# The Influence of Work Environment, Occupational Health and Safety on Employee Performance at PT IHC Orchid Griya Nutrisi

## Aulia Rahmawati[1], Fauzobihi[2], Pristanto Ria Irawan[3]
Universitas Pertiwi

| Article Info | Abstract |
|---|---|
| | *This study aims to determine the influence of the work environment, occupational health and safety (K3) on employee performance at PT IHC Orchid Griya Nutrisi, North Jakarta. The research approach used was quantitative with a survey method, where data were collected through distributing questionnaires to 60 employees as respondents. Data analysis was conducted using multiple linear regression, with partial tests (t-tests) as the basis for decision-making. The partial test results show that the occupational safety variable has no significant effect on employee performance, as well as the occupational health and work environment variables which have no significant effect on performance. The significance value of occupational safety is 0.889, occupational health 0.548, and work environment 0.746, all greater than the significance limit of 0.05. Simultaneously, the occupational safety (X1), occupational health (X2) and work environment (X3) variables on employee performance (Y) do not have a significant effect. Thus, it can be concluded that partially the work environment, occupational health, and occupational safety do not contribute significantly to improving employee performance at PT IHC Orchid Griya Nutrisi North Jakarta.* |
| | |

*Corresponding Author:*
Aulia Rahmawati
Universitas Pertiwi
Email: fauzobihi@pertiwi.ac.id

## 1. INTRODUCTION

PT IHC Orchid Griya Nutrisi is a company engaged in the nutrition and health sector and is committed to supporting the improvement of the community's quality of life through quality products and services. In an effort to realize the company's vision, employees play a crucial role as the main driving force in the process of achieving operational and strategic goals. Optimal employee performance will directly impact the company's productivity, efficiency, and business sustainability. Therefore, companies need to pay attention to various factors that can influence employee performance in carrying out their duties. One quite crucial approach within the framework of human resource management is the creation of a conducive work environment, the implementation of occupational health programs, and the implementation of occupational safety (K3).

The work environment encompasses all conditions surrounding the workplace, encompassing both physical and non-physical aspects, such as lighting, temperature, noise, work facilities, employee relationships, and the resulting work climate. A positive work environment creates employee comfort, enabling them to perform optimally and achieve performance that meets company targets. Conversely, an unsupportive work environment can lead to boredom, stress, and reduced employee morale, ultimately negatively impacting performance. Occupational health is equally important as a factor influencing employee performance. Employees in good health will be able to perform their duties more effectively and productively. Therefore, companies need to provide occupational health

programs that include regular health checks, health services, and healthy lifestyle education for employees.

Furthermore, occupational safety is an effort to prevent workplace accidents that cause injury, loss, or damage within the company environment. Proper implementation of occupational safety will provide a sense of security for employees while working and minimize the risk of workplace accidents. These three factors – work environment, occupational health, and safety – are combined into the concept of Occupational Safety and Health (K3) as an important prerequisite for creating ideal working conditions that support the achievement of maximum work results. In the context of PT IHC Orchid Griya Nutrisi North Jakarta, the implementation of work environment, occupational health, and safety programs is a critical aspect considering that the company operates in an industry directly related to the management of sensitive materials and is oriented towards public health services.

However, although theoretically these three variables are believed to influence employee performance, in practice it has been found that the contribution of OHS to improving performance has not been fully visible. This condition raises an interesting problem for further research, whether the work environment, occupational health, and safety empirically have a significant influence on employee performance or not. The results of initial observations indicate that there is a tendency for different perceptions among management and employees regarding the effectiveness of OHS implementation in the company. Based on this background, this study was designed to analyze and scientifically test the influence of the work environment, occupational health, and safety on employee performance at PT IHC Orchid Griya Nutrisi North Jakarta. Through a quantitative approach and statistical tests, this study is expected to provide an objective picture of the relationship between these variables. The findings of this study are expected to contribute to the development of company human resource management policies in designing more targeted employee performance improvement programs, as well as serve as an academic reference in the study of OHS factors on employee performance in similar industries.

## 2. LITERATURE REVIEW

Occupational safety is an effort to create safe working conditions to prevent accidents and occupational risks. The main goal of occupational safety is to protect employees so they can work safely and productively (Soekidjo, 2015). Occupational Health and Safety (OHS) is a system designed to protect workers from potential hazards in the workplace, with the aim of preventing accidents and illnesses that can affect the physical and mental well-being of employees (Hasle et al. 2015).

According to (Ridley and Channing 2008) occupational health is a systematic approach to identifying, evaluating, and controlling risks in the workplace with the aim of creating healthy working conditions. According to Mangkunegara (2015), occupational health involves company efforts to prevent work-related illnesses, fatigue, and mental stress.

The work environment is everything around workers that can influence them in carrying out their duties. A good work environment will provide a sense of security and enable workers to perform their work optimally according to (Nitisemito 2018). Research by (June and Siagian 2020) also shows that a conducive work environment has a positive effect on employee performance. This is because a comfortable environment can motivate employees to work better, while a poor environment can reduce work efficiency.

According to Mangkunegaran, employee performance is the work results in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Fauzobihi and Saadah 2022).

## 3. RESEARCH METHOD

In this study, the population selected was all field employees working at PT IHC Orchid Griya Nutrisi, located in North Jakarta. This population was selected based on the consideration that field employees play a strategic role in the company's operations and contribute directly to the organization's performance. Therefore, the characteristics of this population were deemed relevant and representative for analysis to obtain findings aligned with the research objectives.

In this study, the researcher used a survey sampling technique to determine the sample. Using this technique, the entire population, consisting of 60 office employees at PT IHC Orchid Griya Nutrisi, North Jakarta, was selected as the research sample. The entire population was selected as the sample because the number was relatively small and still possible to reach the entire population. Therefore, the data obtained is expected to reflect the actual conditions more accurately and representatively.

### Analysis Model Techniques

Multiple regression allows researchers to determine the contribution of each independent variable, both jointly and partially, in influencing the dependent variable. (Sun et al., 2023) The analytical model technique used in this study is **multiple linear regression** (Swearingen, 2014), namely a statistical method used to measure the influence of two or more independent variables on one dependent variable with the aim of predicting and explaining the relationship between these variables simultaneously.

In this study, the independent variables are occupational safety, occupational health, and work environment, while the dependent variable is employee performance. Multiple regression analysis was chosen because it is appropriate to test the influence of these independent variables on employee performance, so that it can be known how much contribution and direction of the relationship formed. Data obtained through questionnaires will be analyzed using statistical software such as SPSS to test the validity of the model, the value of the regression coefficient, the level of significance, and the coefficient of determination ($R^2$), so that the results of the study can provide a clear and objective picture of the influence of occupational safety, occupational health, and the work environment, while the dependent variable is the performance of employees of PT IHC Orchid Griya Nutrisi North Jakarta.

Measurement uses a 1-5 Likert scale to assess perceptions, attitudes, or opinions about certain social phenomena, referring to the operational definitions established by the researcher (Ghozali 2018). The validity and reliability of the research instrument were tested for each independent and dependent variable.

## 4. RESULTS AND DISCUSSION

In this study, a validity test was conducted on the measurement instruments for the variables of occupational safety ($X_1$), occupational health ($X_2$), work environment ($X3$), and employee performance (Y). The validity results showed that there were 6 items on occupational safety, 6 items on occupational health, 6 items on work environment and 8 items on employee performance that met the validity criteria. Validity testing was carried out using a two-sided correlation test at a significance level of $\alpha = 0.05$, resulting in an r table value of 0.250. An item is declared valid if the calculated r value is greater than the r table (calculated $r > 0.250$), which indicates the suitability of the item with the construct of the measured variable.

Furthermore, instrument reliability testing was conducted to ensure the internal consistency of each variable. The analysis results showed that the occupational safety variable ($X_1$) had a calculated r value of 0.944, exceeding the r-table value of 0.60, thus

being declared reliable. Similarly, the occupational health variable (X₂) obtained a calculated r-value of 0.928, the work environment (X3) a calculated r-value of 0.901 and the work performance variable (Y) with a calculated r-value of 0.925, both of which were also greater than the r-table value of 0.60. These findings indicate that all instruments used have a high level of reliability and can be relied upon to consistently measure the research constructs.

The following are the results of the multiple regression analysis calculations that have been carried out using SPSS software, which can be explained in table 1 as follows;

**Table 1**
**Linear Regression Analysis Table**

**Coefficientsᵃ**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Say. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 31.848 | 5.190 | | 6.136 | .000 |
| | x1 | -.072 | .512 | -.053 | -.141 | .889 |
| | x2 | .281 | .465 | .216 | .604 | .548 |
| | x3 | -.138 | .423 | -.090 | -.325 | .746 |

a. Dependent Variable: y

Source: Data processed from SPSS

Based on **table 1**The complete multiple linear regression model equation can be obtained as follows: $Y = 31.848 - 0.072X_1 + 0.281X_2 - 0.138X_3$

**Partial t-test**

This test aims to identify the partial influence of independent variables, namely occupational safety, occupational health, and work environment, on the dependent variable, namely employee performance. The decision on the significance of the variable's influence is based on the probability value (significance) and the t-test. Specifically, if the significance value (sig) is less than 0.05, then the independent variable is considered to have a significant influence on the dependent variable. Conversely, a significance value above 0.05 indicates no significant influence. In addition, using the t-test, if the calculated t-value exceeds the t-table, the variable's influence is considered significant; otherwise, the influence is not significant. This approach ensures the validity of inferences regarding the relationship between variables.

The regression coefficient of occupational safety (X1) = -0.072 means that if the value of occupational safety (X1) is increased by 1%, then the level of employee performance will increase by -0.072. A negative coefficient value indicates that the occupational safety variable (X1) has a negative effect on employee performance (Y). The regression coefficient of Occupational Health (X2) = 0.281 means that if the value of Occupational Health (X2) is increased by 1%, then the level of employee performance will increase by 0.281. A positive coefficient value indicates that the Occupational Health variable (X2) has a positive effect on employee performance (Y). The regression coefficient of Work Environment (X3) = -0.138 means that if the value of Occupational Health (X2) is increased by 1%, then the level of employee performance will increase by -0.138. A negative coefficient value indicates that the Occupational Health variable (X2) has a negative effect on employee performance (Y).

**F test (simultaneous)**

Based on the results of the simultaneous test analysis (F test) that has been conducted, the F count value is obtained at 0.220 which is smaller than the F table of 2.79. In addition, the significance level shows a value of 0.882, which is much higher than the established significance limit, which is 0.05. This condition indicates that the alternative hypothesis (Ha) is rejected, because the conditions of F count > F table and p-value < 0.05 are not met. Thus, it can be concluded that the variables of occupational safety, occupational health, and work environment simultaneously or together do not have a significant influence on employee performance at PT IHC Orchid Griya Nutrisi North Jakarta. This means that although these three variables are conceptually an important part of the human resource management system, in reality they have not been proven to be able to drive a real increase in employee productivity or performance in the company environment.

**Table 2**
**Coefficient of Determination**

**ANOVA$^a$**

| Model | | Sum of Squares | Df | Mean Square | F | Say. |
|---|---|---|---|---|---|---|
| 1 | Regression | 25.414 | 3 | 8.471 | .220 | .882$^b$ |
| | Residual | 2151.569 | 56 | 38.421 | | |
| | Total | 2176.983 | 59 | | | |

a. Dependent Variable: y
b. Predictors: (Constant), x3, x2, x1
Source: Data processed from SPSS

**Termination Coefficient**

The coefficient of determination ($R^2$) test is one of the analytical stages in quantitative research that aims to determine the extent of the contribution or influence of independent variables on the dependent variable as a whole. In the context of this research, the coefficient of determination test is used to measure how much the variables of occupational safety, occupational health, and work environment are able to explain variations in changes in the employee performance variable (Y). The coefficient of determination value is obtained by squaring the correlation coefficient value resulting from the regression analysis, resulting in a number in the range of 0 to 1 (or 0% to 100%). The higher the $R^2$ value obtained, the greater the contribution or ability of the independent variables in explaining changes in the dependent variable, and conversely, if the $R^2$ value is low, the contribution of the three independent variables to employee performance is relatively small, so that other variables outside the research model are suspected to be more dominant in influencing employee performance.

**Table 3**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|

| 1 | .108ª | .012 | -.041 | 6.198 |

a. Predictors: (Constant), x3, x2, x1

Based on the results of Table 3 above, the R Square value obtained is 0.012, which means that the variables of occupational safety, occupational health and work environment have an influence on the employee performance variable (Y) of 1.2%, while the remaining 98.8% is influenced by other variables that were not examined in this study..

**DISCUSSION**
Based on the results of statistical testing, the occupational safety variable (X1) does not show a significant effect on employee performance (Y) at PT IHC Orchid Griya Nutrisi North Jakarta, with a t-value of -0.141 smaller than the t-table of 2.003 and a significance value of 0.889 greater than 0.05, so the null hypothesis is accepted. This means that occupational safety is not a factor that influences the improvement of employee performance, so it is suspected that there are other variables that contribute more dominantly to performance. This finding is in line with the research of Bakhtiar and Suriyani (2022) in *Indonesian Journal of Business Management* indicates that occupational safety does not significantly impact employee performance in manufacturing companies, while occupational health has a positive and significant impact, although its contribution is relatively weak. Therefore, companies are advised to prioritize improving occupational health programs and conducting ongoing evaluations of the implementation of occupational safety aspects to optimize their role in supporting improved employee performance.

Based on the results of statistical tests that have been conducted, the occupational health variable (X2) does not show a significant effect on the employee performance variable (Y) at PT IHC Orchid Griya Nutrisi North Jakarta. This is indicated by the t-value of 0.604, which is smaller than the t-table of 2.003, and the significance value of 0.548, which is greater than the significance limit of 0.05, so the null hypothesis (H0) is accepted. This means that partially, occupational health is not a factor that directly influences employee performance in the company. This condition indicates that there are other factors that are more dominant in influencing employee performance, so the company needs to evaluate other, more relevant variables. The results of this study are consistent with the findings of Bakhtiar and Suriyani (2022) in the Indonesian Business Management Journal, which stated that occupational safety does not have a significant effect on performance, while occupational health has a positive effect but its contribution is still weak. Therefore, companies are advised to prioritize occupational health programs and improve the implementation of occupational safety to be more optimal.

Based on the results of statistical tests, the work environment variable (X3) was proven to have no significant effect on employee performance (Y) at PT IHC Orchid Griya Nutrisi, North Jakarta, as indicated by the t-value of -0.325 < t-table 2.003 with a significance of 0.746 > 0.05, so the null hypothesis was accepted. This means that the work environment has not been a factor that directly contributes to improving employee performance. This finding is in line with the results of research by Ramadhani and Kusuma (2022) in *Journal of Management and Entrepreneurship*, which shows that the work environment has no significant impact on employee performance in service companies, while workload does.

Therefore, companies need to conduct a comprehensive evaluation of the work environment and workload management to optimally support increased employee productivity.

Based on the results of the simultaneous test (F test), the calculated F value was 0.220 < Ftable 2.79 and the significance value was 0.882 > 0.05, so the alternative hypothesis was rejected and the null hypothesis was accepted. This means that the variables of occupational safety, occupational health, and work environment simultaneously did not significantly influence employee performance at PT IHC Orchid Griya Nutrisi, North Jakarta. This indicates that these three variables have not been able to make a real contribution to increasing employee productivity at this company. This finding is supported by research by Suryani and Prayitno (2021) in *Journal of Applied Management Science* which also states that occupational safety, health, and the work environment do not significantly influence performance simultaneously, while motivational variables have a dominant influence. Therefore, companies are advised to strengthen motivational factors as a strategy to improve employee performance.

## 5. CONCLUSION

Based on the results of statistical analysis, it can be concluded that the variables of occupational safety, occupational health, and work environment do not significantly influence employee performance at PT IHC Orchid Griya Nutrisi North Jakarta, either partially or simultaneously. This is indicated by the t-value of occupational safety of -0.141, occupational health of 0.604, and work environment of -0.325, all of which are smaller than the t-table of 2.003 and the overall significance value is greater than 0.05. The results of the simultaneous test also show the F-value of 0.220 is smaller than the F-table of 2.79 with a significance of 0.882 > 0.05, so the null hypothesis is accepted. This means that these three variables are not the main factors determining employee performance at this company. Therefore, it is necessary to strengthen other more dominant factors, especially motivation, career development, reward systems, and workload, as a strategy to improve human resource performance more optimally.

## 6. BIBLIOGRAPHY

Fauzobihi, Fauzobihi, and Idah Saadah. 2022. "Pengaruh Komunikasi Interpersonal Terhadap Kinerja Karyawan Bagian Produksi Pada PT. KAO Chemical Indonesia." *JUPE : Jurnal Pendidikan Mandala* 7(4). doi:10.58258/jupe.v7i4.4497

Feby Susanti. 2023. "Evaluasi Pelaksanaan Program Keselamatan Dan Kesehatan Kerja Puskesmas Kabupaten Oku Tahun 2023." *Jurnal Poltekkes Kendari*.

Fika NUrhasanah. 2024. "Hubungan Kedisiplinan Pemakaian APD Dan Pengetahuan K3 Dengan Kejadian Kecelakaan Kerja Pada Pekerja Bagian Pembahanan PT Prima Wana Kreasi Wood Industry." *Jurnal Kesehatan Masyarakat UNDIP* 10(5).

Firdaus, Ahmad, Prihatina Jati, Meirna Milisani, and Akka Latifah Jusdienar. 2024. "PENGARUH LINGKUNGAN KERJA, MOTIVASI, DAN DISIPLIN KERJA TERHADAP EFEKTIVITAS KARYAWAN DI INDUSTRI TEKSTIL TANGERANG." *Aliansi: Jurnal Manajemen dan Bisnis* 19(1).

Fredrikson, Gunilla Nordin, Ingrid Söderberg, Marie Lindholm, Paul Dimayuga, Kuang Yuh Chyu, Prediman K. Shah, and Jan Nilsson. 2003. "Inhibition of Atherosclerosis in ApoE-Null Mice by Immunization with ApoB-100 Peptide Sequences." *Arteriosclerosis, Thrombosis, and Vascular Biology* 23(5): 879–84. doi:10.1161/01.ATV.0000067937.93716.DB.

Hasibuan, Eva Kartika, Masri Saragih, and Adventy Riang Bevy Gulo. 2023. "HUBUNGAN KESEHATAN DAN KESELAMATAN KERJA DENGAN

KINERJA PERAWAT SELAMA PANDEMI COVID-19." *JURNAL ONLINE KEPERAWATAN INDONESIA* 5(2): 120–25. doi:10.51544/keperawatan.v5i2.3583.

Hizam, S. M., & Ahmed, W. (2019). A Conceptual Paper on SERVQUAL-Framework for Assessing Quality of Internet of Things (IoT) Services. *International Journal of Financial Research*, *10*(5), 387. https://doi.org/10.5430/ijfr.v10n5p387

Rofiaty, R., & Hidayatinnisa, N. (2024). The Impact of Service Quality and Health Awareness on Customer Satisfaction and Loyalty: A Study on Perumda Tugu Tirta. *Jurnal Ilmiah Manajemen Dan Bisnis*, *9*(2), 195–202. https://doi.org/10.38043/jimb.v9i2.6026

Sun, Y., Wang, X., Zhang, C., & Zuo, M. (2023). Multiple Regression: Methodology and Applications. *Highlights in Science, Engineering and Technology*, *49*, 542–548. https://doi.org/10.54097/hset.v49i.8611

Swearingen, C. J. (2014). Multiple Linear Regression. In *Handbook for Clinical Research*. Springer Publishing Company. https://doi.org/10.1891/9781617050992.0035