered in the Discussion as propositions for future research rather than as empirical findings of the present comparison.

Table 6. Descriptive Comparison of model-specific regression patterns

Study	Predictors included in model	Work-discipline result	Largest standardized coefficient within model	Cross-study interpretation
Public hospital	Work environment; work discipline	$\beta = .743$, $p < .001$	Work discipline, $\beta = .743$	Discipline retains a strong positive conditional association within this model Discipline does not retain a statistically detectable unique association within this model
Land administration	Organizational culture; leadership; work discipline	$\beta = -.042$, $p = .704$	Leadership, $\beta = .577$	

Source: Comparative re-analysis of the two source studies.

4.1.4 Hypothesis Decisions

Table 7. Summary of hypotheses and comparative research questions

Code	Model-specific relationship	Expected direction/status	Empirical result	Conclusion
H1	Work environment–employee performance, Study 1	Positive association	$\beta = .232$; $p = .015$	Supported
H2a	Work discipline–employee performance, Study 1	Positive association	$\beta = .743$; $p < .001$	Supported
H2b	Work discipline–employee performance, Study 2	Positive association	$\beta = -.042$; $p = .704$	Not supported
H3	Organizational culture–employee performance, Study 2	Positive association	$\beta = .304$; $p = .006$	Supported
H4	Leadership–employee performance, Study 2	Positive association	$\beta = .577$; $p < .001$	Supported
RQ1	Model-specific work-discipline association across the two studies	Descriptive comparison	Significant and positive in Study 1; non-significant in Study 2	Different model-specific patterns; contextual attribution not tested

Source: Comparative re-analysis of the two source studies.

4.2 Discussion

The principal finding of this study is not that organizational context has been demonstrated to alter the effect of work discipline, but that the reported conditional association between work discipline and employee performance differs substantially across two independently specified regression models. In the public-hospital model, work discipline showed a strong positive and statistically significant association with employee performance after work environment was held constant. In the land-administration model, however, work discipline showed no statistically detectable unique association after organizational culture and leadership were included. This contrast indicates that the statistical contribution attributed to work discipline is not consistent across the two reported models. Because the studies differ in their samples, measurement instruments, and covariate structures, the observed difference should be interpreted as a model-specific pattern rather than evidence of a formally established contextual effect.

The first theoretical implication therefore concerns the assumption of universality in the discipline–performance relationship. Applied human-resource research often treats statistically significant relationships reported in individual organizational settings as if they represent stable properties of the constructs themselves. The present comparison illustrates why such an interpretation requires caution. A regression coefficient reflects the unique association of a predictor conditional on the other variables included in the model. In Study 1, the discipline coefficient is estimated while controlling only for work environment, whereas in Study 2 it is estimated while controlling for organizational culture and leadership. Accordingly, the difference between $\beta = .743$ and $\beta = -.042$ cannot be attributed exclusively to the hospital versus land-administration setting. Nevertheless, the contrast shows that conclusions regarding the importance of discipline are sensitive to the empirical configuration in which discipline is examined.

A second theoretical implication concerns the distinction between organizational conditions and behavioral regulation. Work environment, organizational culture, and leadership represent different features of the organizational setting, whereas work discipline represents reported adherence to schedules, procedures, responsibilities, and organizational requirements. This distinction provides a useful way to interpret the two regression models without assuming that one set of variables causally displaces another. In Study 2, organizational culture and leadership retained significant conditional associations with employee performance while discipline did not. One possible explanation is that some of the behavioral order represented by discipline overlaps conceptually with expectations, norms, or coordination reflected in leadership and organizational culture. However, this possibility was not tested directly. The available results cannot determine whether leadership or culture mediates, moderates, suppresses, substitutes for, or otherwise changes the discipline–performance relationship.

This limitation is theoretically important because it points toward a more precise research agenda. Future studies should move beyond parallel direct-effect models and explicitly examine the relationships among organizational conditions, behavioral regulation, and employee performance. For example, longitudinal or harmonized multi-site designs could test whether organizational culture and leadership are associated with work discipline, whether discipline mediates part of their relationship with performance, or whether organizational characteristics moderate the discipline–performance association. Such questions require common measurement instruments, comparable model specifications, respondent-level data, and formal tests of indirect effects, interactions, or coefficient equality. The present study identifies these possibilities but does not provide evidence sufficient to adjudicate among them.

The third contribution is methodological. Study 2 illustrates how substantive conclusions can change when statistical evidence is aligned with the research question being tested. The source document interpreted a one-sample t-test as evidence that work discipline significantly predicted employee performance. However, a one-sample t-test evaluates whether the mean of a variable differs from a specified test value and does not estimate the variable's conditional association with employee performance. The multiple-regression coefficient therefore provides the relevant evidence for H2b. On that basis, work discipline was not statistically significant after organizational culture and leadership were held constant. The importance of this correction extends beyond the particular study: interpretation should follow the statistical procedure that directly corresponds to the substantive hypothesis rather than the mere presence of a statistically significant test elsewhere in an analysis.

The findings also have cautious practical implications. In the public-hospital model, both work environment and work discipline were positively associated with employee performance, with discipline showing the larger standardized coefficient within that model. This pattern suggests that hospital managers may reasonably pay attention to issues such as attendance reliability, adherence to procedures, scheduling, and the working conditions that enable employees to fulfil those requirements. However, the present evidence does not establish that strengthening discipline practices would itself cause an improvement in performance. The results identify statistical associations that may help inform organizational diagnosis rather than providing direct evidence of intervention effectiveness.

For the land-administration setting, organizational culture and leadership showed significant positive associations with employee performance, whereas work discipline did not retain a significant unique association within the reported model. This finding suggests that leadership practices and shared organizational norms warrant attention when managers assess factors associated with employee performance in similar administrative settings. It does not imply that discipline is unimportant in

practice, nor does it establish that leadership interventions would outperform discipline-related interventions. The regression evidence addresses unique statistical association, not comparative intervention effectiveness.

More broadly, the two studies caution against translating regression rankings directly into prescriptive management priorities. A large standardized coefficient within one model does not necessarily identify the most effective intervention, and a non-significant coefficient does not demonstrate that the underlying organizational practice is irrelevant. Managerial decisions should therefore combine statistical evidence with organizational diagnosis, operational requirements, and additional evidence regarding the causes of performance problems. In this sense, the principal practical implication of the study is not that one public organization should emphasize discipline while another should emphasize leadership. Rather, it is that performance-related evidence should be interpreted in relation to the specific variables, measures, and organizational conditions represented in the analytical model.

Finally, Social Exchange Theory remains useful as an interpretive lens for understanding why supportive working conditions and constructive leadership may be associated with favorable employee responses. Employees who perceive organizational resources and supportive treatment may reciprocate through stronger work-related attitudes and behaviors (Cropanzano & Mitchell, 2005). However, the present results do not directly test reciprocal exchange processes. Nor do they establish that work discipline is generated by organizational culture or leadership. SET therefore provides a plausible theoretical framework for interpreting some of the observed associations, while the mechanisms linking organizational conditions, discipline, and performance remain questions for future empirical investigation.

5. Conclusion

This study compared the reported results of two independently specified regression models to examine whether the model-specific association between work discipline and employee performance was consistent across two Indonesian public-service studies. In the public-hospital model, work environment and work discipline jointly accounted for 65.4% of the reported variance in employee performance, and work discipline showed the larger standardized coefficient within that model ($\beta = .743$, $p < .001$). In the land-administration model, organizational culture and leadership showed statistically significant positive associations with employee performance, whereas work discipline did not retain a statistically detectable unique association after those predictors were held constant ($\beta = -.042$, $p = .704$).

The principal conclusion is therefore deliberately limited. The reported association between work discipline and employee performance differs across the two regression models, but the available evidence does not establish that organizational context caused this difference. The studies were based on different samples, measurement instruments, and predictor configurations, and no respondent-level data were available for coefficient-equality testing, measurement-invariance assessment, pooled estimation, or formal moderation analysis. The findings should consequently be interpreted as evidence of different model-specific regression patterns rather than a statistically established contextual effect.

This distinction has an important substantive implication. Work discipline should not automatically be treated as a universally stable predictor whose statistical contribution is expected to remain unchanged across organizational models. Its estimated coefficient is conditional on the variables

included in the regression, the way constructs are measured, and the characteristics of the sampled employees and organization. The present comparison therefore supports a more cautious interpretation of discipline–performance evidence: the contribution associated with discipline may appear substantial in one empirical specification and negligible in another, but identifying the source of that difference requires a research design capable of separating organizational context from measurement and model-specification differences.

The study also provides a methodological contribution concerning the interpretation of statistical evidence. In Study 2, the multiple-regression coefficient for work discipline was statistically non-significant, whereas a subsequent one-sample t-test had been interpreted in the source document as evidence of a significant predictor relationship. Because a one-sample t-test does not estimate the conditional association between a predictor and an outcome, the multiple-regression coefficient provides the appropriate inferential basis for evaluating H2b. This example reinforces the importance of aligning substantive conclusions with the statistical procedure that directly addresses the research hypothesis.

Several limitations constrain the interpretation of the findings. First, the two studies were not designed as a coordinated multi-site investigation and used different measurement instruments and predictor sets. Consequently, standardized coefficients are interpreted primarily within their respective models and compared across studies only descriptively. Second, Study 2 contains an unresolved sample-size inconsistency: its methodology narrative reports a population and sample of 40 employees, whereas the principal empirical tables are based on 63 observations. Although the reported statistical outputs are internally consistent with an analytical N of 63, the absence of the original respondent-level dataset prevents independent verification of the provenance of this discrepancy. This issue should therefore be considered when evaluating the evidential strength of Study 2. Third, the internal consistency of the work-discipline measure in Study 1 was modest (Cronbach's $\alpha = .640$), which introduces additional measurement uncertainty into the comparison. Fourth, Study 2 reported mixed evidence regarding normality, including a Kolmogorov–Smirnov p-value of .006. Finally, both source studies were cross-sectional and relied on self-reported measures, limiting causal inference and leaving the results potentially susceptible to common-method and response biases.

Future research should address these limitations using coordinated multi-site designs in which the same constructs are measured with equivalent instruments across public-service organizations. Such designs would allow researchers to test measurement invariance before comparing structural relationships and to evaluate coefficient differences through multi-group analysis or formally specified interaction models. Longitudinal designs would further strengthen temporal inference. Future studies could also test whether organizational culture and leadership mediate, moderate, or otherwise relate to the discipline–performance association, rather than inferring such mechanisms from differences between independently estimated regression models. These analyses would help determine whether the patterns observed here reflect genuine organizational contingencies, differences in model specification, measurement characteristics, or combinations of these factors.

Overall, the study does not demonstrate that work discipline has a context-dependent causal effect on employee performance. Instead, it shows that the reported unique association of work discipline with employee performance is not stable across the two independently specified models examined here. This more limited conclusion is also the more informative one: it highlights the need to interpret regression coefficients as model-conditional estimates and provides a basis for future research

designed specifically to test when, how, and under what organizational conditions work discipline is associated with employee performance.

Statement of Use of Generative AI

During the preparation of this work, the author used generative artificial intelligence tools to support the scientific writing process. Grammarly was used to check grammar, refine writing style, and improve clarity in scientific writing. All interpretations, analyses, and conclusions presented in this study are the sole responsibility of the author.

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