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Work Environment Conditions and Their Influence on Employee Performance within a Public Service Organization: Evidence from the Ambon City Environmental and Waste Management Agency

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ABSTRACT

Purpose of the study: This study aims to examine the effects of physical and non-physical work environments on employee performance at the Ambon City Environmental and Waste Management Agency and to measure the magnitude of their partial and simultaneous influences on work outcomes.

Methodology: This quantitative study employed structured questionnaires as research instruments, a survey method, and multiple linear regression analysis. Data were processed using IBM SPSS Statistics software. Respondents were all employees of the Ambon City Environmental and Waste Management Agency, selected through a census technique, and measured using Likert-scale items.

Main Findings: The results show that the physical work environment significantly affects employee performance, while the non-physical work environment also has a positive and significant influence. Simultaneously, both variables strongly predict performance levels. Regression coefficients indicate that non-physical aspects contribute more dominantly, and the model explains a substantial proportion of performance variance among employees in the organization. These findings highlight the importance of improving workplace conditions in public sector institutions to enhance the quality of public service delivery and organizational responsiveness to community needs. Furthermore, a supportive work environment contributes not only to employee productivity but also to broader social welfare by enabling government agencies to perform their public duties more effectively.

Novelty/Originality of this study: This study offers new empirical evidence from eastern Indonesia's municipal environmental sector by integrating physical and non-physical workplace factors with integrity-related organizational issues. It advances existing knowledge by providing context-specific data for public agencies managing sanitation services and by supplying a practical model for targeted workplace improvement policies.

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1. INTRODUCTION

Local governments constitute the backbone of decentralized public administration systems, bearing responsibility for delivering essential services in environmental protection, sanitation, and public health. Within Indonesia's regional autonomy framework, these responsibilities are exercised through daily interactions between civil servants, supervisors, and citizens. Public organizations therefore function not merely as administrative

machines but as social institutions in which formal rules intersect with interpersonal relations, informal norms, and organizational culture. The workplace becomes a space of continuous social negotiation where authority, collaboration, and accountability are enacted in practice. Consequently, the effectiveness of local governance depends not only on technical capacity but also on the quality of social relations within bureaucratic organizations.

Employee performance in public institutions is often treated as a measure of productivity or efficiency; however, from a sociological perspective, performance emerges from collective processes shaped by communication patterns, trust, conflict management, and leadership dynamics. Public servants operate within hierarchical systems that may generate role ambiguity, bureaucratic tension, and psychological pressure. Workplace conflict, limited participation in decision-making, and rigid administrative procedures can weaken morale and undermine cooperation, ultimately affecting service delivery outcomes. Organizational behavior scholarship emphasizes that performance cannot be separated from psychosocial climate. Robbins and Judge define performance as task accomplishment aligned with organizational expectations [1], while Bernardin and Russell conceptualize it as a multidimensional construct involving quality, timeliness, and interpersonal impact [2]. Locke and Latham further explain that motivation is sustained through goal clarity and commitment [3], both of which depend heavily on social support and communication within organizations.

Human resource literature consistently identifies the work environment as a crucial determinant of employee attitudes and behavior. Importantly, the work environment should be understood as both a physical setting and a social system. Mangkunegara argues that supportive conditions reduce psychological strain and enhance engagement [4], while Hasibuan highlights managerial responsibility in shaping discipline and morale [5]. Gibson et al. demonstrate that organizational structures and climates interact to produce behavioral outcomes [6]. Sedarmayanti classifies the work environment into physical and non-physical components [7]. The physical dimension includes layout, lighting, ventilation, temperature, noise, and equipment adequacy, whereas the non-physical dimension encompasses leadership relations, communication patterns, trust, and organizational climate [8]. International studies reinforce this dual perspective. Dul and Ceylan show that ergonomic design improves creativity and well-being [9], while Bakker and Demerouti's job demands–resources model explains how social support buffers stress and enhances engagement [10]. These findings suggest that the workplace is simultaneously a material space and a network of social relations shaping employee behavior.

Empirical evidence from Indonesia supports the importance of environmental factors in public organizations. Nisa et al. find that organizational climate significantly influences public-sector performance [11], while Widyastuti and Indiyati report strong relationships between workplace conditions and productivity in governmental agencies [12]. Rivai and Mulyadi emphasize the mediating role of leadership through communication and trust-building processes [13]. In Ambon City, however, the Environmental and Sanitation Agency has faced persistent public scrutiny regarding service quality and governance integrity. Media investigations into fuel-procurement irregularities indicate organizational vulnerabilities [14], [15]. Beyond administrative issues, such controversies may reflect deeper psychosocial problems, including weakened supervision, mistrust, and dysfunctional communication patterns within the organization [1], [6].

Field observations reveal additional challenges in both physical and social working conditions. Inadequate lighting, unstable temperatures, inefficient spatial arrangements, and poorly organized equipment create discomfort and fatigue, which environmental psychology associates with reduced concentration and well-being [9]. At the same time, bureaucratic communication barriers, limited feedback mechanisms, and perceived inequities in workload distribution contribute to stress and interpersonal tension among employees. Research by Sutrisno links inadequate facilities with declining satisfaction and performance [16], while studies by Chairani and Tatiyani, Irawan and Ali, and Firman et al. emphasize that workplace context influences cognition, morale, and productivity. These perspectives underscore that performance problems in public organizations often stem from intertwined physical constraints and social dynamics rather than from individual shortcomings alone.

Despite growing recognition of these issues, existing research on public-sector performance tends to treat physical infrastructure and psychosocial climate as separate explanatory factors. Few studies examine how these dimensions interact within environmental governance agencies operating in decentralized and resource-constrained contexts. Recent scholarship in public administration emphasizes that employee performance in government organizations emerges from the interplay between workplace conditions, institutional context, and social relations rather than from physical resources alone [17], [18]. Moreover, internationally visible empirical studies focusing on medium-sized municipalities in Eastern Indonesia particularly archipelagic regions characterized by logistical challenges and dispersed service areas remain extremely limited. This metropolitan bias restricts theoretical generalization and obscures how organizational performance is produced in socially diverse local governments facing infrastructural vulnerability.

Responding to this gap, the present study adopts an integrative perspective that conceptualizes the work environment as a social space where material conditions, leadership practices, communication systems, and organizational culture converge. Its novelty lies in demonstrating that employee performance in public environmental services cannot be explained solely by administrative regulations or physical resources but must be understood as the outcome of complex social relations within bureaucratic settings. Evidence from Ambon City

an archipelagic municipality where service delivery depends heavily on coordination, fieldwork conditions, and frontline interactions offers valuable insights for international debates on public administration and governance.

The urgency of this research is underscored by the need to strengthen institutional trust, improve service reliability, and enhance the well-being of public employees responsible for environmental management. Effective sanitation and environmental services directly affect public health, urban sustainability, and citizen satisfaction; therefore, understanding the social determinants of bureaucratic performance is crucial for democratic governance. Accordingly, the main objective of this study is to analyze how physical and non-physical work environments jointly influence employee performance at the Ambon City Environmental and Sanitation Agency, with particular attention to the social and organizational dynamics that shape behavior within public-sector institutions.

2. RESEARCH METHOD

2.1. Type of Reasearch

This study adopts a quantitative approach aimed at objectively testing theoretical propositions through statistical examination of relationships among variables, as suggested by Creswell [19]. The variables under investigation are operationalized in measurable forms, thereby enabling rigorous numerical analysis using appropriate statistical techniques. Specifically, the research focuses on assessing the magnitude and direction of the relationships between physical and non-physical work environments and employee performance at the Environmental and Sanitation Agency of Ambon City. A quantitative design is particularly appropriate for capturing recurring social patterns and organizational behaviors within public bureaucracies, where formal structures, hierarchical relations, and standardized procedures shape interactions among employees. By translating workplace conditions and behavioral responses into measurable indicators, the approach allows the study to systematically analyze the dynamics of work relations, communication patterns, and psychosocial climates that influence performance in governmental institutions. By quantifying these associations, the study seeks to generate robust empirical evidence regarding the extent to which workplace conditions influence employee outcomes. The findings are expected not only to strengthen the empirical foundation of public-sector human resource research, but also to provide practical insights for improving organizational effectiveness and operational performance within the agency.

2.2. Population and Sample

According to Creswell [19], a population refers to a group of individuals or units possessing specific characteristics that are defined by the researcher for the purpose of investigation and inference. The population constitutes the primary data reference in empirical studies, serving as the basis for sample selection and for drawing generalizable conclusions. Careful delineation of the population is therefore essential, as it directly affects the validity and accuracy of research findings.

In this study, the population comprises all employees of the Environmental and Sanitation Agency of Ambon City. The workforce includes several employment categories: 44 civil servants, 60 probationary civil servants, 132 government employees with work contracts, and 3 contractual staff members. Based on these classifications, the total population investigated in this research consists of 239 employees across all employment statuses within the agency.

Neuman defines a sample as a subset of a population selected to represent the broader characteristics of that population, thereby enabling generalization of research findings [20]. Appropriate sampling procedures allow researchers to obtain reliable data without surveying the entire population. In the present study, the sample size was determined using Slovin's formula [21]:

$$n = \frac{N}{1+Ne^2} \quad \ldots (1)$$

With a population of 239 employees and a margin of error of 12.6%, the resulting sample size was:

$$n = \frac{239}{1 + 239(0{,}126)^2} = 50$$

Accordingly, a total of 50 respondents were included in the study.

2.3. Instruments and Data Collection Techniques

Research instruments refer to the tools employed by investigators to obtain data that are relevant, measurable, and aligned with the variables under examination [22]. In this study, a structured questionnaire was used as the primary instrument. The questionnaire consisted of closed-ended items in which respondents were provided with predefined response options and asked to select the alternative that most closely reflected their perceptions or experiences.

The construction of the instrument was guided by the indicators associated with each research variable, and all statements were phrased positively in order to facilitate interpretation of the results. Respondents evaluated each item using a five-point Likert scale representing their level of agreement with the statements. Respondents assessed each statement using a five-point Likert scale:

Table 1. Likert Scale

Response Category	Score
strongly agree	5
agree	4
neutral	3
disagree	2
strongly disagree	1

Table 2 presents the operationalization of the research variables, including indicators and measurement dimensions used in the questionnaire. This grid ensures that each construct is systematically translated into observable items, thereby strengthening the content validity of the instrument.

Table 2. Results of Multiple Linear Regression Analysis

Variable	Indicators	Indicators	Indicators
Physical Work Environment	Lighting	X1.1	Likert (1–5)
	Air circulation and room temperature	X1.2	Likert (1–5)
	Noise level	X1.3	Likert (1–5)
	Workspace layout and equipment	X1.4	Likert (1–5)
Non-physical Work Environment	Supervisor–subordinate relationship	X2.1	Likert (1–5)
	Coworker relationship	X2.2	Likert (1–5)
Employee Performance (Y)	Quality of work	Y1	Likert (1–5)
	Quantity of work	Y2	Likert (1–5)
	Timeliness	Y3	Likert (1–5)
	Cost effectiveness	Y4	Likert (1–5)
	Need for supervision	Y5	Likert (1–5)

Data were collected using two primary methods: questionnaires and documentation. The questionnaire functioned as the main source of primary data and was distributed both in printed form and through online platforms such as Google Forms to enhance accessibility and response rates. Consistent with Sugiyono [23], the instrument consisted of closed-ended items with predetermined response categories to facilitate systematic coding and statistical analysis. Completed questionnaires were retrieved directly or automatically via digital systems, and the data were organized through tabulation to identify response patterns prior to formal statistical testing. In accordance with Sugiyono [23], all procedures were implemented systematically to ensure the reliability and validity of the dataset.

Documentation was employed to obtain secondary data that complemented the survey findings. Following Sugiyono's [23] methodological guidance, official records and institutional documents related to the Environmental and Sanitation Agency of Ambon City were reviewed, including organizational profiles, operational waste-management data, attendance logs, disciplinary reports, annual performance evaluations, and internal regulations governing service standards. The integration of survey and documentary sources was intended to produce comprehensive and robust empirical evidence regarding the research variables.

2.4. Validity and Reliability Testing

In this study, a Likert-scale questionnaire was employed as the primary research instrument. Prior to its full deployment, the instrument was subjected to preliminary testing to ensure its appropriateness and precision in capturing the research variables.Validity testing was conducted to determine whether each questionnaire item adequately represented the construct under investigation. The Pearson Product–Moment correlation technique was applied [24], with decision rules specifying that an item was considered valid when the calculated correlation coefficient exceeded the critical value from the correlation table at a 0.05 significance level. Conversely, items yielding coefficients equal to or lower than the threshold were classified as invalid and were subsequently revised or removed from the instrument. Reliability testing was performed to assess the internal consistency of the questionnaire in measuring the research variables across repeated observations [25]. Cronbach's Alpha coefficient was utilized as the reliability indicator. Instruments producing alpha values greater than 0.60 were regarded as reliable, whereas coefficients equal to or below this benchmark signaled insufficient reliability and necessitated further refinement of the measurement items.

2.5. Research Prosedure

The research procedure was conducted through a structured sequence consistent with rigorous quantitative methodology in public administration research [26]. The study commenced with problem formulation, literature review, and hypothesis development based on established theories of work environment and employee performance [27]. Subsequently, a research design was constructed, including variable operationalization and the development of a structured questionnaire using validated measurement indicators. Prior to large-scale distribution, the instrument was subjected to validity and reliability testing to ensure construct accuracy and internal consistency [28]. Such procedures are widely recommended to enhance measurement precision and reduce systematic bias in survey-based organizational studies [29].

Data collection was carried out using a cross-sectional survey administered to employees of the Environmental and Sanitation Agency of Ambon City who met the sampling criteria. Primary data were obtained through closed-ended questionnaires distributed in both printed and online formats, while secondary data were gathered from official institutional documents to support contextual analysis [30]. The dataset then underwent preprocessing procedures including editing, coding, and tabulation. Classical assumption tests normality, heteroskedasticity, multicollinearity, and autocorrelation were performed prior to inferential analysis to ensure that the regression model satisfied the BLUE (Best Linear Unbiased Estimator) criteria. Multiple linear regression analysis was subsequently employed to examine both partial and simultaneous effects of physical and non-physical work environments on employee performance, consistent with contemporary quantitative practices in organizational and governance research [31].

Finally, the statistical results were interpreted within theoretical and empirical frameworks to derive conclusions and policy-relevant recommendations for improving organizational effectiveness in public sector institutions [32]. The research concluded with the synthesis of findings, acknowledgment of limitations, and preparation of the scientific manuscript. Adhering to a transparent procedural framework from conceptualization to reporting enhances replicability, methodological robustness, and scholarly credibility.

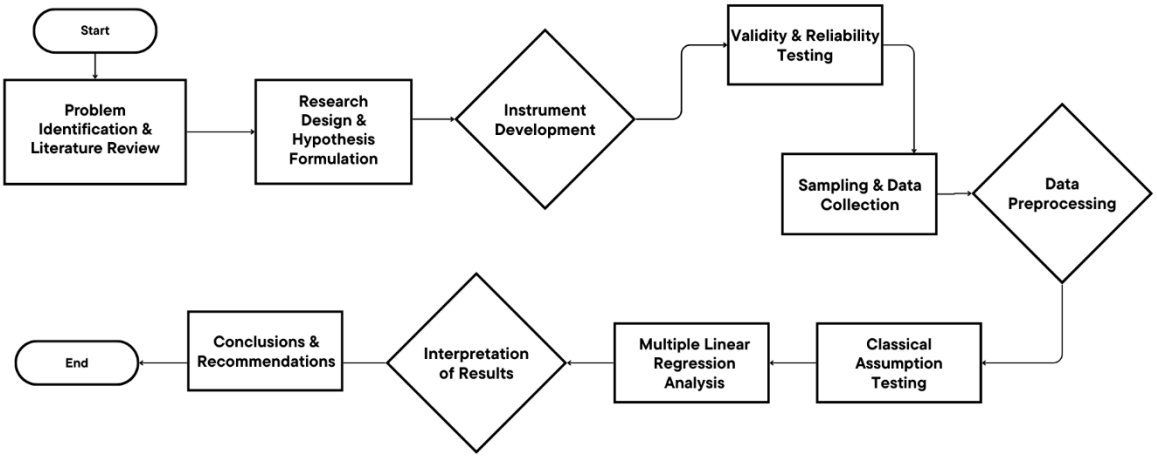

Figure 1. Research Procedure Flowchart.

2.6. Data Analysis Techniques

The empirical data were analyzed using multiple linear regression in order to evaluate the effects of the independent variables on the dependent variable. Before estimating the regression model, a sequence of classical diagnostic tests namely normality, heteroskedasticity, multicollinearity, and autocorrelation was implemented to verify that the model satisfied the requirements of the Best Linear Unbiased Estimator (BLUE) as discussed in econometric studies [33].

Hypothesis testing was subsequently undertaken through several statistical procedures. First, t-tests were applied to examine the individual contribution of each explanatory variable to the outcome variable [34]. Second, F-tests were used to assess the joint influence of all predictors included in the model [35]. Third, the coefficient of determination (R^2) was calculated to determine the proportion of variance in the dependent variable that could be explained by the independent variables [28]. Collectively, these analytical techniques provide rigorous statistical evidence concerning the magnitude, direction, and significance of relationships among variables in the context of organizational performance within public service institutions.

3. RESULTS AND DISCUSSION

This study employed multiple linear regression analysis to examine the effects of physical and non-physical work environments on employee performance at the Environmental and Waste Management Agency of Ambon City. The selection of this method was motivated by the presence of two independent variables that were assumed to jointly explain variations in employee performance. Through this analytical approach, the study investigates the direction and magnitude of each factor's influence, as well as the overall explanatory capacity of the model in accounting for changes in employee outcomes.The regression equation was specified as $\hat{Y} = a + b_1X_1 + b_2X_2 + e$, where $\hat{Y}$ denotes employee performance, X_1 represents the physical work environment, and X_2 refers to the non-physical work environment, while e is the stochastic error term. The results of the regression estimation are presented in Table 3.

Table 3. Results of Multiple Linear Regression Analysis

Variable	Coefficients (B)	Std. Error	t-value	Sig.
(Constant)	26.737	5.105	5.237	.000
Physical Work Environment	0.396	0.096	4.127	.000
Non-physical Work Environment	1.126	0.211	5.339	.000

Source : SPSS Output Version 29

Referring to the regression results reported in Table 3, the estimated model can be expressed as $\hat{Y} = 26.737 + 0.396X_1 + 1.126X_2$. The constant term of 26.737, with a significance level of 0.000, indicates that the intercept is statistically meaningful and may be interpreted as the baseline level of employee performance when both physical and non-physical work environment variables are held constant. The regression coefficient for the physical work environment is 0.396 and is statistically significant at the 0.000 level, signifying a positive association with employee performance. This suggests that a one-unit improvement in the quality of the physical work setting is expected to raise employee performance by approximately 0.396 units. Similarly, the non-physical work environment variable yields a coefficient of 1.126 with a significance value of 0.000, confirming a positive and significant effect on performance outcomes. Accordingly, a one-unit enhancement in non-physical workplace conditions is projected to increase employee performance by about 1.126 units. Taken together, these findings demonstrate that both explanatory variables contribute substantially to variations in employee performance, with the non-physical work environment exerting a comparatively stronger influence than its physical counterpart.

Beyond statistical significance, these results indicate that employee performance in public organizations is strongly embedded in social relations rather than purely material conditions. While adequate facilities support task completion, the larger coefficient for the non-physical environment suggests that trust, communication quality, leadership support, and organizational climate are more decisive in shaping employee behavior. In bureaucratic settings, where work depends heavily on coordination and hierarchical interaction, positive interpersonal relations can reduce conflict, enhance cooperation, and strengthen collective responsibility for public service outcomes. Taken together, these findings demonstrate that both explanatory variables contribute substantially to variations in employee performance, with the non-physical work environment exerting a comparatively stronger influence than its physical counterpart. The partial significance test (t-test) was conducted to examine the separate effect of each independent variable on the dependent variable. The results of this analysis are summarized in Table 4.

Table 4. t-Test Result

Relationship	t-value	Sig.	Conclusion
Physical Work Environment → employee workers	4.127	0.000	Positive and Significant
Non-physical Work Environment → employee workers	5.339	0.000	Positive and Significant

Source : SPSS Output Version 29

The t-test outcomes presented in Table 4 indicate that each independent variable exerts a statistically significant effect on employee performance. The Physical Work Environment records a t-value of 4.127 with a significance level of 0.000, demonstrating a positive and meaningful contribution to improving employee outcomes. Likewise, the Non-physical Work Environment shows an even higher t-value of 5.339 accompanied by a significance value of 0.000, confirming its strong and positive influence on employee performance.

From a social perspective, the stronger effect of the non-physical environment highlights the importance of psychosocial well-being in bureaucratic work. Public employees frequently operate under pressure from regulations, public scrutiny, and hierarchical supervision. Supportive leadership, fair treatment, and constructive communication can mitigate stress and prevent workplace tensions, thereby enabling employees to maintain motivation and engagement. Conversely, even well-equipped offices may fail to produce high performance if interpersonal relations are characterized by mistrust, conflict, or poor coordination.

Overall, these results suggest that enhancements in both the physical conditions of the workplace and the non-physical aspects such as interpersonal relations, organizational climate, and managerial support play an essential role in strengthening employee performance. Following this partial analysis, a simultaneous test (F-test) was employed to assess the combined effect of the two independent variables on employee performance, the results of which are reported in Table 5.

Table 5. F-Test Result

Relationship	F-value	Sig.	Conclusion
Physical Work Environment and Non-physical Work Environment → employee workers	39.884	0.000	Positive and Significant

Source : SPSS Output Version 29

The results of the simultaneous test displayed in Table 5 reveal an F-value of 39.884 with a significance level of 0.000, indicating that the regression model is statistically robust and that the physical and non-physical work environments jointly exert a meaningful influence on employee performance. The very small significance value confirms that the explanatory capacity of the model is not due to random variation but reflects a real empirical association between the variables examined. This finding implies that improvements in workplace conditions both in terms of physical facilities and psychosocial aspects collectively contribute to higher levels of employee performance. This combined effect suggests that employee performance emerges from the interaction between material conditions and social climate rather than from isolated factors. In public-sector organizations, physical constraints such as limited infrastructure often coexist with complex social dynamics, including bureaucratic procedures, teamwork demands, and citizen interaction. When both dimensions improve simultaneously, employees are more likely to experience a sense of organizational support, fairness, and professional dignity, which can strengthen commitment to public service responsibilities.

To obtain a deeper understanding of the model's explanatory capacity, the coefficient of determination (R^2) was subsequently calculated to quantify the proportion of variance in employee performance that can be explained by the combined influence of the physical and non-physical work environments. This statistic provides insight into how well the regression model captures the underlying relationship among the variables, as well as the extent to which employee performance can be predicted based on workplace conditions. The detailed results of this assessment are presented in Table 6.

Table 6. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.793	0.629	0.613	4.443

Source : SPSS Output Version 29

The correlation coefficient (R) of 0.793 reflects a strong association between the independent variables and employee performance. The R Square value of 0.629 indicates that approximately 62.9% of the variance in employee performance can be accounted for by the physical and non-physical work environments, while the remaining 37.1% is attributable to other factors not incorporated into this regression model. After adjusting for the number of predictors and sample size, the Adjusted R Square of 0.613 suggests that the explanatory strength of the model remains substantial and is not overstated. In addition, the standard error of the estimate of 4.443 provides an indication of the typical prediction error produced by the model, implying that the regression equation is reasonably precise in forecasting employee performance. Taken together, these statistics demonstrate that the model possesses solid predictive capability and offers a reliable explanation of variations in employee performance within the organizational context studied.

The relatively high explanatory power indicates that workplace conditions are central determinants of behavior within the organization, not merely peripheral influences. However, the remaining unexplained variance also points to broader social factors such as organizational politics, individual motivation, professional values, workload distribution, and external pressures from the public and political environment. This suggests that improving employee performance in government agencies requires a holistic approach that addresses both structural conditions and deeper organizational culture issues.

The empirical findings demonstrate that both physical and non-physical dimensions of the work environment significantly influence employee performance within the Environmental and Sanitation Agency of Ambon City. Tangible factors such as lighting, ergonomic layout, and environmental comfort show a positive association with performance outcomes, reinforcing prior evidence that well-designed physical workplaces enhance productivity and task effectiveness [35], [36]. Equally important are the relational aspects of the workplace. Communication quality, mutual respect, and supportive supervision substantially strengthen performance, consistent with studies indicating that psychosocial conditions contribute to employee well-being and effectiveness across organizational settings [37], [38].

These results suggest that employee performance in public agencies is embedded not only in material resources but also in social and institutional contexts. Government organizations typically operate through hierarchical authority, formal procedures, and collective responsibility, making interpersonal trust and effective communication essential for coordination. In environmental and sanitation services where operations involve fieldwork, interdepartmental collaboration, and direct interaction with citizens deficient social relations may hinder service delivery even when physical resources are adequate. Conversely, supportive organizational climates can compensate for infrastructural limitations by fostering cooperation, adaptive problem-solving, and shared accountability. This confirms that performance in public bureaucracy is a collective outcome shaped by organizational relationships and public service motivation [39], [40].

The joint significance of both workplace dimensions aligns with integrative models of organizational performance, which emphasize that effectiveness arises from the interaction between infrastructure and psychosocial dynamics. From a governance perspective, physical facilities represent the state's material investment in administrative capacity, whereas non-physical conditions reflect the quality of internal governance, including leadership practices, communication transparency, and organizational fairness. When these elements are aligned, agencies are better positioned to deliver reliable services and maintain public trust. Conversely, deficiencies in either dimension may result in inefficiency, service delays, or public dissatisfaction, reflecting limitations in institutional capacity to implement policies effectively [41].

Motivational mechanisms further explain these relationships. Previous research indicates that physical conditions may influence performance indirectly through job satisfaction, while supportive social environments enhance intrinsic motivation and organizational commitment [42]. In public-sector contexts, such motivational dynamics are closely tied to professional identity and public service values. Employees who perceive fairness, recognition, and supportive supervision are more likely to demonstrate organizational citizenship behaviors, resilience, and responsiveness to community needs. These attributes are particularly critical in environmental governance agencies, where frontline personnel directly affect urban sanitation, public health protection, and ecological sustainability. Strong public service motivation has been shown to increase employees' willingness to exert discretionary effort for societal benefit beyond formal job requirements [43].

The findings also carry important policy implications. Improving employee performance in local government agencies should not rely solely on infrastructure provision or administrative reform in isolation. Instead, comprehensive strategies are required that simultaneously address workplace ergonomics, organizational culture, leadership development, and communication systems [44]. Investments in facilities and operational resources should be complemented by initiatives that strengthen teamwork, conflict management, and participatory decision-making. Such integrated reforms reflect contemporary governance approaches emphasizing human-centered public administration and institutional capacity building as foundations for sustainable service delivery [4].

From a broader governance perspective, improving workplace conditions contributes to institutional legitimacy and citizen trust. Environmental and sanitation services are highly visible public functions, and their effectiveness directly influences perceptions of government competence and accountability. Efficient and responsive employee performance enhances public confidence, whereas poor internal conditions may produce inconsistent services and bureaucratic inefficiency [45]. Empirical research confirms that internal organizational health is closely associated with external evaluations of government performance and legitimacy [40].

Beyond structural factors, the study highlights the importance of social climate, trust, and power relations in shaping behavior within public organizations. In hierarchical bureaucracies, authority structures determine information flows, decision interpretation, and responsibility implementation [46]. A climate characterized by trust and open communication encourages cooperation, accountability, and initiative, whereas rigid control and interpersonal distrust may lead to disengagement and compliance-oriented behavior. Power asymmetries between supervisors and subordinates also influence employees' willingness to voice concerns and share innovations, thereby affecting organizational learning and adaptability. Consequently, work ethic in public bureaucracies should be understood as a socially constructed outcome shaped by institutional norms and leadership practices rather than solely as an individual attribute [47].

The study contributes theoretically to public administration and organizational behavior research by demonstrating that employee performance emerges from the interaction between material conditions and social-relational environments. These findings support contemporary perspectives that conceptualize public organizations as complex social systems rather than purely administrative structures. Effective governance depends not only on formal regulations or resource allocation but also on intangible institutional qualities such as trust, collaboration, legitimacy, and shared public values. Evidence from a decentralized local government context therefore enriches the broader discourse on how internal organizational conditions shape institutional capacity and service effectiveness [48].

The conclusions are also consistent with a growing body of research emphasizing the role of organizational climate and leadership relations in public-sector performance. Supportive supervision, participatory communication, and cohesive work environments enhance employee commitment and service quality. Similarly,

studies on public service motivation show that perceived fairness, recognition, and organizational support foster pro-social behavior and sustained engagement. Strong internal social cohesion and institutional trust facilitate coordination across units and improve responsiveness to public needs, suggesting that the observed relationships reflect broader patterns in public administration rather than context-specific phenomena [49].

Despite these contributions, several limitations should be acknowledged. The study focuses on a single local government agency, which may limit the generalizability of the findings to other institutional or regional contexts [50]. Moreover, the quantitative design captures measurable relationships but may not fully reveal deeper cultural or political dynamics, such as informal networks, patronage practices, or variations in leadership style. Future research is therefore encouraged to employ comparative or mixed-method approaches to examine how organizational environments interact with broader socio-political factors in shaping public-sector performance.

4. CONCLUSION

This study concludes that employee performance in municipal environmental agencies is strongly shaped by both tangible workplace infrastructure and the quality of interpersonal relations. While improvements in physical facilities remain essential for ensuring operational efficiency, social workplace conditions emerge as a particularly influential driver of performance. Consequently, managerial strategies aimed at enhancing service delivery should integrate facility upgrading with systematic efforts to strengthen leadership communication, teamwork, and organizational trust. For practitioners, the findings imply that investments in ergonomic workspace design, environmental control systems, and equipment maintenance should be complemented by organizational development programs focused on relational governance and participatory management. For scholars, the results contribute to international public administration literature by providing localized empirical evidence that reinforces integrative models of workplace environment and performance in developing governance contexts.

Recommendation for Future Research. Future studies are encouraged to expand the analytical scope by incorporating longitudinal designs to examine causal relationships and changes in employee performance over time. Comparative research across different public sector institutions, regions, or levels of government would also help determine the generalizability of these findings. In addition, subsequent studies should consider integrating mediating and moderating variables such as organizational culture, leadership style, digital work systems, employee resilience, and public service motivation to better capture the complex dynamics influencing performance. The use of mixed methods approaches combining quantitative analysis with qualitative insights (e.g., interviews or ethnographic observation) is likewise recommended to deepen understanding of contextual factors, power relations, and informal organizational practices that may not be fully reflected in survey-based data. Finally, future research could explore the implications of hybrid work arrangements and technological transformation in public organizations, particularly in the post-pandemic governance landscape, to provide more policy-relevant guidance for sustainable public sector performance improvement.

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