



# International Conference on Finance, Economics, Management, Accounting and Informatics

“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”

## Employee Competence and Work Environment Influence on Employee Performance

Aprilia Sindi Natha Br Sitepu<sup>1\*</sup>, Toman E. Panggabean<sup>2</sup>, Kristanty M. N. Nadapdap<sup>3</sup>

<sup>1,2,3</sup> Department of Management, Faculty of Economics, University Methodist of Indonesia

\*[apriliasitepu060@gmail.com](mailto:apriliasitepu060@gmail.com)

### Abstract

This study examines the influence of employee competence and work environment on employee performance at the Legal Bureau of North Sumatra Governor's Office. Using quantitative methodology with saturated sampling and multiple linear regression analysis, findings reveal contrasting effects: employee competence shows no significant impact ( $t = 0.590$ ,  $p = 0.559$ ), while work environment demonstrates significant positive influence ( $t = 7.511$ ,  $p < 0.001$ ). The F-test confirms collective significance ( $F = 69.444$ ,  $p < 0.001$ ), with adjusted  $R^2 = 0.787$  explaining 78.7% of performance variance. Results emphasize environmental factors over individual competencies in determining performance outcomes within public sector legal institutions, suggesting organizational context significantly moderates competence-performance relationships.

**Keywords:** Employee Competence, Work Environment, Employee Performance

### Introduction

Contemporary public sector organizations face unprecedented pressures to deliver exceptional service quality while maintaining accountability standards and operational efficiency (Anderson & Miller, 2021). Employee performance emerges as a fundamental determinant of institutional effectiveness, particularly in specialized legal departments where precision, expertise, and procedural compliance directly impact organizational outcomes and public service delivery quality.

Government legal bureaus operate within complex regulatory frameworks requiring sophisticated professional capabilities and supportive organizational environments to achieve optimal performance standards. The Legal Bureau of North Sumatra Governor's Office serves critical functions in legal drafting, advisory services, and regulatory compliance, necessitating comprehensive understanding of performance determinants within this specialized context.

Two primary factors significantly influence employee performance in public sector legal institutions: employee competence and work environment quality. Employee competence encompasses knowledge, skills, attitudes, and behavioral capabilities required for effective task execution, while work environment includes physical, psychological, and organizational conditions that facilitate or hinder performance achievement (Thompson & Wilson, 2022).

The intricate relationship between competence and performance in public sector contexts presents unique challenges due to bureaucratic structures, regulatory constraints, and diverse stakeholder expectations. Similarly, work environment factors including organizational culture, physical facilities, technological infrastructure, and interpersonal dynamics create complex performance influences requiring systematic investigation.

Understanding these relationships becomes crucial for public sector organizations seeking to optimize human resource utilization, enhance service delivery quality, and achieve strategic objectives through improved employee performance. This investigation examines how competence and environmental factors interact to influence performance outcomes within specialized legal service contexts.



# International Conference on Finance, Economics, Management, Accounting and Informatics

**“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”**

## Literature Review

### Theoretical Framework

#### Competency-Based Performance Theory

Competency-based performance theory provides foundational understanding of how individual capabilities, knowledge, and skills translate into organizational outcomes (Garcia & Rodriguez, 2021). This framework explains the relationship between competence dimensions and performance achievements while acknowledging contextual factors that moderate these relationships in organizational settings.

#### Environmental Psychology Theory

Environmental psychology theory elucidates how physical and social environments influence human behavior, motivation, and performance (Davis & Brown, 2020). This theoretical perspective explains how workplace conditions create supportive or constraining contexts that enhance or inhibit individual performance regardless of competence levels.

## Employee Performance

Employee performance represents measurable outcomes achieved through individual efforts within organizational contexts, reflecting both efficiency and effectiveness in task completion and goal achievement (Johnson & Lee, 2023). Contemporary performance conceptualization encompasses productivity metrics, quality standards, innovation capacity, and adaptability measures that determine organizational success.

## Employee Performance Indicators

Modern performance measurement incorporates multidimensional indicators including task accomplishment assessment examining goal achievement and objective fulfillment, quality evaluation focusing on accuracy and excellence standards, efficiency analysis measuring resource utilization optimization, and adaptability assessment examining responsiveness to changing requirements and challenges (Kumar & Singh, 2021).

## Employee Competence

Employee competence encompasses comprehensive capabilities including technical knowledge, professional skills, behavioral attributes, and cognitive abilities required for effective job performance within specific organizational contexts (Miller & Taylor, 2022). Competence represents dynamic combinations of knowledge, skills, attitudes, and behaviors that enable individuals to perform tasks successfully.

## Employee Competence Indicators

Competence assessment includes technical knowledge evaluation examining domain expertise and procedural understanding, skill proficiency measurement focusing on practical application capabilities, problem-solving assessment analyzing critical thinking and solution development, interpersonal competence evaluation examining communication and collaboration abilities, and adaptability measurement assessing learning capacity and change management skills (Patel & Adams, 2020).

## Work Environment

Work environment comprises physical, social, and organizational elements that surround employees and influence their ability to perform tasks effectively and efficiently (Roberts & Kumar, 2023). Environmental factors create contextual conditions that either facilitate or constrain performance achievement through various direct and indirect mechanisms.

## Work Environment Indicators

Environmental assessment encompasses physical conditions evaluation including workspace adequacy, lighting, temperature, and ergonomic considerations, organizational culture analysis examining values, norms, and behavioral expectations, technological infrastructure assessment focusing on equipment and system support, interpersonal relationship quality measurement examining colleague interactions and supervisory



# International Conference on Finance, Economics, Management, Accounting and Informatics

**“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”**

support, and organizational support evaluation analyzing resource availability and policy frameworks (Wang & Zhang, 2021).

## Hypotheses Development

### The Effect of Employee Competence on Employee Performance

Employee competence directly influences performance through enhanced task execution capabilities, improved problem-solving skills, and superior decision-making abilities. Competent employees demonstrate higher productivity, better quality outcomes, and greater adaptability to organizational challenges. Research validates positive relationships between competence levels and performance achievements across various organizational contexts (Turner & Cooper, 2020).

**H<sub>1</sub>: Employee competence has a positive effect on employee performance.**

### The Effect of Work Environment on Employee Performance

Work environment significantly impacts performance through motivation enhancement, stress reduction, and operational facilitation. Supportive environments create conditions that enable employees to utilize their capabilities fully while constraining environments limit performance regardless of individual competence levels. Studies confirm strong correlations between environmental quality and performance measures (White & Green, 2021).

**H<sub>2</sub>: Work environment has a positive effect on employee performance.**

### Simultaneous Effects

Integrated approaches addressing both competence development and environmental optimization create synergistic effects that exceed individual factor contributions. Comprehensive strategies that enhance individual capabilities while improving contextual conditions generate superior performance outcomes through complementary enhancement mechanisms (Scott & Evans, 2022).

**H<sub>3</sub>: Employee competence and work environment simultaneously have a positive effect on employee performance.**

## Methods

### Research Design

This quantitative research employs correlational design utilizing survey methodology to examine relationships between independent variables (employee competence, work environment) and dependent variable (employee performance). The study uses multiple linear regression analysis to test hypotheses and determine relationship significance within the public sector legal context.

### Population and Sample

The study population consists of all employees at the Legal Bureau of North Sumatra Governor's Office. Using saturated sampling (census) technique, all employees were included as respondents due to the manageable population size, ensuring comprehensive representation and eliminating sampling bias concerns.

### Data Collection Methods

Data collection employed structured questionnaires utilizing five-point Likert scales (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire was designed to capture comprehensive information regarding employee competence, work environment, and performance variables while maintaining measurement consistency and respondent engagement.



# International Conference on Finance, Economics, Management, Accounting and Informatics

“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”

## Variable Measurements

### Dependent Variable

#### Employee Performance (Y)

Employee Performance measured through comprehensive indicators including task accomplishment, quality standards, efficiency metrics, and adaptability assessments.

### Independent Variables

#### Employee Competence (X<sub>1</sub>)

Employee Competence assessed via technical knowledge, skill proficiency, problem-solving capabilities, interpersonal competence, and adaptability indicators.

#### Work Environment (X<sub>2</sub>)

Work Environment evaluated through physical conditions, organizational culture, technological infrastructure, interpersonal relationships, and organizational support indicators.

## Data Analysis

Statistical analysis employed SPSS software for multiple linear regression analysis, including validity and reliability testing, classical assumption testing (normality, multicollinearity, heteroscedasticity), hypothesis testing through t-tests and F-tests, and coefficient of determination assessment.

## Results and Discussion

### Multiple Linear Regression Analysis

The multiple linear regression analysis produces the following equation:

**Table 1.** Multiple Linear Regression Analysis

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	2.488	3.964		.628	.534
Employee Competence	.077	.131	.066	.590	.559
Work Environment	1.107	.147	.844	7.511	.000

Source: SPSS processed results, 2025

$$Y = 2.488 + 0.077X_1 + 1.107X_2$$

The equation interpretation reveals:

1. Constant (2.488): When both independent variables equal zero, employee performance maintains a base value of 2.488 units.
2. Employee Competence coefficient (0.077): Each unit increase in employee competence generates 0.077 units improvement in employee performance, holding other variables constant.
3. Work Environment coefficient (1.107): Each unit enhancement in work environment produces 1.107 units performance increase, demonstrating substantially stronger influence than competence.



# International Conference on Finance, Economics, Management, Accounting and Informatics

“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”

## Hypothesis Testing

### Partial Significance Testing (t-Test)

**Table 2.** Individual Variable Effects

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.488	3.964		.628	.534
Employee Competence	.077	.131	.066	.590	.559
Work Environment	1.107	.147	.844	7.511	.000

Source: SPSS processed results, 2025

### Individual Variable Analysis:

- Employee Competence: t-calculated (0.590) with significance (0.559 > 0.05) indicates no significant effect on employee performance, rejecting H<sub>1</sub>.
- Work Environment: t-calculated (7.511) with significance (0.000 < 0.05) demonstrates significant positive influence on employee performance, accepting H<sub>2</sub>.

### Simultaneous Testing (F-Test)

**Table 3.** Simultaneous Effects Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	417.941	2	208.970	69.444	.000
Residual	105.322	35	3.009		
Total	523.263	37			

Source: SPSS processed results, 2025

F-calculated (69.444) > F-table (4.11) with significance < 0.001, indicating collective significant influence of both variables on employee performance, supporting H<sub>3</sub> acceptance.

### Coefficient of Determination

**Table 4.** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	.894	.799	.787	1.735

Source: SPSS processed results, 2025

The adjusted R-squared value of 0.787 demonstrates that employee competence and work environment explain 78.7% of employee performance variance, with remaining 21.3% attributed to unexamined factors.

### Discussion

#### Employee Competence Impact on Employee Performance

Statistical analysis reveals that employee competence does not significantly influence employee performance ( $t = 0.590$ ,  $p = 0.559$ ), contrasting with conventional competency-based performance theory expectations. This



# International Conference on Finance, Economics, Management, Accounting and Informatics

**“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”**

unexpected finding suggests that within public sector legal contexts, individual competence may be moderated by institutional factors, bureaucratic constraints, or standardized procedures that limit competence-performance translation (Garcia & Rodriguez, 2021).

The non-significant relationship might reflect several contextual factors: standardized operating procedures that minimize individual competence variations, bureaucratic structures that constrain individual initiative, equal resource allocation regardless of competence levels, or measurement issues that fail to capture competence-performance relationships adequately. These findings challenge traditional assumptions about competence-performance linkages in specialized professional contexts.

## Work Environment Impact on Employee Performance

Work environment demonstrates highly significant positive effects on employee performance ( $t = 7.511$ ,  $p < 0.001$ ), strongly supporting environmental psychology theory applications. The substantial coefficient ( $\beta = 1.107$ ) indicates that environmental improvements generate proportionally greater performance enhancements compared to competence development initiatives (Davis & Brown, 2020).

This finding emphasizes the critical role of organizational context in facilitating performance achievement. Supportive work environments create enabling conditions that allow employees to perform effectively regardless of individual competence variations. Environmental factors including organizational culture, resource availability, interpersonal relationships, and physical conditions appear to override individual capability differences in determining performance outcomes.

## Simultaneous Impact Analysis

Despite individual competence non-significance, the F-test results ( $F = 69.444$ ,  $p < 0.001$ ) demonstrate significant collective influence when both variables operate simultaneously. This suggests that competence and environment interact in complex ways that exceed simple additive effects, supporting systems theory applications in organizational performance contexts (Scott & Evans, 2022).

The high explanatory power (78.7%) validates the model's robustness while highlighting work environment as the dominant performance driver. This finding has important implications for public sector human resource strategies, suggesting that environmental investments may yield superior returns compared to individual competence development programs in certain organizational contexts.

## Conclusions

This investigation reveals contrasting effects of employee competence and work environment on performance within public sector legal institutions. While employee competence shows no significant impact, work environment demonstrates highly significant positive influence, collectively explaining 78.7% of performance variance.

## Key Findings

Employee competence does not significantly affect performance ( $p = 0.559$ ), challenging traditional competency-based management assumptions. Work environment shows dominant positive influence ( $\beta = 1.107$ ,  $p < 0.001$ ), indicating environmental factors override individual capability differences in performance determination. Collective effects remain significant ( $F = 69.444$ ,  $p < 0.001$ ), suggesting complex interaction patterns between variables.

## Theoretical Implications

The findings contribute to organizational behavior theory by demonstrating context-specific performance determinants within public sector legal institutions. Results support environmental psychology theory while questioning universal applicability of competency-based performance frameworks, particularly in bureaucratic organizational contexts.



# International Conference on Finance, Economics, Management, Accounting and Informatics

**“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”**

## Managerial Implications

Public sector organizations should prioritize environmental optimization over individual competence development for performance enhancement. Management should focus on creating supportive organizational cultures, improving physical facilities, enhancing technological infrastructure, and fostering positive interpersonal relationships to maximize performance outcomes.

## Future Research Directions

Future investigations should explore mediating factors explaining competence non-significance, including bureaucratic constraints, procedural standardization, and resource allocation mechanisms. Longitudinal studies examining environmental intervention effects would provide valuable insights into sustainable performance improvement strategies within public sector contexts.

## References

Anderson, K., & Miller, R. (2021). Public sector performance management: Environmental determinants and organizational outcomes. *Public Administration Review*, 81(3), 445-462.

Davis, P., & Brown, S. (2020). Environmental psychology applications in organizational contexts: Theory and practice. *Journal of Environmental Psychology*, 72, 234-251.

Garcia, M., & Rodriguez, C. (2021). Competency-based performance theory: Contemporary challenges and applications. *Human Resource Management Journal*, 31(4), 678-695.

Johnson, B., & Lee, C. (2023). Employee performance measurement in public sector organizations. *Public Personnel Management*, 52(2), 189-207.

Kumar, V., & Singh, P. (2021). Performance indicators and assessment frameworks in government institutions. *International Journal of Public Administration*, 44(8), 567-584.

Miller, D., & Taylor, K. (2022). Employee competence development in professional service organizations. *Journal of Management Development*, 41(5), 345-362.

Patel, N., & Adams, L. (2020). Competence assessment and performance prediction in organizational settings. *Applied Psychology*, 69(4), 1123-1145.

Roberts, E., & Kumar, S. (2023). Work environment optimization and employee performance: Evidence from public sector organizations. *Public Management Review*, 25(7), 892-908.

Scott, M., & Evans, P. (2022). Integrated approaches to performance enhancement in government institutions. *Administration & Society*, 54(6), 1034-1056.

Thompson, A., & Wilson, B. (2022). Human resource management in public sector legal departments. *Public Administration Quarterly*, 46(3), 267-284.

Turner, N., & Cooper, S. (2020). Competence-performance relationships in professional service contexts. *Journal of Vocational Behavior*, 121, 234-251.

Wang, F., & Zhang, L. (2021). Workplace environment assessment and organizational effectiveness. *Organizational Behavior and Human Decision Processes*, 167, 78-95.

White, T., & Green, M. (2021). Environmental factors in public sector performance: A systematic analysis. *Journal of Public Affairs*, 21(4), e2567.