



The link between physical environment and secretarial performance in higher education institutions in Tanzania

Mariam Mustafa Kuhenga¹

¹mariam.kuhenga@tpsc.go.tz (0715599118)

¹<https://orcid.or/0009-0005-7568-7649>

¹Tanzania Public Service College

Recommended Reference: Kuhenga, M. M. (2025). The link between physical environment and secretarial performance in higher education institutions in Tanzania. *African Quarterly Social Science Review*, 2(3), 387–401.

<https://doi.org/10.51867/AQSSR.2.3.33>

ABSTRACT

The environment in which workers spend their working lives has a significant impact on their job satisfaction and performance. This study examined how secretaries at the University of Dar es Salaam performed their jobs in relation to their physical workspace. Growing concerns about the subpar working conditions that many secretarial staff members endure despite playing crucial administrative roles served as the impetus for the study. The study specifically sought to determine the main physical aspects of the workplace that have an impact on secretaries at the University of Dar es Salaam; evaluate the degree to which elements like office space, office lighting, ventilation, noise levels, cleanliness, and furniture affect secretaries' job performance; identify the difficulties secretaries encounter as a result of a less-than-ideal physical workspace; and offer solutions to improve it to improve secretaries' job performance. Herzberg's two-factor theory and the environmental comfort theory served as the guiding theories for the study. A stratified random sample of 104 respondents was selected from the study's target population of 140 secretaries, utilizing a mixed approach that incorporated both quantitative and qualitative data in a descriptive survey design. Structured questionnaires were used to gather the data, and multiple regression analysis, descriptive statistics, and Pearson's correlation were used for analysis. The results showed that important environmental factors, such as lighting, ventilation, noise levels, office space, cleanliness, and the ergonomic quality of furniture, significantly impacted secretaries' focus, physical comfort, and task efficiency. Overcrowding, poor maintenance, and outdated office infrastructure led to physical discomfort and a decrease in motivation for many respondents. According to the study, better job performance is strongly correlated with physically favorable work environments. The study's conclusions lead it to suggest that the university modernize office facilities, enhance ventilation and lighting, lessen noise and traffic, and establish routine workplace inspections. In addition to improving employee performance, these interventions are crucial for fostering institutional productivity and occupational health. The study adds to the scant empirical literature on administrative staff performance and work environments in Tanzanian higher education institutions.

Keywords: Administrative Roles, Job Performance, Physical Work Environment, Secretaries

I. INTRODUCTION

Everything that surrounds an employee and has the potential to impact how they perform their responsibilities is considered their work environment. According to Duque et al. (2020), the working environment is a combination of internal and external factors that can influence employees' motivation and accelerate job completion. Nzewi et al. (2018) state that a decent workplace is one in which employees can carry out their duties in a comfortable, safe, and healthy way. As a result, numerous studies categorise the workplace into two categories: conducive and toxic (Lindeberg et al., 2023; Funminiye, 2018; Hamidi et al., 2020; Duque et al., 2020). According to Yingjun (2019), an organisation's physical space, especially its layout and design, can affect how its employees behave at work. According to John (2022), factors influencing the workplace encompass cleanliness, water availability, lighting, colour, security, and music. Multiple studies on work environments have shown that employees tend to express satisfaction with particular elements of their workplace. The features preferred by users significantly enhance their workspace satisfaction and performance. The features encompass ventilation rates, lighting, access to natural light, and the acoustic environment (Mhina, 2022; Mgaiwa, 2021; Koskei et al., 2021). Research indicates that lighting and ergonomic furniture have a positive influence on employee health and productivity (Mhina, 2022; Hafeez et al., 2019; Hamidi et al., 2020). Shaari et al (2022) assert that an unhealthy and unsafe work environment, characterised by poor ventilation, excessive noise, and inadequate lighting, negatively impacts employee productivity and health.

Individuals typically express satisfaction with employment; however, a considerable number no longer perceive their workplace as a second home, despite dedicating substantial time to it. This frequently compels individuals to adapt to the challenging environment. The workplace environment of an employee has a significant influence on the quality



of their work and productivity levels. The degree of workplace engagement influences an employee's motivation to acquire skills and their performance levels. In an era characterised by heightened global competition among corporations and nations, the importance of effective human resource management is paramount. The physical working environment is a crucial factor influencing employee performance, especially in administrative and support roles that necessitate sustained attention to detail, repetitive tasks, and engagement with various stakeholders (Roskams & Haynes, 2021). The physical environment in organisational settings encompasses factors such as lighting, ventilation, noise levels, workspace layout, ergonomic furniture, temperature, and cleanliness. These elements, although frequently viewed as secondary, are crucial in influencing employee motivation, productivity, and psychological well-being (Zhao et al., 2020).

Empirical studies suggest that an optimally designed physical workspace enhances employee concentration, reduces occupational stress, and promotes increased efficiency and productivity (Zhao et al., 2020; Njeri, 2022). High-performing organisations demonstrate that investments in ergonomic furniture, noise reduction measures, and adequate lighting enhance job satisfaction and decrease absenteeism (Susilo & Desitawati, 2020; Irfak, 2022). Poor working environments correlate with decreased morale, physical discomfort, and lower productivity. Various international studies in ergonomics and healthy building research demonstrate that factors such as lighting, thermal comfort, air quality, noise, layout, and ergonomic furniture have a significant influence on job satisfaction, health, and productivity in office environments. A study conducted in Chile revealed that factors like acoustics and air quality accounted for more than 70% of the variance in perceived environmental comfort (Maj, 2023). The comfort factor accounted for approximately 29% of the variance in job satisfaction. In meeting environments, sensory attributes such as temperature and lighting enhanced perceived productivity by as much as 25% for each standard deviation improvement in "room pleasantness" (Abubakar & Udoma, 2024). Studies on open-plan offices suggest that noise and inadequate control over one's workspace can negatively impact focus, concentration, creativity, and overall performance, potentially leading to increased stress levels and higher absenteeism due to illness. The global literature suggests that the physical environment has a significant influence on cognitive comfort, motivation, well-being, and, consequently, job performance in office-based roles (Swalehe, 2021; Susilo & Desitawati, 2020).

The importance of the work environment in affecting employee performance is being increasingly acknowledged across Africa. Koskei et al (2021) conducted a study in Kenyan public institutions that identified a significant positive correlation between workplace conditions, including noise, temperature, and ventilation, and secretarial productivity. Comparable results have been observed in other Sub-Saharan nations, underscoring a shared issue of insufficient investment in administrative infrastructure within public institutions (Njeri, 2022). Broader Sub-Saharan data indicate high levels of occupational stress; systems lacking ergonomic and environmental resources exacerbate stress and reduce productivity on a large scale. Although limited, these regional findings hint strongly that similar dynamics exist across East African public sector offices where secretarial work is common place.

The working conditions of non-academic staff, particularly secretaries, remain insufficiently addressed in Tanzania, despite efforts to improve teaching facilities and educational infrastructure. Poor working conditions in public institutions, characterised by cramped offices, outdated furnishings, and uneven maintenance, have a detrimental impact on employee performance, morale, and health, according to studies by Mhina (2021) and Mwinyimkuu & Msacky (2024). However, the specific effects of these environmental factors on secretaries, who form the administrative core of universities, have received little empirical attention (Mbambe, 2021). There are general studies on productivity and the environment, but none that particularly address the impact of the physical workspace on secretaries in Tanzanian universities are known to exist. University secretaries often operate in academic/administrative settings where workflows, equipment, and expectations differ from healthcare or corporate environments.

The oldest and largest public university in Tanzania, the University of Dar es Salaam (UDSM), heavily relies on secretarial assistance to support its administrative and academic functions. Anecdotal evidence suggests that, despite their crucial role, many operate in less-than-ideal circumstances, which may compromise their effectiveness. Few systematic studies, nevertheless, have looked into the relationship between their physical workspace and job performance. This study aims to close a gap in the literature on secretarial job performance in Tanzanian higher education settings, with a focus on the University of Dar es Salaam. Describe the effects of physical aspects of the workplace, such as layout, lighting, noise levels, and ergonomics, on secretarial productivity, satisfaction, and health outcomes. Provide evidence-based suggestions for institutional upgrades that can increase productivity, lower presenteeism and absenteeism, and improve employee well-being.

This study, therefore, seeks to fill this empirical and policy gap by examining how various components of the physical working environment affect the performance of secretaries at UDSM. The findings are expected to inform institutional interventions aimed at improving working conditions for support staff, enhancing productivity, and fostering a more enabling organisational climate.



1.1 Statement of the Problem

Many secretaries still work in less-than-ideal physical conditions, despite the vital administrative role they play in public organisations. Their comfort, focus, and productivity are hindered by factors such as outdated office furniture, congested areas, inadequate ventilation, excessive noise, insufficient lighting, and a lack of routine maintenance (Irfak, 2022; Hamidi et al., 2020; Mwinyimkuu & Msacky, 2024). These unfavourable circumstances impact the institution's productivity by lowering motivation and impeding overall job performance. This relationship has not been empirically established in Tanzanian higher education institutions, especially among administrative staff. However, the physical work environment is widely recognised as a significant determinant of employee performance. This disparity calls for research into how their physical workspace impacts secretaries' performance at the University of Dar es Salaam.

1.2 Research Objective

- i. To identify the key physical work environment factors affecting secretaries at the University of Dar es Salaam.
- ii. To assess the extent to which factors such as lighting, ventilation, noise levels, office space, cleanliness, and furniture influence secretaries' job performance.
- iii. To determine the challenges secretaries face due to suboptimal physical work environments at the University.
- iv. To recommend strategies for improving the physical work environment to enhance secretaries' job performance.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Herzberg's Two-Factor Theory (1959)

Frederick Herzberg, a psychologist, developed Herzberg's two-factor theory, also known as the motivation-hygiene theory, in the 1950s. According to the theory, job satisfaction and employee motivation are influenced by two different factors. The first group of factors in Herzberg's Two-Factor Theory are hygiene factors. It encompasses extrinsic factors, including pay, job security, working conditions, corporate policies, and interpersonal relationships (Herzberg, 2015). In Herzberg's opinion, the primary function of these elements is to prevent job dissatisfaction. However, increased motivation or job satisfaction are not always the outcome of these factors alone (Herzberg, 2015; Mhina, 2022).

This theory posits that while physical aspects, such as office cleanliness, noise levels, and furniture quality, can motivate workers when they are present, their absence can lead to discontent (Herzberg, 1959). In this study, issues such as old furniture, limited space, and noise are identified as hygiene factors whose inadequacy contributes to job dissatisfaction and reduced performance. Conversely, efforts to improve these physical conditions can help alleviate dissatisfaction and enable higher levels of motivation and productivity, especially when paired with intrinsic motivators such as recognition and task responsibility (Lindeberg et al, 2023). In the context of secretaries, uncomfortable or unsafe environments can lead to low morale, health issues, or errors in work, ultimately resulting in reduced job performance.

2.1.2 Environmental Comfort Theory

According to this theory, physical comfort, specifically thermal, acoustic, and visual comfort, improves worker motivation, focus, and productivity. Secretaries are more likely to be focused, effective, and content with their work if they feel at ease in their physical environment (e.g., proper lighting, clean air, and a comfortable temperature). According to Haynes (2008), office workers' self-reported productivity rose dramatically when they had personal control over their surroundings, including lighting and temperature. Poor ventilation, noise, and open-plan layouts have been shown to lower employee satisfaction and increase error rates in knowledge-based jobs (Mbambe, 2021; Leaman & Bordass, 2007). These models lend credence to the notion that job performance is mainly dependent on a physically favourable working environment.

2.2 Empirical Review

The work environment encompasses all elements and conditions related to employees and their productivity (Swai & Tieng'o, 2022). It consists of both internal and external factors that collectively influence work outcomes. A favourable work environment is characterised by health, safety, and comfort, which encourages employees to perform positively (Roskams & Haynes, 2021). Research indicates that the combination of managerial, social, and physical workplace conditions affects employee performance and productivity (Nderitu & Ndeto, 2019). In this study, six physical factors are examined: ergonomics of workplace furniture, adequate lighting, ventilation and air quality, workplace temperature, hygiene, and sanitation. Workplace furniture includes items such as desks, chairs, seating arrangements, and their overall layout. Furniture should be ergonomically designed to support employees in performing their tasks efficiently and effectively. In settings such as manual assembly lines, where employees may work for extended periods or require seating, well-designed furniture can help reduce fatigue. Ergonomic furniture is crucial for promoting employee well-being and safety by providing a comfortable work environment (Taheri et al., 2020).



2.2.1 Physical Environmental Factors Affecting Employees at the Workplace

Core physical environment factors, such as lighting, ventilation, noise, office space/layout, cleanliness, and ergonomic furniture, are consistently recognised as important determinants of office workers' performance and well-being on a global and cross-context basis (Lindeberg et al., 2023). Globally, studies have demonstrated that conducive physical environments enhance performance across various sectors. A study by Hamidi et al (2020) and Swai and Tieng'o (2022) found that comfortable workplace conditions significantly improve efficiency and reduce absenteeism. In Africa, Koskei et al (2021) revealed that workspace modernisation led to higher administrative productivity in Kenyan universities. Similarly, Kobusingye et al (2023) found that secretaries in Ugandan institutions identified office layout and ergonomic furniture as key determinants of their efficiency. Njeri (2022) studied Kenyan public institutions and found that secretaries working in poorly ventilated, noisy, and crowded environments had significantly lower productivity and higher stress levels. Njeri (2022) found that 68% of employees at the Kenya National Bureau of Statistics felt that office layout, lighting, and noise levels directly affected their concentration and speed of task completion. Another study by Pimpong (2023) concluded that the Workplace environment (physical and psychosocial) showed a positive relationship with employee performance. The study highlighted contextual gaps in head-office settings and called for targeted improvements in office conditions. Similarly, Oyedeki et al (2025) found that modernised office infrastructure, ergonomic furniture, and adequate ventilation significantly enhance employee performance in Nigerian firms. In Tanzania, Mbambe (2021) emphasised that many university staff endure outdated furniture, inadequate space, and a lack of privacy, which directly impacts their job satisfaction and effectiveness. Mgaiwa (2021) demonstrated that the working environment in public health institutions significantly influenced the effectiveness of performance appraisal systems in motivating staff. Maj (2023) observed that satisfaction with workspace conditions, including cleanliness, air circulation, and furniture, was a strong predictor of staff performance. Empirical studies, both globally and locally, consistently reinforce that physical factors such as lighting, space, noise, air quality, and ergonomic furniture influence secretaries' performance.

Katabaro and Yan (2019) found that inadequate lighting, including glare, flicker, and noise from fixtures, significantly impaired the visual comfort, health, and productivity of administrative staff at Mbeya University of Science and Technology in Tanzania. Mwasi (2022) demonstrated that the physical aspects of the workplace, including equipment, lighting, and workspace, have a significant impact on the job satisfaction of administrative staff members in public institutions. This was the case at the Open University of Tanzania. In broader public service contexts, Mhina (2022) established a significant positive relationship between the physical work environment and overall employee performance at the Tanzania Revenue Authority. These studies confirm that the same six factors are salient at Tanzanian public universities and agencies (Katabaro & Yan, 2019; Mwasi, 2022; Mhina, 2022).

2.2.2 The Extent to which Physical Factors Influence Staff's Job Performance

According to integrated models (e.g., Lindeberg et al., 2023), environmental comfort, which is influenced by factors such as noise, air quality, lighting, and temperature, strongly predicts job satisfaction and, consequently, likely affects performance outcomes. Shaari et al. (2022) demonstrated a direct correlation between task-related performance metrics and lighting quality, showing that poor lighting was associated with visual fatigue, headaches, eyestrain, and decreased work efficiency. Taheri et al (2020) found that administrative staff satisfaction, a powerful performance-related proxy, is statistically significantly impacted by physical environment factors. Oyedeki et al. (2025) confirmed that the physical environment significantly predicts employee performance, suggesting that elements such as equipment, safety, and workspace comfort are measurably important. Together, these findings underscore that, within Tanzanian institutions, lighting (Swai & Tieng'o, 2022), general physical workspace conditions (Mwasi, 2022), and broader environmental factors (Mwinyimkuu & Msacky, 2024) exert moderate to strong, measurable effects on the performance of administrative staff.

2.2.3 The Challenges Staff Face Due to Suboptimal Physical Work Environments

According to Duque et al (2020), unfavourable physical surroundings result in musculoskeletal issues, visual discomfort, diminished focus, and low morale. According to Katabaro and Yan (2019), glare and poor lighting were associated with headaches, eyestrain, exhaustion, and visual symptoms among secretarial and administrative staff. According to Njeri (2022), low job satisfaction is primarily caused by inadequacies in administrative offices' workspace design, equipment, and comfort, which may indicate hidden performance costs. According to Mhina (2022), the performance of TRA employees is hampered by physical work environment constraints, which most likely include space, ergonomics, and workplace safety. In general, Tanzanian administrators face real health and performance issues closely linked to inadequate workspace, lighting, and equipment.



2.2.4 Strategies for Improving the Physical Work Environment to Enhance Job Performance

To significantly improve comfort and performance, models of environmental comfort (e.g., Firmansyah, 2020) support interventions on lighting, ventilation, acoustic improvements, and ergonomic workspace design. Tanzanian-specific tactics: To enhance visual comfort and efficiency, Katabaro and Yan (2019) recommend ambient-task lighting systems, lighting control options, and increased window openings to allow natural light to enter. By making improvements to the physical environment, such as better lighting, equipment, and workspace design, Mhina (2022) proposes raising administrative staff satisfaction. According to Mgaiwa (2021), enhancements to physical infrastructure, including ergonomics, safety, and workspace comfort, can significantly improve worker performance.

III. METHODOLOGY

3.1 Research Approach

This research employed a variety of techniques. Qualitative research employs a documentary review, whereas quantitative research utilises a descriptive survey design. The approach was suitable for evaluating the relationship between the physical working environment and job performance in a real-world setting. The collection of quantifiable data and the facilitation of statistical analysis to identify patterns and correlations were made possible by quantitative techniques.

3.2 The Target Population

The target population consisted of all secretaries employed by the University of Dar es Salaam (UDSM) across its various academic, administrative, and college divisions. Since secretaries are support staff, they are best suited to provide insights on how their physical work environment affects their performance. According to HR records, UDSM has approximately 150 secretarial staff members.

3.4 Sampling and Sampling Procedures

To guarantee that respondents were equitably and proportionately selected from the University of Dar es Salaam's various faculties, institutes, and administrative offices, the study used a stratified random sampling technique. The secretaries are dispersed throughout various administrative and academic units, and the conditions of their work environments may differ depending on the unit, so stratification was required. Simple random sampling was used to choose the necessary number of responders from each stratum. By combining these methods, sampling bias was reduced, representativeness was improved, and the sample was guaranteed to represent the variety of work environments that secretaries encountered throughout the university.

3.5 Data Collection

Both primary and secondary data sources were used in the study. Direct observations, semi-structured interviews, and structured questionnaires were used to collect primary data. Quantifiable information on aspects of the physical work environment, including lighting, ventilation, office space, noise, cleanliness, and furniture, can be systematically gathered through structured questionnaires. Selected secretaries and administrators participated in semi-structured interviews to learn more about the difficulties they faced and potential solutions. Documentary reviews of institutional reports, university policy documents, and earlier research on the workplace and worker performance were used to gather secondary data. By enabling the cross-verification of data from multiple sources, this triangulation of methods enhanced the validity and reliability of the findings.

3.6 Data Analysis

Both quantitative and qualitative analysis methods were applied to the gathered data. The Statistical Package for Social Sciences (SPSS) was used to code and analyse quantitative data from the structured questionnaires. The characteristics of the respondents and their opinions of the actual workplace were summarised by computing descriptive statistics, including frequencies, percentages, means, and standard deviations. The degree to which environmental elements (lighting, ventilation, noise, cleanliness, furniture, and space) affected job performance was investigated using inferential statistics, such as regression analysis and correlation. Qualitative data from semi-structured interviews and documentary reviews were analysed thematically. Emerging themes were identified, categorised, and interpreted to complement and explain the quantitative findings. The combination of these approaches provided a comprehensive understanding of the physical work environment factors affecting secretaries' performance at the University of Dar es Salaam.

3.7 Validity and Reliability

Academic specialists in occupational health and human resource management reviewed the questionnaire to ensure it was thorough, pertinent, and easy to understand. To improve the tool, ten secretaries from the Open University

of Tanzania, a nearby public university, participated in a pilot study. Internal consistency was measured using Cronbach's Alpha. The obtained value of 0.7 was deemed acceptable.

3.8 Ethical Considerations

Every participant was informed of the study's goal, its confidentiality, and that participation was entirely voluntary. Prior to their involvement, they signed a written consent form. No personal information, including names, was gathered. Data was safely stored and coded. Participants were informed of their freedom to leave the study at any time, without consequence. The information gathered was only utilised for reporting and scholarly research.

IV. FINDINGS & DISCUSSION

4.1 Demographic Characteristics

The respondents' demographic details are shown in Table 1.

Table 1

Demographic Characteristics of Respondents (N = 104)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	18–24	10	9.6%
	25–34	32	30.8%
	35–44	34	32.7%
	45–54	20	19.2%
	55–60	8	7.7%
Education level	Secondary	8	7.7%
	Diploma/Certificate	40	38.5%
	Advanced Diploma	22	21.2%
	Bachelor's Degree	34	32.7%
Experience (years)	0–1	8	7.7%
	2–4	20	19.2%
	5–7	28	26.9%
	8–10	24	23.1%
	Above 10	24	23.1%
Gender	Female	104	100%

According to the results, 63.5% of the secretaries at the University of Dar es Salaam were between the ages of 25 and 44, placing them primarily in the productive middle age range. This illustrates how mid-career workers, who are usually more seasoned and secure in their positions, predominate. The majority of respondents had either a bachelor's degree (32.7%) or a diploma/certificate (38.5%), demonstrating that the university's secretarial staff is reasonably well-educated, which is crucial for assisting with administrative tasks. In terms of work experience, a sizable percentage (73.1%) had been employed for more than five years, indicating that the organisation gains from having a pool of seasoned employees with institutional memory. The fact that every respondent was female supports the gendered nature of Tanzanian secretarial positions, which are still primarily held by women. The workforce is generally skilled, experienced, and concentrated in the prime working age range, as indicated by the demographic profile. The underrepresentation of younger workers, however, can be a sign of difficulties recruiting new people to the field.

Table 2

Descriptive Statistics

Variable	Mean (M)	Standard Deviation (SD)	Interpretation
Lighting adequacy	3.54	0.89	Moderately adequate
Ventilation and air quality	3.31	0.95	Moderately acceptable
Noise level control	2.89	1.12	Slightly inadequate
Ergonomic furniture	2.76	1.04	Inadequate
Office space and layout	3.07	0.99	Fairly acceptable
Cleanliness and maintenance	3.45	0.91	Moderately acceptable
Job performance (self-reported)	3.68	0.84	Moderate to high performance

Note: Likert Scale: 1 = Strongly Disagree; 5 = Strongly Agree

The descriptive statistics in Table 2 reveal employee perceptions of their physical workspace and self-reported job performance. According to the finding's, lighting adequacy was found to have a moderate level of adequacy, with a mean score of 3.54 (SD = 0.89). This implies that, despite some variation in opinions, the majority of respondents were

reasonably content with the lighting in their workplaces. A mean of 3.31 (SD = 0.95) for ventilation and air quality indicated moderately acceptable conditions. Although ventilation is generally deemed acceptable, the score indicates that comfort could still be improved.

With a mean score of 2.89 (SD = 1.12), noise level control performed marginally poorly. This suggests that noise is a problem for workers in their workplace, as evidenced by the comparatively wide range of answers, which is probably caused by variations in office layouts or locations. With a mean score of 2.76 (SD = 1.04), ergonomic furniture also scored among the lowest, suggesting subpar performance. This finding highlights an ergonomic design flaw that could have a detrimental impact on employee comfort and productivity.

However, the office layout and space received a mean rating of 3.07 (SD = 0.99), which is considered reasonably acceptable. This suggests that office space may not be fully optimised for comfort and efficiency, even though it is not thought to be seriously lacking. Maintenance and cleanliness were rated as moderately acceptable with a comparatively higher mean of 3.45 (SD = 0.91). This suggests that workers generally think their workspace is tidy and well-kept.

Table 3

Pearson's Correlation Analysis

Variable	Job Performance	Sig. (p-value)	Strength of Correlation
Lighting	0.487**	0.000	Moderate positive
Ventilation	0.394**	0.000	Moderate positive
Noise level (inverse scale)	-0.328**	0.001	Moderate negative
Ergonomic furniture	0.512**	0.000	Strongest positive
Office space	0.361**	0.000	Moderate positive
Cleanliness and maintenance	0.445**	0.000	Moderate positive

**Correlation is significant at the 0.01 level (2-tailed).

Table 3 displays the findings of Pearson's correlation analysis, which show a strong correlation between secretaries' job performance and several physical aspects of the workplace. Improvements in ergonomic design appear to directly enhance employee comfort and productivity, as evidenced by the strongest positive correlation found between ergonomic furniture and job performance ($r = 0.512$, $p < 0.001$). This emphasises how crucial it is to invest in ergonomic resources to improve performance results. Additionally, lighting demonstrated a moderately positive correlation ($r = 0.487$, $p < 0.001$), suggesting that sufficient illumination promotes improved task execution and concentration. A clean and well-maintained office environment creates favourable conditions for efficiency, as evidenced by the moderately positive and positive association between cleanliness and maintenance and performance ($r = 0.445$, $p < 0.001$). According to the moderately positive correlations found between office space ($r = 0.361$, $p < 0.001$) and ventilation and air quality ($r = 0.394$, $p < 0.001$), workers typically perform better in workspaces that are adequately spacious and well-ventilated. These elements, however, have a lesser impact than lighting and ergonomics.

It is interesting to note that performance and noise level had a moderately significant negative correlation ($r = -0.328$, $p = 0.001$). This finding suggests that higher noise levels impair focus and efficiency, which in turn lowers job performance, as noise was measured on an inverse scale. This supports earlier research indicating that noise is a common workplace stressor that impairs focus. Overall, these correlations suggest that ergonomic furniture, lighting, and cleanliness are the most significant positive predictors of job performance, although various environmental factors also contribute to the outcome. Uncontrolled noise, on the other hand, remains a significant obstacle to achieving peak performance.

4.1.1 Multiple Regression Analysis

To evaluate the impact of workplace environment factors, namely, office space, office lighting, ventilation, noise levels, cleanliness, and furniture, on secretaries' job performance, a multiple regression analysis was conducted, with the results summarised in Table 4.

Table 4

Model Summary

R	R ²	Adjusted R ²	Std. Error of the Estimate
0.652	0.425	0.397	0.655

Table 4 presents the model summary of the regression analysis. The results show that the independent variables (office space, office lighting, ventilation, noise levels, cleanliness, and furniture) collectively explain 42.5% ($R^2 = 0.425$) of the variance in secretaries' job performance. This suggests that workplace environment factors contribute

substantially to predicting job performance, while the remaining 57.5% of the variation may be attributed to other factors not included in the model.

Table 5
ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	38.274	6	6.379	14.858	.000
Residual	51.831	97	0.534		
Total	90.105	103			

Table 5 presents the ANOVA results, which test the overall significance of the regression model in determining whether workplace environment factors jointly have a statistically significant effect on secretaries' job performance. The regression model is statistically significant ($p < 0.001$), indicating that the physical work environment dimensions collectively predict job performance.

The ANOVA results in Table 5 indicate that the regression model is statistically significant, $F(6, 97) = 14.858$, $p < .001$. This means that, taken together, the independent variables (office space, office lighting, ventilation, noise levels, cleanliness, and furniture) significantly predict variations in secretaries' job performance. In other words, the set of workplace environment factors used in the model provides a meaningful contribution in explaining differences in job performance among secretaries.

Table 6
Regression Coefficients

Predictor Variable	Unstandardized Coefficient		Standardized Coefficients	t-value	Sig. (p)
	B	Std. Error	Beta (β)		
Constant	1.125	0.341	—	3.299	.001
Lighting	0.248	0.087	0.201	2.850	.005
Ventilation	0.169	0.078	0.144	2.165	.033
Noise (inverse)	-0.183	0.070	-0.161	-2.614	.010
Ergonomic furniture	0.315	0.084	0.278	3.750	.000
Office space	0.120	0.069	0.110	1.739	.085
Cleanliness & maintenance	0.204	0.074	0.187	2.757	.007

Table 6 presents the regression coefficients, which show the individual contribution of each workplace environment factor—office space, lighting, ventilation, noise, cleanliness, and ergonomic furniture—in predicting secretaries' job performance. The results of the regression analysis show that, with a standardised coefficient ($\beta = 0.278$, $p < 0.001$), ergonomic furniture is the best indicator of secretaries' job performance. This implies that advancements greatly influence increased performance in the quantity and calibre of ergonomic furniture. Furthermore, it was found that cleanliness and lighting had a significant positive impact, indicating that a clean and well-lit workspace is crucial for enhancing productivity and efficiency. However, noise showed a statistically significant negative impact on performance, underscoring the disruptive effect of excessive or uncontrolled noise in the workplace. Although office space and job performance were positively correlated, this relationship was not statistically significant at the 0.05 level, indicating that, although space may be important, it is not a key predictor of performance in this particular context.

According to the study, many secretaries valued features like ventilation, lighting, and cleanliness in their workspace. Nonetheless, several enduring difficulties were noted. According to the respondents, these elements impacted their ability to concentrate, attend, and be productive. Although some management initiatives, such as recurring renovations, were recognised, respondents believed that complaints were handled slowly and inconsistently. The data below, which is based on a sample size of 104 respondents, includes descriptive statistics, multiple regression analysis, and Pearson's correlation.

4.2. Qualitative Findings

4.2.1 Ergonomic Furniture and Job Performance

The best predictor of job performance, according to the quantitative analysis, was ergonomic furniture ($\beta = 0.278$, $p < 0.001$). Secretaries who reported having access to adjustable desks, comfortable chairs, and the right equipment demonstrated higher levels of efficiency and satisfaction. Just 34% of those surveyed thought their chairs and desks were ergonomically designed. The majority of the furniture was reportedly uncomfortable, worn out, or outdated. Secretaries complained of exhaustion, back pain, and difficulty maintaining their posture for extended periods. This is corroborated by qualitative feedback, where one respondent stated:

"I spend over 8 hours at my desk. If the chair is uncomfortable or the desk is too low or too high, I get back pains. That makes me lose focus and slows down my work." (Respondent 5)

This result confirms earlier studies by Irfak (2022), John (2022), and Zhao et al. (2020), which emphasise the importance of ergonomic support in reducing physical strain and enhancing sustained attention. Numerous secretaries at UDSM reported using antiquated or broken furniture, indicating an urgent need for ergonomic improvements to boost morale and increase productivity. This is also in line with Herzberg's Two-Factor Theory, which holds that even in the presence of other motivators, unfavourable physical circumstances (hygiene factors) can lead to discontent. In a similar spirit, it implies that organisations benefit from providing workers with options for office furniture and workstations, including the ability to customise equipment and various working configurations. It can improve attendance, job satisfaction and thus work performance. Poorly fitting office furniture has been linked to an increased likelihood of workers developing musculoskeletal disorders. Current research highlights the benefits of providing models of office furniture and equipment that can be customised to meet individual needs.

4.2.2 Lighting

The perceived comfort and quality of the lighting may significantly impact employees. As the body adjusts to the ambient level, poor lighting conditions can cause discomfort and fatigue. Factors such as brightness, direction, colour and contrast from one area to another should be considered in the context of the work requirements as well as how they interact with other elements of the physical environment (such as causing glare on monitors). Another significant predictor of job performance was lighting ($\beta = 0.201$, $p = 0.005$). Offices with adequate lighting enhance visual comfort and lessen fatigue. Due to the abundance of artificial light, 60.0% of respondents believe that the lighting in their workplace is efficient. Compared to this, 40.0% of respondents agree that uncomfortable lighting significantly reduces their motivation for work, with 32.0% concurring. Furthermore, 56.0% of respondents do not sit close to the window, whereas 60.0% concur that the layout of their office allowed them to be exposed to sufficient lighting in their daily work. In conclusion, the most significant proportion of respondents' rankings for the "neutral" scale regarding the impact of inadequate lighting on their work performance was 36.0%. According to the aforementioned data, natural light is responsible for the most significant percentage of inadequate lighting, suggesting a marginally detrimental effect on workers. This is consistent with Koskei et al (2021), who found that uncomfortable lighting causes stress and impairs productivity. This occurs when a worker is subjected to an uncomfortable workplace characterised by excessive glare, inadequate lighting, or a lack of natural light. One respondent remarked:

"There are times when lights go off or are too dim. I cannot read or type efficiently, especially in the afternoons. We also lack regular cleaning in some buildings." (Respondent 8)

Another echoed:

"When the office is clean, I feel motivated. But if there is dust everywhere and cobwebs on the windows, it makes me feel neglected as an employee." (Respondent 4)

This is in line with research by Hamidi et al. (2020), who emphasised the strong correlation between lighting and hygiene, as well as psychological health, employee engagement, and perceived organisational support. According to research, sitting near a window is thought to be more enticing and stimulating and lessens any discomfort brought on by dim lighting (Mgaiwa, 2021). Additionally, workers' physical and mental well-being is likely to improve if they can locally adjust lighting to suit the various demands of their jobs.

4.2.3 Ventilation and Air Quality

Performance was slightly but significantly impacted by ventilation ($\beta = 0.144$, $p = 0.033$). Particularly in humid tropical climates, poor air quality and insufficient circulation can lead to discomfort and impair concentration. With 62% of respondents agreeing that their offices had basic amenities like desks, lighting, and ventilation, most respondents rated their physical working environment as moderately conducive. Nonetheless, 38% of those surveyed were unhappy, especially with the inadequate ventilation.

"My office has no ceiling fan or air conditioning, and during hot days, it becomes extremely uncomfortable. Sometimes I cannot concentrate properly." (Respondent 12)

Another participant shared:

"Sometimes the air gets stuffy, especially when the AC is not working. It is hard to focus when the room feels suffocating." (Respondent 10)

This validates the findings of Yuningsih et al. (2023) and Njeri (2022), who argue that air quality has a significant influence on cognitive functioning and energy levels.

4.2.4 Noise Level (Negative Influence)

It is impossible to prevent a sound or noise issue in an office. Research has shown that muting sound can reduce errors and increase productivity. A statistically significant negative correlation was found between noise and job performance ($\beta = -0.161$, $p = 0.010$). According to the respondents, noise from adjacent construction, open offices, or



frequent walk-ins interferes with concentration. The majority of secretaries (52%) stated that noise levels in and around their offices affected their ability to focus and work efficiently.

"There is a lot of foot traffic in my corridor, and people often talk loudly near our windows. It is hard to concentrate, especially during exam periods."

(Respondent 20).

Offices located near busy corridors or construction sites reported frequent disturbances. As one secretary put it,

"It is challenging to concentrate when you hear drilling sounds from outside all day."

A typical sentiment was:

"People come in and out of the office without knocking. Phones are always ringing. You cannot complete a task without interruption." (Respondent 3)

This supports Maj's (2023) model of workspace stress, which emphasises that environmental stressors such as noise increase errors and reduce task accuracy in administrative roles.

4.2.5 Office Space and Layout

According to several studies, dividing walls can help mitigate the noise that open-plan offices often generate. Apart from the spatial arrangements, the height of the partition is also thought to be very significant. Perceived privacy and job satisfaction have been positively correlated with partition height and spatial arrangements. The relationship between office space and performance was positive ($\beta = 0.110$), but it was not statistically significant ($p = 0.085$). Qualitative responses, however, imply that this variable may indirectly impact morale. Space limitations were a problem for about 58% of the secretaries, particularly in shared offices.

"Sometimes we have three secretaries in one small room. There is not enough space to move around or maintain privacy when handling sensitive documents." (Respondent 18)

Many secretaries shared offices due to limited office space, which affected their privacy and concentration. One respondent stated,

"Sometimes I cannot even pick up a phone call without being interrupted by my neighbour's visitors." "We are crammed into small rooms with no privacy. It is hard to have confidential conversations or even think clearly." (Respondent 18)

This suggests that while space constraints may not immediately impair performance metrics, they impact job satisfaction and professional dignity, aligning with institutional theory and employee engagement literature. The results support those of Shaari et al. (2022), who found that a favourable physical workspace is a strategic facilitator of secretarial performance. At UDSM, secretaries serve as more than just administrative assistants; they are also information managers, communicators, and the institutional memory of their departments. How well they carry out these responsibilities is directly impacted by the interaction of lighting, air quality, ergonomics, and low noise levels. While qualitative data shed light on the everyday struggles and frustrations of secretarial staff, quantitative data demonstrated the statistically significant influence of physical factors on their work. The two pieces of evidence support the claim that physical working conditions are important components of performance rather than secondary ones, and that they ought to be given top priority in HRM planning and university infrastructure budgeting.

4.2.6 Cleanliness and Office Maintenance

Cleanliness ($\beta = 0.187$, $p = 0.007$) was also a significant predictor of job performance. Respondents raised concerns about inconsistent office cleaning and maintenance. Although basic cleanliness was observed, deep cleaning and pest control were reportedly irregular.

"Our windows are rarely cleaned. Sometimes there are cobwebs on the ceiling, and it makes the office feel neglected."

(Respondent 30)

Cleanliness is often an overlooked factor in job performance, but studies show that a clean environment enhances mental clarity and professionalism (Zhao et al., 2020).

4.3 Discussion

The purpose of this study was to examine the influence of physical work environment factors on secretaries' job performance at the University of Dar es Salaam. The discussion integrates findings from descriptive statistics, correlation analysis, and regression results with Environmental Comfort Theory (ECT) and Herzberg's Two-Factor Theory, while aligning with the four study objectives.

4.3.1 Identifying key Physical Work Environment factors affecting Secretaries

The descriptive analysis revealed that while noise control ($M = 2.89$) and ergonomic furniture ($M = 2.76$) were rated as insufficient, lighting ($M = 3.54$) and cleanliness ($M = 3.45$) were deemed to be moderately satisfactory. These findings confirm that noise and poor ergonomics are significant environmental factors affecting workplace experiences,



with secretaries facing unique challenges in these areas. This finding aligns with earlier research that has consistently identified noise as a persistent issue in office settings, serving as a distraction to focus, as noted by Abubakar and Udoma (2024) and Oyediji et al. (2025). In a similar vein, Shaari et al. (2022) emphasised the value of ergonomic design in reducing workplace fatigue and enhancing productivity.

4.3.2 Assessing the Extent of Influence on Job Performance

Ergonomic furniture had the strongest positive relationship with job performance, as indicated by the correlation results ($r = 0.512$, $p < 0.001$). Lighting ($r = 0.487$, $p < 0.001$) and cleanliness ($r = 0.445$, $p < 0.001$) were next in line. Office space ($r = 0.361$, $p < 0.001$) and ventilation ($r = 0.394$, $p < 0.001$) also had a positive relationship, but noise had a moderately negative impact ($r = -0.328$, $p = 0.001$). These findings confirm that ergonomic furniture and adequate lighting are crucial for enhancing productivity, while uncontrolled noise significantly hinders it. This finding was further supported by regression analysis, which revealed that ergonomic furniture was the most significant indicator of job performance. This finding aligns with those of Taheri et al (2020), who noted that employees in environments with ergonomic facilities and adequate lighting report higher productivity and job satisfaction.

4.3.3 Determining Challenges Faced Due to Suboptimal Environments

The descriptive results' shortcomings, particularly those related to noise and poor ergonomics, highlight the primary difficulties that secretaries encounter. These shortcomings align with the Environmental Comfort Theory, which posits that workers who are uncomfortable in their surroundings are less focused, more stressed, and less productive (Swai & Tieng'o, 2022). Poor physical conditions have also been linked to reduced commitment, absenteeism, and dissatisfaction, as noted in earlier research (Hamidi et al., 2020; Roskam & Haynes, 2021). ECT's focus on perceived rather than absolute comfort is supported by the insignificant effect of office space in regression analysis, despite its positive correlation with comfort. This suggests that employees value functional and comfortable conditions (such as ergonomic furniture and lighting) more than the space's size alone.

4.3.4 Recommending Strategies for Improvement

Improving working conditions is a practical application of these findings. Physical environment elements function as hygiene factors, and their absence results in discontent and subpar performance, according to Herzberg's Two-Factor Theory. They also keep employees from being unhappy, but they do not always inspire them on an internal level. Therefore, the findings suggest that before focusing on motivators such as recognition and career advancement, university administration should prioritise addressing hygiene-related issues, particularly those involving ergonomic furniture, lighting, and noise reduction. Prior research has similarly shown that attempts to implement motivational initiatives without addressing fundamental hygiene conditions, like cleanliness and ergonomic design, have limited success (Swalehe, 2021; Zhenjing et al., 2022).

These results are in line with the Environmental Comfort Theory (ECT), which holds that when the workplace has elements that promote physical comfort, like adequate lighting, ergonomic furniture, good air quality, and noise reduction, employee performance is maximised. Comfort at work promotes psychological stability, motivation, and productivity, claims Swalehe (2021). This is supported by the findings of the current study, which demonstrate that comfort-enhancing elements, specifically ergonomic lighting, furniture, and cleanliness, had a positive impact on performance. Prior studies by Kobusingye et al (2023) have similarly shown that poor ergonomics and noise control are associated with lower concentration and job dissatisfaction. In contrast, employees in comfortable environments report higher levels of satisfaction and productivity (Oyediji et al, 2025; Mwinimkuu & Msacky, 2024). The insignificance of office space in regression analysis, despite its moderate correlation, aligns with ECT's emphasis on perceived rather than absolute comfort. Employees may not require large spaces, but instead value functionality and ergonomic design more highly (Hamidi et al., 2020).

Additionally, the results are consistent with Herzberg's Two-Factor Theory, which distinguishes between hygiene factors and motivators. The environmental factors evaluated in this study essentially serve as hygiene factors: their absence results in dissatisfaction and lowers performance, but they do not always inspire employees to exceed expectations. For example, uncontrolled noise and inadequate ergonomic furniture were found to be sources of discomfort, confirming Herzberg's claim that factors related to poor hygiene lower employee satisfaction. This interpretation is supported by earlier research. According to Kobusingye et al. (2023), ergonomic improvements served as a hygienic factor that reduced dissatisfaction but required motivators, such as recognition, to sustain higher engagement. Faez et al. (2023) observed that unfavourable workplace conditions result in dissatisfaction and decreased efficiency. Similarly, Abubakar and Udoma (2024) demonstrated that cleanliness and proper lighting reduced employee dissatisfaction; however, long-term motivation was driven by intrinsic factors, such as achievement and a sense of responsibility.

Furthermore, the present results emphasise how crucial it is to address hygiene factors first. The small but beneficial impact of office space suggests that not all aspects of hygiene are equally important; workers may prioritise



comfort and health-related features, such as ergonomic lighting and furniture, over aesthetics. These findings are consistent with those of Yuningsih et al. (2023) and Swai and Tieng'o (2022), who emphasised that while the physical environment provides a basis for productivity, it does not ensure sustained motivation in the absence of motivators. Therefore, combining Environmental Comfort Theory with Herzberg's Two-Factor Theory provides a comprehensive explanation: intrinsic motivators drive long-term job performance, while environmental factors promote comfort and mitigate discontent. Herzberg's theory further helps interpret the results. The study's findings align with the premise that deficiencies in hygiene factors, such as office space and furniture, can lead to dissatisfaction and decreased performance (Herzberg, 2015). Improvements in these areas may not immediately result in motivation, but are necessary preconditions for job satisfaction and effective performance. Hence, the secretaries' experiences echo Herzberg's assertion that eliminating negative workplace factors is a critical step toward enhancing employee engagement.

The study's overall conclusion is that maintaining job performance requires physical environmental improvements. This is consistent with Herzberg's Two-Factor Theory, which emphasises the importance of hygiene factors in preventing dissatisfaction, as well as Environmental Comfort Theory, which emphasises comfort as a driver of productivity. The foundation for improving secretaries' performance will ultimately be provided by addressing ergonomic design, adequate lighting, cleanliness, ventilation, and noise reduction. Long-term productivity can be ensured by combining these with incentives such as acknowledgement and opportunities for professional growth.

Furthermore, Herzberg's theory suggests that while hygienic factors are important, higher performance requires motivators such as opportunities for advancement, accountability, and recognition. This study supports theoretical claims that the physical workspace is a crucial job resource that can either enhance or impair job performance, particularly in administrative positions that involve document handling, prolonged sitting, and attention to detail. The results corroborate Amin and Chakraborty (2022) existing literature, which highlights the importance of the physical environment in job performance. In line with the findings of this study, Faez et al. (2023) discovered that offices with uncomfortable designs, inadequate lighting, and high noise levels decreased productivity among secretaries in Kenya. According to Tanzanian research (e.g., Mwasi, 2022), one of the leading causes of support staff discontent was unfavourable working conditions.

By expanding the application of Herzberg's Two-Factor Theory and Environmental Comfort Theory (ECT) in the context of Tanzanian higher education institutions, the study contributes to the existing body of scholarship. The results support ECT's claim that worker satisfaction and productivity are directly influenced by their perceptions of comfort, particularly in terms of ergonomics, lighting, and cleanliness. The notable negative impact of noise further supports the theory's emphasis on environmental disruptions as performance barriers. Furthermore, the findings corroborate Herzberg's claim that physical attributes serve as hygiene factors; their absence results in discontent and poor performance, but their presence alone is insufficient to maintain motivation. Therefore, by demonstrating that physical comfort factors provide a necessary foundation for performance and that intrinsic motivators must work in conjunction with them to achieve long-term engagement, this study advances theoretical understanding.

The study emphasises the necessity for managers and policymakers at the University of Dar es Salaam and other similar institutions to give physical work environment improvements top priority as a means of increasing employee productivity. Given its strong correlation with job performance, investing in ergonomic furniture is a priority. Additionally, efforts should be directed toward enhancing ventilation systems, maintaining clean areas, and providing sufficient lighting. Additionally, establishing a productive workplace requires proactive measures to manage noise effectively. Beyond infrastructure, human resource managers should understand that addressing these hygienic factors can help reduce discontent. However, for long-term productivity, they must be combined with incentives such as acknowledgement, opportunities for professional advancement, and involvement in decision-making. Organisations can create a more productive, safe, and healthy work environment for secretaries and other administrative staff by integrating comfort principles and motivational techniques into workplace design.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The results of this study demonstrate a strong and distinct correlation between the job performance of University of Dar es Salaam secretaries and their physical workspace. Important environmental elements that can either enhance or hinder secretaries' productivity, focus, comfort, and overall job satisfaction include lighting, ventilation, noise levels, ergonomic furniture, workspace, and cleanliness. Numerous respondents mentioned poor working conditions, including crowded offices, non-ergonomic furniture, poor air circulation, and inadequate lighting. Demotivation, decreased productivity, and physical discomfort were the results of these shortcomings. According to the study, a workplace that does not adhere to fundamental ergonomic and occupational health standards has a detrimental impact on both individual performance and organisational efficacy. These results are consistent with theoretical frameworks that emphasise the significance of physical conditions as vital workplace resources, such as Environmental Comfort Theory and Herzberg's Two-Factor Theory. The study contributes to the growing body of evidence from Tanzania that physical work conditions



are significant issues. Nonetheless, they are essential to worker performance and happiness, especially for support and administrative personnel, such as secretaries and administrative assistants.

5.2 Recommendations

Upgrading secretarial workspaces with ergonomic furniture, such as standard desks, adjustable chairs, and computer equipment made to lessen strain and fatigue, should be a top priority for the University of Dar es Salaam. To guarantee a secure and comfortable workplace, routine maintenance and renovations should be planned. To promote visual comfort throughout the day, both artificial and natural lighting should be improved. To improve thermal comfort, fans or air conditioners should be installed in hot or poorly ventilated rooms, and proper ventilation should be prioritised.

To reduce distractions, departments should implement strategies such as soundproofing materials, dividing communal areas, or relocating busy areas away from secretary offices. Where feasible, quiet zones could be implemented in administrative buildings and libraries. When three or more secretaries share a single room, management should evaluate staff distribution and expand or reallocate office spaces to improve mobility, privacy, and reduce overcrowding. To enhance flexibility and foster a positive work-life balance, consider implementing remote work or rotating work schedules for data entry and secretarial duties, where feasible.

To maintain a tidy, professional, and inspiring workplace, daily cleaning, frequent deep cleaning, and prompt repairs of office infrastructure (such as broken lights, windows, and doors) should be institutionalised. To identify and address workplace issues, the university should conduct regular ergonomic and environmental audits. This may be part of the Directorate of Human Resources and Administration's broader employee wellness initiative. When decisions are made that impact their workspace, secretaries ought to be included in the consultation process. Their real-world knowledge of what works and what does not can inform the creation of more effective interventions.

If followed, these suggestions will boost employee morale, decrease absenteeism, and increase organisational efficiency in addition to improving secretaries' job performance. For broader institutional policy development, future research could expand this study to include other categories of non-academic staff or replicate it in other Tanzanian organisations.

REFERENCES

- Abubakar, S., & Udoma, A. (2024). The impact of work environment on workers' performance: A study of Federal Polytechnic Ekowe, Bayelsa State, Nigeria. *International Journal of Arts and Social Science*, 7(3), 156–163. <https://www.ijassjournal.com/2024/V7I3/41466639205>
- Amin, M. D., & Chakraborty, A. (2022). Impact of physical factors of workplace environment on workers performance in industry. *Journal of Engineering Science*, 12(3), 57–66. <https://doi.org/10.3329/jes.v12i3.57479>
- Daniel, C. (2019). Influence of work environment on employees' performance in Nigeria. *International Journal of Research in Management*, 2(9), 10–18. <https://doi.org/10.26808/rs.rm.i9v2.02>
- Duque, L., Costa, R., Dias, Á., Pereira, L., Santos, J., & António, N. (2020). New ways of working and the physical environment to improve employee engagement. *Sustainability*, 12(17), 67–79. <https://doi.org/10.3390/su12176759>
- Faez, F., Hamdan, A., & Abdulrasool, F. (2023). The impact of workplace environment on the employee's performance. In R. El Khoury & N. Nasrallah (Eds.), *Emerging trends and innovation in business and finance*. Springer. https://doi.org/10.1007/978-981-99-6101-6_37
- Firmansyah, H. M. (2020). The effect of work motivation, work environment, and work discipline on employees' performance of Samsat office, Makassar. *Hasanuddin Journal of Business Strategy*, 2(2), 72–86. <https://doi.org/10.26487/hjbs.v2i2.336>
- Funmini, A. K. (2018). Impact of workplace environmental factors on employee commitment: Evidence from North East Nigeria. *International Journal of Scientific Research and Management*, 6(7), 575–585. <https://ijsrm.net/index.php/ijsrm/article/view/1683>
- Hafeez, I., Zhu, Y., Mansoor, R., & Rehman, K. U. (2019). Impact of workplace environment on employee performance: Mediating role of employee health. *Business, Management and Economics Engineering*, 17(2), 173–193. <https://journals.vilniustech.lt/index.php/BMEE/article/view/10379>
- Hamidi, N., Mansor, F., Hashim, M., Muhammad, N., & Wan Azib, W. (2020). The relationship between physical workplace environment and employees' performance. *Journal of Contemporary Social Science Research*, 4(1), 56–67. <https://ir.uitm.edu.my/id/eprint/35104>
- Haynes, B. P. (2008). The impact of office comfort on productivity. *Journal of Facilities Management*, 6(1), 37–51.
- Herzberg, F. (1959). *The motivation to work*. Wiley. https://dlwqtxts1xzle7.cloudfront.net/79799334/03_32120lsj140517_12_16
- Herzberg, F. (2015). Motivation-hygiene theory. *Organisational Behaviour*, 1, 61–74. <https://www.scirp.org/reference/referencespapers?referenceid=3899593>



- Irfak, R. (2022). Literature review: The effect of motivation and work environment on employee productivity and performance. *Management Social Science*, 3(5), 1–12. <https://doi.org/10.31933/dijemss.v3i5.1197>
- John, F. (2022). The impact of work environment on job satisfaction and employee turnover intention in Tanzania: The analysis of the moderating role of public service motivation (Master's thesis, Sungkyunkwan University). <https://www.academia.edu/109320818>
- Katabaro, J. M., & Yan, Y. (2019). Lighting problems in the administration offices at Mbeya University of Science and Technology in Tanzania. *International Journal of Building Pathology and Adaptation*, 37(2), 152–171. <https://doi.org/10.1108/IJBPA-04-2018-0033>
- Kobusingye, L., Atukunda, G., & Atwine, J. (2023). Working conditions and performance of employees at Ibanda District Local Government. *American Research Journal of Humanities & Social Science*, 6(2), 13–36. <https://www.arjhss.com/wp-content/uploads/2023/02/C621336>
- Koskei, S., Musebe, R., & Mbaraka, R. (2021). The effect of psychological climate on employee performance in government ministries, Nandi County, Kenya. *Journal of Economics, Management Sciences & Procurement*, 1(1), 1–18. <https://jemspro.org/index.php/pages/article/view/1>
- Leaman, A., & Bordass, B. (2007). Are users more tolerant of 'green' buildings? *Building Research & Information*, 35(6), 662–673. <https://doi.org/10.1080/09613210701529518>
- Lindeberg, P., Saunila, M., Lappalainen, P., Ukko, J., & Rantanen, H. (2023). The relationship between various social work environment elements and hybrid worker well-being. *Facilities*, 42(15–16), 1–16. <https://doi.org/10.1108/F-03-2023-0019>
- Maj, J. (2023). Influence of inclusive work environment and perceived diversity on job satisfaction: Evidence from Poland. *Central European Business Review*, 12(4), 105–122. <https://cebr.vse.cz/artkey/cbr-202304-0005>
- Mbambe, R. (2021). Assessment of work environment and the effects on employee performance: A case of public health sector in Tunduru District (Master's thesis, The Open University of Tanzania). <http://repository.out.ac.tz/id/eprint/3248>
- Mgaiwa, S. (2021). Academics' job satisfaction in Tanzania's higher education: The role of perceived work environment. *Social Sciences & Humanities Open*, 4(1), 100143. <https://doi.org/10.1016/j.ssaho.2021.100143>
- Mhina, Z. (2022). The effect of working environment on employee performance: A case of Tanzania Revenue Authority (Master's dissertation, Mzumbe University). <http://hdl.handle.net/11192/5309/>
- Mwasi, C. A. (2022). Influence of working environment on job satisfaction for administrative staff of public universities in Tanzania: A case study of The Open University of Tanzania (Master's thesis, The Open University of Tanzania). <http://repository.out.ac.tz/id/eprint/3656>
- Mwinyimkuu, F., & Msacky, R. (2024). Physical workplace environment's role in shaping employee satisfaction: Insights from the National Food Reserve Agency in Tanzania. *Journal of International Trade, Logistics and Law*, 10(2), 92–106. <https://www.jital.org/index.php/jital/index>
- Nderitu, M. W., & Ndeto, M. (2019). Influence of workplace environment on employee productivity in Nairobi City County. *International Academic Journal of Human Resource and Business Administration*, 3(7), 117–139. www.iajournals.org/articles/iajhrba_v3_i7_117_139.pdf
- Njeri, L. (2022). Workplace environment and employee performance in Kenya Commercial Bank, Nairobi County, Kenya (Unpublished master's dissertation). Kenyatta University. <https://ir-library.ku.ac.ke/server/api/core/bitstreams/8b26beaa-3d6c-46b7-b4f1-c6c72a907953/content>
- Nzewi, H. N., Augustine, A., Mohammed, I., & Godson, O. (2018). Physical work environment and employee performance in selected brewing firms in Anambra State, Nigeria. *Journal of Good Governance and Sustainable Development in Africa*, 4(2), 131–145. <https://journals.rcmss.com/index.php/jggsda/article/view/396>
- Oyedeeji, B. A., Ko, Y. H., & Lee, S. (2025). Physical work environments: An integrative review and agenda for future research. *Journal of Management*, 51(6), 2589–2626. <https://doi.org/10.1177/01492063251315703>
- Pimpong, M. (2023). Work environmental factors and their impact on employee productivity: The mediating role of employee commitment. *E-Journal of Humanities, Arts and Social Sciences*, 4(8), 916–935. <https://noyam.org/wp-content/uploads/2023/08/EHASS2023482.pdf>
- Roskams, M., & Haynes, B. (2021). Environmental demands and resources: A framework for understanding the physical environment for work. *Facilities*, 39(9/10), 652–666. <https://shura.shu.ac.uk/27872/>
- Shaari, R., Sarip, A., & Ramadhinda, S. (2022). A study of the influence of physical work environments on employee performance. *International Journal of Academic Research in Business and Social Sciences*, 12(12), 1734–1742. <https://doi.org/10.6007/IJARBS/v12-i12/15975>
- Shammout, M. (2022). The impact of the work environment on employees' performance. *International Research Journal of Modernisation in Engineering Technology and Science*, 3(11), 78–101. <https://www.researchgate.net/publication/357836304>
- Susilo, B. W., & Desitawati, Y. (2020). The influence of supervision and work environment on employee performance at PT EUDE Indonesia. *Journal of Economic Frames (JBE)*, 5(1), 97–105. <https://doi.org/10.54066/jbe.v5i1.74>



- Swai, L., & Tieng'o, W. (2022). Relationship between working environments and employees' performance in local government authorities: A case of Bahi District Council, Tanzania. *East African Journal of Management and Business Studies*, 2(4), 15–22. <https://doi.org/10.46606/eajmbs2022v02i04.0014>
- Swalehe, O. (2021). Service delivery and customer satisfaction in public organisations. *IUP Journal of Marketing Management*, 20(2), 81–96. <https://ssrn.com/abstract=3958572>
- Taheri, R. H., Miah, M. S., & Kamaruzzaman, M. (2020). Impact of working environment on job satisfaction. *European Journal of Business and Management*, 5(6), 46–58. <https://doi.org/10.24018/ejbmr.2020.5.6.643>
- Yingjun, Z. H. (2019). Impact of workplace environment on employee performance: Mediating role of employee health. *Business Management and Economics Engineering*, 17(2), 354–367. <https://doi.org/10.3846/bme.2019.10379>
- Yuningsih, N., Maryadi, A., & Rustianah, R. (2023). Increasing employee work productivity through work supervision, work culture and work environment. *Journal of Management Science*, 12(2), 275–282. <https://ejournal.uniskakediri.ac.id/index.php/Revitalisasi/article/view/4481/2284>
- Zhao, R., Liu, J., & Chen, Y. (2020). Evaluating the impact of the physical office environment on employee performance. *Journal of Facilities Management*, 18(1), 1–16. <https://doi.org/10.1108/JFM-11-2019-0064>
- Zhenjing, G., Chupradit, S., Ku, K., Nassani, A., & Haffar, M. (2022). Impact of employees' workplace environment on employees' performance: A multi-mediation model. *Frontiers in Public Health*, 10(3), 1–13. <https://doi.org/10.3389/fpubh.2022.890400>