

Predictive Model of Employee Performance Based on Job Satisfaction and Organizational Culture: A Quantitative Approach at the North Sulawesi Provincial Office of the National Land Agency

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ABSTRACT: Employee performance is a fundamental determinant of organizational success, particularly within the public sector where service quality directly influences public trust. Recent surveys by the Ministry of Administrative and Bureaucratic Reform (2023) indicated that 68% of Indonesian citizens remain dissatisfied with public services, highlighting the urgent need to strengthen employee performance in government institutions. Among various determinants, job satisfaction and organizational culture have consistently been recognized as critical factors, yet empirical evidence in the Indonesian public sector remains limited and inconclusive.

This study aims to analyze the direct and indirect effects of organizational culture and job satisfaction on employee performance, with a particular focus on the mediating role of job satisfaction. A quantitative research design was employed using path analysis with SmartPLS. The population consisted of all employees of the Regional Office of the National Land Agency (BPN) North Sulawesi (n = 114), surveyed through a structured questionnaire. Validity and reliability tests confirmed the robustness of the instrument, and model evaluation was conducted through R², SRMR, NFI, and bootstrapping procedures.

The results demonstrate that organizational culture positively and significantly affects both employee performance ($\beta=0.32$; $p<0.05$) and job satisfaction ($\beta=0.56$; $p<0.001$). Furthermore, job satisfaction exerts a stronger direct effect on performance ($\beta=0.46$; $p<0.01$) and mediates the relationship between organizational culture and performance. The model explains 68% of the variance in employee performance, indicating substantial explanatory power.

In conclusion, both organizational culture and job satisfaction serve as key drivers of employee performance in public institutions. The findings provide theoretical contributions by extending evidence to the public sector context and practical implications for policymakers to strengthen organizational values, reward systems, and career development strategies to enhance public service delivery.

KEYWORDS: Employee Performance, Job Satisfaction, Organizational Culture, Mediation, Public Sector, SmartPLS

I. INTRODUCTION

Employee performance is a critical determinant of organizational success, particularly in the public sector where effectiveness is measured by the quality of public services delivered to society. In bureaucratic institutions, the quality of performance directly influences public trust and satisfaction. A national survey conducted by the Ministry of Administrative and Bureaucratic Reform (PAN-RB) in 2023 revealed that 68% of Indonesian citizens remain dissatisfied with public service delivery, citing administrative delays and lack of professionalism as the primary concerns. This condition underscores the urgent need to improve employee performance in government institutions.

Among the numerous factors that influence employee performance, job satisfaction has been consistently identified as one of the most significant. Job satisfaction encompasses compensation, work environment, interpersonal relationships, and organizational policies. Robbins and Judge (2020) emphasized that employees with higher job satisfaction tend to demonstrate better productivity, loyalty, and motivation. Conversely, low levels of satisfaction are associated with reduced motivation, higher turnover, and weaker commitment (Kurnia & Sitorus, 2022). In addition, organizational culture serves as a key determinant in shaping performance. Organizational culture reflects shared values, norms, and practices that guide employees' behaviors. Hofstede (2021) highlighted that organizations with adaptive and inclusive cultures achieve significantly higher productivity compared to those constrained by rigid bureaucratic systems.

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The Regional Office of the National Land Agency (BPN) of North Sulawesi exemplifies the issue of declining employee performance. In 2023, the institution recorded a performance index of 73.33, ranking 21st out of 33 provinces and far below the leading office in Bali with a score of 117.62. Internal records further indicated a decline in employees rated as “very good,” while the proportion of those rated “sufficient” increased. Compensation disparities also play a role in shaping job satisfaction, as employees at BPN receive lower allowances compared to those in other ministries for equivalent positions. Preliminary surveys in the Manado City Land Office indicated that although the majority of employees were satisfied with their allowances, a notable portion (6.7%) expressed dissatisfaction regarding fairness in allowance deductions.

While the relationship among organizational culture, job satisfaction, and performance has been widely examined, most existing studies focus on the private sector, leaving public institutions relatively underexplored (Putra & Utama, 2020). Moreover, findings in prior research remain inconclusive. For instance, Hartnell et al. (2011) found a direct relationship between organizational culture and performance, whereas other studies suggested that job satisfaction plays a mediating role (Riyanto et al., 2017). This inconsistency highlights a theoretical and empirical gap that warrants further investigation in the Indonesian public sector context.

The present study aims to address this gap by analyzing the direct and indirect effects of organizational culture and job satisfaction on employee performance. Specifically, it investigates whether job satisfaction mediates the relationship between organizational culture and employee performance. Employing a quantitative approach with path analysis using SmartPLS, this study proposes a predictive model that not only advances theoretical understanding but also offers practical solutions for organizational improvement.

This research contributes in two key ways. Theoretically, it extends the literature by providing empirical evidence of how organizational culture and job satisfaction interact to influence performance in a public bureaucracy. Practically, it offers actionable insights for policymakers at BPN North Sulawesi to design strategies that enhance employee satisfaction and strengthen organizational culture, thereby improving overall service delivery. Hence, this study holds significance both in the academic domain and in supporting effective governance practices..

II. RESEARCH METHODOLOGY

This study employed a quantitative research design using path analysis (SmartPLS) to examine both direct and indirect effects of organizational culture and job satisfaction on employee performance. The quantitative approach was chosen to ensure the measurement of causal relationships between variables is statistically rigorous and generalizable.

The population of this study consisted of all employees of the Regional Office of the National Land Agency (BPN) in North Sulawesi Province. Since the population was relatively limited, the study applied a census sampling technique (saturated sampling) in which all employees (n = 114) were included as respondents. The primary research instrument was a structured questionnaire, tested for validity and reliability, covering three main constructs: organizational culture, job satisfaction, and employee performance.

To guarantee reproducibility, the research procedures were described systematically, including data collection, tabulation, measurement model testing, and structural model evaluation. Moreover, the research adhered to ethical considerations, ensuring anonymity, voluntary participation, and informed consent from respondents.

Table. 1 Summary of Research Methodology

Aspect	Description
Research Design	Quantitative research using path analysis (SmartPLS) to test both direct and indirect effects between variables.
Population & Sample	Entire employees of the Regional Office of BPN North Sulawesi Province (n = 114). Sampling technique: saturated sampling (census).
Research Site	Regional Office of BPN, North Sulawesi Province, Jl. 17 Agustus, Manado.
Instruments	Structured questionnaire covering three main variables: • Organizational Culture (6 indicators) • Job Satisfaction (7 indicators) • Employee Performance (4 indicators). All indicators were tested and met validity (outer loading > 0.70) and reliability (Cronbach's Alpha > 0.70).
Data Analysis Technique	1. Path analysis for hypothesis testing. 2. Measurement model evaluation (outer model): convergent validity, reliability, Average Variance Extracted (AVE). 3. Structural model evaluation (inner model): R ² , SRMR, NFI, and bootstrapping for hypothesis testing.

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Reproducibility	Research steps (data collection, processing, validity/reliability testing, and structural evaluation) were clearly documented to allow replication in similar studies.
Ethical Considerations	- Respondents' data were kept confidential and anonymous. - Participation was voluntary with informed consent obtained. - No harmful intervention was involved in the study.

By employing a quantitative approach with path analysis, this study not only tested the significance of the relationships among variables but also examined the mediating role of job satisfaction between organizational culture and employee performance. This provides a more comprehensive predictive model that is applicable to the context of public sector bureaucracy.

The use of SmartPLS offers several methodological advantages: it allows analysis with relatively small sample sizes, accommodates complex models, and provides robust estimates even with non-normally distributed data. These characteristics made SmartPLS an appropriate tool for this study.

Furthermore, strict adherence to research ethics ensured that the study maintained high scientific integrity. The ethical framework not only safeguarded the rights and privacy of respondents but also enhanced the credibility and reliability of the research findings.

III. LITERATURE REVIEW

Employee Performance

Employee performance is a multidimensional construct that reflects both the quality and quantity of outcomes achieved by employees in fulfilling their organizational responsibilities. Performance is not limited to final results but also includes the processes and behaviors that lead to achieving organizational goals. Recent studies emphasize that employee performance integrates two dimensions: task performance, which refers to the efficiency and effectiveness of task completion, and contextual performance, which reflects broader contributions such as teamwork, adaptability, and organizational citizenship behavior (Wibowo, 2020). In the context of public institutions, performance becomes even more critical because it directly determines the quality of public services provided to society. Kurnia and Sitorus (2022) argue that effective employee performance requires a balance between technical competencies and behavioral aspects, such as discipline and accountability.

In Indonesia's bureaucratic institutions, declining performance has been associated with weak organizational support systems, limited incentives, and low levels of job satisfaction (Putra & Utama, 2020). Studies show that performance is strongly influenced by intrinsic factors, such as motivation and job commitment, as well as extrinsic factors, such as organizational culture and leadership (Robbins & Judge, 2020). Thus, performance improvement requires not only training and workload adjustments but also systemic interventions in organizational culture and employee satisfaction. This study positions employee performance as the primary dependent variable, influenced both directly and indirectly by job satisfaction and organizational culture, providing empirical evidence for the public sector in Indonesia.

Job Satisfaction

Job satisfaction is a psychological state that reflects employees' overall evaluation of their work conditions, including intrinsic and extrinsic aspects. Robbins and Judge (2020) define it as a positive feeling about one's job resulting from an evaluation of its characteristics. Herzberg's Two-Factor Theory remains relevant in contemporary studies, distinguishing motivators (achievement, recognition, responsibility) from hygiene factors (salary, work conditions, relationships). More recent findings emphasize that in the public sector, satisfaction is shaped not only by material aspects but also by perceptions of fairness, opportunities for career development, and supportive leadership (Kurnia & Sitorus, 2022).

Research in the Indonesian bureaucracy shows that job satisfaction has a direct positive effect on employee performance and also functions as a mediating variable between organizational culture and performance (Putra & Utama, 2020). International studies support this, with Yousaf et al. (2014) demonstrating that both intrinsic and extrinsic satisfaction drive higher productivity and organizational commitment. Moreover, satisfaction is a critical determinant of retention and turnover intentions, especially in environments where public service expectations are high (Riyanto, Sutrisno, & Ali, 2017). Therefore, enhancing satisfaction in government institutions requires attention not only to salaries and benefits but also to professional development, recognition systems, and the creation of fair and transparent work environments. In this study, job satisfaction is tested as both an independent and mediating variable that links organizational culture to employee performance outcomes.

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Organizational Culture

Organizational culture encompasses shared values, norms, and practices that guide behavior within organizations. A strong culture aligns employee behavior with organizational goals, while a weak culture creates ambiguity and reduces commitment. Hofstede (2021) emphasizes that culture shapes organizational effectiveness by influencing communication, cooperation, and adaptability. Habudin (2020) defines organizational culture as the “way things are done” within an institution, highlighting its role in shaping expectations and interactions.

Recent empirical studies reinforce the critical role of organizational culture in public institutions. Putra and Utama (2020) found that adaptive cultures in local government organizations significantly improve performance by fostering collaboration and accountability. Similarly, Hartnell, Ou, and Kinicki (2011) confirm through meta-analysis that organizational culture is a strong predictor of performance outcomes across different sectors. In the context of Indonesian bureaucracy, weak cultures characterized by poor communication, limited recognition, and hierarchical rigidity often lead to low satisfaction and declining performance. Conversely, cultures that prioritize integrity, teamwork, and service orientation tend to strengthen both employee satisfaction and performance (Al-Sada, Al-Esmael, & Faisal, 2017).

This study places organizational culture as both a direct determinant of performance and an antecedent of job satisfaction. By testing its mediating pathways, the research contributes to a more comprehensive understanding of how cultural transformation can drive performance improvement in government agencies, particularly within Indonesia’s public service institutions.

IV. RESULT

Respondent Description

A total of 114 respondents participated in this study. The majority of respondents were female (53.5%), while male respondents accounted for 46.5%. In terms of age distribution, the largest proportion was within the 51–60 years old group (38.6%), indicating that most respondents were in a mature and experienced stage of their careers.

Table. 2 Respondent Characteristics

Category	Sub-Category	Frequency	Percentage
Gender	Male	53	46.5%
	Female	61	53.5%
Age	21–30 years	28	24.6%
	31–40 years	14	12.3%
	41–50 years	28	24.6%
	51–60 years	44	38.6%

The distribution of respondents suggests that the sample is fairly representative in terms of gender and age. The predominance of older respondents may contribute to more objective assessments regarding organizational culture, job satisfaction, and employee performance.

Descriptive Statistics of Research Variables

Descriptive analysis revealed that Organizational Culture (X1) and Job Satisfaction (X2) obtained an average score of 5.77, which falls into the “moderately good” category. Meanwhile, Employee Performance (Y) showed a higher mean score of 6.39, indicating that performance levels were generally perceived as good.

Table. 1 Descriptive Statistics of Variables

Variable	Mean	Std. Deviation	Min	Max	Interpretation
Organizational Culture (X1)	5.77	0.61	3.00	6.11	Moderately Good
Job Satisfaction (X2)	5.77	0.62	3.00	6.39	Moderately Good
Employee Performance (Y)	6.39	0.62	3.00	6.83	Good

These findings indicate that although organizational culture and job satisfaction were at moderately good levels, there remains room for improvement—particularly in building a more adaptive organizational culture and enhancing employee satisfaction to align with the relatively strong performance outcomes.

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Validity and Reliability Testing

The research instrument was proven to be valid, as all loading factors exceeded 0.70. Additionally, the values of Cronbach's Alpha and Composite Reliability (CR) for all constructs were above 0.70, while the Average Variance Extracted (AVE) values were greater than 0.50. This demonstrates that the measurement instrument is consistent and appropriate for further analysis.

Table. 2 Reliability and Convergent Validity Test

Construct	Cronbach's Alpha	Composite Reliability	AVE	Status
Organizational Culture	0.88	0.91	0.63	Reliable & Valid
Job Satisfaction	0.92	0.94	0.67	Reliable & Valid
Employee Performance	0.87	0.91	0.70	Reliable & Valid

The measurement items demonstrated strong internal reliability, confirming that the constructs were measured consistently and appropriately.

Structural Model Evaluation

The R² values indicate that the independent variables explained a substantial proportion of the variance in the dependent variables. The model also met the criteria of goodness of fit, as shown by SRMR and NFI values.

Table. 3 Structural Model Evaluation

Dependent Variable	R ²	Interpretation
Employee Performance (Y)	0.68	Moderate–Strong
Job Satisfaction (X2)	0.54	Moderate

Fit Index	Value	Threshold	Interpretation
SRMR	0.062	< 0.08	Model Fit
NFI	0.91	> 0.90	Model Fit
RMS_theta	0.12	≤ 0.12	Marginal Fit

The model explained 68% of the variance in employee performance, which reflects a relatively strong explanatory power. The Goodness-of-Fit indices indicate that the model is adequately fitted, though some indicators were close to the threshold values.

Hypothesis Testing (Path Analysis)

The results of hypothesis testing using SmartPLS bootstrapping confirmed that all hypothesized paths were statistically significant.

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Table. 4 Hypothesis Testing Results (Path Coefficients)

Relationship	Path Coefficient	t-statistic	p-value	Status
Organizational Culture → Employee Performance	0.32	3.45	0.001	Significant
Job Satisfaction → Employee Performance	0.46	4.21	0.000	Significant
Organizational Culture → Job Satisfaction	0.56	5.12	0.000	Significant

These findings demonstrate that **Organizational Culture** significantly affects **Employee Performance**, both directly and indirectly through **Job Satisfaction** as a mediating variable. This implies that strengthening organizational culture leads to improved job satisfaction, which in turn enhances employee performance.

V. DISCUSSION

Interpretation of Findings in the Context of Literature

The findings reveal that organizational culture has a significant positive effect on employee performance, both directly and indirectly through job satisfaction as a mediating variable. This outcome reinforces Robbins and Judge's (2020) assertion that a strong organizational culture shapes work behavior that aligns with organizational goals. Moreover, the effect of job satisfaction

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on employee performance is consistent with the meta-analysis by Kurnia and Sitorus (2022), which emphasized that employees with higher levels of satisfaction demonstrate greater motivation, loyalty, and performance. The coefficient of determination (R^2) of 0.68 for employee performance suggests that organizational culture and job satisfaction together explain a substantial proportion of performance variance. This result is similar to the study of Putra and Utama (2020) conducted in Indonesian public institutions. Furthermore, the findings support Denison's (1990) view that organizational culture functions as a social control mechanism that guides member behavior toward common goals. Therefore, this research confirms that within public bureaucracy, both organizational culture and job satisfaction act as major drivers of work effectiveness while addressing research gaps in prior studies, which largely focused on private-sector organizations.

Contributions and Limitations

The primary contribution of this research lies in strengthening the literature on human resource management in the public sector. While most prior studies concentrated on private organizations, the present findings highlight the relevance of organizational culture and job satisfaction as determinants of performance in Indonesian public bureaucracy. Theoretically, this study broadens the understanding of job satisfaction as a mediating factor in the relationship between organizational culture and employee performance a mechanism rarely tested in public-sector contexts. Practically, it provides a predictive quantitative model that can be adopted by BPN North Sulawesi to design policies for improving civil servant performance. However, several limitations should be acknowledged. First, the scope is limited to a single regional office, thereby restricting the generalizability of the results. Second, other influential variables such as leadership style, technical competence, or workload were not included in the model. Third, the purely quantitative approach does not capture deeper qualitative aspects, such as employees' perceptions of organizational climate. Future research should therefore expand the scope to other regional offices and employ mixed-methods designs to enrich the analysis.

Implications and Future Research Directions

The implications of this research are both practical and academic. Practically, BPN North Sulawesi must strengthen the internalization of organizational values centered on integrity, accountability, and public service. Structured training, performance-based reward systems, and transparent career development programs can enhance job satisfaction, which in turn improves performance. Academically, the findings highlight job satisfaction as a crucial mediating variable in the organizational culture–performance relationship, suggesting that this theoretical model can be replicated across other public-sector organizations. Future research could expand the model by incorporating variables such as transformational leadership (Wibowo, 2020) or work motivation (Kurnia & Sitorus, 2022) as moderating factors. Additionally, longitudinal studies are needed to examine the consistency of these relationships over time. Such extensions would not only enrich human resource management literature but also provide a more comprehensive foundation for public institutions to design policies aimed at enhancing the quality of public service.

VI. CONCLUSION

This study confirms that job satisfaction and organizational culture are critical determinants in improving employee performance, particularly within the public sector such as the Regional Office of the National Land Agency (BPN) in North Sulawesi. The path analysis results demonstrate that organizational culture has a positive and significant effect on employee performance ($\beta=0.32$; $p<0.05$) and job satisfaction ($\beta=0.56$; $p<0.001$), while job satisfaction shows an even stronger influence on performance ($\beta=0.46$; $p<0.01$). An important finding of this research is the mediating role of job satisfaction, which bridges the relationship between organizational culture and employee performance. This indicates that a healthy organizational culture not only directly enhances performance but also strengthens its effect through the improvement of job satisfaction.

Theoretically, this study contributes to the existing body of literature by providing empirical evidence in the context of Indonesian public bureaucracy, an area previously dominated by studies conducted in the private sector. Practically, the findings provide strategic recommendations for the leadership of BPN North Sulawesi to strengthen an organizational culture based on accountability, integrity, and collaboration, while simultaneously enhancing job satisfaction through reward systems, career development programs, and better working conditions.

Nevertheless, this study has limitations, as it focuses solely on a single institution, thus restricting generalizability. Future research is encouraged to involve cross-provincial comparisons, incorporate additional variables such as leadership and motivation, and employ mixed-method approaches. Such efforts would result in a more comprehensive and applicable predictive model to support the improvement of public service quality.

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